Pastoralists and markets: livestock commercialization and food security in north-eastern Kenya
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Pastoralists and markets

Livestock commercialization and food security in north-eastern Kenya

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Pastoralists and markets
Livestock commercialization and food security in north-eastern Kenya
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Photos by Abdi Nunow

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Dedicated to my dad, Arale Nunow, and my mum, Gela Aul,
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Pastoral environment

This chapter presents a general introduction to pastoralism within the broad mission of this study, and gives some background information to the study area. There are a substantial number of studies on the subject of pastoralism and other forms of livestock rearing in the dry lands (Dahl & Hjort 1976, De Bruijn & Van Dijk 1993, Dietz 1987, 1993, Zaal 1998) although few focus on the Somali pastoralists of Kenya (Nunow 1993). Some of the literature will be reviewed, while paying particular attention to studies that address livestock commercialisation and pastoralist survival. As an entry point, a definition of pastoralism is necessary. Once a broad definition has been adopted, the literature on trade and food security in pastoral areas is explored. We will also discuss the role of women in pastoral societies, particularly among the Somali. Pastoral resource tenure and aspects of public policy are also considered since the impact they have on the pastoralist enterprise is important. The study area will be outlined in terms of geographical location and physical characteristics. Somali social and cultural systems have significant consequences on the use and disposition of their resources, including livestock, thus some of the salient features of these systems will be reviewed. Livestock production and trade, which are at the core of this study, are discussed in the last section of this chapter.

Introduction

This study focuses on the arid and semi-arid lands (Asals) of north-eastern Kenya. The Asals account for about 80 per cent of the country's land area, with over 50 per cent of the nation's livestock population but only 20 per cent of its human population. The main economic activity in these areas is pastoralism, usually but not exclusively nomadic, and this forms the basis of the livelihood of the Somali pastoralists of north-east Kenya, as in other similar areas of Sub-Saharan Africa.
Although pastoralism has remained the basis of survival of most of the Somali society of north-east Kenya, there is mounting pressure on this very form of survival, i.e. livestock. Some of the pressures that have come to bear on these pastoralists over the last few years include, but are not limited to, diminishing range lands, insecurity, cattle raids, and low livestock prices during certain periods of the year. These factors have had the combined effect of making Somali pastoralists more susceptible to the adverse effects of natural calamities such as droughts and livestock losses from disease and raids. Consequently, the Somali pastoralists are increasingly diversifying their sources of livelihood into non-pastoral activities to include crop farming, charcoal burning, firewood gathering, casual labour, and cottage industries - mat-making and wood carving. In this process of diversification, however, the Somali pastoralists tend to use the incomes they earn in excess of their immediate subsistence needs, to buy livestock as a means of saving and future security. Thus, we argue that any sustainable food security in this region should either be sought through the livestock domain, or through alternatives compatible with pastoralism and which do not disrupt the pastoral system of production and values.

This study examines whether the Somali pastoral economy has the inherent potential to reach a stable food security situation. The research further examines whether there are positive caloric terms of trade (Tc) between livestock products and grains. Although pastoralists are often said to be disadvantaged in trade through low livestock prices, the Tc is mostly found to be in their favour (Dietz 1987, Zaal 1998). If indeed the Tc is in favour of the pastoralists, then there is a possibility that they could improve their conditions even with smaller herds through participation in the market economy, and hence create a more stable food security situation for themselves. Besides the food security implications, this could also have positive effects on the environment in the long run, since there would be less pressure on the range. However, such environmental gains could be negated if more households were to use the area with their smaller herds due to the space resulting from the reduction in herd sizes of the existing households. The growth of the number of households could be a result of natural population growth and the formation of new households and of immigration. In such a case, the cumulative effect of the increased number of herders on the range may actually be more degradation rather than an improvement of the range.

Pastoralism: Contemporary issues

The definition of pastoralism

The definition of pastoralism as a production system has not remained static over the years but has experienced a certain degree of dynamism that reflects the changes in the pastoralist enterprise. However, most of the literature on the subject tends to agree on the basic criteria for defining pastoralism. It is often the 'breadth' or the 'narrowness' of the criteria used that accounts for the differences in definitions. Zaal (1998:21-24) discusses extensively various definitions and the criteria used to arrive at them. Sandford (1983:1,
in Zaal 1998:22), for example, focuses on income and economic activities as the main criteria:

People who derive most of their income or sustenance from keeping domestic livestock in conditions where most of the feed that their livestock eat is natural forage rather than cultivated fodders. In most cases also, pastoralists devote the bulk of their own and their families' working time and energy to looking after their livestock rather than to other economic activities.

Other important criteria needed for an appropriate definition of pastoralists include: change, dependence and exploitation, internal differentiation, and the pastoralist identity. For instance, Ellis (1989) has advanced a definition with reference to peasant societies in terms of their market integration which may also hold true for pastoralists. His definition ties together 'aspects of income and self-definition, access to and use of resources, internal differentiation and dependence and change', attributes that describe the majority of pastoralists. Making use of various expositions of the term, Zaal (1998:24) defines pastoralism as follows:

Pastoral societies consist of interacting groups, households and individuals who define their livelihoods on livestock production on natural pastures, using grazing, water, livestock, labour and immaterial resources which they own or have access to and who are characterised by a partial and variable engagement or incorporation in imperfect markets beyond their direct control. When only part of their livelihoods is based on pastoralism and most on other activities, these societies may be called agro-pastoral (in the case of cultivation), urban-pastoral (in the case of urban-based activities), or any other combination of terms.

The term pastoralism may be used in a more restrictive form by only including those who depend entirely on their livestock for their livelihoods, or it may be broadened to include all others who depend on livestock and other economic activities in various proportions. Roger (1999) distinguishes between exclusive pastoralists and agro-pastoralists. While exclusive pastoralists depend only on their livestock for their survival, agro-pastoralists grow some crops for their food needs to supplement their livestock products. He also distinguishes between nomadic and transhumant pastoralists. Transhumant pastoralists are differentiated by the existence of a permanent base from which the livestock move back and forth depending on the season of the year. The existence of 'exclusive' or 'pure' pastoralists is doubtful, and pastoralists are increasingly involved in activities that generate additional food and/or income for themselves. Wherever they are not involved in crop production, pastoralists may be nomadic or transhumant, depending on whether the whole homestead moves with the animals (former) or there is a permanent homestead from which only the animals move depending on the season of the year (latter).

Livestock-based resources not only dominate in the livelihoods of the pastoralists, but the household labour allocation is also strongly influenced by herding or other practices that contribute to the productivity of the system. This definition allows for the exclusion of the absentee herd owners from our definition of pastoralism. Similarly, mobility should be incorporated in the definition because it is considered as a key production strategy, be it one of entire homesteads (nomadic) or mobility only of the
animals with the homesteads more permanent is fixed/based (transhumant). Taking Zaal’s definition (1998) as a basis, we propose a slightly modified version of it as follows:

Pastoral societies consist of interacting groups, households and individuals who define themselves as such, are permanently based for most of their livelihoods, and use most of their labour on livestock production in natural pastures, using grazing, water, livestock, labour and non-material resources which they own or have access to, have the possibility for livestock mobility whenever needed, and who are characterised by a partial and variable engagement or incorporation in imperfect markets beyond their direct influence or control. When only part of their livelihood is based on pastoralism and most on other activities, these societies may be called agro-pastoral (in the case of cultivation), urban-pastoral (in the case of urban-based activities), or any other combination of terms.

**Pastoralists and market activities**

Trade and exchange has been part of pastoral economies for generations although its importance has varied over the years and among the seasons. Trade and exchange has enabled the pastoral system to survive and flourish for thousands of years. Pastoralists, even those who have never had much demand for supplementary food, usually sold or exchanged animals for goods they could not produce, e.g. tea, sugar, tobacco and clothes (Markakis 1993). However, their level of participation in the market varied from one pastoral community to another as well as from one region to the other. Unless they are under pressure to purchase food or critical inputs such as veterinary drugs, the pastoralists’ participation in the market depended on the economic environment of the market with high susceptibility to external interventions (Kerven 1992). For instance, the arrival of new traders at a market, other things remaining the same, tends to stimulate sales by the pastoralists. While it has been argued that pastoralists are responsive to price increases and tend to increase off-take accordingly (Kerven 1992, RoK 1986), it has also been suggested that pastoralists sometimes receive low prices for their animals due to manipulation by traders (Samatar 1987, Samatar et al 1988). The extent to which the pastoralists can improve their bargaining power in the market essentially depends on their ability to take collective action, which may not yet have happened in the case of the Somali of north-eastern Kenya. The formation of pastoralist associations in some parts of Garissa District and other parts of north-eastern Kenya may be a possible means by which the pastoralists could increase their influence on the market. However, such associations so far only take the form of water-users associations, some of which indeed seem to be working well.

Among other factors, the ability of pastoralists, both communities and individuals, to actively participate in trade may be influenced by their proximity to the market where livestock products, especially milk can be marketed. The distance to market centres is usually dictated by the availability of pasture and water within a 'reasonable' distance from the market place. Presumably the pastoralists' proximity to market centres could significantly improve the nutrition of their children since milk could then be sold to purchase high-caloric maize meal (Fratkin & Smith 1993). For this to be the case though, there must be buyers for the milk and the availability of grain as well. Besides, the proceeds from the milk sales may be used to purchase other products such as clothes and
weapons and may not necessarily benefit the nutrition of their children. On the other hand, it should be noted that the proximity of the trading centres is often inversely related to good available grazing. This in turn impacts negatively on livestock productivity. Close to a trading centre, there is less grazing and what there is, is usually of poorer quality. It has also been observed that those pastoralists who stay close to trading centres for longer periods are usually those with insufficient herds for their subsistence.

If pastoralists are to trust the market, there is the need for harmonious relations with other key players, especially traders. In northern Somalia, it was reported that trader-producer relationships were strengthened by the fact that the pastoralists were risk-minimising rather than profit-maximising (Samatar et al. 1988). This implies that the Somali pastoralists would dispose of their animals depending on whether they needed money for a particular purpose but that they also consider the non-monetary value attached to the specific animals they offered for sale. Accordingly, most pastoralists sold livestock for specific purposes and as long as they obtained enough money for their purchases, they parted with their animals for such a price. This suggests that the pastoralists are 'target-sellers' who may sell livestock when they have a specific target of money for a purpose. We would like to argue that the pastoralists are, first and foremost, subsistence producers whose production techniques and strategies are geared towards producing enough food for their livelihoods. Thus, their involvement in the markets may be viewed from the wider perspective of strategies for survival, be it in livestock production or reproduction of social relations necessary for the continuity of the pastoral system.

Price considerations by pastoralists are usually in terms of the intrinsic value attached to the animal as well as the price of the goods they wish to buy. In remote areas, traders may have an advantage in determining prices since they can collude and create a single-buyer situation while the pastoralists may not be able to act collectively in response to such a situation. Enhanced availability and dissemination of current market information could increase the market benefits that accrue to the pastoralists since they would determine the most opportunist time and place to sell their animals. In most pastoral societies, especially those in East Africa, pastoralists will sell their livestock as long as the prices offered are high enough that they exceed or at least equal the social value attached to a particular animal.

In the case of the Somali society of north-east Kenya, colonial reports refer to them as good traders and people who indulge in trade once they appreciate the value of money. One such report states:

> History of all the Somali tribes clearly shows that their natural bent is towards trade. The first obstacle to the breaking down of the ancient belief in the sanctity of possessions in stock is removed when the value of money is recognised. The difficulty however lies in the disposal of such stock. Besides, the prevalence of cattle diseases has rendered quarantine regulations essential and for many years, practically the whole of northern Frontier Province has remained in quarantine (PC/NFD/6/1/1, 1927).

Although the Somali are said to have appreciated the need for monetary exchange years ago, many pastoralists in northern Kenya are still frustrated today by the lack of
reliable markets for their livestock and livestock products, as well as by the many artificial barriers such as movement permits and quarantines. These impede trade and negate the potential gains from trade that would otherwise have accrued to the pastoralists.

Trade and exchange in pastoral societies is not only in livestock, but also in livestock products such as milk, hides, skins, and butter (ghee). Although increased off-take of milk could improve the food security of the pastoralists in the shortterm, it could undermine the very basis of their survival in the longterm, in so far as it impairs herd replacement by ignoring the needs of the calves (Finkel & Darkoh 1991). If calves are denied minimum milk requirements, they may not survive even a mild crisis, and this eventually undermines the potential for herd reproduction. Thus the needs of calves must be balanced with the amount of milk off-take, if pastoral sustainability is to be achieved. At the same time, it is important that grains are made available to pastoralists if their market participation is to improve their food security through the use of caloric-rich grains. It has been found in Sudan that grains are imported into the pastoral areas and sold in the local retail outlets by members of the community who often give credit to pastoralists (Morton 1993). Among the Somali pastoralists in Kenya, credit facilities are usually restricted to those who are related, and/or those who have mutual obligations to each other developed over time. Traditionally, such credit was repaid in the form of livestock, but it has increasingly been paid in cash in recent years.

With increased commercialisation and the emergent household-centred ownership of resources, the economic power of the household is increasingly becoming dependent on the sale of livestock and livestock products and the related need for and increase in the size of the herd. Such interest in herd growth may not necessarily be the same as the traditional prestige-seeking purposes, but may be based on economic rationale resulting from increasing market involvement. Livestock marketing and increased participation in trade could be a process of constructing or reinforcing that market integration. In such a process, it is possible that the pastoralists could change their production strategies from that of large stock such as camels and cattle to small stock. Should that happen, increased commercialisation may worsen food insecurity in the longrun since camels and cattle are the backbone of food production among many pastoralists in Sub-Saharan Africa. Although cattle and camels are not superior to small stock per se, they produce more milk per animal and fetch higher prices per animal than small stock. However, small stock may in fact realize higher prices per unit weight. Due to the different feeding behaviours of the different livestock species, it would be wise to keep a mixture wherever possible in order to optimally exploit the range and minimise the effects of drought.

In recent years, arguments have been advanced that pastoralists enjoy favourable terms of trade in terms of caloric value, and that they should be able to increase the off-take of livestock and livestock products and purchase foodstuffs, especially grains. Fratkin and Smith argue that, despite the pastoralists' preference for milk, maize yields about five times more in caloric terms (Fratkin & Smith 1993). Dietz goes into a more detailed computation of caloric values of livestock products (goats) for maize grains among the Pokot in Kenya, and he considers the Tc to be in the range of 7:1 and 20:1 (Dietz 1991). Similarly, Zaal (1998) in his study among the Maasai of Kajiado in Kenya.
and the FulBe pastoralists of Burkina Faso found caloric terms of trade that were favourable to the pastoralists in both areas. His study among the Maasai revealed an average ratio of between 6.7 and 10.3 for cattle to grain, and 9.5 to 10.2 in the case of small stock for grain. In Burkina Faso, Zaal obtained a figure of 13.0 for sheep against millet, and 8.8 in the case of cattle against millet. Similarly, a study among the Bedouins in the Negev, Israel, revealed Tc ratios of 27:1 to 71:1 for sheep against wheat, and 36:1 to 97:1 for goats against wheat (Degen 1998, Degen et al, forthcoming). In all these cases, we find that the pastoralist would be many times better off in caloric terms if he purchased grains by selling livestock products.

However, for the benefits of a favourable Tc to be harnessed by the pastoralists, Dietz suggests some basic preconditions. Animals should be available for sale, buyers should be willing to buy, grains (or any type of food) should be available, and the terms of trade should be reliably good for livestock (Dietz 1991:10-11). In a number of cases, these conditions may not all be present, which diminishes the potential gains from the Tc between livestock and grains. Due to market imperfections and storage problems in many pastoral areas, the pastoralists do not benefit as much as they should, and some continue to survive, courtesy of various mechanisms of mutual social obligations which tend to improve their food insecurity.

Food security and social support mechanisms

The term 'food security' refers to food production, food availability, and accessibility to that food by the people. Food availability refers to the presence of foodstuffs in an area, while food accessibility refers to the ability of households and/or individuals to obtain food for consumption. For instance, it is possible to have sufficient amounts of food in a country, or even in a region, and yet have food insecurity if the food cannot be accessed by those who need it. Accessibility is both physical, in terms of distances, and material, in terms of the means to acquire the food. In times of drought, both the availability and as the accessibility of food become limited to many households, making livelihood strategies a continuous struggle for many.

During and immediately after the severe droughts of 1980, 1983, 1992 and 1996, many pastoralists experienced severe food shortages. In the case of north-eastern Kenya, the drought of 1992 is said to have been one of the worst in living memory in the region. Although the rainfall in that year was higher than it was during the droughts of 1980 and 1982, the effect of the drought was more severe because the rainfall fell over a limited time period, too brief to be useful for livestock. Like many other pastoral societies in Africa, Somali pastoral society has various mechanisms for resource-sharing during periods of scarcity. Some of the main ones used regularly include: gifts of milk ('hirsi') to poor households, lending lactating animals, and 'donations' of a mixture of animals including some in lactation. Writing about the Boran of northern Kenya, Oba (1994) observed a similar interaction between the poor and the better-off.

Traditionally, the Somali pastoralists mostly sold live animals and sometimes hides/skins and ghee, while the sale of milk was very rare. Excess milk was given to those who needed it and this tended to reduce food insufficiency in deficient households and hence reduced food insecurity for such households. Writing on the Boran, Oba
emphasised the importance of livestock sales to purchase foodstuffs such as tea, coffee, sugar and tobacco, and the importance of these items in strengthening household relations. It is these relations that are valuable during times of need and they are usually treated seriously in societies in northern Kenya such as the Borana and the Somali.

Unfortunately, most of the traditional systems of mutual assistance are on the decline among the Somali pastoral community and in other pastoral societies. The major explanation for this is probably the reduction of the resource base for many households and the monetisation of livestock products. Generally, when the number of households in need of assistance is greater than those who can assist, the process breaks down or declines since those who could provide assistance are put under pressure beyond their capacity. Many pastoral households in north-east Kenya have been forced out of traditional pastoralism into either sedentarisation or refugee camps, although they still consider themselves as pastoralists. The monetisation of livestock products such as milk similarly weakens the mutual support mechanisms between and among households.

Some scholars have voiced concern that increased commercialisation may break down the traditional social security network through the individualisation of livestock and livestock products (Poulsen 1993). In the case of livestock, where several related people could have an interest in a single animal in the traditional system, commercialisation tends to place the household head at the centre of decision-making independent of his kinsmen and relatives. Besides, the milk, which was traditionally given free to the poorer households, is increasingly being marketed (Dahl & Hjort 1976).

Given that pastoralists have been participating in the market for many years, why is it that the majority of them have had their food security situation become increasingly precarious? It is unlikely that there could be only one answer to such a question, and many factors, both internal and external, are responsible. These factors include different kinds of government interventions, lack of infrastructure, recurrent droughts and various other threats (the weakening of the social security system, ecological insecurity and physical security). In any case, it is hoped that increased participation of informed pastoralists in the market could improve their situation. It has generally been found that the pastoralists mostly sell live animals to meet immediate needs and they seldom sell in order to save for the future. Whenever there is a surplus from the sale of animals, many pastoralists tend to use the excess to purchase some small stock, or cheaper animal(s) as a replacement for those sold.

It has been suggested that the behaviour of the market may be used to predict food stress because the market is the only means through which pastoralists are able to purchase foodstuffs when livestock products are insufficient for their subsistence (Hesse 1987). Although the degree of marketing may be intensified during times of food stress, market participation in itself does not necessarily mean the need for more food, as livestock may be sold for other purposes as well. More important than the degree of market participation could be the condition of the livestock brought to market for sale. Often, pastoralists sell mature male animals (Little 1985), and only resort to selling females and immature animals (males and females) if they have exhausted their mature males. Increased numbers of female animals or immatures on the market is likely to be an indicator of impending disaster. It should be noted, however, that such a supply of a
specific species and category of stock may also be in response to specific demands for the animals by buyers.

Women in pastoral societies
Besides its implications for social security systems in many societies, increased marketing could marginalise women and turn them into mere 'labourers' in the pastoral sector rather than the active and important players in the livestock production enterprise they were in the traditional system. A situation could arise where the men sell livestock products such as milk, hides and skins, traditionally a female domain, and use the proceeds to buy non-food items. This would have profound implications for the food supply of households and the role of women in household food management.

The importance of women in many pastoral communities may be appreciated even more when one considers the other roles they play in the pastoral production system (Box 1). Among Somali pastoralists, the milking of animals is traditionally a female task, although the men sometimes help in milking the camels and to a lesser extent cattle, but never small stock. In almost all cases, the control of milk and milk products lies in the domain of women. Since women do the milking, they determine the amount of milk off-take, and hence the survival of the calves and ultimately the growth of the herd. It has been pointed out that although the women may know the effect of denying the calves enough milk on herd viability, they may risk it if there is an acute shortage of milk (Bruggerman 1994), especially if they have young children. Joekes and Pointing (1991) maintain that the crux of a successful pastoral enterprise is the balancing of the milk needs of the calves and those of the people in the household. Thus women are said to have the security of their children as their priority, while men usually emphasise herd growth and the future resource security of their families as their major concern. Control over milk resources is the key involvement of the women in the livestock production enterprise. With commercialisation, there seems to be a decreasing role for the women in the important production-related processes in the pastoral enterprise.

In most pastoral societies, including the Somali, the women market the milk and other livestock products such as hides, skins and ghee, and they control the income obtained. In some cases, they use this income to purchase foodstuffs for the entire household and hence contribute to food security (Fratkin & Smith 1993). However, the men usually control the larger incomes from the sale of live animals and tend to use most of their incomes on non-food items such as clothes, diesel for the borehole generator the herbal stimulant 'miraa/khat',1 to water the animals, and the repayment of debts. Despite the significant contribution women make to household food management, commercialisation may restrict the ability of women to control milk resources, and thus their income, since men could be attracted by the increasing monetary importance of these resources, as has been observed among the Fulani of Nigeria and in the Omdurman region of Sudan (Fratkin & Smith 1993).

Among the Somali pastoral society, the role of women in livestock production and social reproduction is enormous (see Box 1).

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1 Miraa/Khat usually chewed by men although women also use it. It is widely consumed in northern Kenya, Ethiopia, Somalia, Djibouti and Yemen.
The Somali pastoral women, like many of their counterparts in other pastoral societies, are heavily burdened. Recent trends in sedentarisation in Somali society may lead to a decrease in certain activities like shelter provision, but may lead to more demands in other areas, such as providing for their families.

The women are responsible for three broad categories of activities: care for young and weak animals around the homestead; domestic chores in the house; and provision and maintenance of shelter for the whole family.

1. The animals left behind in the homestead require constant care and attention during both the dry and the wet seasons. These are mostly the young and, weak animals that cannot go with the rest of the herd - due to disease, those that have recently given birth, the disabled or old. The pack animals used by the household are also included in this category. The women have to take them to places of good grazing (especially the male camels) in the morning, and keep an eye on them during the day at intervals, and finally bring them home in the evening. This task becomes more laborious during the dry season when the women have to look for forage and water for the animals at home. Sometimes this involves many hours of walking for both water and forage.

2. The household domestic chores are carried out by women and include, milking the animals especially small stock and cattle, *inter alia*, preparing food for the household, distributing the food, cleaning the utensils, care of the children, fetching water - often on their backs, selling milk wherever possible, and purchasing food from the market centres.

3. Building houses is also the responsibility of the women. The task of preparing materials such as ropes and cover materials made of grass stitched together, is a lifelong process for the women. They fetch the poles for construction and construct the house. Whenever they move, the women dismantle the house and load it on the backs of the animals and then reconstruct the house in the new location. Due to the frequent movements of many Somali pastoralists, this task is still a time-consuming one for many women.

**Resource tenure and politics**

Regarding the natural environment, pastoralists in many parts of Africa have been accused of destroying communal resources, i.e. water and pasture. Earlier theses on environmental issues concerned with communal lands have advanced the view that pastoralists using communal lands have no individual incentive to take care of resources since it would not pay them to do so. However, more recent works by scholars have rejected these arguments and maintain that it is indeed the absence of common land that may be the tragedy rather than its presence. Runge (quoted by Lyne & Nieuwoudt) argues that common property is a resource whose use is restricted to a specific group of
people. Each individual within the group uses the common resource, well aware that his behaviour and his use of the resource are being observed by others (Lyne et al. 1990). Traditionally, the use of common land was regulated by the users and they determined who should have access to it (Harris 1980, Monbiot 1994). Thus, ...'in true commons everyone watches every one else, for they know that anyone over-exploiting a resource is exploiting them' (Monbiot 1994:10). There appears to be confusion between communal access and open access. While the former has established a user regime which is respected by all those involved, the latter does not. For instance, if and when one pastoral community has had a localised problem e.g. drought or outbreak of disease, the community would approach its neighbours for temporary use of grazing lands and the neighbours would meet and decide whether to grant the request or not based on past reciprocal relations. In the absence of such arrangements, communal access is limited to the particular community that 'owns' the land.

Perhaps the most critical blow to the pastoralists and their common lands is the loss of traditional grazing areas to parks, ranches, cultivation and urbanisation. The latter two have been important in explaining the decline in communal lands among the Somali pastoralists of north-east Kenya. In areas where the government does not recognise pastoral land rights as in that region, there has been a scramble for farm plots along the riverine areas for irrigation in order to secure rights to land that can ensure survival in the event of herd loss (Baxter 1993, Zuppan 1994). The emergence of irrigation schemes along the only permanent river in the area, the Tana, has denied the pastoralists both convenient access to river water and to dry-season forage. Gamaledin also found a similar situation among the Afar pastoralists in the Horn of Africa (Gamaledin 1993).

In addition, trading centres have increasingly been established in the area, mainly for reasons of political opportunism. Unfortunately, the success or failure of a politician in north-east Kenya is measured by how many trading centres he creates, and how many locations he upgrades to divisions, how many chiefs he helps to appoint, and how many schools he establishes. Trading centres continue to emerge wherever a watering point exists. This has significantly affected the traditional grazing system in which grazing areas furthest from water were used during the wet season when the frequency of watering the animals was much less and the animals were strong and able to travel long distances to water (Dahl & Hjort 1976). Grazing close to the wells was reserved for the dry seasons when the animals were relatively weaker and could not travel long distances. This is no longer possible and the pastoral lands continue to diminish with all the grazing areas being exhausted at the same time. The pastoralists are now more vulnerable to long dry seasons, not to mention droughts.

Many commentators on pastoral economies have emphasised the need for governments, institutions and policy makers to understand the local socio-economic and political systems as a prerequisite for the success of their interventions (Lane & Swift 1989, Little 1985, Poulsen 1993). Aronson (1980) argues that governments and other institutions must take into account the multiplicity of pastoral resources, the need for

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2 The pastoralists in north-east Kenya live on land which is registered under the Trust Lands Act, where the local government holds the land 'in trust' for the people. However, the government has the right to do as it deems fit with the land, hence the creation of game parks and game reserves in these areas without any consultation with the local people.
pastoral mobility, the long-term strategies and aspirations of the pastoralists, the multiplicity of goals, sensitivity to interventions and the fact that livestock ownership and management may be in different hands. In the past, interventionists in the pastoral economy based their plans on alternative systems and this led to the failure of many projects, though their intentions may have been good. For instance, mobility of livestock and people was seen as destructive by some outsiders, while pastoralists see it as an important production and management strategy. Pastoralists move around in order to utilise scattered resources which has practical implications for long-term environmental conservation in these areas. Pastoralists must be included in the debate on development policy, and land tenure reforms backed by an appropriate legal framework must be introduced if intervention in the pastoral sector is to improve in a sustainable way. While pursuing a similar line of argument, Behnke and Scoones (1992:25) stated that:

Any official attempt to foster opportunism by maintaining livestock mobility would require the development of legal formats capable of providing security of tenure while permitting flexibility of use patterns.

The process of pastoral sedentarisation, which has been viewed by governments as the panacea for pastoral problems, tends to restrict mobility, and in many cases, has been responsible for large-scale environmental degradation (Aronson 1980, Poulsen 1993). Policies to try to settle pastoralists in Kenya started in the colonial period and carried on in independent Kenya. It was thought that, the sedentarisation of the pastoralists, would facilitate their administration and control. In recent years, a process that may be described as 'double sedentarisation' has been occurring in some parts of north-east Kenya, when pastoralists are attracted to towns or trading centres and also to irrigation schemes along perennial water sources. It is often those pastoralists who have lost their animals to drought or raids who move to market centres hoping to obtain wage labour to feed their families or to benefit from relief handouts. The luckier ones receive plots in the irrigation schemes and cultivate the land. In many cases, these pastoralists restock from farms or other incomes, and re-establish themselves as pastoralists.

Apart from those who were forced to settle due to insufficiency of resources, it should be mentioned that some pastoralists were compelled to move to towns due to existing insecurity in north-east Kenya because of widespread banditry (Bruggerman 1993). The Somali community of south-eastern Ethiopia and north-east Kenya have usually been considered politically suspect by their governments and they are often given inadequate protection by the state (Fratkin & Smith 1993, Markakis 1993). This had an impact on the local performance of the pastoral economies of these areas. Somali pastoralists may be said to have been politically marginalised since they have remained on the periphery of both the national economy and national politics. There has been little effort, if any, to integrate them into the national economic and political mainstream. Doornbos (1993:116) defines political marginalisation as follows:

Political marginalisation [......] is understood to be a process by which certain categories within a political framework, be it classes, ethnic minorities, or occupational strata, are gradually excluded from the making of decisions about their own affairs, and see the scope of their autonomous action increasingly circumscribed by
externally imposed restrictions. It does not necessarily imply impoverishment, though a relative reduction of resources, both productive and sustenance, is an inevitable implication.

In the case of the Somali of north-east Kenya, political marginalisation takes the form of emergency laws only applicable to the people of northern Kenya, to remove Somali entrepreneurs involved in large-scale trade, and a general denial of their proportionate share in national development.\(^3\) Political marginalisation is often reinforced by economic impoverishment as well, through restrictions on both people and their livestock, and the poor state of infrastructure such as roads, water, health and electricity. In the past, many policies were designed for Somali pastoralists without consulting them, and this eventually led to projects having minimal success and impact. For instance, the livestock marketing policies that were pursued in the 1960s and 1970s were those outlined in the Swynnerton Plan of 1954 in which the northern Kenya range lands were to produce immatures to be fattened on ranches and resold for slaughter. According to Mukhebi (1986), it was explicitly stated that this was intended to reduce the pressure on the range and not necessarily to improve the welfare of the pastoralists (author’s emphasis). This can further be understood by the fact that the immatures were the lowest priced, and at the same time the most important in herd growth. Naturally therefore, the pastoralists were reluctant to respond to the demands of the livestock market principally because it was not in their interest to do so. Indeed, those marketing policies were exploitative since land and labour were being drawn from the pastoral economy which was expected to bear the risks and costs of production while being completely deprived of the profits realised from the sale of mature animals (Kerven 1992, Markakis 1993). A similar situation was reported among the Turkana in Kenya, where they resisted selling their immatures at livestock auctions\(^5\) organized by the government.

Most of the official government views on livestock production and marketing are still based on the idea of sedentarised livestock keepers, instead of pastoral nomads (Morton 1994). However, there is a need to integrate nomadic pastoralists in livestock production and trade policies to improve their trade and food security status. It has been suggested that indirect interventions through infrastructural development could be the most beneficial way of improving the pastoral economy (Kerven 1992). Such infrastructural development may include road networks, holding grounds and water development. Dietz (1993) emphasised guaranteed markets, minimum prices during droughts, livestock insurance\(^6\) and regular availability of grains as some of the key

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4. The Swynnerton Plan was a policy paper on agricultural development in African areas of Kenya which was compiled in 1954 at the time of the Mau Mau insurgency. Among other issues, it called for the introduction of a strategy for limiting livestock numbers to presumed carrying capacities. It was on the basis of this paper that grazing schemes and water projects were conceived and subsequently implemented.

5. Livestock auctions were organised by the government irregularly and the pastoralists had to bring their animals to specified auction yards for sale. Animals were sold on the basis of live-weight. It should be noted that no auctions have been held since the mid 1980s.

6. Some insurance firms in Kenya have lately proposed insuring livestock against droughts, but the expected high premium will still make it difficult for most nomadic pastoralists to take up such
Map 1.1 Location of Garissa District showing the study locations
aspects through which governments could assist if sustainable food security in pastoral areas is to be realised (Dietz 1993).

Study area

North-eastern Province is the home of Somali pastoralists who derive their livelihood mainly from livestock and livestock products. They are generally nomadic and move with their animals as dictated by the availability of pasture and water. In periods of drought or during some dry seasons, they move to neighbouring regions, some of which are in other countries, especially Somalia and Ethiopia. Historically, the pastoralists in north-eastern Kenya have close clan relationships with those in southern Somalia and the south-eastern region of Ethiopia, having been split by colonial demarcations which subsequently put them in different countries. This study was carried out in the Garissa District. It is one of three districts in North-eastern Province, the others being Wajir and Mandera. The district is the second largest in the province and the fourth nationally.

Location of the study area

Garissa District has an area of about 43,931 km² and an average population density of about 3 persons/km². The district has borders with the Republic of Somalia to the east, Lamu District to the south, Tana River District to the west and Wajir District to the north. Garissa town is the provincial headquarters and is about 400 km from Nairobi on an all-weather road. However, the inter- as well as the intra-district road network is poor with roads becoming impassable during the rainy seasons. Map 1.1 shows the location of Garissa District in relation to its neighbours, and the actual study locations within the district. The southern divisions of Ijara, Masalani and Hulugho are unsuitable for camel rearing and more cattle are kept in these divisions than in the rest of the district. Camel rearing in the southern parts is limited by the presence of tsetse flies and dense vegetation. The northern divisions receive lower rainfall and more camels are kept there. While cattle tend to do well with vaccinations, camels remain very vulnerable to the tsetse fly and are therefore kept away from the tsetse area in the southern divisions.

In terms of its physical environment, the area is almost flat with an altitude ranging between 70m and 400m. The Tana is the only perennial river and flows through the western part of the district throughout the year. The area is hot and dry, with an average annual rainfall of between 200 mm and 500 mm and high evapo-transpiration rates. The rainfall often comes torrentially and erratically with much of it falling over a short time period. The southern divisions receive relatively higher rainfall than those in the north which may be explained by the coastal influence in the south. Although the rainfall records are not well kept in many parts of rural Kenya, we were able to obtain figures for most years. Figure 1.1 and figure 1.2 present the annual rainfall for Garissa District for the period 1966-1996 and monthly average rainfall for 1982-1997 respectively.

The rainfall variability between as well as within years is quite high. There are two peaks: one in 1968 and another more than 20 years later in 1989. The lowest rainfall levels during the period were recorded in 1980, 1983 and 1996 when less than 150 mm
of rainfall fell in each of these years. The lowest figure for the entire 30-year period was recorded in 1996 which experienced only 67.1 mm of rainfall. Except for the years 1968 and 1989 which registered rainfall of 900 mm and 635.5 mm respectively, all the years had rainfall within the range expected for arid and semi-arid lands, with the upper limit at about 500 mm per annum. If the extreme figures for 1968 and 1989 were left out of the computation, the annual average would be about 294 mm of rainfall per year. Indeed, about half of the 30-year period shown on the graph had annual rainfall of less than 300 mm, making most of the area fall within the range for arid rather than semi-arid lands. It should be noted that the rainfall variability is not only in annual amounts but is distributed over the year as well. The variability in rainfall and its unpredictability make the lives of the pastoralists difficult. Cases have been known where incorrect predictions and subsequent migrations have led to the demise of entire families. The distribution of rainfall is of more importance than its quantity since it determines forage growth. The distributional variability within a year is presented in Figure 1.2. Although we only present the variations between the months in the diagram, there is also a lot of variation in the number of days of rain in any given season which influences the pastoralists' economic activities and livestock production.

The monthly rainfall figures for Garissa show a bi-modal distribution with peaks in the months of April and November. These are the long rains (March-May) known as *deere* and the short rains of October-December, known locally as *gu*. In some years, the

*Figure 1.1*

**Annual rainfall for Garissa District 1966-1996**

![Rainfall graph](image)

Note: The figures for 1978 and 1979 were computed by averaging those for the two years on either side, i.e. 1977 and 1980.

*Source:* Meteorological Department, Garissa and Nairobi.
length of the two rainy seasons may not be distinctly different, making their classification into 'short' and 'long' rainy seasons less useful. However, despite the importance of bi-modal rainfall for pasture growth and hence good livestock production, rain sometimes falls heavily over a few days, with most going to waste as surface runoff. It is common to experience heavy downpours of more than 80 mm in less than a week. Such rainfall, though substantial in absolute terms, does not positively influence the lives of pastoralists and their livestock.

Day-time temperatures are generally high, ranging between 34°C and 38°C, while nights are cooler with temperatures between 22°C and 24°C. The mean minimum temperature is about 23°C while the mean maximum is usually above 34°C (Figure 1.3).

Figure 1.2
Average monthly rainfall for Garissa District 1982-1997

Source: Meteorological Department, Garissa

Population density and settlements
Garissa District's population census for 1969 and 1979 recorded totals of 64,521 and 128,867 people respectively, about 8,065 households in 1969 and 16,100 in 1979. The census records show that the annual population growth rate during these periods was remarkable, averaging at about 4.4 per cent and 5.7 per cent respectively. However, the above figures for population growth rates appear to be on the high side and the actual rate of growth may be between 3.0 and 3.5 per cent. According to the 1989 census, Garissa District had a population of 124,835 persons. This implies a negative population growth of about 0.4 per cent during the ten-year period which might not be correct. Although there may have been some migration out of the district, there has been an inflow of
population at the same time, especially into Garissa town. A reduction in the district's population between 1979 and 1989 is considered unlikely. According to official projections (RoK 1996), the district population was estimated to be about 226,000 at the end of 1996, or about 32,285 households. This further confirms the inaccuracy of the 1989 census figures, although it is difficult to obtain a reliable estimate of Garissa's population because of the nomadic nature of the majority of the people.

![Mean maximum and minimum temperatures for Garissa District 1982-1992](image)

*Source: Meteorological Department, Garissa*

The mean population density in the district is about 3 people per km² (Poulsen 1993). The 1980, 1983, 1992 and 1996 droughts were very severe in the district and there was mass migration to the divisional and district headquarters, and even to neighbouring districts in search of livelihood, mainly in the form of relief handouts. Water and market centres usually act as poles of attraction to those who have fewer livestock than they require for their subsistence. In general, a combination of water, security and the presence of a market centre would be a strong pulling force for the district's population.

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7 The results of the 1989 census, which were released 5 years after it was conducted, are generally considered suspect, not only in the case of Garissa District.

8 An average household has 7 people. This excludes the population of the Dadaal refugee camps.
Population distribution is not even, with more than half of the population being settled in the four riverine divisions of Central, Balambala, Bura and Masalai. Between them, these divisions with only 10.7 per cent of the total area of the district, have 56 per cent of its population. The Central Division is the most densely populated in the district with about 32 persons per km² in 1979 and 56 persons per km² in 1994, because of Garissa town which is both the district and provincial headquarters. Garissa town had an estimated population of 64,387 in 1996 (Rok 1997). The northern divisions are generally larger in area than those in the south, but they have lower population densities. This is due to their remoteness and their poor infrastructural development - especially the absence of roads. They are usually cut off from the rest of the district during the rainy seasons. Most of the banditry in the district is reported in the northern divisions which border the Republic of Somalia.

Somali pastoralists move with their animals in order to utilise the sparse and widespread pastures. The movement of these nomads to water and pasture is often influenced by the presence or absence of seasonal laghas⁹ and water pans which provide pockets of temporary settlements during the rainy season. The Somali pastoralists tend to follow a general pattern of movement during the dry seasons when they move into areas that are less affected, either within or outside the province. As the dry season progresses, the herd is split into 'dry' and 'wet' herds. The dry herds, consisting mainly of bulls and dry cows, are taken long distances by the herdsmen, while the wet herds of cows and lactating females are left behind with the household the settlement centres. As the herd is divided for strategic and security reasons, so is the labour of the household and its members. Depending on the length of the dry season, the Somali herders may move into territories outside their own which sometimes results in bloody conflicts if they cannot agree on arrangements with the local tribesmen.

Social-cultural systems of the Somali
The origin of Somali society and its history remain subject to conjecture since recorded information is only available from the start of the colonial period. However, there is a distinct possibility that they came from the Bai region of Abyssinia, present-day Ethiopia. The period of entry to northern Kenya is equally uncertain, but there is evidence to confirm that the colonial government found the Somali community fully established in the then Northern Frontier Province and Jubaland. According to colonial records, the Somalis first came as bands of young men looking for adventure and opportunities, crossing through the Jubaland and into the Galla country around the Dashek Wama area. The Galla was a collective name referring to all Boran-speaking communities. The Somalis in Jubaland did not refer to their respective clans or sub-clans at that time, but to a collective term, Eji,¹⁰ the equivalent of the term 'British' in English (Mahony 1929:19).

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⁹ Laghas are dry river-beds which carry water during the rainy season. Depending on their size, they may keep flowing after the rains have ceased. In addition, they have groundwater close to the surface and therefore provide a source of water in the early part of the dry season.

¹⁰ The term Eji is often used as a collective term for Somalis in relation to non-Somalis. It only includes the 'Nasab' Somali. However, when talking about one Somali group and another, the Somali have always identified themselves on the basis of their clan families, clans or sub-clans depending on the circumstances.
It was the Ogaden clan that came to what was then Telemugger District, present-day Garissa District. Some of the Ogaden came to be called Rer Wama (people from Wama area in Ethiopia), who were mainly cattle keepers as opposed to the other who kept camels and small stock. It was because of their cattle-rearing culture that the Rer Wama were the first of the Ogaden to come to the Tana and push the Galla across it. The Galla who crossed the Tana to the south came to call themselves the Orma, while those who remained with the Somalis to the north of Tana are known as the Wardei. The Wardei occupied a lower level in Somali society, usually as shegat for the sub-clan that was responsible for their affairs. Except for a few who are fully assimilated and enjoy equal status with the rest, most of the Wardei are now in the south of the Tana river area where they joined their Orma brothers. The majority are Muslims and speak the Somali language fluently.

Apart from the shegat, the Somali community has privileged as well as low-class members. Both categories can be found among most of the sub-clans of Somali society. Those who were held in high esteem, mainly because of their religious prowess, include the Asharaf and the Sheikhal. They have a sound knowledge of Islam and were often consulted on important religious issues. They existed more as sections of Somali culture rather than as sub-clans, and live within most of the sub-clans. In general, Somali society is divided into two main social classes: the Nasab and the Nasab-diman. Among those who had low social status within society were the Nasab-diman, the Tomal (blacksmiths), the Ghaibailleh (hunters), and the Midgan (hunters). The Ghaibailleh and the Midgan are both hunters but the former are said to be 'clean' feeders while the latter are 'unclean' feeders. Both belong to a low class in Somali society. The Tomals are industrious people but often shunned by the rest of society because of their skills in making tools and other materials, which are considered non-Somali. As a result, they keep very much to themselves, although they are now slowly integrating into a number of the Ogaden clans in north-east Kenya. In fact, Somali society has enjoyed certain aspects of industrialisation and seen advances in technology thanks to the Tomal. The Ghaibailleh, the Midgan and the Tomals are all found as shegat in many Somali clans, including some in north-east Kenya. The Biemal, Balaad and Rahanwein are small sub-clans considered to occupy a slightly lower level in society than many of the larger sub-clans of the community.

In terms of culture and social systems, the Somali community of north-east Kenya has various levels of social relations and social organisation. It is a patriarchal society with decisions at the household level being taken by the head of the household.

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11 Although the origin and meaning of the word Galla is not certain, it is likely that it was derived from the word Gal, which means: "had contact".
12 Shegat is a general term used to refer to those who adopt the identity of another clan or sub-clan as their own. Thus, they adopt a new identity, often opportunistically, due to their weakness. Shegat may be a voluntary action or through force.
13 Nasab is a collective term used to refer to all the so-called pure Somali. These were considered clean and non-polluted as opposed to the other category. It includes the ordinary Somali as well as the superior ones mentioned above.
14 Nasab-diman is the opposite of Nasab and, literally means 'less Nasab' or simply, not clean or pure.
However, the head of each household is, in turn, bound by decisions of his\textsuperscript{15} immediate reer,\textsuperscript{16} the basic family unit consisting of related households. The various heads of households within the reer deliberate on issues affecting them, and those involving them and their neighbours. These deliberations are usually conducted in meetings called shir, in which consensus is always sought and received on each issue by all in attendance. Within the Somali community, civil affairs, control of grazing and water resources are traditionally managed by a group of elders at various levels of the sub-clan and clan structure. Disputes are settled by informal courts of elders or by Islamic courts, usually conducted on neutral grounds and attended by all the elders from the aggrieved parties. Although land is communally used, rights of use are obtained through occupation of the land by one group. The basic land use unit is the degaan,\textsuperscript{17} traditionally associated with a particular clan or sub-clan, but all others using it from time to time can have a say in its management. A water source may belong to a sub-clan, a clan or an individual, but agreement can mostly be reached with others wishing to use it through various means of returns or obligations which are already in place.

The social and political structure of Somali pastoralists revolves around a kinship set-up. Usually this set-up operates at five main levels: clan family, clan, sub-clan, primary lineage, and the diya-paying\textsuperscript{18} group. The clan family consists of six major groupings including: the Dir, Issaq (Idoor), Darood, Hawiye, Gurreh, and Sorransor. Of these, the Ogaden clan of the Darood clan family live in Garissa District. Figure 1.4 (a) shows the various clan family groupings, and the clans and sub-clans that descend from them. Garissa District is inhabited by the Ogaden communities. Figure 1.4 (b) shows the various sub-divisions of the Ogaden clan.

The Ogaden sub-clan of the Darood clan-family forms the main body of Somali pastoralists found in Garissa District. Because of its highly segmented nature and the fact that it is dispersed over a wide area, the clan-family rarely functions as a political unit. At the clan and sub-clan level, Somali pastoralists are usually localised to some extent which each clan and/or sub-clan occupying a defined geographical core area, often spread over a very wide area. Traditionally, there was a single ruler known as Sultan, Ugas, Boqor or Garad but who operated in an often largely symbolic capacity. This leader made the most important decisions for his clan or sub-clan, but not without consultation with other elders in his group. However, the personality of the individual concerned, the strength of his kin, and sometimes even the area he came from enhanced the power of the office. A particular lineage, or reer, within the clan and the sub-clan sometimes served as a source from which the group chose their Boqor or Ugas, (see figure 1.4 (a) for the Somali genealogical tree). During the colonial period, the administration managed the affairs of

\textsuperscript{15} Heads of households are always men. When a woman without a husband is on her own, her father, brothers or brother-in-laws represent her household in making critical decisions on her behalf.

\textsuperscript{16} Reer is the local name for an extended family. Members of the reer are usually closely related and they are often people with a maximum of four agnatic levels from each other.

\textsuperscript{17} Degaan is the Somali word, in its broadest sense, for the general area occupied by one or more sub-clans and their stock associates.

\textsuperscript{18} The diya-paying group usually consists of a particular lineage and their associates who pay and receive blood money for killing someone from other parties. The effectiveness of this group has diminished significantly with an escalation in killings in recent years due to increased insecurity in the region.
Figure 1.4 The genealogy of the Somali

NB. The names underlined are those found in the northeast Kenya. Since the Ogaden sub-clan is the dominant one in Garissa district, the diagram (b) will give the various sub-divisions of this sub-clan.

Source: Garissa District Political Record Book (PRB) - 1928 - 1943
DC/GRA/3/6
each Somali group through their traditional rulers. For ease of administration, they were later appointed as colonial chiefs.

Given the nomadic nature of their economy and their suspicion about the intentions of the colonial government, many Somali refused education for most of the colonial period. This led to the colonial chiefs taking their children to schools in order to show the rest of their people by example. Consequently, the immediate family members of the leaders became the first to be exposed to Western education, and hence became employed in some administrative tasks under the colonial government. When Kenya achieved independence, the early political leaders from the Somali area were mainly the sons of the colonial chiefs by virtue of their education amidst the mass illiteracy prevailing in the region at that time. They continued to dominate the politics of the area until the introduction of multi-party politics in Kenya in 1991.

In terms of communal identity and administration, the primary lineage often coincided with the reer and was, more or less, the smallest unit of societal identity. However, there was no traditional office of leadership at the primary lineage or at the reer. Nor was there any effort towards localisation. Although they do not have defined territorial units, the primary lineage groups were known to have traditional grazing areas which they utilised according to the season. Although such grazing areas were associated with a particular lineage, it was possible for others to use the same grazing after consultations between the two parties, usually when there was a localised dry season. If there was some enmity between the two groups at the time, then consultations were not possible and the grazing land would not be open to the 'outsiders' until peace was
restored. There is no formal political organisation except for the *diya*-paying group which jointly pays and receives compensation for murder and other personal injury. Thus, the *diya*-paying group was traditionally the legal basis of Somali social organisation. The number of members ranged from a few to as many as several thousand, depending on whether part of the *reer* or part of the sub-clan was involved. This depended on whether both parties concerned were from the same sub-clan, in which case the payment or receipt of the compensation would be the responsibility of the particular *reer* only. If the claim was between one sub-clan and another, the whole sub-clan would form the *diya*-paying group. Within the *diya*-paying group, the elders usually held decision-making powers due to the absence of any established offices of leadership.

*Livestock production and trade*

Nomadic livestock rearing accounts for over 90 per cent of livelihoods in North-eastern Province. Most animals are kept for subsistence although livestock marketing appears to be gaining prominence in recent years. Settlement patterns and the species of livestock kept are mainly influenced by the availability of pasture and water. Most of Garissa District's goats, sheep and cattle are reared in the southern divisions which enjoy relatively higher rainfall, while most of the camels are in the north which is a drier and tsetse-free area. While the hardy animal can go without water for as long as 120 days, the camel succumbs easily to tsetse flies. With the possibility of crop cultivation being limited by lack of water, there is little local production of foodstuffs. Livestock deaths were higher in the southern divisions during the last drought and many pastoralists suffered seriously from a lack of food.

According to official figures, Garissa District had the second highest number of cattle in the country in 1987 (Table 1.2), after Narok/Transmara Districts. It was estimated that there were about 700,000 head of cattle, 100,000 sheep and over 675,000 goats in Garissa District. It was estimated to have 82 per cent of all the cattle in North-eastern Province, 26 per cent of the sheep and 42 per cent of the goats. These figures remained fairly stable until the onset of the 1991 drought which caused the livestock population to decline by more than 50 per cent. Indeed, since the 1991 and 1996 droughts, livestock figures have not recovered their losses. In 1998 there were 350,000 head of cattle and 227,000 small stock (Table 1.1). Livestock numbers were heavily decimated by the 1992 and 1996 droughts which impoverished many pastoralists. Although the loss of livestock was much more severe during the drought of 1991/92, with the cattle population declining by 60 per cent and that of small stock by 58 per cent, the recent drought of 1996 seems to have had more impact on the pastoralists in the area. This is possibly because it followed so soon after the one in 1992. The 1996 drought was felt by fewer people but more severely because it was more localised than widespread. The pastoralists of southern Garissa lost up to 80 per cent of their cattle although the overall decline in the district's cattle numbers was only 20 per cent. This forced a large number of pastoralists to move to urban centres and refugee camps where they could receive food aid from government and non-governmental organisations (NGOs).
Table 1.1

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>700,000</td>
<td>280,000</td>
<td>373,000</td>
<td>440,000</td>
<td>440,000</td>
<td>352,000</td>
<td>334,400</td>
<td>350,000</td>
</tr>
<tr>
<td>Goats/Sheep</td>
<td>600,000</td>
<td>250,000</td>
<td>298,000</td>
<td>420,000</td>
<td>462,000</td>
<td>314,400</td>
<td>209,590</td>
<td>227,000</td>
</tr>
<tr>
<td>Camels</td>
<td>74,000</td>
<td>60,000</td>
<td>73,000</td>
<td>74,000</td>
<td>77,000</td>
<td>70,000</td>
<td>63,000</td>
<td>64,000</td>
</tr>
<tr>
<td>Poultry</td>
<td>12,500</td>
<td>15,600</td>
<td>17,000</td>
<td>13,500</td>
<td>15,000</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
</tr>
<tr>
<td>Donkeys</td>
<td>3,764</td>
<td>3,200</td>
<td>3,648</td>
<td>4,200</td>
<td>6,300</td>
<td>6,370</td>
<td>5,370</td>
<td>6,270</td>
</tr>
<tr>
<td>Beehives</td>
<td>400</td>
<td>450</td>
<td>510</td>
<td>608</td>
<td>680</td>
<td>nd</td>
<td>nd</td>
<td>nd</td>
</tr>
<tr>
<td>TLU</td>
<td>564</td>
<td>281</td>
<td>364</td>
<td>424</td>
<td>431</td>
<td>347</td>
<td>318</td>
<td>332</td>
</tr>
</tbody>
</table>

Source: RoK 1997a; nd = no data; TLU is based on camel = 1, cattle = 0.7, sheep = 0.1

Table 1.2
Livestock numbers in Garissa District, Asal areas, and Kenya, 1987
(x1000 heads).

<table>
<thead>
<tr>
<th></th>
<th>Beef Cattle</th>
<th>Sheep</th>
<th>Goats</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garissa District</td>
<td>693</td>
<td>100</td>
<td>675</td>
</tr>
<tr>
<td>Total ASAL</td>
<td>5761</td>
<td>4144</td>
<td>7283</td>
</tr>
<tr>
<td>Elsewhere, non-ASAL</td>
<td>3310</td>
<td>2300</td>
<td>1245</td>
</tr>
<tr>
<td>National Total</td>
<td>9071</td>
<td>6444</td>
<td>8528</td>
</tr>
</tbody>
</table>

Note: ASAL denotes Arid and Semi-Arid Lands. See Table 1.1 for more recent figures for Garissa District.
Source: RoK, 1992:22

Although the Somali pastoralists are closely attached to their livestock, they engage in livestock sales, usually for supplementary subsistence purposes rather than for profit. During the rainy seasons, the animals are taken further from the settlement into the wet-season grazing areas, at which time there are reduced supplies of animals for sale and subsequent high prices. This is, however, the period for herd reproduction and herd building which implies fewer sales by many of the pastoralists except for specific cash needs such as the payment of school fees, the purchase of veterinary medicines, and the payment of debts incurred during the dry seasons. However, the supply of animals on the market increases during the long dry seasons when the pastoralists need cash for food purchases, but prices also decline significantly at this time. Income from livestock is usually from livestock sales, sales of hides and skins, milk and occasionally ghee in years of good rainfall. Camels are more important in milk production while cattle, sheep and goats are the major subsistence and cash animals. Although they produce much more milk per animal, camels are fewer in number and their ownership is limited.

Market transactions by Garissa pastoralists are common but the scale of market participation often varies between areas and over the seasons. Major livestock markets include the urban centres of Garissa, Nairobi, Mombasa, Lamu and Athi River. There are also smaller trading centres in the district where livestock may be sold but these are usually not available all the time and prices are lower than in the larger markets. Milk is usually consumed locally and its sale is only seasonal. If and when there is milk to sell, the pastoralists usually sell it in the trading centres within their immediate neighbourhood. Hides and skins are marketed outside the district; they are used in the leather-tanning industries elsewhere (Poulsen 1993).
Since most of the livestock sold in the district are destined for the main market in Garissa town and more distant consumer markets, high costs and risks are involved, especially in terms of labour and time. Given the spatial separation of the points of production of livestock in the rural areas and those of consumption in the major urban centres, the costs of marketing are high and difficult to estimate. In order to reduce these costs and accelerate livestock trade, physical infrastructural development, especially trekking routes and holding grounds between the two points, becomes crucial to the flow of livestock from one point to the next. Since most of the non-livestock based foodstuffs consumed by the pastoralists come from other parts of the country, a better road network would improve both the delivery and reliability of these foodstuffs to rural areas. The sale of livestock is influenced by, among other factors, the species of animal and its sex. For instance, the Somali pastoralists perceive milk as the most important food resource and they attach special significance to camels, especially lactating females. Since female camels are raised principally for milk, it is difficult to purchase lactating or mature females in the markets.

Food cultivation and trade
Irrigation schemes were introduced into Garissa District following the severe droughts of the early 1980s and some local Somali pastoralists moved into cultivation through irrigation along the Tana River. Some have since restocked and returned to nomadic pastoralism, but others have divided their labour between farming and livestock rearing while those who returned to pastoralism still maintain their plots in the irrigation schemes. In addition, a group of pastoralists who either lost all their livestock during the droughts of 1992 and 1996, or who were left with insufficient stock for subsistence, moved to towns and trading centres to survive on wage labour and relief food since they could not obtain plots in the irrigation schemes. Although they still see themselves as pastoralists, this group has very little chance of re-establishing its pastoralist way of life in the foreseeable future.

Consumer goods are obtained from Garissa town and distributed through divisional headquarters to smaller centres. The National Cereals and Produce Board (NCPB) and the Kenya National Trading Corporation (KNRC) were very important as reservoirs of food supplies in the district before food liberalisation reduced their role. The NCPB started its operations in 1987 and the district imports maize, rice, sugar and beans through these stores. However, with the onset of the liberalisation of the food market, the role of the NCPB and the KNRC diminished substantially. While the KNRC has already closed down due to its inability to compete with private traders, the NCPB acts as a food store for relief food from the government and other food donors. The largest role in the provisioning of foodstuffs in the area, including grains and other cereals, is now played by some wealthy wholesalers who have their own food stores. Although more reliable than the government stores, the private traders usually charge slightly higher prices than government stores but they are popular because of their longer opening hours during widespread availability throughout the week as opposed to the government stores that have only limited periods of operation.
Conclusion
We have reviewed some of the literature on pastoralism and related it to this study. A broad definition for pastoralism has been adopted after considering various alternative definitions, many of which focus on only some aspects of the subject. Background information on the study area such as its geographical location, economy, population and the socio-cultural systems of the people have been discussed. A review of the literature on livestock production and trade has highlighted some of the issues under study, in particular, livestock commercialisation and the trade in foodstuffs, which together form the core of the study subject.

Social support systems of the Somali and their function in mitigating food insecurity, and the various kinship relations that operate within the society have been discussed and illustrated in this chapter. Women play an important role in Somali society as they tend to bear most of the household burdens. Attention has thus been given to highlight their role in society. Although land is communally owned, its use is not open to all and many political and social obligations decide access to land, and sometimes to water resources. Resource tenure and politics have therefore been discussed. While the current study focuses on Somali pastoralists still involved in livestock production, attention will also be paid to impoverished pastoralists around Garissa town.
Research methods

In this chapter, we discuss the research objectives and research questions of the study. The circumstances within which the study was carried out will then be considered. The study is placed within a broader theoretical orientation. The selection of the research areas as well as the selection of, and data collection at, various levels of the study are explained.

Research objective and questions

The main objective of this study is to establish whether increased livestock commercialisation could improve the food security situation of Somali pastoralists in north-east Kenya. The Somali pastoralists of Garissa District were chosen for this study since they are more involved in commercial livestock activities than the other pastoralists in North-eastern Province of Kenya, given the relative proximity of Garissa to the wider consumer markets in the rest of Kenya. At the same time, Garissa District is large enough to show spatial differences in marketing behaviour.

The Somali pastoralists in Garissa District also consume foodstuffs other than livestock products, mainly maize meal. Since maize is not grown in the area, they have to purchase it from shops with money earned from livestock sales or from other sources. Livestock products such as milk are also sold by both surplus and deficient households. Households producing more milk than they need tend to sell it in order to earn extra income. At the same time, poor households unable to produce enough milk for all their members also tend to sell the little milk they produce and use the money to purchase other foodstuffs. The central research question addresses commercialisation and food security:

*Does increased commercialisation improve food security for Somali pastoralists? Are there additional insecurities that may result from increased market participation, and how could these be improved in the Somali pastoralists' transition to a market-dependent economy?*
The Somali pastoralists sell their livestock and livestock products in the markets closest to them, but also in the main regional market in Garissa town. The choice of where to sell an animal is influenced by a number of factors including household labour availability, price differences between markets and pastoralists' knowledge of such differences, the presence of buyers and above all, the seasons and climatic factors. Thus, the second research question addresses these issues.

*To what extent are the Somali pastoralists involved in livestock marketing, and what market opportunities and constraints do they face?*

The livestock trade involves many actors: livestock traders, brokers, butchers, and the pastoralist producers. While there is competition between some of the actors, there could also be co-operation in some areas of activity. Food retailers play an important role in the trade network and provide the maize meal that is often purchased by the pastoralists. The third research question therefore is:

*Who are the main actors/participants in the livestock and food trade in the area and what trade relationship(s), if any, do they have?*

Household incomes and expenditures are estimated with a view to establishing the contribution of the livestock sector to household incomes, and the proportion of that income spent on foodstuffs. The prices of livestock products (meat) and maize meal are compared on a food value basis, leading to the fourth question:

*What are the caloric terms of trade (Tc) for the Somali pastoralists in Garissa District under different geographical conditions?*

Livestock commercialisation is influenced by external factors such as government policy and insecurity in the area. The recurrence of droughts seems to be more frequent and a number of households appear to be withdrawing from pastoralism and moving into towns and trading centres as food-aid recipients. On the basis of this we formulate our final question:

*How do the Somali pastoralists of Garissa District cope with crises during droughts? What are the options for those displaced by such crises?*

The research set-up

This study was part of a Netherlands-Israel Research Programme (NIRP) project involving researchers and institutions from the University of Amsterdam and the African Studies Centre (ASC) in the Netherlands, the Blaustein Institute for Desert Research of Ben Gurion University in Israel and the School of Environmental Studies of Moi University in Kenya. The overall objective of the project was to establish the level of market participation by pastoralists from different ecological backgrounds and economic environments as expressed by the caloric terms of trade. The Somali pastoralists from Garissa District and the Maasai from Kajiado District (both in Kenya), and the Bedouin from the Negev Desert in Israel were studied to compare situations in terms of market relationships and caloric terms of trade of pastoralists who are at different levels of livestock commercialisation. The Somali are the least integrated into the livestock market both in value and volume because of poor infrastructure and distance from the main
consumer markets, while the Bedouin are highly commercialised, using improved breeds and a more developed marketing system. The Maasai are in an intermediate position being within easy access of the increasing demands of Nairobi and other urban markets in Kenya.

It should be recognised that the Somali pastoralists operate under ecological, political and security conditions that are more difficult than those of the other groups. The collection of data in this study experienced the same difficult conditions and was also affected by the severe drought in 1996 which necessitated changes in research procedures.

Theoretical framework and unit of analysis

The Somali pastoralists in Garissa District, and indeed those in most of north-eastern Kenya, face many difficulties in survival. They have to contend with dry environments with minimal resources, poor livestock infrastructure, as well as unfavourable government policies on livestock movements and marketing. Although the Somali pastoralists in Kenya have been involved in market transactions for a long time, the extent of their involvement has been little investigated. Factors promoting or inhibiting livestock marketing at the household level were also looked into in this study. Both the resources at the household and those at the reer level were important in the household's involvement in the market. Figure 2.1 shows the interaction of the various levels and units within the context of this study.

The main kinship affinities of the Somali pastoralists in Garissa District operate at the reer, one level above that of the household (see Chapter 1). Although most decisions on livestock sales are made at the household level, there are cases when such decisions are vested in the members of the reer rather than those of the respective households. This is so in the case of particular animals such as good breeders and high milk-yielding females which are considered too important to leave the reer. In the event that a particular household intends to sell such an animal because it has no alternative, a replacement is given by another member to save the important animal from going to market. Such replacements can either be given as a gift or be repayable at a later date.

While both the household unit and the reer unit are operational among the Somali pastoralists, their functioning and performance is dependent upon their resources and the external environment. The first comprise the rangelands, livestock, labour, skills and during times of scarcities such as droughts, food aid. The external environment is set by ecological conditions e.g. rainfall, government policies such as quarantines and movement restrictions, and banditry and general insecurity.
This study was carried out, although not by design, during a drought period when food aid was very important for household needs, particularly in the north of the district. Similarly there were high rates of attacks by bandits resulting in important implications for livestock marketing in that flows of livestock and livestock products were hindered. The flow of money earned by the pastoralists from such transactions, as well as that of foodstuffs by the food traders were also affected. Thus, food aid is considered a resource although not in a conventional sense, and insecurity is taken as part of the external environment which has an impact on the pastoralists at many levels. The Somali pastoralists' interaction with the livestock (products) market is often mediated through intermediaries who play an important role in the commercialisation process. These intermediaries include livestock traders, food traders, livestock brokers and butchers.

Unit of analysis
The household was taken to be the unit of analysis for this study. Although some decisions affecting the household were actually made one level higher at the level of the reer, several households constituting the reer were still involved. The unit of the reer acts as a joint insurance for its members during times of need, and also intervenes in house-
hold decisions in cases of livestock disposal and social issues like marriage outside the reer, especially when such decisions are considered to have implications for the overall performance of the reer as a unit. The communally-owned range resources are utilised mainly on the basis of kinship relations. This results in people of the same reer being identified with particular settlements and thus ownership of the land and water resources in that area. Yet, each household had, first and foremost, obligations to its own members, and then to those of its reer.

Decisions on livestock migrations and sometimes those on labour allocation within the community are usually made at the level of the reer and are binding on the individual households that make up a reer. In the event of a household's violation of decisions that are made at the level of the reer, that household and its subsequent generations will be excluded from the reer and isolated in every aspect. Due to the magnitude of the impact of such exclusion on households, decisions are usually taken cautiously and only after all other channels are exhausted. Similarly, households rarely defy their reer because of the consequences of such defiance. In the same vein, new households may be accommodated within the realm of the reer even when they have no blood relations with the other members. These are usually households from smaller sections of the community who would like to join a particular reer in order to share the burden and benefits of collectivity on certain issues.

Hypotheses of the study
The study addressed three main hypotheses:
1. The caloric terms of trade between livestock (and livestock products) and grains (whole maize and maize meal) are generally positive for the Somali pastoralists of Garissa District;
2. Positive caloric terms of trade (Tc) help Somali pastoralists in achieving improved food security; and
3. Increased market participation by Somali pastoralists in District has weakened traditional social security networks.

Selection of research areas
Within the wider objective of comparing livestock commercialisation and caloric terms of trade between the different pastoral groups facing different ecological and economic conditions, the Somali were taken as a group of pastoralists from an economic and ecological environment with many constraints on production and trade. Since the security situation as well as the status of infrastructure is and has been poor in the whole of North-eastern Province for many years, it was decided that Garissa District should be studied since it was relatively more accessible than the other districts in the region.

The selection of the research sites in Garissa District was guided by the existing livestock production and resource utilisation systems in the area. There are two different livestock production systems in Garissa District. The northern part has a livestock production system based on cattle, camels and small stock while the south has one based on
cattle and small stock only. The presence of camels in the south is constrained by tsetse flies due to the heavily infested Boni forest and relatively higher rainfall. Besides the differences in livestock production, the north and the south of the district differ in tenure rules for water resources. The north of Garissa has government-provided boreholes and dams while the south has privately-owned dams but no boreholes. These differences in water resources have important implications for sustainable husbandry in Garissa District.

Based on the different livestock production and water use practices between the north and the south of the district, the two divisions of Dadaab (in the north) and Ijara (in the south) were selected for study. Subsequently households from these two areas of the district as well as livestock and food trade actors were studied. Livestock and food trade actors from Garissa town were also studied. The livestock markets in the two areas of Dadaab and Ijara, and the regional market in Garissa town were also examined.

Selection of markets and data collection

The markets for which data were sought and obtained were the livestock markets and the food trade markets in the survey areas in Garissa District.

Livestock markets

Livestock markets were selected along with the divisions that were chosen for the survey. There was one livestock market in each of the three research locations and these were studied. The divisional markets usually act as collection markets for the smaller trading centres within their proximity. In addition to the two divisional markets, the main regional livestock market of Garissa town was selected since it is often the terminal market for many of the smaller markets in the rural parts of the district, including those of the survey locations of Dadaab and Ijara. The Garissa regional market also serves a wider hinterland consisting of the other districts in the region - Wajir and Mandera - and sometimes even the southern part of the Republic of Somalia. Thus, it is the district market, as well as the main regional market. Both the terms 'regional market' and 'district market' will be used for the Garissa market.

Historical information on the trade and marketing of livestock and livestock products (especially hides and skins) in the region was obtained from colonial reports in the Kenya National Archives (KNA) and annual reports at the Ministry of Agriculture, Livestock Development and Marketing (MoALD&M) in Nairobi. These data were supplemented by more recent data on livestock prices and volumes, and those of hides and skins in the 1990s obtained from the District Livestock Production Office (DLPO) in Garissa.

For the collection of primary data in the livestock markets, five field assistants were trained for one week in November 1995. Three of them were selected to collect market information on livestock sales in the markets of Garissa town, Dadaab and Ijara. The data for cattle sales at Garissa regional market were collected weekly (at the weekly sales) while those for camels and small stock were collected on a daily basis. The livestock data for Garissa market were aggregated on a monthly basis, hence monthly average prices
and volumes were obtained. In the case of the two divisional markets of Dadaab and Ijara, a similar approach was taken but with some modifications. Since there were no designated market days at the divisional markets, data for livestock sales were collected on a daily basis for the first month of each quarter. The data so obtained were used to represent the quarter within which the particular month fell. This was acceptable since there were no major seasonal changes in ecological conditions during this relatively short period of three months. The two assistants in the divisional markets also collected data on the sales of hides and skins, food prices and the continued household surveys which will be discussed later in this chapter. The market data were collected over a two-year period in 1996 and 1997.

Selection of market intermediaries and data collection

The term market intermediaries is used to refer to the actors in both the livestock and food grain markets. These are livestock traders, brokers and butchers in the livestock sector, and food retailers and wholegrain traders in the food grain market. The retailers deal in other merchandise as well - both food and non-food items. The grain traders only trade in whole maize. Food retailers have trading licenses and permanent business premises while grain traders have neither. They sell grains from makeshift premises without trading licenses. Data from the market intermediaries were collected by means of structured questionnaire surveys, although informal interviews were also held with all the intermediaries at various points during data collection. In addition, we visited the markets to observe their functioning.

Livestock marketing intermediaries

Among the market actors in the livestock marketing process, three types of intermediaries were selected from Garissa town, Ijara and Dadaab; livestock traders, livestock brokers and butchers. Initially, it was planned to interview all actors in the categories in the three market centres. We were able to do this for Ijara and Dadaab, but it was not possible for Garissa town which was found to have too many participants in each of the categories. Consequently, we selected 20 of each category in Garissa town. This represented about 80 per cent of livestock traders, 40 per cent of the brokers and 40 per cent of the butchers in Garissa town. The selection of respondents was made randomly.

The collection of data on market intermediaries was done by several field assistants after an initial training session in Garissa town. The survey was conducted over a one-week period during the months of January and February 1996 in each of the three areas of Garissa town, Dadaab and Ijara.

Food retailers

The term food retailer and retail trader are used interchangeably in this text. They both operate from retail shops in which they sell diverse merchandise ranging from foodstuffs, livestock and medicine to clothes and utensils. The retail traders are found in all the trading centres but are more numerous in Garissa town where they also have relatively
more capital than those in the divisional markets. Like the livestock intermediaries, it was initially planned to survey all the retail traders in Garissa, Dadaab and Ijara. However, this was not possible because the number of shops in the selected centres was too large. We thus selected 20 retailers from each of the centres of Garissa town, Dadaab and Ijara to include in the survey. The survey of retail traders was a one-of-in each area with prices and volumes of selected commodities subsequently being monitored in the other two areas but not in Garissa town.

The collection of data on retail traders was done concurrently with those on livestock intermediaries in all the centres, and by the same field assistants. A structured questionnaire was used to solicit information on the retail trade in foodstuffs. In addition, the prices for selected foodstuffs were recorded for Dadaab and Ijara and averaged for each quarter of the two-year period during which this was done.

**Grain traders**
The trade in wholegrains was only found in Garissa town. The grain mostly traded is whole maize although the local population rarely use it in that form but take it to millers for grinding into maize meal. Although some of the traders purchased whole maize from the Dadaab area, most sold it at Garissa market. The source of maize grains in Dadaab is the refugee camps and relief distribution to the local population.

The number of wholegrain traders found in the area amounted to thirty-four and all were interviewed through a pre-tested questionnaire. The ethnic background and the age and sex of the traders were recorded as where the sources of products, their volume of turnover, the range of products sold, and prices. We also inquired into the period during which they trade and into other locations where they sell their merchandise, among other trade-related variables.

**Market communication**
To assess the communication needs of pastoralists before embarking on some radio programmes in Kenya, the Panos Institute in London, in conjunction with the author, collected data among the Somali pastoralists of Garissa District. In all, a total of 31 respondents were asked questions with the help of an unstructured questionnaire. In addition, group discussions were held with elders, government officials, women, youth and religious leaders. Most questions were aimed at identifying the communication means between government officials in the area and the pastoralists, the flow of information between and within the pastoralists, and the main issues communicated at various levels of interaction. With the kind permission of the Panos Institute, we use some of the information from that study in Chapter 4.

**Selection of households and data collection**
Households usually but not always, consist of the nuclear family and relatives or friends who are part of the production as well as the consumption unit of that family. Households were selected in each of the two survey areas of Dadaab and Ijara, in the north and south
of the district respectively. Households with polygamous heads were counted as one. In the survey areas households within a 15-kilometre radius of the main divisional head-quarters were targeted for inclusion in the survey.

An initial survey of 110 randomly selected households was conducted, with 55 households from each of the two research locations. For all the 110 households, essential characteristics such as age, sex, the marital status of the head of household, the educational level of the household head, the number of people in a household, livestock holdings, grazing and water-use patterns, constraints to livestock production and economic activities outside the livestock sector were listed among other variables. From the random sample of these households, a sample of 80 households (40 from each area) was selected for a long-term survey. The reduction of the sample from 110 households to 80 was guided by time considerations. The main criteria in selecting these 80 households included the number of cattle owned (household wealth) and the approximate distance from the trading centre. Subsequent interviews with these households covered a wide range of household and livestock issues such as household composition, herd size, grazing patterns, water rights, and social norms relating to livestock production and marketing.

Results have been weighted on the basis of their relation to the initial 110 households to correct for the sampling procedure, and this resulted in 88 weighted cases on the basis of 80 households selected and studied. Somalis are known to be reluctant to disclose the number of animals they own and were vague, by mentioning 'about ...' without being precise. This led to the generation of livestock holdings that were lower than actual sizes. The generation of livestock numbers using categories of ranges rather than absolute numbers gave a better estimate of livestock numbers. The 'poor' category included households which had fewer than 20 head of cattle, while the rest were grouped together in the 'average' category. Among Somali pastoralists, a family with fewer than 20 head of cattle is considered poor even if it owns some small stock. On the other hand, households that had more than 20 heads of cattle but fewer than 100 head, were not considered as rich but as average in wealth status. There were no households with more than 100 animals. The details of the sampling and weighting process are presented in Table 2.1.

<table>
<thead>
<tr>
<th>Household listing</th>
<th>Sample study Weighted</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dadaab</td>
<td>Ijara</td>
</tr>
<tr>
<td>0 - 20 cattle</td>
<td>44</td>
</tr>
<tr>
<td>21 - 100 cattle</td>
<td>11</td>
</tr>
<tr>
<td>Total</td>
<td>55</td>
</tr>
</tbody>
</table>

A structured questionnaire was used to collect information from the households in the survey. Two field assistants were trained in the use of the questionnaire (one in each location). All the assistants involved in the survey were male since the few potential female assistants were not allowed to travel far by their parents, nor were they willing to
do so. Furthermore, travelling was considered more risky for women due to the general insecurity in the area (the same assistants also collected data on the market intermediaries in their respective locations, including the livestock traders, brokers, butchers and retail traders). Households were visited every two months, half the group in one month and half the group in the following month. In all, five follow-up visits were realised during the survey year. The follow-up information mainly focused on herd dynamics (i.e. off-take and additions), income, expenditure, and prices of livestock and grains. Besides the household questionnaire, informal interviews with individuals as well as groups were also done with a view to getting more information on social security systems, and information within and between the communities concerned.

In collecting household data, a number of problems arose that had to be addressed such as a change in assistants and the migration of households. One of the assistants left during the course of the survey when he was offered a job by an NGO. It was not difficult to replace him quickly and his departure did not do the study any significant damage. The movement of households posed a bigger problem, mainly in Ijara. Since the survey period coincided with a dry year, some of the survey households moved, either to the major town of Garissa for relief food (the poorer households) or further inland in search of better grazing. Such movements were more prevalent in Ijara which had no NGOs and little or no relief distribution compared to Dadaab during the same period. Whenever households moved away, they could not be followed and we excluded them from continued monitoring unless they returned.1

Selection of displaced households and data collection

Garissa town attracts people from many parts of the district and elsewhere in the region. This was the case particularly during the droughts of 1992 and the recent one of 1996 when many pastoralists who had lost their livestock moved to the regional capital to receive relief food. A survey of 50 households depending entirely on resources from outside their traditional livestock sector was conducted randomly within the periphery of Garissa town. It was concerned out with a view to obtaining some basic insight into the livelihood of this group.

Data collection from the displaced pastoralists involved the use of a questionnaire with the assistance of one field assistant. The information included the place of origin of the household, the date when it moved to Garissa, the source of their livelihood, and their general experiences as displaced pastoralists. The data were enhanced by informal conversation with members of some of the impoverished households as well as with some of the food-aid distributing agencies and policy-related government officials.

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1 Because of migrations by some of the survey households due to the continued drought, a planned second-year of survey of the households had to be discontinued. Since our first year of survey was more or less a normal year in the area, our data for that period were not adversely affected. Since most of the households that became victims of the drought moved to Garissa town, we conducted a survey among some of them in 1997.
Pastoralism and public policy in north-eastern Kenya

Various past policies relevant to pastoralism will be reviewed with a view to analysing trends in government policies in Kenya. Occasional reference will be made to relevant colonial policies on pastoralism, but the discussion will focus on the policies of the independent Kenyan government towards pastoralists. More recent developments in the public policy domain through what may be referred to as 'rural urbanisation' or the creation of new settlements in north-eastern Kenya will be discussed. Empirical evidence is cited while considering the cases of Garissa District and Wajir2 District as examples. We will then pay closer attention to the various processes besides the creation of new settlements, through which the pastoral lands of North Eastern Province continue to shrink, thus accelerating land degradation and desertification.

Policy trend analysis

Government policy towards pastoralism and pastoralists has generally not been favourable. Various authors have discussed such policies. Dietz identifies certain periods and discusses the policies of the various governments during each period. The pre-colonial economic geography of East Africa has been referred to as a sea of pastoralism with a few islands of agricultural production (Dietz 1987). However, a combination of natural calamities such as drought and disease, and non-supportive colonial and post-colonial policies have led to a decline in pastoralism since the beginning of this century. For most of the colonial period in Kenya, pastoralist areas including those in the north-east were 'closed districts' where movement was restricted and new settlements could

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1 'Public policy' and 'government policy' are used interchangeably in the text.
2 The data on Wajir District used here were obtained from a report by Oxfam (an NGO on Wajir District, and we acknowledge and appreciate these materials).
only take place with the consent of the colonial administration (Zaal 1998). The colonial period in Kenya was characterised by restrictive policies towards pastoralism, including destocking campaigns, the imposition of tribal boundaries, restrictive grazing schemes and quarantines which hampered marketing off-take from the African stock.

Colonial policies were biased in favour of European settlers and very little attention was given to projects supporting Africans. A change in colonial attitudes towards African agriculture came in 1954 when a new blueprint was produced. The new policy was contained in 'A Plan to Intensify the Development of African Agriculture in Kenya' (Swynnerton 1954). The focus of this policy blueprint emphasised the need for destocking and grazing controls. This is reflected in the statement that:

The African stock owner, like his European counterpart, is reluctant to sell when weather and grazing conditions are favourable and he is as yet far from being convinced of the need for control of stock numbers. But this control must come, and come quickly, if the deterioration of the pastoral areas is to be arrested. The provision of water supplies and the opening of new grazing in the tsetse area will merely aggravate the present position and extend it over a wide area if we do not at the same time, and as the policy of the central government, require and enforce some form of stock control (Swynnerton 1954:32).

Thus the earlier perceptions aimed at restricting livestock numbers and movement still persisted. Ideally, restocking was expected to improve the African rangelands, although no evidence was shown to prove that there were more animals than the land could support. The pastoralists then had enough land for their use and they did not see themselves threatened by overgrazing. Although a certain amount of cross-breeding to improve the African stock was allowed during this period, none was applicable to northern and north-eastern Kenya.

Grazing schemes (grazing blocks) were established in northern Kenya to control livestock movements and also ensure that grazing was done in rotation. A grazing block was expected to function as a 'complete' grazing area with all the livestock requirements such as water, salt licks and pasture. Each scheme had to adequately maintain a certain number of animals for a specified period. However, many of the grazing schemes established during earlier years had fallen into disuse by the end of the 1960s. African pastoral representatives were unhappy with projects that restricted livestock mobility as was the case with the grazing schemes. Restricting the movements of the pastoralists and their animals led to localised overgrazing in many parts of the Asals in Kenya. Commenting on the failure of the grazing schemes, Dietz states:

In 1961, only 10% of the existing schemes was still operative. The schemes came under severe attack by African politicians at the eve of independence. The insistence of livestock officials to enforce a policy that was regarded as totally inadequate during times of drought by the pastoralists had a long lasting effect on the attitude of pastoralists towards 'Government' (Dietz 1987:54).

Consequently, the pastoralists lost faith in government projects after the failure of the grazing schemes policy. It was accompanied by a deliberate marketing policy which had its genesis in the established of a Rhodesian-owned company, Liebig, set up in Athi
River to operate a meat canning factory in the late 1930s. In order to keep the factory operational, some pastoralist groups, such as the Samburu, were forced to sell their livestock to the factory at unacceptably low prices. As would be expected, this drew strong resistance from the pastoralists who saw the policy as exploitative. These policies were aimed at controlling the pastoralists in order to reduce pressure on the rangelands and had little to do with improving the welfare of the pastoralists:

... official effort to increase pastoral livestock marketing were grounded on perceptions of overgrazing; it was argued then, as now, that relief of overgrazing could only be accomplished by increasing the off-take rate, hence more livestock sales were to be encouraged (Kerven 1992:11).

In 1950, the Kenya Meat Commission (KMC) was set up to take over and run the meat factory in Athi River that had previously been in the hands of Liebigs. To improve the marketing of livestock and to ensure sufficient supplies for the KMC, the African Livestock Marketing Organization (ALMO) was founded in 1952 and continued operating until its demise in 1963. After independence, the ALMO was replaced by a Department of the Ministry of Agriculture and Livestock Development, the Livestock Marketing Division (LMD). However, the main purpose of the LMD was twofold: to reduce pressure on the range through increased off-take, and to ensure a continued supply of meat to the urban population. This was politically more important to the administration than the prosperity of the nomadic pastoralists. LMD operations and intentions are aptly described by Dietz:

Ideas were organized to produce a stratified beef industry. Arid areas would raise calves. After that ranches in the semi-arid areas would fatten the cattle. In the vicinity of the market, in more humid surroundings, the fattening would be finished, producing heavy weight/high quality animals (Dietz 1987:56).

In theory, the pastoralists in the Arid and Semi-Arid Lands (Asals) would provide the 'raw material' in the form of young immatures which would then be purchased and kept in 'holding grounds' within the Asals for a certain period. When the calves improved in weight, they would be transferred to the highlands in the ranches where they would further increase in weight and the quality of their meat would improve. The animals would then be slaughtered and the meat sold to urban consumers. This strategy had limited success because of the need for only young animals, and the control on meat prices. Naturally, the pastoralists were reluctant to sell the immatures since they would only fetch low prices and, particularly the female immatures were the future breeders and thus their reproductive capital. The pastoralists were reluctant to sell both male and female immatures and preferred to sell adult animals which could fetch higher prices. The meat from the fattened animals was sold in urban centres in the country at government-controlled prices. These price controls of meat remained in force until the mid-1980s when the meat market was liberalised. This strategy tended to favour the meat-consuming urban elite by making available cheap and high-quality meat, while the risks and costs of production were borne by pastoralists who only received low prices for their immatures.
The impact of colonial policies on nomadic pastoralism, most of which were inherited by the independent government, are summarised by Bonfiglioli:

The combined effects of the colonial policies towards pastoralists were to weaken the internal management and capabilities of pastoral societies' internal leadership, to disrupt the ecological balance of pastoral areas, to hasten the deterioration of natural resources and to reduce the capacity for reproduction, rendering pastoralists themselves more vulnerable to famine and crisis (Bonfiglioli 1992:13).

The colonial period in Kenya was one when little or no attention was paid to Asal development, and a similar situation persisted during the first three post-colonial development plans (RoK 1989). The Kenya Livestock Development Programme (KLDP) launched in 1968, was to implement the so-called 'group-ranch' policy, with the first phase continuing until 1974. The group-ranch policy was aimed at allocating the grazing land to groups of pastoralists who would own the land and manage it jointly. However the group ranches encountered many problems, notably; a lack of involvement by the local people, and a lack of local acceptance and support, which together ultimately led to the collapse of the group ranches. It may be argued that the beginning of any recognisable development priority in the arid and semi-arid lands was the Marginal Lands Pre-investment Study Project which was carried out in 1977. The tests and trials of various policies in the arid lands continued and the Arid and Semi-Arid Lands Programme was started in 1979 with the 'integration of ASAL into the Kenyan economy' as one of its key objectives. The ASAL programme, however, was not initiated in any of the districts in north-eastern Kenya during its entire period of existence. It was not until the late 1980s that some of the north-eastern districts were included in the Drought Recovery Programme intended to improve the capacities of the Asal districts in coping with drought.

Within the government bureaucracy, it was felt that development at the grassroots could have more impact on rural development than a programme based in the centre of Nairobi. Consequently, on July 1 1983, the District Focus for Rural Development Strategy was officially launched. The district treasuries were given increased powers to disburse funds for projects and other expenditures. With the implementation of the 'District Focus' as it is commonly called, the importance of the districts increased as funds were allocated on the basis of districts as opposed to the previous system where funds were allocated on the basis of provinces and sectors of the economy.

While development was to be pursued through the District Focus strategy, famine relief programmes gained prominence, especially during drought years. With increasing incidences of drought since the 1970s, famine relief has been a common feature in dry areas, and the provincial administration became important in co-ordinating famine relief activities. The impact of relief interventions was not as significant as intended in many arid districts, including those of north-eastern Kenya but they still remain in place as a survival strategy for many households during times of crisis. The District Focus strategy did not succeed as was envisioned but it continues to exist as a government policy.
In order to centralise the issues of the 'marginal lands' as the Asals were sometimes called, a new government ministry was established in 1989, the 'Ministry of Reclamation and Development of Arid, Semi-Arid Areas and Waste Lands'. Its main goal was to coordinate the development of the dry areas, paying particular attention to the assessment of the potentials of these lands and the implementation of suitable development programmes and appropriate strategies for water-resource development. This ministry was later dissolved with the responsibility for the Asals being brought under the Office of the President.

The livestock sector came under an autonomous Ministry of Livestock Development until 1992 when it was merged with the Ministry of Agriculture. The amount of attention paid to the livestock sector by the government depended on whether it was assigned an independent ministry as it was for sometime before 1992, or whether it was merely a department or section of a larger ministry such as that of Agriculture. Several policy papers were formulated to give guidance on food production. For instance, according to Sessional Paper Number 2 of 1994 on National Food Policy, the role of the LMD had to be scaled down and it proposed the establishment of private abattoirs and the provision of refrigerated facilities in pastoral areas. In limiting the role of the LMD, the paper states:

The activities of the Livestock Marketing Division will be confined to assisting pastoralists in difficult areas where private traders cannot operate profitably. ... the government will encourage private entrepreneurs to set up slaughterhouses in the beef production areas, with the meat being moved in refrigerated trucks to central marketing places (RoK 1994:16).

Liberalisation of the meat market in the mid-1980s led to the emergence of private traders whose operations proved more efficient than those of the Kenya Meat Commission. The Kenya Meat Commission has subsequently been closed down because it could not compete in the liberalised marketing environment. At the same time, the LMD exists only in name, with no budget allocation from the parent ministry and no defined practical roles. Nowadays, most livestock marketing is in the hands of private traders with minimal involvement by government. However, due to capital and technology constraints, most pastoral areas including those of north-eastern Kenya, continue to be reservoirs of live animals for slaughter in the urban centres of the country. The pastoralists in northern Kenya might receive better prices for their animals if there were a meat-processing plant locally. At the moment, a certain amount of meat from Kajiado District is supplied to the Nairobi market in refrigerated meat matatus (Zaal 1998), but this marketing device has not yet reached the northern districts.

Having discussed the broader policies affecting the pastoral areas in Kenya, we now take a closer look at the more specific effect of the various policies on the pastoralists of north-eastern Kenya. The policies that we consider relevant to the Somali pastoralists in north-eastern Kenya will be discussed, including those that relate to livestock marketing, livestock health, water resources, improved breeding of livestock, and landloss through irrigation and the creation of settlements. Although some issues will
touch on the whole of North Eastern Province of Kenya, the emphasis will be on Garissa District.

Public policies in north-eastern Kenya

In 1909, the Northern Frontier District (NFD) was created to bring the area mainly inhabited by the Boran, Somali, Rendille, Gabra, Samburu and Sakuye under one jurisdiction. On independence in 1963, the NFD was divided, bringing the Somali-occupied section under a new administrative unit called North Eastern Province, with the Samburu to the Rift Valley and the others furnishes Eastern Province. The split in the NFD was an administrative decision but, like so many others, it was based on wider political factors. The social and economic events taking place in north-eastern Kenya continue to be influenced by political forces that have profound implications on the livelihoods of the pastoralists in the area.

Although public policies, both in colonial and post-colonial periods, were unfavourable to most of the pastoral areas in the country, those in the north-east were most affected by the negative policies, and benefited least from the positive ones compared to other pastoral areas in the country. This was mainly because of the distance from the centre of administration and government. For instance, policies aimed at improving livestock health and improved breeding during the colonial period concentrated on the settlers' stock. Indeed, most of the institutions aimed at improving the quality of stock were formed during the colonial period, and some continued to operate long after independence. These included the Kenya Stud Book established in 1920, the Kenya Milk Records (1949) and Central Artificial Insemination Station (1946). The activities of these institutions did not include north-eastern Kenya and many other pastoral areas. Regarding livestock health, the focus was on the development and improvement of diagnosis and control using vaccines and drugs. Institutions created to perform these roles include the Veterinary Research Laboratories and the East African Veterinary Research Organization (Gatheru & Shaw 1998). Except for periodic vaccination campaigns, the effects of these institutions on livestock in north-eastern Kenya were limited during the colonial period and in the post-colonial period.

Some of the livestock policies were unpopular with the Somali pastoralists and largely ineffective. For instance, the destocking policies were detested by the Somali pastoralists because they saw them as a deliberate move to impoverish their society. According to them, the argument of 'carrying capacity' and overstocking was mythical and merely designed to reduce their livestock numbers. Although the colonial administration may have had concerns for the long-term sustainability of the range, the underlying objective of their policies towards pastoralists, especially the nomadic populations in the remoter parts of the colony, appears to have been aimed at administrative convenience for government officials. It was considered difficult to enforce grazing and movement controls when pastoralists were nomadic — which led to sedentarisation efforts being undertaken as a prerequisite for effective grazing and movement controls. The same could be said of the independent Kenyan government which held the view that
sedentarisation would be the panacea for problems associated with pastoral nomadism. In the case of north-eastern Kenya, this became even more pronounced after the shifta movement aimed at the secession of northern Kenya to Somalia. After that government policies were geared towards the sedentarisation of the Somali pastoralists in the north-east.

This sedentarization process was rooted in the belief that settled pastoralists would be easier to administer. It also guarantees that they will be available for political participation, e.g. elections, whenever required. Consequently, various projects were initiated in northern and north-eastern Kenya with a view to achieving the ultimate goal of confinement and sedentarisation of the pastoralists. These included the grazing block project, irrigation schemes, and the creation of settlements. Of these, the latter can be said to have had the highest success for the government and the political elite from the region who wanted to see their people in defined centres so that they could be assured of their votes during elections. We will now discuss each of these strategies in turn, and assess their consequences for the pastoralists of north-eastern Kenya.

Grazing block system
The grazing block system started in northern and north-eastern Kenya in the late 1960s and early 1970s and was aimed at developing livestock and domestic water supplies as well as social and physical infrastructure, to promote livestock marketing and improve resource utilisation. Each grazing block had registered users consisting of the local social group. However, these users had neither legal corporate status to support their voice, nor did they have any title to the land. Initially, it was hoped that 'grazing associations' would be registered under the Societies Act (Cap 108) with a grazing license under the Trust Land's Act (Cap 288), but this became impractical since a society has no legal corporate status and it was inappropriate to license a legal non-entity to use land to which it had no legal adjudicated right (RoK 1990).3

In developing the water component of the grazing blocks project, boreholes were sunk within the blocks. The development of water sources often did not consider the location of the boreholes with respect to the grazing patterns practised in the area. This caused interference with the traditional distinction between the dry-season grazing areas and those of the wet season. Water was made available throughout the year in all areas without regard to the existing user regimes. The grazing block system did not succeed in producing the desired results because of poor planning and implementation. In fact, the development of water supplies in rangelands seriously disrupted 'the interface between pasture and stocking density since access to these modern water points was free for all contrary to the prevailing rules in respect of traditional wells' (RoK 1990). The livestock marketing component similarly failed because the LMD turned out to be unreliable. Many livestock auctions were not advertised in advance and the types of livestock sought for sale were not the type the pastoralists were willing to sell — such as the females and immatures. The project had no provision for improving the livestock breeds.

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3 In all, seventeen grazing blocks were established between 1970 and 1980. Fourteen of these were in North Eastern Province, with the other three being in Eastern Province. The sizes of the grazing blocks ranged between 2,000 and 8,000 km² (or up to 800,000 ha).
When the grazing block system could not achieve its goals, it was abandoned and most of the boreholes have since fallen into disuse with only a few still being operational. The ecological consequences of the provision of poorly designed and implemented water projects have also been discussed with reference to southern Somalia. It was observed that one of the effects was heavy ecological degradation. While discussing the range condition in the lower Juba region, Little (1996:30) maintains that:

An excess of water points in the lower Juba area, especially in Afmadow District, has created la

The ecological consequences of the provision of poorly designed and implemented water projects have also been discussed with reference to southern Somalia. It was observed that one of the effects was heavy ecological degradation. While discussing the range condition in the lower Juba region, Little (1996:30) maintains that:

An excess of water points in the lower Juba area, especially in Afmadow District, has created land-use problems, as livestock over-use pastures around these resources. The large number of water points exacerbates range conditions by attracting outside herders, especially camel herders and their animals to the area.

Irrigated agriculture
The establishment of irrigated agriculture has similarly been a source of land-use conflicts in north-eastern Kenya. Both Garissa and Mandera districts have some irrigated agriculture using the Tana and the Daua rivers respectively, but the irrigation schemes in Garissa may be more important, because of their size and their effects. The first irrigated farm in Garissa was started in the early 1970s but widespread irrigated agriculture in the area did not start until 1983 when a Danida-funded programme was initiated. Under this programme, about 17 schemes were established with an average membership of about 40 households each, and average acreage of 0.5 and 1.0 acres per member. Some of the schemes already in existence prior to the arrival of the Danida project were the first to receive its support. Individuals and/or groups of people had to clear the land themselves and then seek assistance from Danida. This led to the spontaneous clearance of land along the river which was then improved and developed. Commenting on similar policies of other development assistance in the Asals, Finkel and Darkoh (1991:5-6) state that:

Many assistance projects in ASAL assuming that pastoralism is no longer viable have attempted to change the economic base by offering alternatives to pastoralism, mainly agriculture. ... The Israel ASAL mission report (March, 1990) has implied that the long-term option for ASAL development lies with the settlement of pastoralists on irrigation schemes. They propose massive development of ground water resources and suggest that availability of water will encourage settlement of pastoralists.

Despite efforts to promote/offer agriculture as an alternative to pastoralism, the results have been dismal, with most agro-pastoralists among the Somalis only using crop production to supplement their livestock production, and sometimes restocking from farm proceeds. Poulsen maintains that most development projects for pastoralists emphasise sedentarisation and the development of crop agriculture. The author points to the need to seriously explore the possibility of pastoral production to make it viable both in economic and environmental terms (Poulsen 1993). Writing specifically about irrigation in northern Kenya where similar behaviour could be observed, Little (1992: 170) states that:

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4 Southern Somalia has a border with North-eastern Province of Kenya. During the colonial period, Southern Somalia was under the same administration as North-eastern Province (British rule) until 1927 when it was formally handed over to Italy, and became an Italian protectorate.

5 Danish International Development Agency (Danida) is the international development agency of the Government of Denmark.
For the community and homestead, irrigation activities are pursued as a means of diversifying income-earning opportunities. In no community or homestead category do individuals express a desire to become full-time farmers of irrigated lands. As a result, irrigation remains a supplemental activity, with communities and homesteads preferring flexibility in order to accommodate other economic activities, especially pastoralism.

Rather than taking up irrigated agriculture as an alternative to pastoralism, the Somali agro-pastoralists in Garissa District often use their farm proceeds to buy livestock, mainly small stock. This underscores the difficulties in changing the economic base of the pastoralists to any venture not compatible with their livestock enterprise. The attitude of the Somali pastoralists is not necessarily due to the community’s attachment to livestock, but mainly because they lack alternative productive skills with similar costs and convenience. The irrigation schemes in Garissa arose more or less spontaneously without adequate planning given that the farmers cleared the land on their own to attract Danida support. This has resulted in substantial resource-use conflicts. Since all land in the area was communal land, the removal of the land for irrigation excluded the majority of the population from its use and caused de facto privatisation of the land. The farms were established along the river banks which were hitherto used by the pastoralists during the dry season. In addition to the loss of dry-season pastures, the pastoralists also lost access to the river water, which was now only accessible through limited and widely dispersed points along the river, the Malkas (see Figure 3.1). While livestock used to have numerous watering points along the river in the past, nowadays the pastoralists can only water their animals at certain points. There are occasions when the animals may be too weak to cover the long distances to get to the river water (points marked AB in Figure 3.1), and the pastoralists may decide to let their animals access water at former watering points (marked B in the figure). In the process, the animals have to cross through irrigated fields, which results in problems with the agro-pastoralists. This has occasionally created serious trouble and may continue to be one of the major sources of future conflicts on resources in the area. Figure 3.1 below illustrates the River Tana, the irrigation schemes and the watering points in Garissa District.

In the early 1990s, a World-Bank-sponsored project for the ASAL areas of North Eastern Province was initiated under the name Drought Recovery Programme (DRP). The first phase of this project, which ended in 1996, involved only one district from North Eastern Province, Mandera. However, the second phase (1997-2000), under the new name of Arid Lands Resource Management Project (ALRMP), incorporated the other two districts of Wajir and Garissa as well. The project is mainly involved in minor community development projects, some small-scale income-generating enterprises, livestock health, etc. Since the liberalisation of most sectors of the economy, the pastoralists are expected to meet the costs of livestock drugs. The ALRMP provides some ‘drug kits’ to groups of pastoralists who are then expected to maintain it on a revolving basis. In addition, some paravets6 are being trained by the project so that the pastoralists

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6 A paravet is an Animal Health Attendant (AHA) who is usually found in rural areas and who has some basic skills in animal health acquired through practice and informal training.
can diagnose disease and treat their animals. These were some of the same issues that the past Asal projects attempted to address but without much success. It is hoped that the current project will be sensitive to the existing institutional and resource-use mechanisms with a view to improving the pastoral system rather than changing it, as was the case with most of the previous Asal projects in the country.

Figure 3.1
Loss of livestock watering points to irrigation in Garissa District

A sketch showing the alienation of livestock watering points for irrigation along River Tana in Garissa District

Key:
B: Watering point before irrigation
AB: Watering points after irrigation
Riv = River Tana

Land alienation in North Eastern Province

There has been increased sedentarisation of Somali pastoralists in north-eastern Kenya in the 1990s. Several factors are responsible for this phenomenon, with the most important single factor being the deliberate but unstated government policy towards the sedentarisation of pastoralists in the name of 'taking services closer to the people'. With other policies aimed at sedentarisation yielding undesirable results in the area, the central government has been particularly concerned with the pastoral nomadism of the Somalis and the continued insecurity in the area. It has been searching for indirect approaches that would make the Somali pastoralists settle voluntarily. Other reasons for increased seden-
tarisation include insecurity, impoverishment and relief food distribution. All these factors have negatively impacted on pastoralism by limiting the available rangelands for grazing. We will now present each of these issues and discuss their consequences for pastoralism in north-eastern Kenya.

Creation of settlements
The growth in settlements has been an on-going process since the 1940s. During the colonial period not all settlements were administrative centres as well. After 1945, more settlements developed, mainly for security and administrative reasons. The growth in the number of these centres during the late colonial period and the two decades immediately following independence has been moderate. Indeed, it was not until the beginning of the 1990s that the growth in settlements increased substantially, with most being administrative centres.

The development of trading centres usually took place wherever there was a permanent water source. Thus, a number of settlements were encouraged through the grazing block project which created numerous boreholes and dams in the region. Once the initial process of settlement was finished, most centres grew in size following the droughts when the impoverished pastoralists moved in to receive famine relief or seek alternative sources of income. Before the 1990s, the process of settlement creation in most parts of North Eastern Province followed a predictable sequence which was well summarised by a joint report by Oxfam and the District Livestock Production Office in Wajir District:

The process of settlement starting has followed a similar pattern. A water source that can provide water through the dry season is created, whether it be a borehole or a few wells dug by individuals. A trader establishes a permanent base there to trade with pastoralists and is joined by others. The place is made a location/sub-location, a (sub) chief is appointed, a school constructed and other traders open shops. When drought comes, pastoralists come to the town in search of food relief. Those that are made destitute by the drought remain in the town with their few remaining livestock and survive on a mixture of livestock, sporadic famine relief and activities such as bringing firewood and construction materials to the town for sale. (Report by Oxfam and District Livestock Production Office, Wajir 1996: 10).

The process of formation of settlements in recent years has substantially deviated from the one described in that report. The most dramatic increase in settlements in the area has been witnessed in the 1990s, nearly all of which did not conform to the known norms in the evolution of settlements in the area. In the past, a settlement justified the need for an administrative centre such as location or sub-location. The recently established administrative centres however, were created in some areas which had no settlements, and the administrative centre was expected to lead to the establishment of a settlement.

Currently, all over the province, sites of pans and wells without any human settlements have been declared as administrative centres. Once such an administrative centre is created, a (sub) chief is appointed and sufficient pressure exerted on him (never her) to ensure that he settles people there quickly. In this case the appointment of a (sub-) chief provides the stimulus for starting the settlement rather than the existence of
the settlement justifying the need for the appointment of a (sub-)chief. This has led to the emergence of seasonal administrative centres where people only converge during droughts, and which remain deserted for the rest of the year. They also serve as relief food distribution centres at such times. The creation of these administrative centres is often done in the name of more efficient services to the people. Settlements have become islands of overgrazed deserts because of the concentration of a few animals for each of the households settled in the centre. These animals are confined to within about a five-kilometre radius of each centre, which results the settlements being overgrazed. Such centres are now so numerous that the area as a whole may soon be transformed into a huge desert. The settlements are mainly found in areas of better grazing since most pastoralists and their animals are necessarily concentrated in the more abundant areas of the region. Loss of the better grazing areas to settlement centres is a matter of concern to pastoralists.

From Figure 3.2, it can be seen that there was a rapid growth in administrative centres in the 1990s. The number of divisions in Garissa District increased by 42 per cent (from 7 to 10) over the thirty-year period from 1963 to 1993. But a similar increase of 40 per cent (from 10 to 14) was realised during the two-year period of 1993-1995 alone. The increase in the number of locations and sub-locations also followed a similar trend. The percentage growth in the number of locations was 29 per cent (1963-1983), 94 per cent (1983-1993) and 43 per cent (1993-1995). In the case of the sub-locations, the corresponding increases in number were 15 per cent, 50 per cent and 64 per cent respectively.

**Box 2: Administrative structure in Kenya**

To understand the discussion in the main text it is necessary to briefly describe the administrative structure in Kenya. The Kenyan Government is made up of various ministries which run all the departments and regulate the administration of parastatals. The Office of the President is considered as one of the ministries but it is the most powerful one and has the responsibility of regulating the general operation of all the public servants through the Head of the Civil Service and the Secretary to the Cabinet who is himself a Permanent Secretary in the Office of the President. The Provincial Administration also comes under the Office of the President. The country is divided into seven provinces and the Nairobi area. Each province is in turn divided into various districts. The district is then subdivided into divisions, locations and sub-locations. Thus, administrative centres are under the provincial administration of the Office of the President. The sub-location is lowest in the administrative hierarchy in the provincial administration. The sub-location is run by a sub-chief who is answerable to a chief in the location, who is in turn answerable to a district officer in the division. The DO is, in turn, answerable to the District Commissioner (DC). The DC then reports to the Provincial Commissioner (PC) who sits in the Provincial Headquarters and who reports to a Permanent Secretary in the Office of the President based in Nairobi. The provincial headquarters of North Eastern Province is Garissa town.
The following figure shows the growth in divisions, locations and sub-locations in Garissa District since independence:

**Figure 3.2**
*Development of administrative units in Garissa District, 1963-1995*

The growth in the number of administrative units at an increasing rate has significant implications for the pastoralists and their livestock enterprises, since it means a continued reduction in available grazing land. Although the administrative centres vary in size and may not be extensive, the sheer number of these centres in an area where land can only be utilised economically through extensive exploitation of the range has meant that the impact on pastoralists is considerable. Most settlements are administrative centres, although there are a few settlements that are not yet officially recognised as such. Each division, location and sub-location has an administrative centre. When the number of divisions, locations and sub-locations in Garissa District are combined as administrative centres for the same period, the result appears as in Figure 3.3.

It can be observed from Figure 3.3 that the increase in the number of administrative centres became more pronounced after 1989. From independence in 1963 to 1989 (a period of 26 years), the number of these administrative centres increased from 47 in 1963 to 57 in 1989 (21 per cent). However, from 1989 to 1995 (a period of only 6 years), the number increased from 57 in 1989 to 138 in 1995 (142 per cent). The increasing growth in the number of such centres is not unique to Garissa District but is also found in the other districts in North Eastern Province. Mandera District has experienced the highest increase in the number of centres in the region, followed by Wajir District. The details for
Figure 3.3
The number of administrative centres in Garissa District, 1963-1995

![Graph showing the number of administrative centres in Garissa District from 1963 to 1995.](image)

Source: Gok annual reports (various years)

Figure 3.4
Development of administrative centres in Wajir District, 1969-1996

![Graph showing the development of administrative centres in Wajir District from 1969 to 1996.](image)

Source: Oxfam/Livestock office, Wajir (joint report)
Wajir District are presented in Figure 3.4 and depicts the increase in the combined number of locations and sub-locations as administrative centres in the district during the period 1969 to 1996. It should be realised that the number of settlements is actually higher because of divisional headquarters and non-administrative settlements which are not included.

The increase in the number of locations and sub-locations in Wajir District has been most dramatic since 1993. While there was an increase in the number of administrative centres from 28 in 1969 to 35 in 1979 (25 per cent), and from 35 in 1979 to 63 in 1993 (80 per cent), the number more than doubled during the brief period from 1993-1996, from 63 to 170 (170 per cent). As we have mentioned elsewhere, the creation of new settlements in recent years and which is still continuing, does not conform to the processes followed by the centres which were created in the 1970s and early 1980s.7

Commenting on the effects of settlements in Kenyan pastoral areas, Keya (1991:74) contends that:

The settlements have become centres of localized overgrazing and tree destruction. Development of permanent water sources in such human settlements has created permanently used rangelands, which have been so intensively utilized by livestock that they have become highly degraded landscapes devoid of vegetation cover. The settlements have thus become centres of man-made deserts spreading out in concentric circles, as is evident in the Rendille settlements of Kor and Kargi.

The following sketches serve to illustrate how the trading centres form concentric circles of overgrazing, thus continuously reducing the available grazing for pastoralists in the area. Map 3.1 shows the situation when there were only a few trading centres in the 1960s, while Map 3.2 represents the case after numerous centres were created in Garissa District in the 1990s.

During the years immediately after independence, there were only very few settlements in Garissa District and much of the land was available for use by pastoralists. The large tracts of land available for grazing enabled the Somali pastoralists in Garissa District to be nomadic, which had the dual benefit of environmental conservation and livestock improvement since the pastoralists would exploit new grazing areas whenever they needed to. Although the number of animals was larger then, the pastoralists contend that they were better off since there was enough grazing for all. However, they mention that the incidences of livestock disease were higher than today because of the formerly thick vegetation in the area which acted as a good breeding ground for a number of common diseases. With the increasing number of trading centres, especially since the mid-1990s, little grazing land remains for use by the pastoralists, as shown by the limited space available outside the concentric circles shown on Map 3.2.

The many new trading centres created in recent years tend to disenfranchise the pastoralists of their grazing land. Assuming the number of livestock in the area as having

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7 The process of creating an administrative centre has been systematic and followed a recognisable pattern during the earlier years. The leading factor for the establishment of an administrative centre has been the need for a settled area being given a certain status so that it may facilitate the delivery of services to the inhabitants. However, the recent trends in the mushrooming administrative centres do not follow a recognised pattern.
Map 3.1 A sketch simulation of Garissa District with a few trading centres in the 1960s
Map 3.2 A sketch simulation of Garissa District after the creation of many new trading centres in the 1990s.
stayed constant, the remaining grazing area in the district is unlikely to be capable of supporting the same number of animals as before since a certain area has been degraded, most of which was part of the better grazing land of the district. Consequently, the Somali pastoralists from Garissa District, and indeed those from the rest of north-eastern Kenya, are increasingly moving into other territories such as Somalia and Ethiopia in search of pasture for their animals. Some of the recent conflicts (sometimes with loss of human life) between the Somali pastoralists and their neighbouring Boran tribesmen is attributable to diminishing available rangelands in many parts of northern Kenya.

The Kenyan government has never been comfortable with pastoral mobility, and particularly that in northern and north-eastern Kenya. This is mainly for historical reasons, and has its genesis in the secessionist campaign of the 1960s which culminated in the so-called shifta war of 1967. Since then, the sedentarisation of the pastoralists has been thought to be a good solution to the nomadic lifestyle of the Somali pastoralists in north-eastern Kenya as it would result in easier control of the pastoralists. The deliberate sedentarisation approach has also been observed by Bonfiglioli 1992:56 who points out that:

Planners have rarely understood the rationality of pastoral mobility as a strategy of resource utilisation and survival, and have always tried to change the lifestyle of nomadic populations through the sedentarisation on the pretext of offering better social services.

Political advancement by the elite, at both local and national levels, may be the most plausible explanation for the creation of the numerous settlements in the province, which in turn become islands of overgrazing and cause the permanent loss of that part of the rangelands to the pastoralists. Once a new location or sub-location is created, the different Somali clans compete against each other to secure the appointment of one of their own as the (sub-) chief with a view to establishing their own settlements to guarantee them continued access to the surrounding grazing lands. The (sub-) chiefs in turn put a great deal of effort into settling people, due to pressure from the district administration and also to secure their own appointments. The local political elite also capitalises on the existence of the different clans by trying to deliver the new centres to their own clans. The reality, however, is that they want their supporters to be settled so that they are available with their votes whenever they may be called upon during general elections. The political allegiance in which a community can only elect one of their own, whatever the person's qualities, is partly responsible for the emergence of numerous small and non-viable administrative centres all over north-eastern Kenya.

The reasons for the national government creating all these centres has very little to do with its stated arguments of service delivery. Indeed almost all the new administrative centres lack the basic amenities such as water, health centres, schools and adequate security. We would like to point out that since the inception of the District Focus for Rural Development Strategy the districts have been the local treasuries where both disbursements of funds and returns for funded projects are effected. Consequently, allocations from the central government to the provinces are influenced by the number of districts in the province since that is the level at which the funds are utilised. North
Eastern Province is the only region in the country where the number of districts has remained unchanged since independence. Although the allocation of resources cannot be the only factor for the creation of districts, it may be one of a number of factors used by the government to regulate regional development and resource allocation. If lack of development can be traced to low resource allocation from the central government, then the increase in the number of administrative centres without a parallel increase in the number of districts in north-eastern Kenya may be viewed with suspicion. Figure 3.5 shows the change in the number of districts in the seven provinces of Kenya since independence.\(^8\)

While all the other provinces experienced an increase in the number of districts, especially since 1983 when the District Focus development strategy was adopted, North Eastern Province has remained unchanged in its number of districts since independence. It admittedly has the lowest population density in the country, but it is the second largest province, after Rift Valley Province, and its population is dispersed over a wide area. The figures for 1963 are missing for all the provinces, and the figures for 1993 are also missing for Rift Valley Province. Since 1993, the increases in the number of districts in the provinces have been as follows. Taking the figure for 1983 for Rift Valley, the number of districts increased from 13 to 18 (38 per cent); Eastern Province increased from 10 districts in 1993 to 11 districts in 1998 (10 per cent); Central Province had 5 districts in 1993 but increased to 7 districts in 1998 (40 per cent), North Eastern Province remained at 3 districts (no change); Western Province had 3 districts in 1993 which

\[ \text{Figure 3.5} \]

\textbf{Development of districts in the various provinces in Kenya, 1973-1998}

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<td>Coast</td>
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\textit{Source:} Kenya; National Development Plans (various years)

\[^8\] There are eight provinces in Kenya, including Nairobi. Nairobi has been omitted in this discussion because it is not sub-divided into any districts as is the case with the rest of the provinces.
increased to 8 districts by 1998 (167 per cent); Nyanza Province which had 6 districts in 1993 doubled the number to have 12 districts by 1998 (100 per cent) and Coast Province increased by 1 district from 6 in 1993 to 7 in 1998 (17 per cent).

The highest increase was recorded during the 1990s and most dramatically in Western, Nyanza, and Central Provinces. These three provinces have been the cradle of opposition politics in Kenya. Since the increases in the number of districts here coincide with the rebirth of multi-partyism in Kenya, the creation of new districts in the opposition zones was meant to serve two purposes: to lure the people back to the ruling party, and to reward some of the communities within these opposition areas by giving them their own districts in the hope that they would respond positively to the ruling political party. In addition, smaller communities living in the pre-dominantly opposition areas were told how they were 'minorities' and thus given their own districts so that they could support the government. North Eastern Province had no such change, and there was a minimal increase in the number of districts in Coast and Eastern Provinces. These areas were considered safe zones for the ruling party, the Kenya African National Union (KANU), and therefore it felt no need to manipulate them by dividing the communities living in these areas through the creation of new districts. Ironically, the people living in Eastern, North Eastern and Coast Provinces are probably among the poorest in Kenya today. Whether the absence of new districts in these provinces and the poor economic status of the people is by default or by design would form an interesting and revealing study on its own.

In the absence of corresponding new districts, the numerous newly-created locations and sub-locations have to share the same allocation with those already existing in the district, making services more scarce and beyond the reach of most of the people in these centres. Indeed, many newly-created administrative centres are devoid of any services except for a few policemen, the (sub-) chief and a two-or three-room school made of mud and with temporary roofing. There are no services worth mentioning but these centres exert additional pressure on the meagre resources of the people since they are required to contribute to the construction and maintenance of all the facilities there. Thus, the argument of service delivery to the people of North Eastern Province is clearly unjustified. The driving force for the creation of the settlements in the area may be a combination of factors, the strongest of which is probably politics: to ease control of the Somali pastoralists, to contain insecurity and to ensure pools of votes during elections.

Famine relief and insecurity
Famine relief and insecurity are related in so far as those escaping from the marauding bandits often come to settle in the centres to benefit from relief food distribution. Some pastoralists lose their livestock to armed bandits after which they are forced into a life of destitution in these centres. Some who come to settle are merely attracted by the centre where they can sell the milk from their few remaining stock and purchase foodstuffs.

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9 The first multi-party elections were held in the country in 1992, following the repeal of Section 2A which had since 1982 prohibited the formation of opposition parties and made the country a de jure one-party system.

10 Kenya has been ruled by only one political party, the Kenya African National Union (KANU), since 1964.
Bonfiglioli 1992:20 observed that:

Everywhere, both in Western and in Eastern Africa, extensive nomadism is giving way to more and more sedentary pastoralism around settlements offering food relief, services and security, resulting in further environmental degradation around these settlements.

It is often mentioned that political security must be realised if food insecurity among pastoralists is to be avoided or redressed. However, political security is, in turn, dependent upon some level of economic development that will guarantee a stake for the pastoralists in the resulting secure environment in which they live. Clan conflicts and excesses of the state are the most threatening forms of insecurity in north-eastern Kenya today, and may continue to be so for a long time. Some of the well-publicised state excesses of force include the government massacres of 1980 in Garissa town, 1984 in Wagalla in Wajir District and a more recent one in 1998 in Bagalla in Wajir District. In each of these incidents, hundreds of lives were lost at the hands of the police and the armed forces in an effort to extort confessions from the local population. These particular incidents and many others of less severity have been reported extensively in the local press and in human rights reports such as those by Amnesty International and Africa Watch. Since they are considered by the government as 'scars' on its human rights record, details of the specifics of these events are difficult to come by. Such incidents have only contributed to further alienation of the people of northern Kenya from their government. Ironically, the people of North Eastern Province vote overwhelmingly for the KANU government during elections which has puzzled many of those familiar with the region's misery. However, if we consider the high level of illiteracy in the area and the increasing competition for the limited resources by different clans, it may be easier to understand their position. The Somalis, like many other pastoralists under similar circumstances, will not be allowed by their government to attain autonomy in the ownership and use of their resources. Besides, economic empowerment of the pastoralists is considered a threat to the political elite and will be resisted by those whose control over the pastoralists is bound to be weakened by their enhanced economic status. According to Toulmin (1991:33):

As far as pastoral tenure is concerned, any devolution of power to politically marginal pastoral groups is seen as very unlikely, as this would strengthen their autonomy, seen as a threat to central government power.

Thus the settlements will continue to attract impoverished pastoralists striving to eke out a living under difficult circumstances while benefiting from the periodic famine relief distributed by the government and charitable organisations, usually during periods of drought. Insecurity in northern and north-eastern Kenya has continued unabated for many years. Those entrusted with the responsibility of ensuring security may lack the will to do so, assuming that they have the necessary backing from the central government. Despite many security operations in the area, insecurity still persists and many lives — both of locals and of security officers — continue to be lost. The collapse of the Republic of Somalia resulted in the mass entry of refugees into the region bringing
with them sophisticated weaponry often more powerful than those used by the Kenyan security forces. An other reason for persistent insecurity in north-eastern Kenya may be political rationalisation for the continued lack of development in North Eastern Province. The key argument is that all the development funds intended for the region are being diverted for security and this has resulted in the lack of any tangible progress in the region. Similarly, the government maintains that it is not possible for any development to be undertaken in an environment of insecurity. Together these arguments tend to create justification for the lack of development in the area occupied by the Somali pastoralists.

Insecurity and land degradation have also been accelerated by the collapse of the Somalia state and the subsequent flow of hundreds of thousands of refugees into the region. Currently, there are about 126,000 refugees in North Eastern Province. The government has closed all the refugee camps in the country and transferred the refugees to camps in Dadaab in Garissa District in North Eastern Province and to the Kakuma camp in Turkana District, Rift Valley Province. This has provided the government with the justification for military activities and the continued use of funds in a never-ending security situation. Cases of police beatings and the maiming of local pastoralists are often reported in the local press.\(^\text{11}\) Many arms have found their way into the region from Somalia and, it is believed that some government officials have benefited from the situation. There appears to be a lack of moral commitment to contain the security situation effectively.

The presence of thousands of refugees in Garissa District has also caused environmental degradation of monumental proportions. Not only have the camps taken up expansive tracts of land, but the thousands of families in the camps also have to find woodfuel for cooking. This has resulted in large expanses of land being cleared of both dry wood and live trees when dry-wood supplies have become exhausted. Some non-governmental organisations assisting the refugees have contracted other organisations and groups of people to collect firewood for the refugees in exchange for payment. Since dry wood has been exhausted in the area, live wood is now being cut down left to dry and collected a few days later. In addition to the degradation as a result of the demand for firewood, many trees were also cut down to provide heavy fencing for protection for the refugee camps. The combined effect of this harvesting has been the emergence of a heavily degraded environment in the area occupied by the refugee camps and nearby. Some areas away as far as Wajir District and the Republic of Somalia.

**Summary of findings**

Throughout colonial as well as post-colonial Kenya, the policies that were formulated for pastoralists were often inappropriate or ill-advised. Most of these policies had two key underpinnings: the sedentarisation of the pastoralists, and the control of overstocking and overgrazing. Most of the policies designed during the colonial period had only limited success. However, the independent Kenyan government introduced further policies supposedly aimed at improving the condition of the pastoralists in the Arid and Semi-Arid

\(^{11}\) For example, Daily Nation, 22.10.98, page 3; entitled, 'Police raze villages in Garissa'.
Lands (Asals), including the creation of an exclusive ministry to bring all such projects under one administrative control. However the ministry was soon dissolved with the interests of pastoralists being shuttled from one ministry or government department to another over the years.

It is to be noted that many of these projects became white elephants and did little to improve the welfare of the target population because they were designed without the necessary input from future potential beneficiaries. In addition, the introduction of multi-party politics saw a renewed move to create new districts and trading centres in many parts of Kenya, either to reward loyalists or to sedentarise pastoralists for better and easier control. While the creation of any new district would mean additional budget allocation under the District Focus strategy for development, the same cannot be said of new locations or sub-locations which had only to share the previously available budgetary allocation for the district in which they were located. The number of districts in North Eastern Province has not changed since independence, while all the other provinces have had some new districts created since 1963.

North Eastern Province had more than its share of new locations and sub-locations but the new settlements have meant the emergence of islands of overgrazing and considerable environmental degradation. These, coupled with intensive degradation from the refugee camps in the region, has meant a reduction in the land available for grazing livestock. Insecurity, both real and perceived, continues to consume the meagre funds available for the region's development. Most of the settled centres have also become centres of relief food distribution, thus accelerating the growth of the centres and compounding the problem of land degradation and the resultant reduction in grazing land. The high number of refugees in Garissa District has also contributed to increased insecurity in the area, while being responsible for a great deal of environmental degradation too.
Livestock marketing: channels and information systems

In this chapter, we review the various channels in the livestock marketing process in Garissa District. A more detailed discussion on the various actors in the marketing chain is given in the next chapter, but some will be mentioned here as well. Market information is considered important in any effective livestock commercialisation in the region and to this end we will discuss the various sources of information and the dissemination of information among the Somali pastoralists of Garissa District.¹

Livestock marketing channels in Garissa District

Marketing channels are defined in different ways by different authors. Stern et al (1988:3) views marketing channels as 'sets of interdependent organisations involved in the process of making a product or service available for use or consumption'. Kohl and Uhl (1990:529) define marketing channels as 'alternative routes of product flows from producers to consumers'. According to Kotler (1997), a marketing channel performs the work of moving goods from producers to consumers, thereby overcoming the time, place and possession gaps that separate goods and services from those who need or want them. These definitions concern agricultural products. Livestock marketing in Garissa District is not as well developed as the marketing of agricultural products elsewhere but the general elements are relevant in the case of livestock marketing as well. With some modification, the following definition for livestock marketing channels is proposed:

¹ Some of the materials in this chapter are presented courtesy of the Panos Institute in London which collected information on 'communication needs assessment' of pastoralists, including those of southern Garissa.
Livestock marketing channels are the various processes by which livestock moves from producers to the final consumer through the mediation of marketing intermediaries (actors). The various marketing channels form the marketing structure within a particular marketing environment.

The government role in livestock marketing is important. Where there is a high level of government involvement and control of livestock marketing, there may be fewer marketing options and consequently fewer channels. This has been the case in Kenya, both during the colonial period as well as in the post-colonial era. Until the Swynnerton Plan of 1954, colonial policy formalised the existing tribal boundaries of pastoralists for reasons of administrative control. However, a change of policy towards pastoral areas was manifested in the Swynnerton Plan, and a deliberate effort to promote increased livestock sales from pastoral areas was initiated. The Kenya Meat Commission (KMC) was established in 1950 with a mandate to purchase livestock from the European settlers. However, it could not compete with private traders since it was constrained in its activities in native areas by official regulations. Although the KMC still continued to operate, another public institution, the African Livestock Marketing Organization (ALMO), was formed in 1952 with the authority to pay subsidised purchase prices if necessary in order to encourage sales by African pastoralists. While the KMC bought livestock from European farmers, the private traders and the ALMO continued their livestock purchases from pastoralist producers in many parts of the colony. The less-developed marketing channels from pastoral areas to the densely populated highlands, and government regulations such as movement restrictions for fear of disease transmission, reinforced the market dichotomisation whereby the settlers sold to the KMC while the African pastoralists sold to private traders and to the ALMO (Evangelou 1984).

During the years after colonial rule, the independent Kenyan government was preoccupied with protecting urban consumers with little regard for rural producers. This took the form of controlling meat prices and putting in place numerous bureaucratic restrictions on livestock marketing, such as the need for movement permits and quarantines. Movement permits had to be issued by the veterinary authority of the originating district to confirm that there was 'no objection' to the animals being moved from one market to another. A movement permit had to specify the number of animals, the destination, the number of days expected to be in transit and the route to be taken (Evangelou 1984). In addition, the permit had to state the mode of transport, and the vehicle registration number if the animals were to be trucked. On some occasions, the absence of veterinary officials for a certain period effectively made it impossible for livestock traders to sell livestock outside Garissa District. Although the government rules were sometimes flouted by traders, the fact that many animals could only cross the river Tana at the one bridge, helped to enforce the controls. However, some traders managed

2 While the ALMO was authorised to subsidise livestock producers, the Livestock Marketing Division (LMD) which was formed in the 1960s to purchase livestock from pastoralists, actually ended up subsidising the urban meat consumers. This happened because the LMD paid low prices to pastoralists for livestock while selling meat at controlled prices, mainly benefiting urban consumers.
to take their animals to Nairobi and Mombasa markets along unofficial routes by bribing those responsible for the enforcement of the regulations.

The Livestock Marketing Division (LMD) and the Range Management Division (RMD) of the Ministry of Agriculture and Livestock Development were established after independence to deal with livestock marketing and range development respectively. The LMD was supposed to purchase livestock from the northern rangelands and take the animals to ranchers in the highlands for fattening, or to the KMC depots for slaughter. The LMD did indeed purchase livestock from Garissa District but was unreliable since its requests to potential suppliers were irregular and often at short notice, as were its rules on the type and quality of animals required. It was an additional channel of livestock marketing, but it was not a reliable one. Although meat markets were liberalised in the late 1980s leading to fewer market regulations, the livestock marketing opportunities in the area have remained limited for three main reasons:

a) Insecurity restricts the exploitation of rural markets, interferes with flows of livestock from the more distant markets to the regional ones and the flow of money and merchandise in the opposite direction;

b) Lack of marketing infrastructure such as operational holding grounds, auction yards and reliable veterinary services impedes trade; and

c) Lack of reliable market information makes producers and traders hesitant to enter the marketing system.

These factors, along with the variable environment with periodic droughts, make livestock marketing in Garissa District unstable and restrict the development of marketing channels. In the case of Garissa District, a number of actors are involved in livestock marketing including the livestock producer (pastoralist), livestock broker, small-scale livestock trader, large-scale livestock trader, butcher and the consumer. In addition, there are a number of actors who may be referred to as 'facilitators'. These include the paid herder who treks the animals, the tax man who collects taxes and provides the loading yards, and the truck owners who truck the animals to various larger markets for a price. Kotler (1997) differentiates between a broker and a facilitator in an agricultural context. While both are intermediaries in the marketing process, the former brings buyers and sellers together and negotiates between them, while the latter assists in the distribution process but does not take title to the goods or negotiate purchases or sales. Although a detailed discussion of the actors is the subject of the next chapter, it is important to offer some basic clarification here. While all the other actors in livestock marketing among the Somali of north-eastern Kenya take actual title to the animals, the broker does not. However, the broker is important because he plays three roles: negotiating between the buyer and the seller; selling on behalf of the owner of the animals; and buying animals when the opportunity is attractive enough (hence becoming a trader at that time). In most cases, the pastoralists prefer to sell their livestock through a broker rather than directly to a trader or to the consumer because the brokers are often better informed about market conditions. Moreover, in the rural markets, brokers are commonly from the local sub-clans and are trusted by their own people.
Each intermediary in the marketing process between the producer and the consumer constitutes one level of the marketing channel. Thus the length of the marketing channel is determined by the number of intermediary actors in the channel.

In Figure 4.1, an illustration of different livestock marketing channels is presented. These are the most important levels that can be found in the Garissa area, with varying degrees of importance, both in terms of volume and the number of actors involved in each category. Depending on the number of intermediaries between the pastoralist producer and the final consumer, the marketing may be referred to as having various levels in the marketing chain. According to Kotler (1997), such levels are called zero-level, one-level, two-level and so on. Although there may be alternate levels of actors' interaction in the market, these are of less importance. The diagram only depicts the most important marketing channels in the area. The different levels are explained as follows:

i) Zero-level channel: This is the marketing channel through which the pastoralist producer sells his animals directly to the consumer without any intermediaries. This channel is less prevalent in most of the markets in Garissa District. It is found mostly during festivities such as Muslim days for slaughter, weddings and other rituals when individuals buy specific types of animals from their neighbours or from others elsewhere. It is commonly used by the pastoralists who are familiar with the market and it usually involves only a few head per producer.

ii) One-level marketing channel: This is when the producer sells to a small-scale trader or to a broker who in turn sells to the consumer. Usually, the broker sells on behalf of the producer assuming the powers of the owner in the sale. This is common in the smaller markets in locations and divisions of the district further from Garissa town.

iii) Two-level marketing channel: In this channel, the pastoralist producer gives the animals to a broker who sells on his behalf to a small-scale trader who finally sells to the consumer. The broker may take the animals from the pastoralists at the kraals or in the market and sell them. The small-scale trader usually purchases the animals from the broker at the small trading centres, but can also do so at in the larger markets. It is similarly common for the producer to sell to the small-scale trader who then gives his animals to the broker to sell on his behalf to the consumer. Thus, the broker may sell for
the pastoralists or for the small-scale traders, or both, in this common channel in the rural markets of the district.

iv) Three-level marketing channel: This is the channel in which the pastoralist gives the animals to a broker who sells on his behalf to a small-scale trader. The small-scale trader sells to a large-scale trader or his agent, who finally sells to the consumer. The sale by the small-scale trader to the large-scale trader or to an agent usually takes place at the main regional markets although it may also occur in the smaller rural markets. Agents work for large-scale traders and may or may not be known as a representative of the trader. He is usually given money for the purchase of animals on behalf of the large-scale trader. Where he is not known, he actually acts as a trader, but where the large-scale trader concerned enjoys goodwill, it is beneficial for the agent to mention his boss in order to get the support he may need in the area. The final sale of the large-scale trader to the consumer is sometimes in the form of meat, especially when the trader has a slaughter outlet. This channel is more commonly found in Garissa town than in the rural markets.

v) Four-level marketing channel: In a four-level marketing channel, the pastoralist producer gives the animals to a broker to sell on his behalf. The broker then sells to a small-scale trader, who in turn sells to a large-scale trader or his agent who then sells to a butcher or a slaughter house. The butcher then sells the meat to the consumer. This channel level is less common in Garissa town but more prevalent in the larger markets in Nairobi and Mombasa where livestock from north-eastern Kenya are taken for sale.

There may be more levels in the channel depending on the differentiation of the market. For instance, there could be a broker between the producer and the small-scale trader and between the large-scale trader and the butcher as well. There is some overlap between the roles and activities of the market actors presented in the diagram. A pastoralist producer could himself be involved in the trading of livestock on a small scale, mainly small stock while his primary concern is livestock production. Similarly, a small-scale trader could also operate a butchery and act as an agent for a large-scale trader. As an agent, he keeps the large-scale trader's money and buys animals on his behalf. This complexity in livestock trade actors was observed by Evangelou in reference to the livestock trade among the Maasai as follows:

The indistinctiveness of the trader identity is compounded by the fact that transactions may be sporadic and take place within a local market's catchment area, comprise a full-time and interregional business, or constitute any temporal-spatial combination between these extremes (Evangelou 1984:218).

The livestock trade network in Garissa District is probably less complex than it is in Maasai areas but it is not a simple network. Although the large number of actors in livestock marketing and the use of refrigerated meat vans as in Kajiado District (see Zaal 1998), is absent in the Garissa case, the marketing system is expanding into the rural parts of the district. To understand the movement of marketed livestock in the area and the extent of 'market catchment' in Garissa District, Figure 4.2 shows the approximate flows of livestock through the district as well as the flows in relation to other main livestock markets in the country.
Livestock flows in the region are usually from producers (pastoralists) to small market centres that act as collection points for both small-scale and large-scale traders. Although some of the marketed livestock in the rural markets may be temporarily kept away from the markets for various reasons, most of the traded animals are taken to the bigger regional markets like the one in Garissa town. A small number of livestock, mainly small stock, leave the Ijara market for Lamu on the Kenyan coast. Similarly, a limited number of animals from Hulugho and Masalani are sold in Lamu through the Ijara market centre. Livestock from Ijara, Hulugho, Masalani and Bura may also be taken to Mombasa via the bridge at Bura. The Masalani market centre would, in theory, be the nearest point to cross the river with livestock destined for the Mombasa market but the absence of a bridge
renders this impossible. However, there is a proposed bridge at Masalani which would enhance livestock marketing from the south of Garissa District when it is completed.

At the Garissa regional market, the animals are resold to various market actors, mainly traders and some butchers. There is also some flow of livestock from Wajir and Mandera Districts and from across the border in Somalia to the regional market of Garissa where they are sold and trekked or trucked to Nairobi or Mombasa. The main destinations for the livestock from Garissa District are Nairobi and Mombasa, with more small stock going to Mombasa and most cattle going to Nairobi. Once in these main national markets, the animals are sold to large butchers and various institutions such as educational establishments, hospitals, the armed forces, or private individuals. The main markets for livestock in Mombasa are in Mariakani and Mombasa town, and those in Nairobi are in Dagoretti, Dandora, Kariobangi and Athi River. Livestock movement from Garissa to the national markets is mostly by truck, since insecurity along the route makes livestock trekking a risky undertaking. However, there are a few cases where traders trek animals for some distance between Garissa and their main destination (Nairobi or Mombasa), despite the risks involved. This is usually to avoid the fee the traders have to pay at the bridge and at the loading bay in Garissa market. In such circumstances, they improvise loading places at dry dam sites and load animals onto waiting trucks. The traders increasingly use bigger trucks with an average capacity of 14-18 head of cattle or 100-120 head of small stock (The variation in the number of animals trucked is due to the size of the animals being transported).

It is postulated that there may be a relationship between distance, the size of flow from the rural markets and the size of the end market (regional or national) on the one hand, and the degree of development of the livestock marketing chain on the other. It may be argued that the more sophisticated a livestock production technique, the more likelihood there is that livestock marketing will be complex with more vertical differentiation. For instance, where livestock production is capital-intensive using, artificial insemination, purchased feeds, fattening and is highly commercialised, the marketing channel will be more complex compared to extensive livestock production on natural forage mainly for subsistence. Capital-intensive livestock production entails complex marketing channels due to the high number of actors and/or facilitators involved.

Kohl and Uhl point out that the geographic location of livestock production is determined by the availability of key production resources such as pasture, water and labour (Kohl & Uhl 1990). Where production resources are more abundant, there are higher numbers of livestock, and the markets are likely to attract more buyers and be more competitive. On the other hand, the number of livestock markets in an area tends to have a negative effect on the size of flow (the number of animals from each market). This happens when the livestock volumes per market are low due to dispersion over many markets, and results in increased transaction costs for traders since they have to buy animals from several markets to meet their demand. Traders, particularly large-scale traders, may opt to buy livestock from a market that is large enough to meet their needs since this reduces their transaction costs and enables them to enjoy economies of scale by purchasing in bulk. The size of the end market similarly has implications for channel development as does the stability of a given market over a certain period: the larger and
the more stable the end market, the higher the flow or the number of animals to that market.

Livestock market information

For the livestock channels to function well, there needs to be accurate and timely market information for all the actors in the chain. Kohl and Uhl (1990:529) define market information as: 'Any form of information relevant to a market decision...'. Emphasising the importance of market information, the authors point out that 'accurate and timely market information facilitates marketing decisions, regulates the competitive marketing processes, and lubricates the marketing machinery' (Kohl & Uhl 1990). This definition is broad enough to accommodate livestock market information. Pastoralists as well as other actors in the livestock market need relevant market information to enable them to receive better returns on their livestock. Thus, market information on volumes and prices of various categories of livestock in local and regional markets may go a long way to contributing towards the efficiency of the market.

A livestock market information service should provide information on prices of different categories of livestock as well as other relevant market information that will facilitate informed decisions by all the different actors. If other factors remain the same, the availability of livestock market information minimises exploitation of one actor by another while creating room for arbitrage.³ Livestock trade takes place because of the existence of differential livestock prices between different markets and over time, coupled with supply and demand, and transaction or negotiation costs.

Sources of livestock market information in Garissa District
Livestock market information is usually obtained at points of exchange, be they at the kraal of the pastoralist producer, the rural market, the regional market (e.g. the one in Garissa) or at the national markets, in Nairobi and Mombasa. The main sources of information for Garissa pastoralists, including market information, are government officials, elected local leaders, and travellers from the area or those passing through in search of lost livestock, making marriage proposals or simply on a visit. Although the information from the government is mainly on issues related to security matters, it used to pass on details about upcoming livestock auctions and their venues, and when vaccination campaigns could be expected. However it should be noted that organised livestock auctions have not taken place in the region for more than a decade and vaccination campaigns for livestock are rare. At present, the government is hardly a source of detailed livestock market information. Also, although traders may be a source of market information, none of the respondents mentioned them as such.

In order to make an assessment of the communication needs of pastoralists for a planned radio programme, the Panos Institute, with the help of the author, conducted

³ Kotler (1997:3) defines arbitrage as the act of buying at a lower price and selling at a higher price. He differentiates between 'spatial arbitrage', i.e. the price differences between different markets, and 'temporal arbitrage' i.e. price differences between different time periods.
surveys in parts of Garissa District in December 1996. Unstructured interviews as well as group discussions with elders, women, government officials and the youth were held involving a total of 31 individuals. We discussed the means through which the Somali pastoralists normally receive information from the government, how information is passed on within their own groups and within neighbouring groups, and the common issues relayed through these processes. Information from the government is mainly administrative in nature, but includes information on livestock and human vaccinations, visits by senior government officials, and security issues. Government information is passed on to the people in the area through a number of means as presented in Table 4.1 below.

### Table 4.1
Most important information channels from the government to the pastoralists
(N=31; 12/96)

<table>
<thead>
<tr>
<th>Channels used</th>
<th>Number</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radio</td>
<td>10</td>
<td>(32)</td>
</tr>
<tr>
<td>Public rallies (barazas)</td>
<td>6</td>
<td>(19)</td>
</tr>
<tr>
<td>Government officials</td>
<td>4</td>
<td>(13)</td>
</tr>
<tr>
<td>Travellers</td>
<td>3</td>
<td>(10)</td>
</tr>
<tr>
<td>Elected leaders</td>
<td>2</td>
<td>(6)</td>
</tr>
<tr>
<td>Friends</td>
<td>2</td>
<td>(6)</td>
</tr>
<tr>
<td>Other means</td>
<td>4</td>
<td>(13)</td>
</tr>
<tr>
<td>Total</td>
<td>31</td>
<td>(100)</td>
</tr>
</tbody>
</table>

*Source: Author's survey*

Radio information appears to be the single largest source of information for the pastoralists of Garissa District. However, this has two main constraints. Ownership of radios among the Somali pastoralists is estimated at 10-15 per cent of the population (personal communication with groups), although the information broadcast over the radio may reach more than 50 per cent of the target population, since the information is passed on to friends, neighbours and others. Nevertheless, the low figure of ownership of radios implies that they should not be relied on as the sole means of disseminating information to pastoralists in the area. Secondly, radio broadcasts currently do not include livestock information. While prices of agricultural products are broadcast officially, those of livestock and livestock products are yet to receive similar attention from the government. Public rallies organised by the chiefs (barazas), as well as information from other government officials also serve as sources of information for pastoralists. However, information on livestock marketing and other aspects of livestock production such as pastures, and water quality and availability are usually received from travellers. The information from the government is mostly on security matters and sometimes on quarantines for diseases and forthcoming auctions.

The Somali pastoralists in the district not only receive information from government officials but they also communicate within their sub-clans as well as with other clans and with members of neighbouring pastoral communities such as the Orma and the Wardei in the rest of Tana River District. Most of the issues on which they exchange information concern the improvement of livestock production such as the
prevailing rainfall, pastures and livestock diseases, livestock prices and the status of the routes to markets, security matters, droughts, and resource sharing during times of localised grazing scarcities. Various means are used by Somali pastoralists in the area to receive and send information to others, both within and beyond the community. Some of the main means used are presented in Table 4.2.

<table>
<thead>
<tr>
<th>Means of dissemination</th>
<th>Number</th>
<th>(%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farin(^a) and sahan(^b)</td>
<td>8</td>
<td>(35)</td>
</tr>
<tr>
<td>Community elders</td>
<td>7</td>
<td>(30)</td>
</tr>
<tr>
<td>Itinerant travellers</td>
<td>5</td>
<td>(22)</td>
</tr>
<tr>
<td>Other means</td>
<td>3</td>
<td>(13)</td>
</tr>
<tr>
<td>Total</td>
<td>23</td>
<td>(100)</td>
</tr>
</tbody>
</table>

Source: Author's survey

From the table the traditional farin and sahan are found to be the most common means of information dissemination within the community as well as between the community and its neighbours. Most of the information disseminated through farin and sahan relates to livestock production and marketing, with the emphasis on the production component. Other means by which the Somali disseminate information include elders and travellers. Travellers are particularly important in so far as they bridge the distance gap and bring information that would otherwise not be available. The elders in the community usually have periodic meetings, among themselves and with elders from other neighbouring pastoral groups. Other means of information dissemination are public rallies, nomadic migrations and weekly gatherings at Friday prayers. The Somali also exchange information with their neighbouring ethnic groups, mainly other pastoralists such as the Orma, on issues of concern. Some of the main topics on which the Somali pastoralists exchange information with others, or even within their own group, are presented in Table 4.3.

The issues on which the Somali pastoralists of Garissa District inform others and are in turn informed about by others, are mainly within the livestock domain. This is to be expected given that the livestock sector is the dominant base of the livelihood of many, directly as well as indirectly. In general, information on livestock marketing on a wider scale is important to the Somali pastoralists, as it may be to other pastoral groups as well.

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4 In Tables 4.2 and 4.3, the sample presented is 31 individuals or less depending on whether all interviewees responded to the questions or not.

5 Farin is a Somali word which literally means 'message'. It is one of the commonest means of sending and receiving information within the Somali pastoral community. For instance, person A travelling from one place to another is asked by persons or persons B to take certain information to another one or more people, C, who is (are) either on his way or close to his destination. In some cases, a person may be sent specifically to deliver messages.

6 Sahan is a Somali word which means 'reconnaissance'. It is commonly used to refer to missions going in search of suitable pastures and water for livestock before they can migrate. It may also be used to send a person to a trading centre to report back on livestock prices, and any other issues of interest to the community.
Although only 7 per cent of the respondents mentioned direct livestock market information as being important, security (30 per cent), grazing resources (20 per cent) and livestock health (7 per cent) are all part of livestock market information in a broader sense. Access to relevant information at the livestock markets in different areas may make it possible for producers to sell their animals at a time and place where they are likely to receive better prices at the lowest cost. In addition, knowledge of livestock health may go a long way in facilitating the protection of livestock well ahead of any outbreak of disease and the resultant heavy losses. Similarly, information on livestock marketing can be useful in assessing and predicting potential disasters such as droughts, and hence give an indication of possible future problems.

**Table 4.3**

<table>
<thead>
<tr>
<th>Most important information exchanged between the Somali pastoralists and their neighbours (N=30; 12/96)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Information issues</td>
</tr>
<tr>
<td>Security-related</td>
</tr>
<tr>
<td>Common grazing resources</td>
</tr>
<tr>
<td>Settlement of disputes</td>
</tr>
<tr>
<td>Livestock marketing (auctions, prices, etc.)</td>
</tr>
<tr>
<td>Livestock health</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

*Source: Author's survey*

Early warnings on impending disaster related to livestock loss and food insecurity may be discerned from the behaviour of the livestock markets, taking account of price trends as well as the types of livestock in the markets. A sustained decline in livestock prices over an unusually long period may be an indication of a crisis for pastoralists because persistent low prices deplete the pastoral herds much faster. As the sale of livestock to purchase foodstuffs is still needed, more sales take place to allow for the acquisition of the same food requirement. This is particularly true for those households most dependent on purchased foodstuffs such as maize meal, tea and sugar, and those that have few or no alternative sources of income. The type of animals brought to the market for sale may also point at an impending scarcity and act as a warning of shortages and potential famine. For instance, pastoralists do not sell female breeders, lactating females and female immatures (future breeders) unless they have exhausted all other saleable stock in their herds. An unusually high number of animals from these categories could therefore signal a crisis and such a warning would enable policy makers to respond in good time to mitigate the effects. Thus, declining livestock prices as well as increasing sales of female breeders and lactating animals would be an indication of food insecurity. An efficient livestock market information system might therefore play a role in enhancing food security in pastoral areas.

Dissemination of information on livestock markets has a number of problems not the least of which is the need to guarantee that the information is accessible to the target audience and to ensure that the information is in a form that can be understood and used...
by the users (Shepherd 1997). Although radio ownership as such is low, information carried over the radio reaches a much larger population. However, the costs associated with broadcasting market information increase with an increase in airtime resulting from the need to broadcast in a number of local pastoralist languages. Another key problem associated with market information is a question of relevance, in terms of market place and the time the price relates to. Should the prices being broadcast be those of the main regional markets or those at the small markets or those of both categories of markets? The issue of relevant prices is a problem that needs solving before embarking on effective market information gathering and dissemination. Seasonal differences of market information introduce yet another dimension. Given the poor security situation, poor infrastructure and long distances between markets, pastoralists are likely to be more attracted to the markets nearest to their settlements if the availability of livestock buyers in such markets is confirmed. In the absence of such information, they tend to take their animals to the large markets where there is always someone to buy them. The time lag between when the information is collected and when it reaches the pastoralist also needs to be considered. Other problems are associated with low literacy levels, appropriate broadcasting times and the optimal mix of media to maximise the dissemination of information.

Conditions for increased livestock marketing
Assuming that pastoralists will benefit from commercialisation, reliable and timely livestock market information is an important ingredient in increasing livestock commercialisation, but only one of a number of necessary conditions for attaining that goal. Among the other important necessities is the development of livestock infrastructure such as dipping facilities to improve livestock health, and routes for the animals to be trekked or trucked. Northern Kenya and Garissa District in particular have been faced with poor infrastructure since the colonial period which has acted as and still remains an impediment to increased livestock marketing as well as to trade in livestock products. Livestock prices have often been distorted through government intervention by way of quarantines and restrictions. Attractive prices for livestock are also important in enabling pastoralists to decide whether to sell their animals or withhold them from the market, especially for those who may not have to sell for survival. Of course, this excludes periods when the pastoralists have no alternative but to sell due to stressful circumstances and a lack of alternative sources of income. While commenting on the importance of attractive livestock prices as a basis for increased sales of animals, Kerven (1992:13) stated that:

Increased voluntary marketing by pastoralists of their livestock is dependent as much as anything else, on increasing the exchange value of livestock and their products in relation to the use (consumption) value, allowing for seasonal differences.

For the pastoralists to tap the benefits of increased exchange values, they need to have relevant information on livestock markets. In the absence of such information, it can only be hoped that the pastoralists will know and respond to high exchange values. Other than the attractive prices as a stimulus for increased livestock marketing, the issue of security plays a dominant role in the expansion of the livestock trade in Garissa District as it does
in the whole of north-east Kenya. In the absence of safe and secure routes for livestock to the markets as well as safe ways of carrying any cash proceeds back to the producers’ settlements, it is unlikely that livestock commercialisation will improve substantially even if all other conditions were to be favourable. Hence the need to improve the security situation as a major component of enhancing livestock marketing.

Concluding remarks
The role of the public sector in livestock market information, both in collecting as well as disseminating the information, should be important. This is because of the amount of resources required to generate effective livestock market information. The absence of the government in such a process will favour large-scale traders who have the resources to collect their own market information, and will contribute to market imperfections through (trader) monopolisation of market information. This in turn, may also lead to the exploitation of the pastoralists who lack the same market information. The present role of the government in providing market information in the livestock sector is either minimal or non-existent, especially in Garissa District.

In marketing their animals, the pastoralists utilise various marketing channels, ranging from sales at the homesteads to small-scale traders, to direct sales to consumers within the neighbourhood as well as in more distant markets. There may be a relationship between, on the one hand the distance, the number of animals (size of flow) and the size of the end market, and the development of livestock marketing channels on the other. Livestock in Garissa District are sold in the small market centres in rural areas, at divisional markets, at the regional market of Garissa District as well as in the main national markets, mainly in Nairobi and Mombasa. While the small market centres in the district act as collection points, the main regional market of Garissa draws animals from as far away as Somalia and other districts in the region, Wajir and Mandera.

All the actors in the livestock trade, including the producers, require relevant, timely and cost-effective market information. The Somali were found to rely on traditional methods and the government administration for market information and other general information regarding the livestock sector, although the role of the government as a source is minimal nowadays. Some of the common channels through which they pass on information include farin and sahan, community elders, and itinerant travellers, with varying degrees of importance. Within the Somali community and between them and their neighbours, they often send and/or receive information on livestock-related issues including livestock marketing and livestock health. With reliable market information, ample security and appropriate infrastructure, it would be expected that the Somali pastoralists could respond more directly to market developments.
Livestock marketing and food trade have become essential to the survival of the pastoralists in north-eastern Kenya and it is therefore important to provide insight into the key players of the livestock and grain sectors.

Livestock trade in Garissa District

The activities of pastoralist livestock producers, livestock traders, livestock brokers and those of butchers are closely interrelated, sometimes overlapping. In the case of the livestock trade in Garissa District, four spatially differentiated levels of operation may be discerned:

1) Local level (at the homesteads or kraals);
2) Intermediate markets;
3) Regional markets (e.g. Garissa);
4) (Inter)national markets.

These levels of operation in the livestock trade tend to differ in several ways. The main noticeable differences are in their scope of operation (number of animals, number and diversity of participants), the physical size of the markets, and the level of government involvement. Each of these levels will be discussed briefly.

Local-level trade
The trade at a local level takes place at the homestead (or the kraal) of the producer. The buyers at this level may be other producers who buy an animal for a specific purpose such as breeding or ritual sacrifice, but the most common buyers are the itinerant traders. These are small-scale livestock traders, often with their own animals, who operate within their own lineage. They move along with the *reer* during migrations. When they have
bought enough animals, usually decided by their capital strength, they resell either at the intermediate markets or the bigger regional markets. A few brokers (dilaaley) may also operate at this level, but this is not common. Although the prices offered at this level are usually lower than at other levels, selling at the farm gate relieves the producer of the need to take his animal(s) to the market for sale. This is particularly important for households with labour constraints (Zaal 1998).

**Intermediate markets**

These are markets in the rural parts of the district, mainly in the headquarters of divisions and locations and are called intermediate markets because they operate at a level between the local sales at the homesteads and the regional markets in the main town centres in the area. They are the most important markets for livestock producers and account for most of their sales. Livestock brokers and butchers play a minimal role at this level. The volume of livestock traded here on a daily basis is fairly low, and the producers tend to interact directly with the buyers without broker mediation. However, the few brokers who operate at this level are members of the local sub-clan and they are given animals to sell by producers. Since trust is required between the Somali pastoralist and the broker to whom he gives animals to sell on his behalf, there is a tendency for brokers to operate at the kinship (reer) level. This is because it is usually possible for an aggrieved party to get recourse when dealing with a fellow kinsman rather than with a person he knows less well. These markets are closer to the producers and more convenient in terms of time and labour than the larger markets in the region. Butchers at this level tend to buy one or two animals for slaughter at the trading centre. Although butchers in the rural markets of Ijara and Dadaab deal more in small stock than in cattle, those in the regional Garissa market mainly deal in cattle. The intermediate markets in Garissa District may also function as 'collection markets', where the itinerant traders at the local level sell their animals to larger traders who come from the regional markets.

**Regional markets**

The main regional markets in north-eastern Kenya are in Garissa, Wajir and Mandera, corresponding to the respective district headquarters. Of these, the most important is the one in Garissa town which also serves Wajir and Mandera districts. It is at the regional level that the role of livestock brokers and butchers becomes clearly visible. The main Garissa market is held daily for small stock and camels, but weekly for cattle. Animals, mainly cattle from all over the region and even some from Somalia are traded in Garissa market. Although a diversity of stock is bought and sold at the regional markets, cattle for meat or resale in the national markets predominate. The small-scale traders and some itinerant traders sell their animals to larger traders and butchers. A few producers may buy specific types of animals from this market as well. While the brokers sell the animals on behalf of the producers for a commission, the butchers tend to buy animals for immediate slaughter as well as for their future requirements. The latter practice is more pronounced just before festivities in the area. The prices in these markets are generally higher than in all the lower-level markets because of the number and diversity of buyers.
Sometimes, however, the regional markets are saturated with animals, resulting in low prices.

(International) National markets

The national markets are in 'down Kenya' — meaning the part of Kenya that is across the main border, the river Tana. Some of the animals that leave the regional markets in North-eastern Province for Nairobi and Mombasa may actually be exported abroad. However, when this happens, it is on a small scale since there is no officially known export of livestock at present. In the case of livestock movement from the regional markets, the large-scale traders buy animals from the regional markets and take them to the main consumer markets in the major towns. The most important markets in that regard are Mombasa, Mariakani, Dagoretti, Dandora and Athi River. Both cattle and small stock are trucked in eight-and fifteen-ton trucks to their respective destinations. The few camels sold to Nairobi butchers are usually taken on the hoof.

Characteristics of livestock trade participants

The number of actors including the livestock traders, brokers and butchers, was found to be highest in the regional market of Garissa town, with fewer operating at the smaller markets of Dadaab and Ijara. Livestock traders, livestock brokers and butchers were interviewed in the three markets of Garissa town, Dadaab and Ijara. In all, 33 livestock traders, 30 brokers and 39 butchers were interviewed (Table 5.1). While 20 respondents from each category were easily identified in Garissa town, as was the intention, this was not possible in Dadaab and Ijara. In these market centres, all respondents in each of the categories were interviewed. In terms of those selected in Garissa town market, the proportion of market actors covered were about 40 per cent of brokers, 40 per cent of butchers and 80 per cent of traders. In Dadaab and Ijara market centres, more butchers were present, followed by traders and lastly brokers. It appeared that the smaller the livestock market, the less of a role there was a role for a broker.

<table>
<thead>
<tr>
<th>Table 5.1</th>
<th>Sample composition of livestock trade actors (N=102)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Garissa</td>
</tr>
<tr>
<td>Traders</td>
<td>20</td>
</tr>
<tr>
<td>Brokers</td>
<td>20</td>
</tr>
<tr>
<td>Butchers</td>
<td>20</td>
</tr>
<tr>
<td>Total</td>
<td>60</td>
</tr>
</tbody>
</table>

Source: Author's survey

Type of trade actor and specialisation

The livestock traders purchased animals from producers, brokers and other traders. There are many traders who rely on brokers for their transactions with the producers. The livestock traders usually pay cash for the animals, which they often truck to the national
markets, but they do sometimes resell in the same market. Most of the traders are Somali. We observed a new type of sale arrangement between the producer and the traders, or even between large-scale and smaller traders. In this arrangement, the large-scale trader takes the animals on credit on agreed terms, payable after selling the animals in the larger markets. The prices offered on these terms may be slightly higher than those prevailing at the market. However, when the market is flooded with animals, even low prices may be agreed upon. When the producers are in dire need of money and they give the animals on such arrangements, the trader usually makes some advance payments to the producers to assist with their immediate needs. It should be noted that such arrangements are restricted to relations of personal trust and past trade exchanges. When the trader and the producer are strangers, there has to be a guarantor (wakiil) who is known and trusted by the seller and who takes full responsibility on behalf of the trader in the event of default.

The role of the livestock brokers was more pronounced at the main market in Garissa town than in the smaller markets of Dadaab and Ijara. In normal circumstances, the broker negotiates with the trader on behalf of the producer,\(^1\) while the producer stands by. This is particularly so in the main Garissa market where the brokers are from a wide diversity of clans and sub-clans, making it less likely that producers can find brokers from their own clans to sell on their behalf. In cases where a broker is from the same clan as the producer, he could sell on behalf of the producer even without the latter's presence. One such example could be when the broker and the producer are close relatives or are from the same family or sub-clan. Since the business of the brokers in the regional market of Garissa is usually very competitive, the producers, traders as well as the butchers tend to give work to those who are related to them, mainly at the reer level, but mainly when a large number of animals are involved and brokers of the producer's kinship are identified. This is considered a social obligation, especially when a high commission is involved. One often hears brokers remark that: 'Our cattle from such and such a place are coming next week', meaning that members of their reer will be bringing cattle to the market for sale. For the brokers, this business is already expected on the basis of kinship.

The activities of the brokers in livestock marketing among the Somali in Garissa District is more complex than it may appear at first sight. The broker plays three key roles, the importance of which tend to vary with the volume of activities in the market in which they operate. These roles include negotiating a sale between the seller and the buyer without replacing any of them, selling on behalf of the seller, and finally in rare circumstances, buying animals (usually a few head), thereby effectively becoming a small-scale trader for a short period. In the main market in Garissa town, the role of negotiating the sale between buyer and seller is the more dominant of their roles. In the smaller market centres in the divisional headquarters like Dadaab and Ijara, the brokers are more involved in selling livestock on behalf of the pastoralists. It appears that the smaller the market, the higher the possibility of trust between the producers and the brokers, most of whom have kinship relations. Also it is more likely that brokers will sell on behalf of producers than negotiate between buyers and sellers. When they do buy

\(^1\) This compares with the situation in Kajiado District where the role of the broker is always to replace the seller (Zaal 1998).
animals, the brokers are either taking advantage of an opportunity where the price is low, or they are buying in advance of an expected price rise due to a higher demand for animals during festivities.

There were many butchers in Garissa town due to its large population. At the smaller markets in the divisional headquarters of Ijara and Dadaab, more butchers than traders and brokers were found. This was not expected, especially in Ijara where the population is small and there is a limited demand for meat. Butcheries were found to be the only way of livestock disposal during certain periods of the year when there are no traders due to increased insecurity or some other reason. The butchers in the smaller markets usually take animals from the producers and pay for them after selling the meat, especially when there are not enough buyers. When a pastoralist takes animals to the market to sell, it may be difficult to take the animal home. Depending on the pressure to sell, pastoralists may prefer to have their animal slaughtered by the butcher so that they can be paid later, even though the price will be lower than the animal’s market value. In the mean time, the butcher either advances a certain amount of money to the pastoralist for his immediate needs, or he borrows foodstuffs from the local retail shops on his behalf. If not enough meat is sold to cover the sale price agreed between the two parties, they operate what is locally known as qasaara qeeb. This is a Somali phrase which means 'loss sharing' between the pastoralist and the butcher. For instance, if a goat is taken by a butcher from a pastoralist for an agreed price of Kenya shillings 1,000 (but whose market value is Ksh 1,500, for example), and only Ksh 200 are realised when it is slaughtered, the butcher pays to the pastoralist what he sold (Ksh 200), and the balance of shillings 800 is shared between the two. Thus the pastoralist ends up receiving only shillings 600 and not the Ksh 1,000 agreed upon initially. To avoid any possibility of cheating, the butcher is obliged to show some of the prominent members of the community any unsold meat before it can be shared out among the local people. Since the pastoralist might come for his money several days later and the meat cannot be kept to show him as evidence, he relies on kinship trust reinforced by the confirmation of local community members. This happens less in the main regional market of Garissa where pastoralists deal with brokers mainly on the strength of a third-party introduction.

Table 5.2
Type of animal and specialisation of person interviewed (N=94).

<table>
<thead>
<tr>
<th>Type of animal</th>
<th>Trader (n=33)</th>
<th>%</th>
<th>Broker (n=30)</th>
<th>%</th>
<th>Butcher (n=31)</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>21</td>
<td>64</td>
<td>14</td>
<td>47</td>
<td>14</td>
<td>45</td>
<td>49</td>
<td>52</td>
</tr>
<tr>
<td>Small stock</td>
<td>5</td>
<td>15</td>
<td>13</td>
<td>43</td>
<td>5</td>
<td>16</td>
<td>23</td>
<td>25</td>
</tr>
<tr>
<td>Camels</td>
<td>7</td>
<td>21</td>
<td>3</td>
<td>10</td>
<td>9</td>
<td>29</td>
<td>19</td>
<td>20</td>
</tr>
<tr>
<td>All species</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>10</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>100</td>
<td>30</td>
<td>100</td>
<td>31</td>
<td>100</td>
<td>94</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: Author's survey*

The main trade actors discussed above deal in cattle, camels and small stock in varying degrees. Some specialise in particular species of livestock while others deal in more than one species. The sale of donkeys is minimal, and usually not for trade. They are used as
pack animals for the transit cattle of traders from one market to another, and by producers who require pack animals to carry materials for shelter and other household goods during movement.

Of the 33 livestock traders, the majority (64 per cent) were involved in the trade of cattle, 21 per cent dealt in camels while 15 per cent traded in small stock. None of the traders and brokers traded in more than one species of livestock. The traders usually buy the animals from producers, brokers, and sometimes from other traders (Table 5.2). In the case of the brokers, 47 per cent specialised in cattle and 43 per cent in small stock, with the remaining 10 per cent dealing in camels. Cattle and small stock were of almost equal importance for the brokers. This is probably because they are the most traded animals, with far fewer people dealing in camels. Although the profits per animal are low for small stock, two reasons tend to make small stock trade attractive to many brokers. Firstly, trade in small stock is on a daily basis, and this, coupled with many individuals coming to sell their animals, provides a continuous income for the brokers concerned. The greater the number of pastoralists selling small stock on a given day, the higher the chances for more brokers to be involved. Secondly, the lesser importance attached to small stock makes it possible to overlook many rules of trust and kinship, hence enabling less well-known brokers to make transactions and earn some income. The latter case is more prominent in the larger market in Garissa town and less prevalent in the smaller markets in the rural areas of Garissa District.

Of the 31 butchers, 45 per cent dealt in cattle, mainly for slaughter at the local level in Garissa town. Some animals were bought for immediate slaughter while others were slaughtered at a later date when meat was in short supply. The latter usually occurred when there was an increase in demand for cattle resulting from the arrival of distant large-scale traders, mainly from the neighbouring districts in Ukambani. In the case of small stock, advance purchases by butchers became necessary shortly before festivities such as Christmas and the Islamic Idd. Some 29 per cent of the butchers sold camel meat, while another 16 per cent and 10 per cent dealt in small stock and in all animals respectively. Some butchers shared the meat of larger animals, i.e. camels or cattle among themselves since it would be difficult to sell a whole animal carcass in one butchery. In general, butchers sold their meat to individual customers, hotels, and other institutions such as schools, hospitals, the armed forces and the police canteen in Garissa town. In the case of Dadaab and Ijara, most sales by butchers were to individual customers and to small food kiosks; substantial amounts were sold to refugees from camps in Dadaab centre. When the refugees purchase meat from butcheries, they do so on an individual household basis just like the local population. Some animals were purchased for slaughter in the refugee camps by the refugee agencies in Dadaab during the early part of 1996. There was no organised meat purchase for the refugee population during the study period.

*Ethnic and gender dimensions of livestock trade*

The large majority of the livestock traders interviewed were of Somali background (Table 5.3). All the traders in Dadaab and Ijara were Somali, while a few in Garissa main market were Kamba (16 per cent). The Kamba have a history of trade relations with the Somalis, but not without problems. There have been times of raids and counter raids between the
two groups, with the occasional suspension of livestock trade between them, as in 1993 and also in 1995. During such periods of conflict, the flow of livestock from Garissa District to Nairobi has been disrupted since the Kamba country lies along the main Garissa-Nairobi road and traders are wary of attacks. Cases have been known of traders with livestock being hijacked on their way to Nairobi, while cattle raids have occurred in the Kamba area, presumably organised by raiders from the Somali area.

Table 5.3

<table>
<thead>
<tr>
<th>Ethnic identity and specialisation of participants (N=101)</th>
<th>Trader n=32</th>
<th>%</th>
<th>Broker n=30</th>
<th>%</th>
<th>Butcher n=39</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somali</td>
<td>27</td>
<td>84</td>
<td>30</td>
<td>100</td>
<td>39</td>
<td>100</td>
<td>96</td>
<td>95</td>
</tr>
<tr>
<td>Kamba</td>
<td>5</td>
<td>16</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>32</td>
<td>100</td>
<td>30</td>
<td>100</td>
<td>39</td>
<td>100</td>
<td>101</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author's survey

All the other market participants, the brokers and the butchers were found to be Somali. Since the brokering business depends on trust, and sometimes kinship relations, this was expected. Somali domination of the butchery business is due to the Muslim requirement for 'halal meat', and the fact that people prefer to buy meat from those they know personally. Occasional discounts and sometimes even credit facilities to customers are also reasons for this dominance. Although there are a few other butcheries, mainly owned by Boran or neighbouring pastoral communities, these did not appear in our sample. The non-Somali butcheries in Garissa town are very few when compared to the overall number of butcheries in the town.

The livestock markets in north-eastern Kenya are dominated by men; women are hardly ever involved. Nevertheless, we found some women traders in the regional (main) market of Garissa town, and a few female butchers in Dadaab. The sex distribution of the various participants is presented in Table 5.4.

Table 5.4

<table>
<thead>
<tr>
<th>Sex of participants and specialisation (N=99)</th>
<th>Trader n=32</th>
<th>%</th>
<th>Broker n=30</th>
<th>%</th>
<th>Butcher n=39</th>
<th>%</th>
<th>Total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>23</td>
<td>77</td>
<td>30</td>
<td>100</td>
<td>37</td>
<td>95</td>
<td>90</td>
<td>91</td>
</tr>
<tr>
<td>Female</td>
<td>7</td>
<td>23</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>9</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>30</td>
<td>100</td>
<td>30</td>
<td>100</td>
<td>39</td>
<td>100</td>
<td>99</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Author's survey

Female participants accounted for 23 per cent of the traders (all in Garissa Town) and 5 per cent of the butchers (all in Dadaab). While the female butchers were all Somali, there

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2 'Halaal Meat' is meat from an animal which has been slaughtered according to Islamic requirements. Any meat from animals that has not been slaughtered accordingly, is considered 'haram' and Muslims are forbidden to eat it.
were 5 female Kamba traders found in Garissa District, accounting for about 17 per cent of all traders and 71 per cent of the female traders in Garissa District. All female traders (Somali and Kamba) were found in the main Garissa market. The concept of female traders among the Somali is relatively new and may be an indication of the Somali community embracing changing circumstances. For instance, it was against our expectation to find female butchers in Dadaab centre. The presence of female butchers may be the result of the large refugee population in the camps around Dadaab trading centre, which appear to have influenced many aspects of the daily life of the local Somali community in that area. More details of the influence of the refugees on the local population will be discussed in Chapter Eight. The Somali community from Somalia tends to have a more liberal attitude towards women, who are more industrious and business-minded than their Kenyan counterparts. Thus, in Dadaab, women appear to be venturing into what has been a male domain among the Somali pastoralists in Kenya.

The trade participants were found to be mainly composed of people from older age categories. Only 27 per cent of the brokers, 29 per cent of the traders and 31 per cent of the butchers whom we interviewed were found to be under 40 years of age. Of all the participants, only 7 per cent of the brokers were young men under 30 years of age. This contrasts with the Maasai case where the young Maasai use the brokering business to create their own herds (Zaal 1998:144). Generally, it was the older members of the Somali community who were engaged in livestock trade activities with 26 per cent of the traders, 27 per cent of the brokers and 41 per cent of the butchers being over fifty. While the brokering business requires trust and kinship relations, butchery as well as trading activities usually require substantial capital that is not readily available to the younger men in the area. Although the business of brokers may not need much capital, and may actually be conducted without any capital at all, it is mostly older men who dominate this part of the livestock trade in north-eastern Kenya. Brokering is based on trust and trust takes time to build up, so it tends to be the older men who dominate the market. In the case of livestock traders and butchers, a certain amount of money is necessary and the young men who could raise the required money for these activities are often in full-time employment and not available for the trade. However, some young men who earn good incomes let their fathers or other relatives trade on their behalf on a sharing basis. Such partners also tend to be in relatively older age categories.

Livestock trade networks
Participants in the livestock trade were asked about their network relations with other actors in the market. The hypothetical expectation of the relationship among the various actors in livestock marketing would be as follows: producer-broker-trader-butcher-consumer. However, the network relations of market actors in north-eastern Kenya were found to be more complex (Tables 5.5a and 5.5b).

A third of the traders (33 per cent) bought their animals from producers and another third (33 per cent) bought from brokers; the brokers selling on behalf of producers or other traders. Only a small proportion, 12 per cent of the traders, mentioned that they bought livestock directly from other traders. There was a high proportion of traders (22
per cent) who did not wish to disclose their sources of livestock purchases. It is possible that these traders purchase livestock from 'illegal sources' in the Republic of Somalia. Alternatively, it may be that they had a cheap source of good animals and declined to disclose it to avoid possible competition from other traders.

The majority of the brokers (80 per cent) bought some animals from producers and the rest from traders. The brokers do not buy animals from the producers, but they instead take livestock from the producers and sell on their behalf. To those who buy animals from the brokers, the latter appear as the 'sellers', whereas in fact they only take the place of the producer. A few brokers bought animals for themselves, but this was more the exception than the rule. The brokers rarely bought animals in the real sense of taking ownership, but only negotiated for producers or whoever else they would be selling for, hence appearing to be the seller.

Most of the butchers (92 per cent) bought animals for slaughter directly from pastoralist producers, with only a small number buying from brokers (3 per cent) or traders (5 per cent). The butchers tend to avoid the commission of brokers who would buy on their behalf, or the profit margin that was often imposed by traders. They prefer to buy directly from producers, and only use the alternatives when they cannot acquire the animals they need directly from the pastoralists.

![Table 5.5a](image)

**Important trading partners (selling) for persons interviewed (%)**

<table>
<thead>
<tr>
<th>Selling partners:</th>
<th>Respondents as buyers:</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trader (n=33)</td>
<td>Broker (n=30)</td>
</tr>
<tr>
<td>producers</td>
<td>33</td>
<td>80</td>
</tr>
<tr>
<td>brokers</td>
<td>33</td>
<td>0</td>
</tr>
<tr>
<td>traders</td>
<td>12</td>
<td>20</td>
</tr>
<tr>
<td>non response</td>
<td>22</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Source: Author's survey*

![Table 5.5b](image)

**Important trading partners (buying) for persons interviewed (%)**

<table>
<thead>
<tr>
<th>Buying partners:</th>
<th>Respondents as sellers:</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Trader (n=33)</td>
<td>Broker (n=30)</td>
</tr>
<tr>
<td>producers</td>
<td>3</td>
<td>0</td>
</tr>
<tr>
<td>brokers</td>
<td>49</td>
<td>0</td>
</tr>
<tr>
<td>traders</td>
<td>36</td>
<td>53</td>
</tr>
<tr>
<td>butchers</td>
<td>12</td>
<td>27</td>
</tr>
<tr>
<td>others</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>non response</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Note: The Column for butchers in Table 5.5b is not complete because they could not say who they sold to, except that they were all customers.*

*Source: Author's survey*
Table 5.5 shows the sales interaction of various actors in the livestock market. In selling their animals, about half of the traders (49 per cent) sold to brokers, followed by sales to other traders (36 per cent) and to butchers (12 per cent). Only a few traders (3 per cent) sold to producers. In general, producers purchase a few animals for breeding or for specific purposes such as for a dowry or rituals, when they do not have the animals in their own herds. Here the brokers must have sold the animals on behalf of producers or traders rather than buying the animals themselves.

Most brokers sold to livestock traders (53 per cent), with 27 per cent selling to butchers, and 10 per cent to others. Ten per cent of the brokers did not know or did not wish to disclose the identity of those they sold to. In most cases, they did not know the identity of the buyers of the animals. These may have been individuals who bought animals for specific purposes, mainly for ordinary slaughter or particular ritual sacrifices.

Food trade in Garissa District

At present, the trade in foodstuffs in Garissa District is carried out by private businessmen with minimal government involvement. With the government's move to decontrol prices at the beginning of the 1990s, the role of the government in food supply in the area has been limited to issuing annual trading licenses. The National Cereals and Produce Board (NCPB) which operates government stores and sells to the public in other parts of the country, also plays a similar role in north-eastern Kenya. The NCPB in this area mainly acts as the storage facility for relief food for both the government and donor agencies during times of food crisis, such as droughts. The many government institutions such as the police college, hospital and the military get most of their supplies from the NCPB but even this appears to be declining with these stores being empty most of the time. When there are food supplies in stock, members of the general public may make purchases as well but only if they have a letter from the office of the District Commissioner (DC) allowing them to do so. We will discuss food retailers in all three research sites, followed by a discussion on grain traders in Garissa town.

General characteristics of food traders

Generally, the food trade in Garissa District may be classified into three categories:

i) food wholesalers

ii) food retailers

iii) grain sellers

Grain sellers in Garissa District will be discussed in the next section since they constitute a somewhat different category of food traders in the area because they deal mainly in selling whole maize, and only in rare cases do they sell milled maize from the millers.

Both wholesalers and retailers trade in foodstuffs as well as other merchandise, but wholesalers usually sell boxes of products rather than individual items. There are no specialised food dealers in the region and all shops sell a variety of products. While most of the wholesalers get their products from Nairobi, only a few of the large-scale retailers
make purchases there. The rest of the retailers get their foodstuffs and products such as detergents and medicines from wholesalers. However, most of the non-food items and other materials sold by the retailers, e.g. glassware, shoes and clothes are obtained from Nairobi or Mombasa. The large-scale wholesalers and retailers and most of the medium-scale wholesalers and retailers are found in Garissa town, while only a few of the medium-scale wholesalers and retailers are in the smaller trading centres such as Dadaab and Ijara. The notion of 'wholesale' as opposed to 'retail' is based on not only the volumes of products sold, but also on the understanding of the local Somali pastoralists in the area. Some wholesale stores in rural areas are quite small but they are described as 'wholesale stores' since they sell in bulk and one cannot purchase smaller units of products from such shops. The smaller wholesale and retail businesses dominate the small trading centres spread across in the district.

The survey of wholesalers was limited to informal discussions rather than structured interviews. This was done because the wholesalers usually sell to the retailers in bulk and it is from the retailers that the pastoralists purchase supplies in the quantities they require. Although wholesalers are important in the supply of foodstuffs, we chose to pay more attention to the retailers who have more contact with individual consumers and who often play the role of stocking the foodstuffs bought by most households. While the wholesalers sell to retailers, it is the retailers who sell to the consumers in smaller quantities.

Ethnic and gender dimensions of food retail trade
Generally most of the food retailers in Garissa District, like in most other parts of northeastern Kenya, are ethnic Somali. There are a few other ethnic groups or communities who have retail shops in Garissa town including Arabs, Kikuyu, Kamba and Boran. Their ethnicity and gender are presented in Table 5.6.

<table>
<thead>
<tr>
<th>Ethnic Background</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>number</td>
<td>(%)</td>
<td>number</td>
</tr>
<tr>
<td>Somali</td>
<td>46</td>
<td>94</td>
<td>11</td>
</tr>
<tr>
<td>Boran</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Kamba</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Arab</td>
<td>1</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>49</td>
<td>100</td>
<td>11</td>
</tr>
</tbody>
</table>

Source: Authors survey

Clearly the retail traders were predominantly of the Somali ethnic group. All the female retailers were also Somali. It is interesting to note that, while there was no Somali female retail trader in Ijara centre, there were eight women from Dadaab and three operating businesses in Garissa town. This again is an indication that the Somali women in Dadaab are more involved in business than those in Ijara. The refugee population in Dadaab creates a large consumer market for various products, and together with the influence of the example of Somali refugee women, this may be the reason for more women being
involved in the food trade in the Dadaab area. In general, trade activities have been the domain of men among the Somali but this appears no longer to be the case. In our sample, non-Somali traders were absent in the rural trading centres of Dadaab and Ijara. The few people from other ethnic groups involved in the retail trade were all operating from Garissa town. Indeed, the other districts of North-eastern Province (Wajir and Mandera) have even fewer non-Somali involved in the retail trade compared to those in Garissa town. However, there are still relatively few non-Somali traders in Garissa town.

When considering the spatial distribution of food retailers and that of wholesalers along ethnic lines, an important feature of the Somali involvement can be seen. While some wholesale stores as well as retail shops in Garissa town are owned by non-Somali individuals, all the wholesale and retail trade in the rural market centres of Dadaab and Ijara is in the hands of the Somali themselves. Differences in the site of the businesses owned by the Somali and those of the other communities are also apparent. Most of the non-Somali businesses in Garissa town, both at retail and wholesale levels, are larger. In the case of the rural centres, the retail shops are usually small canteens while the wholesale stores are little more than the size of retail shops found in Garissa town, except that they sell products in boxes and cartons instead of individual items as in the retail trade.

Scope of operation of food retail trade

The people involved in the retail business\(^3\) were of different ages, ranging from less than 30 years of age (30 per cent) to over 60 years of age (5 per cent). Those over 60 years of age were all from Garissa town. However, the majority of the traders in the retail business in the study area were within the 30-50 years age bracket (55 per cent). There appears to be no dominance of any one age category although there are more from the higher age brackets than those in the lower ones.

The retail shops vary in size and in the amount of stock they keep. The very small retail shops, referred to locally as canteens or kiosks which are mostly found in Garissa town (and are no larger than a newspaper kiosk elsewhere in the world) were not included in the survey. However, the size and volume of stock of several of the retail traders in the rural markets were not much bigger than those of the canteens in Garissa town, but they were indeed included in the survey. This is because of their dominance in the rural areas and the fact that they were viewed as retail shops by the local population. Table 5.7 shows the size of the food retail shops and their distribution between the three areas of Garissa, Dadaab and Ijara.

The food retail business was categorised into large, medium and small on the basis of the estimated value of the merchandise in the shop as well as the notions on the size of the business as portrayed by the respondents themselves. In general, shops with merchandise with a value below Ksh 20,000, Ksh 20,000-50,000 and above Ksh 50,000 were classified as small, medium and large respectively. Most of the retail shops in the survey were medium in size (60 per cent), with 15 per cent being large and the remaining 25 per cent small in size. Garissa town had the highest number of large shops (25 per cent), followed by Dadaab (15 per cent), and Ijara had only 5 per cent in that

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\(^3\) Note that grain sellers, who also sell in smaller amounts, are not considered as retail traders or retail businesses since they focus on maize grains as their specialization.
category. Ijara had the highest number of shops in the medium category (70 per cent), followed by Garissa town (60 per cent) and then Dadaab (50 per cent). The number of small shops was relatively highest in Dadaab (35 per cent), followed by Ijara (25 per cent) and the least were in Garissa town (15 per cent). There is possibly a relationship between the size of a retail business and the size of the market in which it operates. Since the profit margins charged on foodstuffs are usually low when compared to non-food items, shops tend to be larger in size where there is a large population, and they experience a higher demand for both food and non-food items. It may therefore be reasonable to expect to find larger shops in Garissa town while those in the rural areas tend to be generally smaller. Although Dadaab shops are potentially capable of expanding since there are many refugees in the area who could increase demand, the food supplies to the refugees that find their way into the local market tend to inhibit the growth of retail shops.

### Table 5.7

<table>
<thead>
<tr>
<th>Size of stock/cash</th>
<th>Garissa (%)</th>
<th>Dadaab (%)</th>
<th>Ijara (%)</th>
<th>Total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large &gt; Ksh 50,000</td>
<td>5 (25)</td>
<td>3 (15)</td>
<td>1 (5)</td>
<td>9 (15)</td>
</tr>
<tr>
<td>Medium Ksh 20,000-50,000</td>
<td>12 (60)</td>
<td>10 (50)</td>
<td>14 (70)</td>
<td>36 (60)</td>
</tr>
<tr>
<td>Small &lt; Ksh 20,000</td>
<td>3 (15)</td>
<td>7 (35)</td>
<td>5 (25)</td>
<td>15 (25)</td>
</tr>
<tr>
<td>Total</td>
<td>20 (100)</td>
<td>20 (100)</td>
<td>20 (100)</td>
<td>60 (100)</td>
</tr>
</tbody>
</table>

*Source: Author's survey*

Most of the food retailers in our survey had other sources of income in addition to their retail business. The retail business was the most important source of income for the retail traders (85 per cent), their own herd was second in importance (43 per cent) and the third was wage income (20 per cent). In terms of area differentiation, more Ijara retail traders had herd ownership as their second most important source (32 per cent) compared to 12 per cent in Dadaab and none in Garissa town. On the other hand, there were more retail traders in Garissa with wage income (15 per cent) compared to 5 per cent in Dadaab and none in Ijara. A number of Ijara retail traders supplement their earnings by rearing livestock since they have few opportunities for wage income. Garissa town households, and to a lesser extent those in Dadaab, have more possibilities of employment to earn additional income. For those traders who also work for a wage, their spouses, relatives or shop attendants operate the business for them in their absence. There was one household (2 per cent) that had no second source of income, while a third of all the respondents (33 per cent) did not have a third source. Some retail traders in Dadaab mentioned a source of income under the category 'other'. Since they did not wish to say what it was, we can only assume that it is income from the sale of relief food given in the refugee camps. Some families in Dadaab had registered as refugees to benefit from the food distributed to the refugees. It should be noted that the refugee based agencies are concerned only with the refugees.
Seasonal fluctuations have important implications for both retail traders as well as grain traders in the area. During droughts or even long dry periods, most food retailers said they earned less. Table 5.8 shows the effects of drought on the earnings of retail traders by location. Although the question on effects of droughts was hypothetical in nature, there was an actual drought going on.

Table 5.8
Effects of drought on earnings of food retailers, by research area (N=60)

<table>
<thead>
<tr>
<th></th>
<th>Garissa number (%)</th>
<th>Dadaab number (%)</th>
<th>Ijara number (%)</th>
<th>Total number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earnings reduced</td>
<td>13 (65)</td>
<td>16 (80)</td>
<td>20 (100)</td>
<td>49 (82)</td>
</tr>
<tr>
<td>No change in earnings</td>
<td>5 (25)</td>
<td>3 (15)</td>
<td>0 (0)</td>
<td>8 (13)</td>
</tr>
<tr>
<td>Earnings increased</td>
<td>2 (10)</td>
<td>1 (5)</td>
<td>0 (0)</td>
<td>3 (5)</td>
</tr>
<tr>
<td>Total</td>
<td>20 (100)</td>
<td>20 (100)</td>
<td>20 (100)</td>
<td>60 (100)</td>
</tr>
</tbody>
</table>

Source: Author's survey

The figures in the above table reveal that the earnings of the retail traders operating in Garissa town are — relatively — least affected by drought and dry periods while those from Ijara are the most affected, with Dadaab in an intermediate position. There is a higher population in Garissa town which, coupled with the different groups of people here, offers a diversity of customers to the retail traders in Garissa town compared to those in Ijara and Dadaab. The traders in Dadaab and Ijara are more dependent on pastoralists who are among the worst affected by drought and periods of scarcity.

Generally, retail businesses earn less in the dry season and during periods of drought. During drought periods 65 per cent of the retail traders in Garissa town, 80 per cent of those in Dadaab and all those in Ijara (100 per cent) mentioned earning less. Some 10 per cent of the retail traders in Garissa town, 5 per cent in Dadaab and none in Ijara, however, mentioned higher earnings. Although 82 per cent of all the retail traders mentioned reduced earnings during droughts, the general assumption that households increase food purchases during such periods may not necessarily be true. Despite the increased need for food during the dry season and drought periods, households may not have money to buy food, and they may move to distant areas where they can buy their foodstuffs or they may receive relief food. In the case of Garissa District, two main factors may explain the reduced earnings of the traders: relief food distribution and the movement of pastoralists to other areas.

There was relief food in many parts of the region, with most of it being in the Dadaab area due to the high refugee population there. The distribution of relief food made cheap foodstuffs available in the markets where most households made their purchases instead of in the regular retail shops. Only specific items that were not available in the open market were purchased from retail shops. Similarly, many pastoralists moved across the Somalia border to utilise better pastures during the dry period in Garissa District and most other parts of North-Eastern Province. This denied the retail traders of

and ignore the plight of the Kenyan Somalis in the area, hence the temptation for them to disguise as refugees.
much needed business. While the reduction in earnings by the retail traders in Garissa town and Dadaab trading centre is mainly explained by the availability of relief food in these areas, the movement of many pastoral households from the Ijara area to elsewhere explains the lower earnings by retailers in that area.

The food retail business in Garissa District like many other parts of north-eastern Kenya, faces many difficulties, albeit in different proportions. Some of these problems and their relative importance in the three different locations is presented in Table 5.9.

<p>| Table 5.9 Problems of the retail trade in Garissa District, by location (N=60) |
|-----------------------------------------------|----------------|----------------|----------------|----------------|</p>
<table>
<thead>
<tr>
<th>Problem</th>
<th>Garissa number (%)</th>
<th>Dadaab number (%)</th>
<th>Ijara number (%)</th>
<th>Total number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Banditry and insecurity</td>
<td>2 (10)</td>
<td>6 (30)</td>
<td>11 (55)</td>
<td>19 (32)</td>
</tr>
<tr>
<td>Competition from other traders</td>
<td>3 (15)</td>
<td>6 (30)</td>
<td>1 (5)</td>
<td>10 (17)</td>
</tr>
<tr>
<td>High credit demands by customers</td>
<td>6 (30)</td>
<td>1 (5)</td>
<td>1 (5)</td>
<td>8 (13)</td>
</tr>
<tr>
<td>Inadequate transport (or high costs)</td>
<td>0 (0)</td>
<td>2 (10)</td>
<td>5 (25)</td>
<td>7 (12)</td>
</tr>
<tr>
<td>Unpredictable prices</td>
<td>3 (15)</td>
<td>0 (0)</td>
<td>2 (10)</td>
<td>5 (8)</td>
</tr>
<tr>
<td>Other problems</td>
<td>6 (30)</td>
<td>5 (25)</td>
<td>0 (0)</td>
<td>11 (18)</td>
</tr>
<tr>
<td>Total</td>
<td>20 (100)</td>
<td>20 (100)</td>
<td>20 (100)</td>
<td>60 (100)</td>
</tr>
</tbody>
</table>

Source: Author’s survey

The single biggest problem facing the retail traders in the district is insecurity due to banditry (32 per cent). Other problems mentioned include competition from other shops (17 per cent), credit request by customers (13 per cent), inadequate transport or high transport costs (12 per cent), unpredictable prices (8 per cent) and lastly, ‘other problems’ (18 per cent). These problems do not affect the different areas equally. For instance, insecurity is most seriously felt in Ijara, it is only a moderate problem in Dadaab and affects Garissa town to a minimal extent. Less security for traders from rural trading centres was expected considering that the nearest source of their merchandise is Garissa town, and the traders have to transport the foodstuffs by lorry or land rover to the more distant trading centres of Dadaab and Ijara. Transport to Dadaab is usually under escort along with convoys of the UN agencies and others working with the refugees in the area. The presence of a police escort reduces the chance of attack from bandits for retail traders in Dadaab, while Ijara traders are on their own and have to contend with insecurity in their own area.

Security escorts are either unavailable or possible only at a very high cost to the Ijara traders since they would be required to pay expenses for the policemen if they have to be escorted. Despite the absence of police escorts for Ijara traders however, incidences of attack are less frequent but potentially limiting for the retail traders from Ijara. High transport costs (inadequate transport systems) are only a problem for the traders from outside Garissa as would be expected. Traders in Garissa town do not face transport difficulties since there is a constant flow of traffic between Garissa town and Nairobi or Mombasa — their main source of merchandise. Demands for credit by customers appear

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5 The category of ‘other problems’ includes government harassment, compulsory extortion of contributions in the name of ‘harambee’, high rents for premises and low profits on foodstuffs.
to be a problem mainly for the retailers in Garissa town. We would have expected the more remote traders to be affected more than those in Garissa town. This may be the result of higher numbers of destitutes moving to Garissa town in the recent years of recurrent droughts, and hence putting pressure on some of the retail traders in the area on the basis of kinship, friendship or neighbourhood. The traders are expected to give foods to their relatives who may be adversely affected by the drought with the understanding that it will be paid back when their conditions improved. Indeed, several shops went bankrupt during dry seasons because of lending to others. When the borrower is too impoverished to pay back his debts, the whole reer may help in paying them off with the retail trader also being asked to contribute by paying some of the money owed to himself by his kinsmen.

Grain sellers in Garissa District

Grain sellers are defined as those traders who trade mainly in whole maize which they buy and then sell in smaller quantities and occasionally in bulk. Since there is no maize grain grown locally, the grain traders purchase their stock from other sources, both within and outside the district. There are intermediary traders who buy and sell locally to those traders who sell both in bulk and in smaller quantities. The locally purchased maize grains mainly come into the area as relief food. Many recipients of maize grains for relief either sell it to purchase other food needs such as sugar, tea and rice, or take it to the millers to convert it to maize meal before consuming it. The grain traders purchase their maize from various sources, with the refugee camps in Dadaab being the single largest source of their supplies. The grain traders are mostly found in Garissa town and a few in Dadaab where grain distribution is high because of the large refugee population there. There were no grain traders in Ijara centre, mainly because very little maize is consumed by the people there and there are no millers to convert the maize grains to the commonly consumed maize meal. With all the millers being concentrated in Garissa town, and only one in Dadaab, the people who purchase maize grains for consumption usually grind it at the millers in Garissa town. Most of what they sell to the local Somali pastoralists is on sale in Garissa town where the local millers can convert the maize to maize meal before it is consumed by the local people. The rest is sold to millers in the Kamba districts, mainly those in Kitui and Mwingi. Some retailers may sell maize meal that they make from maize grains, but wholesalers never do so. Apart from the grains that are converted to maize meal and consumed locally, the remaining grain trade involves sales to outside the district. This may surprise the relief agencies since they usually expect the relief food distributed in an area to be consumed there. In the case of Garissa, relief efforts have led to the emergence of a grain trade market and a flow of relief food to areas outside the district through traders.

We are interested in this study in the grain dealers as sellers and we focus on this area. While in this study the retail businesses discussed earlier require an official trading license from the District Trade Office in Garissa town, the selling of grain carried out in temporary shelters only requires a cess receipt from the local authority. Some grain
sellers do not even obtain such a cess receipt since the law is not strictly enforced. In terms of the volumes of grains traded, the grain traders specialise in the sale of maize grains and may sell several 50 kg gunny bags per day, and also sell other items as well. All the grain sellers in our survey were found in Garissa town.

Of the 34 grain sellers interviewed, about 71 per cent traded in maize purchased from within Garissa District, including purchases from the refugee area of Dadaab. The maize was both from relief food distributed to local people as well as from the refugees in the area. Other places that were mentioned as sources of maize grains for the sellers included Mwingi and Kitui Districts in eastern Kenya, especially for some of the non-Somali traders. The grain sellers made their purchases of maize grains, usually in 50 kg sacks, depending on their scope of operation and the availability of storage facilities. Large volumes of purchases on a monthly basis were made by 24 per cent of the sellers. The majority of the grain sellers however (71 per cent), operated on a small scale, buying and selling on a daily basis. The main limitation to bulk purchases was the lack of storage facilities for most of the sellers. They operated from open sheds and only kept a little stock left from the day's activities. Only one seller made purchases on a weekly basis.

Most of the trade in maize grains in Garissa District and other parts of north-eastern Kenya is a relatively recent development with only a few sellers having been involved before 1990. The starting period for most of the grain sellers, presented in Table 5.10, is a testimony to this assertion. Most of those involved started around the time when there was a heavy influx of refugees into the area, most of whom came from Somalia following the collapse of the government there at the end of 1990.

<table>
<thead>
<tr>
<th>Table 5.10</th>
<th>Starting dates of the grain trade in Garissa District (N=34)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grain traders number (%)</td>
<td>Male number (%)</td>
</tr>
<tr>
<td>After Dec '97</td>
<td>1 (3)</td>
</tr>
<tr>
<td>Jan 96 to Dec '97</td>
<td>9 (27)</td>
</tr>
<tr>
<td>Jan 94 to Dec '95</td>
<td>6 (17)</td>
</tr>
<tr>
<td>Jan 92 to Dec '93</td>
<td>7 (21)</td>
</tr>
<tr>
<td>Jan 90 to Dec '91</td>
<td>5 (15)</td>
</tr>
<tr>
<td>Before Jan 1990</td>
<td>6 (17)</td>
</tr>
<tr>
<td>Total</td>
<td>34 (100)</td>
</tr>
</tbody>
</table>

Source: Author's survey

The majority of the grain sellers started their business after 1990 (83 per cent). The arrival of the refugees also marked the beginning of unprecedented levels of humanitarian efforts and relief food distribution in the area. This situation was to mark the beginning of the grain trade involving many people. Only 17 per cent of those we interviewed traded in maize grains before 1990, four women and two men. From our discussions with the grain sellers, it emerged that those who sold grains before the arrival of the refugees did so on a small scale, selling grains that they had either purchased from others who received it as relief food, or from traders outside the district. The activities and turnover
of the grain sellers generally increase whenever there is grain distribution as relief food, either to the local people, the refugees or both. The recipients of the aid usually sell grain to the traders, or convert it into maize meal for their own consumption.

Table 5.11
Ethnic and sex distribution of grain sellers in Garissa town (N=34)

<table>
<thead>
<tr>
<th>Ethnicity</th>
<th>Male number (%)</th>
<th>Female number (%)</th>
<th>Total number (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Somali</td>
<td>19 (90)</td>
<td>11 (85)</td>
<td>30 (88)</td>
</tr>
<tr>
<td>Kamba</td>
<td>2 (10)</td>
<td>0 (0)</td>
<td>2 (6)</td>
</tr>
<tr>
<td>Kikuyu</td>
<td>0 (0)</td>
<td>2 (15)</td>
<td>2 (6)</td>
</tr>
<tr>
<td>Total</td>
<td>21 (100)</td>
<td>13 (100)</td>
<td>34 (100)</td>
</tr>
</tbody>
</table>

Source: Author's survey

The majority of the grain traders in Garissa town were Somali. Table 5.11 shows the distribution of grain sellers in terms of their ethnic background and gender.

In general, women are more involved in selling maize grains than they are in the retail trade, as discussed earlier. In the case of the study area, the grain sellers are mostly found in the main Garissa market where they sell their products from a temporary shelter (locally known as bacadla in Somali and kibanda in Swahili), as opposed to the retail businesses which are conducted from permanent premises. There were 21 men and 13 women among the grain sellers in the survey. The majority were Somali, involving with 90 per cent of the men and 85 per cent of the women. A few sellers were from the Kamba and Kikuyu communities. These accounted for 10 per cent of the men and 15 per cent of the women, from Kamba and Kikuyu respectively.

An analysis of the age structure of the grain sellers in Garissa District reveals that more than half were relatively young people with 53 per cent being below the age of 30. One-third of the group were women. There were only 2 sellers (6 per cent) who were older than 50 years of age, both of whom were men. Most of the rest (38 per cent) were between the ages of 30 and 45 about half of whom were women (18 per cent).

A few grain sellers sold milled maize (or maize meal) along with their maize grains. About 94 per cent of the grain sellers that we interviewed sold maize grains, with six per cent selling other products such as maize meal and rice. In all, some 26 per cent of the traders sold maize meal, mostly in combination with maize grains and other grains such as rice. The grain sellers in Garissa market are also affected by the various seasons that influence the consumption of grains among the Somali pastoralists. For instance, they unanimously mentioned that they sold more maize grains during the dry season, with the amount sold declining during the rainy season. This is presumably because pastoralists purchase more foodstuffs during the dry season when almost all household members, young and old, are dependent on purchased foodstuffs. During the rainy season, some of the household members, especially the children, use milk rather than purchased foods. However, it is likely that most of the sales of maize grains were to people from outside the district - sometimes traders who bought and resold elsewhere, since many people in the area received relief food as well.
With the reduction in sales reported by the retail traders earlier, the better sales by the grain sellers during periods of crisis may not entirely be explained by local consumers alone; although many of the pastoralists are likely to use maize which they mill rather than the expensive maize meal. Since maize meal that is made from maize grains through the local millers is usually cheaper than pre-packaged maize meal from outside the district, it is also possible that more sales are realised by the grain sellers even when retail traders recorded low sales. For the majority of the pastoralists in the rural markets of Dadaab and Ijara, an absence of maize mills forces them to sell the maize grains they receive as relief food, or go to Garissa town for milling before they can consume it. However, households with enough labour may ground the grains by pounding them in a mortar. This is mainly done by women and more so in sedentary households.

Many of the grain traders (44 per cent) expressed a wish to expand their businesses in the future. While most of the others wanted to diversify into other economic activities, some 15 per cent had an interest in replicating their operations in other parts of the district or the province whenever the opportunity was available. We can conclude that the grain trade is an increasingly popular business that is attracting more and more sellers who want to make some income during crisis years. The number of sellers tends to increase during droughts when there is a lot of relief food being distributed in the area. Relief food to the local people and food from the refugees currently form the largest sources of supplies to grain sellers in Garissa District.

Summary of the findings

In this chapter, we have discussed the different levels at which the livestock markets in Garissa District operate, and the participants at each level. The study reveals that there are interrelated networks among the livestock traders, brokers and butchers on the one hand, and the livestock producers (pastoralists) on the other. These networks are found in all the markets but are most conspicuous in the regional markets in the area, like that in Garissa town. Generally, Garissa District may be said to be among the leading livestock production areas in the country that supply slaughter animals to other parts of the country through livestock traders. Animals from the markets in Garissa District are transported by truck to Nairobi and Mombasa, the main consumer markets. Of the four types of livestock markets in the area, the intermediate markets were found to be the most crucial to the producer since they were often closest to their areas.

There are several types of actors in the livestock markets in Garissa District, including the livestock traders, livestock brokers and butchers. The number and the level of participation of these actors tend to vary with the scale of market operation. For instance, there were more participants at the regional market than at the local and the intermediate markets. Except for a few butchers, livestock marketing participants were found to specialise in handling a particular kind of animal, although most of traded in other species to a lesser extent. All the participants in our survey, except a few of the livestock traders, were from the local Somali community. The interaction between the different actors tended to relate to clan or family relations among the participants. The
producers who brought animals to sell would let their relations' brokers handle transactions and negotiate a good price with the traders on their behalf. As a result, brokers and butchers in the areas outside Garissa town were found to be from the local sub-clans in the area, with more mixed groups being found in Garissa town. Unlike the smaller markets in the rural areas, visits by the pastoralists to the main Garissa market were less common resulting in limited confidence and trust in most brokers they did not know well.

In the case of the food retailers and grain sellers, we identified three types, based on their scope of operation. Since the specialised grain trade is a relatively recent development, it was only conducted in Garissa town and not in the more distant areas. This spatial concentration of the grain trade had to do with a lack of maize millers in the distant trading centres in Garissa District. While wholesalers of any size usually sold to retail traders, they in turn sold to the consumers. Both the food retailers as well as the grain sellers were predominantly of Somali ethnic background with a few exceptions. While retail trade was conducted in permanent stone structures with a trading license, the grain trade was carried out in temporary structures within the main Garissa market. The size of food retail shops varied with the size of the market centre, with the highest number of big shops being found in Garissa town, followed by Dadaab and lastly by Ijara. While women accounted for only 18 per cent of the food retailers, they constituted 37 per cent of the grain sellers. More women are participating in the grain trade in the area, especially during crisis years, when there is the potential for expansion.

Both the retail traders and the grain sellers were affected by drought in terms of their trade volumes and their earnings. However, while most of the food retailers saw their earnings reduced during drought periods, the grain sellers continued to do good business. Since the grain trade in the area depended very much on the availability of relief food activities, they were able to get maize grains and sell them to local people or to customers outside the district. There is no maize grown locally, hence most of the grain supply was from relief food received by the local people or the refugees in the Dadaab area. The grain trade in the area was found to be a relatively recent development experiencing increased growth since the massive refugee influx into the region following the collapse of the Somali Republic in 1990. In this respect, more than 80 per cent of the grain sellers in our survey had started their businesses after 1990. The grain trade in its present form may not be sustainable in so far as it relies heavily on relief distribution or a refugee presence as its main source of merchandise. It is expected to increase during periods of food crisis such as droughts when relief distribution in the area is high, and to decline at other times.
Plate 1: Cattle sales in Garissa market

Plate 2: Milk sales in Dabaab market
Plate 3: Firewood sales in Ifo area, Dabaab

Plate 4: Sales of fencing and other bushes, Ifo camp
Plate 5: Livestock auction yard, Garissa market

Plate 6: A herder takes away sold cattle, Garissa market
Plate 7: Livestock sales and negotiations, Garissa market

Plate 8: Degradation of land around refugee camp
Price structure and caloric terms of trade

This chapter explores the price relationships of livestock products and foodstuffs. We will give a brief historical analysis of pricing in the livestock sector in North Eastern Province of Kenya, followed by an analysis of the more recent situation regarding volumes and prices of livestock products and the main foodstuffs purchased by the Somali pastoralists in Garissa District. Various levels of pricing of livestock products are discussed. Finally, we compare the prices for livestock products (meat) and grains, together with the caloric terms of trade (Tc) for the Somali pastoralists in the study area.

Livestock sector in the region

The livestock sector in north-eastern Kenya was of concern to the colonial administration in the later years of the colonial period. However, the main focus of the colonial government was not to improve the livestock sector as such but to reduce stock pressure in the area through increased off-take while at the same time protecting the animals of the settlers in the 'White Highlands' from disease from African livestock. The reduction of the stock pressure on the range was rooted in the belief that there was overgrazing in the rangelands. The British occupation of former Italian Somali land in 1942 increased the crossborder flow of livestock and the volume of trade. Moreover, in an effort to encourage the Somali pastoralists in Kenya to sell their livestock, the colonial government set up the Supply Board (also called the Meat Control Board), with its first sale being held in December 1941. The Somali had to sell their livestock to the board and they were not allowed to sell their animals elsewhere without its express authority. This restriction of marketing options was resented by the Somali pastoralists who saw it as a form of exploitation. Throughout most of the colonial period, trade restrictions, mainly through quarantine, greatly impeded the trade in livestock in north-eastern Kenya.
The Somali pastoralists began purchasing sugar and maize meal as early as the beginning of colonial times. From archival information, we find that the Somali sometimes bartered milk for maize meal without monetary mediation. However, this was less prevalent compared to the monetary transactions used to obtain maize meal. Most of the income that they used to acquire maize meal was through the sale of their livestock and livestock products. The Somali also had additional sources of income, including the sale of ivory, leopard skins and other trophies. It is important to add that the trade in game trophies was illegal and those involved always risked arrest for trading in contraband. In some cases, the game trophies were concealed in hides and skins and sold in towns, mainly in Garissa and Isiolo. In 1952, the African Livestock Marketing Organization (ALMO) was created. ALMO operated as a monopolistic venture in purchasing livestock from the pastoralists in the north, and usually selling to the Kenya Meat Commission (KMC) at Athi River near Nairobi. However, this monopoly was operational only in the four northern districts of Isiolo, Marsabit, Moyale and Mandera where the dangers of new diseases from Ethiopia were said to be more serious and needed closer control of livestock movement. As a result, many animals from Wajir crossed over to the freer market in Garissa, benefitting the Garissa traders or livestock owners. The major outlet for the animals from Garissa was Mombasa on the Kenyan coast. Indeed, the favourable location of Garissa with regard to the Mombasa market and the less stringent application of quarantines was a cause of envy by the other districts.

The many quarantine restriction and the poor pricing system of ALMO led to a decline in livestock marketed in the region. The decline further aggravated criticisms of the ALMO monopoly by traders and livestock producers (pastoralists) alike. The traders' criticisms were motivated by the expectation of better prices if they were allowed to sell at a free market outside the province, and also the assumption that, in the absence of ALMO, they would form a monopoly and pay less to the producers. The livestock producer on the other hand, expected a better price from a competitive auction than through the ALMO monopoly. However, during 1958, the bitterness against the semi-monopoly status of ALMO gradually faded as livestock exports\(^1\) picked up again. This was mainly due to the entry into the market of European stock traders who purchased livestock from ALMO. With an increase in the volume of livestock exports, the traders came to appreciate the reliability of the ALMO payments in contrast to free sales or the wider markets that had numerous hazards such as a lack of buyers and delays in payments, sometimes with bouncing cheques. The pastoralists selling to private traders were also sometimes faced with low prices that tended to be exploitative.

The operations of the African Livestock Marketing Organization came to an end in 1963, with its role being taken over by the Livestock Marketing Division. Thus, after independence in 1963, the KMC and the LMD were the major buyers of livestock all over the country. Many traders from Garissa District supplied livestock, mainly cattle, to the KMC depots in Mombasa and Nairobi. Large numbers of animals were also sold to

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1 The term 'exports' is used to refer to sales of livestock outside Garissa District. We will use 'export' and 'sale outside the district' to refer to the same thing. There were no livestock exports from North-eastern Province to outside the country. Livestock exports to Saudi Arabia were usually through the Republic of Somalia, and these are not reflected in the records of Garissa District.
private abattoirs in the big consumer markets of Nairobi and Mombasa. In the years following independence, livestock sales to areas outside north-eastern Kenya continued. Although the KMC continued to account certain large percentage of the cattle sold outside Garissa District, the private abattoirs in Nairobi and Mombasa, and private traders, were left as the key trading partners of the pastoralists from the area.

*Cattle sales from Garissa District to outside the district*
Livestock sales outside Garissa District have been relatively high because of the strategic location of Garissa as the entry point to north-eastern Kenya with a (modern) road linkage with the rest of the country. Figure 6.1 shows the volume of cattle sold to areas outside Garissa District annually for the period 1983-1998 (x1000 heads).

Figure 6.1
Annual sales of cattle from Garissa District to areas outside the district, 1983-1998 (x1000 head)

The sales volume for cattle to areas outside Garissa District has been fluctuating over the years. The lowest figure during the period shown in Figure 6.1 was recorded in 1983 with about 7,000 head of cattle sold. The area experienced a long drought in 1983 which resulted in the loss of thousands of animals which may well explain the low sales figure in that year. Drought not only influences the quality of the animals sold, but usually results in increased migration by the nomads to wherever they can find pasture for their animals. After that drought however, the number of cattle sold to areas outside Garissa District continued to increase and it ranged between 16,000 head in 1987 and 102,000
head in 1998. There were large numbers of cattle sales to areas outside the district during the drought period of 1992 and this continued into 1993. The sales figure continued to rise between 1994 and 1998 except for a moderate decline in 1997. In general, more pastoralist households participate in the market during droughts when subsistence resources become inadequate, and they need to sell animals and purchase foodstuffs such as maize meal. The increased number of cattle sales may be explained partly by increased sales by local pastoralists. In addition, most of the other livestock markets in the region are less active than the one in Garissa and this leads to pastoralists from the other districts selling their animals at the Garissa market.

Since there is little pasture for the livestock during periods of drought and during the dry season, the traders who would ordinarily graze their livestock locally in order to sell in the future cannot do so. This then compels these traders to sell to larger traders who then sell to outside the district. Sales of livestock outside Garissa District, especially cattle and small stock, often depend on traders who may be local Somali or from other regions of the country. Increased sales by these traders are usually experienced during festivities such as Christmas for the Christians and Idd\(^2\) for the Muslims. Usually, more livestock are sold in upland Kenya from Garissa District during the Christmas period since the Christian population is more numerous in the other provinces of the country than it is in North-eastern Province. On the other hand, the Muslim population is highest in north-eastern Kenya and on the Kenyan coast, and more animals are consumed during the Muslim festivals in these areas.

The considerable annual fluctuations cannot be explained only by local climatic conditions such as drought, and most may be accounted for by the role of the traders and the local security situation at any given time. Whenever there is an robbery or reported banditry along the road connecting Garissa to Nairobi or Mombasa, there is a decline in the number of cattle leaving Garissa until security improves. Although there is lack of conclusive data on the trend of insecurity over the years, more incidents are reported during the dry season and at the beginning of the rainy seasons. Since there is increased pastoralists movement during the dry season and just after the onset of the rains, the bandits who steal the animals are able to hide among the pastoralists and easily escape. In our opinion, the security situation plays an important role in the volume of cattle sales outside Garissa District since livestock are sometimes trekked for many days and can easily be stolen en route. Still, the level of off-take is considerable even when compared with the figures for Kajiado District which is more favourably situated near large towns such as Nairobi (Zaal 1998).

The average nominal prices\(^3\) for cattle have been fluctuating over the years, although less so than the volume of sales outside the district. The price trend is shown in Figure 6.2.

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2 There are two Idd festivals celebrated annually. One is related to the Muslim holy month of Ramadhan and it is marked on the day following the last day of the month of fasting. This is called Idd-ul-Fitr. The second is related to the Muslim annual pilgrimage to Mecca and is marked on the day of pilgrimage. The Idd for the pilgrimage is known as Idd-ul-Adha, and it is on this occasion that the slaughter of an animal is necessary.

3 Average nominal prices are computed by the DLPO in Garissa by taking only the highest and the lowest figures for the period, and dividing it by two. This process does not show the variations between the two extremes and whether the prices are skewed towards the upper or lower limit.
Figure 6.2
Annual average nominal prices for cattle in Garissa District, 1983-1998
(Kenya shillings)

Source: District Livestock Production Office (DLPO), Garissa.

Figure 6.3
Annual rate of inflation in Kenya, 1983-1997

Source: Kenya, Economic surveys, various issues
Small-stock sale outside Garissa District

The trend in small-stock sales in Garissa District shows considerable fluctuation over the period covered. In general, the volume of sales has been higher in the period since 1993 than before, with the exception of 1989 when relatively high sales volumes were recorded. Figure 6.4 presents the trend in the volume of small stock sold to destinations outside Garissa District.

Figure 6.4
Annual sales volume for small stock from Garissa District to areas outside the district, 1983-1998 (x1000)

The volume of small stock exported from Garissa did not show much fluctuation during the 1983-1987 period. There was a gradual increase thereafter, reaching a peak in 1989. After 1989, there was a decline in volume, reaching a record low in 1993. After 1993, the number of small stock increased substantially to almost 80,000 head in 1996. There was a sharp fall in the number of small-stock sales in 1997, but it increased again in 1998. The factors affecting small-stock exports from Garissa District are the same as those affecting cattle exports, although the demand for festivities such as Christmas and Idd has more impact on small-stock sales than on cattle, because more small stock are slaughtered at these times. However, since such festivities are annual events, they may have only marginally contributed to the variations observed. Besides the possibilities of inaccuracies in government records, other factors affecting the demand for small stock, as they do for cattle, include the climatic conditions, the number of traders, security, economic conditions (e.g. inflation) and the existence of restrictions on livestock
movements in the area. However, quarantines and restrictions on livestock mobility have declined since the early 1990s.

Figure 6.5
Annual average nominal prices for small-stock sales in Garissa District to areas outside Garissa District, 1983-1998 (Kenya shillings)

The average nominal prices for small stock also showed fluctuations over the period for which the data are presented. The price trend for small stock is depicted in Figure 6.5.

There was a slight fluctuation in the price of small stock until 1992, when prices started rising substantially. The period between 1992 and 1994 recorded a dramatic increase in the nominal price for small stock. A combination of factors explains this trend. In general, most of the factors that influence cattle prices in Garissa District tend to influence the prices for small stock as well. Besides the conventional economic variables of supply, and demand prices of small stock are also influenced by the quality and type of animals sold as well as the purpose of sales. Ideally, increased volumes result in reduced prices and *vice versa*. However, there were periods when both the prices and volumes showed record increases. In addition, it is as if there is some kind of interaction between price trends and inflationary trends in the area. The most dramatic change in both volumes and prices upwards was recorded in 1993, reaching a peak in 1994. It should be noted that Kenya had had a general election in December 1992 and a lot of money was released into the economy. Inflation had increased from 27.3 per cent in 1992 to 46.0 per cent in 1993, falling to 28.8 per cent in 1994. Thus, both the number of small stock sold as well as the average nominal prices increased sharply.

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*Increased demand will lead to higher prices, all other things remaining equal. Similarly, lower demand leads to lower prices.*
Although camels are traded like other animals, they are mostly sold locally and very few are taken to areas outside the region for sale. However, from mid-1985 until about 1989, several hundred camels were exported to Kajiado District in south-west Kenya, through an Asal-supported programme, for breeding purposes. Besides the exports to Kajiado, the arrival of thousands of Somali refugees in Kenya marked the beginning of increased numbers of camels being slaughtered in the area. The majority of the refugees outside the designated refugee camps in the country live in Nairobi and Mombasa, hence the creation of demand for camel meat in these cities. Unfortunately, there is no record of the number of camel sales from Garissa District to areas outside the district.

Hide and skin production and trade in Garissa District

The Somali pastoralists, like many other pastoralists in Africa, consume livestock products such as meat and milk, and they also trade in the same and in hides and skins in addition to live animals. The leather industry in Kenya is the main consumer of hides and skins in the country. Since there is no leather processing industry in north-eastern Kenya, all the hides and skins produced there are sold outside the district. Indeed, incomes from hides and skins are second in importance to incomes from sales of livestock. In 1997, Garissa District had 92 buying stores for hides and skins over the whole district. Garissa town accounted for 31 of these stores and the rest are in the administrative centres — the divisions and locations. In total, there are 13 drying sheds in the district. However, they are only found in Garissa town except for two which are found in Dadaab and Modogashe respectively. Because of the few drying sheds, many hides and skins are dried in a way that reduces the quality of the products, which in turn reduces the prices these products fetch in the markets.

### Table 6.1

<table>
<thead>
<tr>
<th>Year</th>
<th>Cattle hides</th>
<th>Camel hides</th>
<th>Goat skins</th>
<th>Sheep skins</th>
<th>Total</th>
</tr>
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<tr>
<td>1983</td>
<td>2119</td>
<td>680</td>
<td>44561</td>
<td>51849</td>
<td>99209</td>
</tr>
<tr>
<td>1984</td>
<td>2700</td>
<td>728</td>
<td>45945</td>
<td>47885</td>
<td>97258</td>
</tr>
<tr>
<td>1985</td>
<td>2931</td>
<td>1431</td>
<td>63977</td>
<td>53229</td>
<td>121568</td>
</tr>
<tr>
<td>1986</td>
<td>1862</td>
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<td>65536</td>
<td>60278</td>
<td>128355</td>
</tr>
<tr>
<td>1987</td>
<td>1819</td>
<td>1819</td>
<td>53381</td>
<td>47672</td>
<td>105691</td>
</tr>
<tr>
<td>1988</td>
<td>8725</td>
<td>1415</td>
<td>84857</td>
<td>73534</td>
<td>168531</td>
</tr>
<tr>
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<td>108798</td>
<td>90716</td>
<td>210985</td>
</tr>
<tr>
<td>1990</td>
<td>2521</td>
<td>748</td>
<td>82169</td>
<td>72026</td>
<td>157464</td>
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<tr>
<td>1991</td>
<td>2079</td>
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<td>1992</td>
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<td>2539</td>
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<td>83847</td>
<td>196388</td>
</tr>
<tr>
<td>1993</td>
<td>3775</td>
<td>2417</td>
<td>82440</td>
<td>55437</td>
<td>144069</td>
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<tr>
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<td>2451</td>
<td>2632</td>
<td>89908</td>
<td>n.a.</td>
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<tr>
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<td>2681</td>
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<td>90257</td>
<td>40796</td>
<td>134836</td>
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<tr>
<td>1996</td>
<td>2017</td>
<td>2281</td>
<td>77041</td>
<td>32408</td>
<td>113747</td>
</tr>
<tr>
<td>1997</td>
<td>889</td>
<td>2605</td>
<td>82686</td>
<td>n.a.</td>
<td>86180</td>
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</tbody>
</table>

Key: n.a. = not available

Source: District Livestock Production Office (DLPO), Garissa.
The annual number of hides and skins sold in Garissa District is usually over 100,000. The highest number of cattle hides and goat and sheep skins were sold in 1989 (211,000). It is not clear what the reason was for the high number at that time, but some of the produce could have come from elsewhere. It is not easy to distinguish the hides and skins produced in Garissa District from those that come from elsewhere (other districts and from Somalia). It is to be noted that the flow of these products across the borders often depends on the vigilance with which existing government regulations are implemented, hence it varied with different individual administrators in the area. Both cattle and camel hides are dyed and made into bedding by the Somali. The camel hides are also used in stitching the housing sticks together, and to protect the shelter from rains. However in recent years, there has been an increased use of more modern materials for these purposes, thus freeing the sale of cattle and camel hides. With the arrival of thousands of refugees from Somalia, there was an increased consumption of camel meat in the region, especially in Garissa, the regional capital. This probably explains the high figures for camel hides in 1992 and 1993, the period when the highest number of Somali refugees from Somalia were in the country.

Figure 6.6
Average nominal prices of goat and sheep skins in Garissa District, 1983-1998 (Kenya shillings per piece)

Source: District Livestock Production Office (DLPO), Garissa.

5 Camel meat is preferred to beef as it is more tender and always cheaper. The Somali are known to consume a lot of camel meat. The sale of camel meat outside Somali areas such as in Nairobi and Mombasa only started after the collapse of Somalia in 1991, which led to a high number of Somalia nationals coming to north-eastern Kenya and some urban centres in the country.
The average nominal prices for skins during the 1983-1998 period are presented in Figure 6.6. Both goat and sheep skins experienced price fluctuations during the period. Goat skins are usually more expensive than sheep skins although the difference is small with convergence at certain times. Average prices for both goat and sheep skins are found to have a similar pattern, with both averages moving in the same direction. The prices for skins increased substantially after 1993 with peak prices in 1995 and 1997, followed by a sharp drop in 1998. It is not clear why the sudden drop occurred but it is possible that the sheep were affected by disease, which is a common cause for declines in prices. There are a few traders in Garissa who buy hides and skins at their stores in town. These traders transport their stock to Nairobi or Mombasa and sell to large traders or to the tanneries there. The traders in Garissa are heavily dependent on demand from the large traders and the tanneries but there is supply of skins from other pastoral areas as well. The large traders and the leather industries in Nairobi and Mombasa tend to rely more on supplies from other pastoral areas that have more regular and reliable deliveries than those from north-eastern Kenya. Some of the factors that affect the regular supply of skins from Garissa District include the security situation and sporadic and unpredictable supplies from Somalia.

Figure 6.7
Average nominal prices for camel and cattle hides in Garissa District*, 1983-1998 (Kenya shillings per piece)

*Cattle hides are sold on the basis of weight. In this calculation, an average weight of 6 kg per piece is assumed.
Source: District Livestock Production Office (DLPO), Garissa.
Figure 6.7 shows the average nominal prices for hides of camels and cattle in Garissa District for the period 1983 to 1998. The average price for camel hides remained low until 1995 when it showed a dramatic increase. Average prices for cattle hides on the other hand showed some variation at low levels until 1993 when prices started to rise; only to decline again after 1996. Since camel hides are not used in the leather industries in the country, demand is restricted to that of the local Somali, hence the low prices for most of the period. Camel hides are used locally for making beds by stitching them together with palm-tree trunks which are then sold in the market. Many poorer households are involved in cottage industries as a source of income. Following the droughts of 1991/1992, many households, who had lost most of their livestock, moved to Garissa town and took up cottage industries to generate income and this probably led to an increased demand for camel hides. The high average prices for camel hides after 1995 may be explained by the increased demand of cottage industries in the area. Thus there has been an increase in both volumes and prices of camel hides since 1993. On the other hand, both the number as well as the average price of cattle hides declined from 1996 onwards.

Volumes and prices for livestock in the study areas

In this section, we will present recent field data on within-year variations regarding the prices and volumes of livestock traded in the three market places of Garissa town, Dadaab and Ijara. Since there were only very few camels in the survey areas, the discussion mainly concerns cattle and small stock. The trade in camels was minimal during the survey and Garissa town was the only market place where a few camel sales occurred. Although the choice of Dadaab as a survey area was intended to include camel husbandry, we found that most camels were kept in areas close to the border with Somalia, north of Dadaab. Only four households in the sample reared camels, all of which were far from the homesteads in Dadaab trading centre. Since none of these households mentioned any sales of camels, the discussion on prices and volumes will consider only cattle and small stock.

<p>| Table 6.2 |
| Number of cattle and small stock traded by month and market place (1996/1997) |</p>
<table>
<thead>
<tr>
<th>Garissa</th>
<th>Cattle</th>
<th>Small stock</th>
<th>Dadaab</th>
<th>Cattle</th>
<th>Small stock</th>
<th>Ijara</th>
<th>Cattle</th>
<th>Small stock</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan - Mar 96</td>
<td>1048</td>
<td>1754</td>
<td>26</td>
<td>748</td>
<td>37</td>
<td>104</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Apr - June</td>
<td>1165</td>
<td>2785</td>
<td>32</td>
<td>1019</td>
<td>44</td>
<td>163</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jul - Aug</td>
<td>1774</td>
<td>3357</td>
<td>92</td>
<td>3520</td>
<td>29</td>
<td>95</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct - Dec</td>
<td>1886</td>
<td>3771</td>
<td>104</td>
<td>2325</td>
<td>33</td>
<td>114</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jan - Mar 97</td>
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<td>5629</td>
<td>118</td>
<td>2680</td>
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<tr>
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<td>3313</td>
<td>7449</td>
<td>144</td>
<td>2571</td>
<td>33</td>
<td>269</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jul - Aug</td>
<td>5211</td>
<td>9875</td>
<td>108</td>
<td>645</td>
<td>165</td>
<td>513</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oct - Dec</td>
<td>2997</td>
<td>6755</td>
<td>95</td>
<td>1300</td>
<td>88</td>
<td>245</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Source: Author's survey*
The number of cattle and small stock traded in the three markets is presented in Table 6.2. The figures were computed on a quarterly basis by aggregating the number of livestock sold during one month of each quarter. This was taken to represent the monthly average for that quarter for each of the markets surveyed. From these figures, there appear to be some seasonal fluctuations as well as regional differences. Garissa town has the largest turnover in livestock. Although there is generally some seasonal fluctuation in the volume of livestock traded in the three areas, the period of our data collection coincided with a drought which affected the seasonal flows of trade. According to the two-year data presented in Table 6.2, Garissa town accounts for the largest volume of cattle, with Dadaab market and Ijara both saving fewer animals. A similar pattern is observed in small stock-trade, with Garissa town volumes in the small-stock being higher than those in the rural markets of Dadaab and Ijara. Unlike the cattle trade where both Dadaab and Ijara had almost the same number of animals traded, Dadaab had higher volumes of small stock than Ijara. Clearly Garissa has a dominant position regarding the regional trade in livestock.6 Cattle from southern Somalia also ended up in the Garissa market, particularly after the collapse of the Somali central government.

Market days for livestock in the area are held in Garissa town once a week.7 Hundreds of head of cattle are bought and sold on market days, mainly by traders. Small stock and camels are sold on a daily basis in the Garissa market and in all other rural markets in the area. In recent years, Dadaab has emerged as an important livestock market although it has no stipulated days for operation. Sales of small stock are rising in the Dadaab market because of the area’s high refugee population. Ijara has many disadvantages that inhibit livestock marketing and trade, not least of which is its remoteness in terms of infrastructure and the distance from the main market in Garissa town.

Like the variation in the number of livestock sold in the market places of Garissa, Dadaab and Ijara, there was a variation in livestock prices in the three different areas as well (Figures 6.8 and 6.9). The price differences for livestock were less than the volume differences during the survey period.

Cattle prices in Dadaab were unusually high at the beginning of the survey period, 1996-97 (Table 9.6). This was because of livestock purchases by NGOs for the refugees living in the camps in Dadaab. These purchases, which occurred during the last quarter of 1995 and the first half of 1996, created an increased demand for cattle but the demand declined immediately afterwards, Dadaab, which is close to the border with the Republic of Somalia, sometimes receives cattle from Somalia that are stronger and sturdier and more able to cope with the long distances the animals have to travel to the Dadaab market.

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6 As regards the figures in Table 6.2, it must be realised that double counts inevitably occur when traders who buy animals in Dadaab or Ijara resell the same animals in the Garissa market. In the most extreme example, when all the livestock traded in divisional markets are taken to Garissa (which is not the case although figures are lacking) this could mean that nearly 50 per cent of the cattle in Garissa market are animals being re-traded. This figure could be even higher in the case of small stock. The measured trade at Garissa market is lower than DLPO data about 'export' (Tables 6.1 and 6.4) for reasons that are not completely clear.

7 Note that there is no market day for small stock and for camels which are sold on a daily basis but in much smaller numbers.
These animals tend to fetch high prices even after the long trek. Since the Dadaab market is much smaller than that of Garissa town, it receives fewer animals, but they are usually of better quality leading to higher average prices in Dadaab than in Garissa. The cattle prices in all three market places showed some fluctuation over the survey period. The average nominal prices in Garissa and Dadaab were generally similar. Ijara prices were often lower than those of the other markets except for the high prices recorded in March 1997. Among other factors, the sale of a few high quality animals in Ijara market at very high prices made the average price high. Besides the quality of the animal and the season of the year, cattle prices generally fluctuate depending on the presence of traders or additional demand from outside the area. It should also be noted that there was some rise in the rational inflation rate, from 9 per cent in 1996 to 11.2 per cent in 1997.

Similar price trends were observed for small stock in the three areas during this period (Figure 6.7). The prices for small stock were highest in Garissa town for about half of the period under review, followed by Dadaab, and lowest in Ijara over the whole period. Since there are transport costs and spatial arbitrage, the prices of livestock vary with the distance from the main market and consumption centre of Garissa town. Ijara, being the remotest of these areas, was the most disadvantaged and had consistently low prices for small stock.
Although Dadaab is about 80 kilometres from Garissa town, it is on a busy road between the Republic of Somalia and Kenya and this, coupled with the presence of the refugee population in Dadaab, makes the livestock market in Dadaab more competitive than that in Ijara. Indeed, the average nominal prices for small stock were higher in Dadaab than in Garissa town market during certain periods.

Prices of foodstuffs*

Almost all foodstuffs coming into Garissa District, and indeed most other parts of north-eastern Kenya, are brought and sold by private traders who own wholesale stores. Although there is a government store near by the National Cereals and Produce Board (NCPB) in Garissa town, it mainly acts as a store for relief food. The grain liberalisation of 1994 opened up the marketing of grains to many competitors, resulting in a limited role for the NCPB, although it still continues to buy maize in grain-producing areas of the country. Since there is no maize grown in north-eastern Kenya, the NCPB in Garissa usually stored relief food even before liberalisation since there has never been any maize to buy locally. From the national distribution of relief food in the country for the period

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*Foodstuffs' refers to the most commonly purchased foods by the Somali pastoralists in Garissa District.
For the purpose of this study, the discussion is restricted to grains or grain products purchased by the Somali pastoralists in the survey area. The most common foodstuffs in that category include maize meal, rice and maize grains. In general, both the availability of, and accessibility to foodstuffs in north-eastern Kenya have been worsened by the severe droughts of 1980, 1983, 1992 and the recent one in 1996. During these droughts, many families in Garissa District lost their entire livestock and ended up either in refugee camps or in the *bullas* around trading centres, mostly in Garissa town. Although food may have been insufficient in some households among the Somali pastoralists during certain periods, the Somali traditionally utilised social security mechanisms for resource sharing in various forms (see Chapter 1). Due to the high number of Somali pastoralists with insufficient livestock for subsistence, the traditional mechanisms of mutual assistance appear to be on the decline, and are being replaced by a transaction-oriented system. As a result, more pastoralists are increasingly dependent on foodstuffs acquired from the market using money obtained from livestock sales or other sources. They usually purchase foodstuffs from nearby trading centres. This is the case even when the animals are sold at distant markets as is common practice. In such a situation, pastoralists used to carry money on them and use it for the purchase of foodstuffs and other requirements from the trading centres nearest to their homes. However, this practice has been disrupted by the increasing insecurity in the area, especially in Dadaab and the other northern divisions of Garissa District.

As a safety measure, many livestock producers in the area now take home the proceeds from the sale of animals in the form of 'money in foodstuffs'. A closer relationship has emerged between the pastoralist and the retail trader in which the latter receives the money earned from the sale of an animal from the former at the place of the livestock sale, say Garissa. The trader uses the money to purchase foodstuffs in bulk from wholesalers and transports the merchandise to his shop in a rural trading centre such as Dadaab and Ijara. The retail trader then pays the pastoralist back his money in foodstuffs according to the pastoralist's needs. The retail trader maintains the records of the transactions until the equivalent money has been wed up by the pastoralist. His account is then closed unless he makes more 'deposits'. However, the pastoralist is usually entitled to credit after exhausting his funds, up to a maximum of the amount of his initial deposit. Although credit purchases by pastoralists during certain periods of the year have been in existence for many years in the area, this pastoralist-retailer relationship is relatively new and seems to have increased in importance since the early 1990s. The basic consideration is usually the credibility of the retail trader in the rural market, especially with regard to honesty and reliability. Although there are a few pastoralists who deal with retailers with whom they have no kinship relations, the majority of the network involving traders and pastoralists is based on kinship relations. The kinship relations then act as the needed 'surety'. Should the retailer treat the pastoralist customer

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9. There was increased insecurity after the collapse of Somalia due to the free inflow of firearms into the area. Although some of the bandits are from the local population, the increased lack of security may be attributed to problems associated with the large numbers of refugees.
in an unacceptable way, then members who belong to his kinship relations (reer) will make him honour his part of the deal.

Table 6.3 presents information on the prices of various food items that pastoralists purchase from the shops in the trading centres. It will be noticed that there are geographical differences and a steady rise over the seasons.

<table>
<thead>
<tr>
<th>Table 6.3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Food prices by month, and by market place (sh</strong>*/kg); 1996-1997**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Maize meal</th>
<th>Maize grain</th>
<th>Rice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan - Mar 96</td>
<td>13</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>Apr - June</td>
<td>13</td>
<td>20</td>
<td>30</td>
</tr>
<tr>
<td>July - Sept</td>
<td>14</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Oct - Dec</td>
<td>14</td>
<td>25</td>
<td>30</td>
</tr>
<tr>
<td>Jan - Mar 97</td>
<td>14</td>
<td>25</td>
<td>35</td>
</tr>
<tr>
<td>Apr - June</td>
<td>14</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>July - Sept</td>
<td>14</td>
<td>30</td>
<td>35</td>
</tr>
<tr>
<td>Oct - Dec</td>
<td>15</td>
<td>30</td>
<td>45</td>
</tr>
</tbody>
</table>

* Gar.=Garissa; Dad. =Dadaab; Ija.=Ijara;
** Prices have been averaged to the nearest 1 shilling.

Source: Author’s survey

Most households purchase foodstuffs from the nearest trading centres, and all survey households actually mentioned either Dadaab or Ijara as their main centres for purchasing maize meal and other merchandise such as sugar, tea and utensils. The price of maize has not been favourable in the study areas, with most households complaining that prices were either high or very high. Prices in Ijara were about twice those in Garissa town while Dadaab had an average one and half times the prices in Garissa. It should be noted that food prices in the area are usually influenced by the availability or lack of relief food. There is minimal relief food in the south of the district (Ijara), which is also much further from the main administrative town of Garissa, and therefore food prices tend to be higher than in the north (Dadaab). Food prices in Ijara are also higher due to the extra transport costs the food retailers have to pay because of transportation difficulties. Being located strategically along the Garissa - Kismayu (Somalia) road, and with large traffic flows along the route, Dadaab retailers do not have to pay high transport costs for their merchandise to get to Dadaab. Moreover, many families in the Dadaab area have enrolled some of their members as refugees in the local camps where they obtain free foodstuffs. As a result, such households do not have to buy much food, at least while they benefit as ‘refugees’ (see Chapter 8 for a detailed discussion on the interaction of the local pastoralists and the refugees).

Caloric terms of trade implications

Having discussed prices for livestock and those of foodstuffs in the three locations, we attempt to relate livestock products (meat on the hoof or live meat) and the common
grains (maize meal and maize grains) in caloric terms. Maize meal rather than maize grains is used by the Somali pastoralists in Garissa District and therefore maize meal is considered more relevant in the discussion on terms of trade. In general, more metabolised energy may be purchased in the form of grain than in the form of livestock (meat) for a given amount of money. The ratio of energy (amount of calories) that can be purchased in meat to the energy that can be purchased in grain for the same price is referred to as the caloric terms of trade (Tc). In theory, this value, which is dependent upon the relative costs of livestock (meat) and grains and the metabolisable energy yields of each, is important in deciding whether to purchase meat or grain. The ratio is high with a combination of low grain costs and high meat costs and, in contrast, is low with high grain costs and low meat costs. The ratio is at parity (or 1) when the relative prices of meat and grain are the same. Maize (in the form of maize meal or grains) is usually the grain commonly used for comparison in Kenya as it is the one most commonly traded and consumed, especially by rural households. For this purpose, maize yields approximately 3,200 kcalories per kilogram (kcal/kg).

In the computations of the caloric terms of trade (Tc) of live meat and maize meal and maize grains, we made the following assumptions: one head of cattle yields 100 kg of meat and 2,000 kcal/kg. This amount is below the often-used average figure of 150 kg of meat per animal, but the cattle in Garissa were of low quality and hence considered to have less weight. This was made worse by the drought that persisted during the entire period when these data were being collected. In the case of small stock (sheep and goats), an average yield per animal of 12 kg of meat and 2,000 kcal/kg is assumed. This takes into account an average of about 1,600 kcal/kg for goats and 2,500 kcal/kg for sheep.10 Maize meal is usually preferred to maize grains and we found every household in our survey to have purchased maize meal regularly. Whenever maize grains are purchased, they are crushed into maize meal before being consumed. The maize meal is cooked and made into a hard paste and is usually eaten with milk or a stew made of vegetables and a bit of meat. One kilogram of maize grains or maize meal is assumed to have 3,200 Kcal of metabolisable energy.

**Cattle**

The ratio of cattle meat (beef) to maize meal for the three survey areas is shown in Figure 6.10. The caloric terms of trade varied from one area to another and over the seasons. However, the seasonal fluctuation was moderate because of the uniformity in the seasons during the study period, due mainly to the drought. In all cases, Garissa town had the best terms of trade in calories when compared with the other two locations of Dadaab and Ijara. The ratio (Tc) of cattle meat to maize meal was between 5 and 7 for Garissa; 2.6 and 5.5 for Dadaab; and 1.8 and 3.3 for Ijara. Thus, the ratio was highest in Garissa, intermediate in Dadaab and lowest in Ijara. Prices of cattle were similar in Garissa and Dadaab and lowest in Ijara. However, the price of maize meal was highest in Ijara, intermediate in Dadaab and lowest in Garissa, hence the variation in the relative ratios.

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10 It should be noted that taking lower weights for cattle in Garissa District substantially raises the Tc values by as much as 50 per cent in this case, while the Tc values for small stock are raised by 25 per cent when compared with the usually assumed weights of 150 kg and 15 kg cattle and small stock respectively, as in Zaal (1998).
This is understandable. In the outlying locations, animals fetch lower prices while foodstuffs are more expensive. In all, the pastoralists were better off in caloric terms when they exchanged livestock for maize meal rather than slaughtering the animals for meat since the Tc ratios are above parity even in the remotest areas such as Ijara.

Although not commonly used by the Somali pastoralists, maize grains being cheaper, offer even better caloric terms of trade compared to maize meal. However, there is usually the additional cost of grinding the maize grains into maize meal. In the following table, we present the caloric terms of trade between cattle and maize grains, and small stock and maize grains.

Garissa town was again found to be better for pastoralists than the more distant market places like Dadaab and Ijara. The ratio of cattle to maize grains in the three areas was between 6.4 and 9.1 for Garissa, 3.2 and 6.2 for Dadaab, and 2.2 and 3.8 for Ijara. This compares with the corresponding figures of between 1.74 and 9.40 obtained for the Maasai in Kajiado District with respect to cattle meat to maize grains (Zaal 1998). The averages for the three areas were 7.8, 4.4, and 2.7 for Garissa, Dadaab and Ijara respectively. While their cattle fetched low prices in the local market, the Ijara pastoralists had to pay higher costs for maize grains due to the difficulties associated with the delivery of food to the area and the risks involved due to insecurity from bandits. On the other hand, the availability of both refugee food and relief food in the market improved the terms of trade (Tc) for the Dadaab pastoralists since they could purchase maize grains cheaply. During this time, there was little relief food in Ijara compared to the other parts of the district.
Since the most frequently consumed foodstuff in the area was maize meal, and the most common source of livestock for transactionary purposes is small stock (cattle are not usually sold in the trading centres and their ownership is less widespread), we look at the terms of trade between small stock and maize meal. The relationship is depicted in Figure 6.11.

**Small stock**

It can be seen from the graph that the Tc between small stock and maize meal, were considerably higher in Garissa town especially in 1996. This was the result of a com-

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**Table 6.4**

Caloric terms of trade by location and type of livestock* (1996/1997)

<table>
<thead>
<tr>
<th></th>
<th>Cattle / maize grain</th>
<th>Small stock / maize grain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Garissa</td>
<td>Dadaab</td>
</tr>
<tr>
<td>Jan - Mar 96</td>
<td>8.3</td>
<td>5.9</td>
</tr>
<tr>
<td>Apr - June</td>
<td>9.1</td>
<td>6.2</td>
</tr>
<tr>
<td>July - Sept</td>
<td>6.9</td>
<td>3.5</td>
</tr>
<tr>
<td>Oct - Dec</td>
<td>8.3</td>
<td>5.0</td>
</tr>
<tr>
<td>Jan - Mar 97</td>
<td>8.2</td>
<td>3.3</td>
</tr>
<tr>
<td>Apr - June</td>
<td>7.8</td>
<td>3.2</td>
</tr>
<tr>
<td>July - Sept</td>
<td>6.4</td>
<td>3.3</td>
</tr>
<tr>
<td>Oct - Dec</td>
<td>7.4</td>
<td>5.0</td>
</tr>
</tbody>
</table>

Average          | 7.8     | 4.4    | 2.7   | 11.2     | 5.3    | 2.8   |

* The price for meat is computed from live animals in the market.

Source: Author’s survey
bination of cheap maize meal compared to other areas, and high relative prices for small stock. The Tc values ranged from 6.2 and 14.9 for Garissa town, 3.2 and 7.0 for Dadaab, and 1.5 and 3.4 for Ijara. The ratios deteriorated in all the locations over the study period, and approached parity in the case of Ijara. It is important to note that the low Tc figures may be an indication of poor caloric terms of trade in rural markets such as Ijara (especially taking into account that we used a lower per kilo weight of the livestock compared to the commonly used weights). The low Tc values may be attributed to the low livestock prices, making the per kilo price of meat quite low. The figures for Dadaab and Ijara were similar with Dadaab enjoying the more favourable rate. The average figures for the Tc in the three survey areas were 8.9, 4.5 and 2.3 for Garissa town, Dadaab and Ijara respectively.

It should be noted that the caloric terms of trade in the case of small stock are more favourable when compared to cattle. Apparently, the Somali pastoralists prefer small stock to cattle for slaughter, and therefore higher prices were demanded per kilogram of live meat. When the caloric terms of trade for small stock to maize grains are considered, the ratio was again highest in Garissa, intermediate in Dadaab and lowest in Ijara (Table 6.4). The geographical differences were large, especially between the main urban town of Garissa and the outer markets of Dadaab and Ijara. The average ratios were 11.2, 5.3 and 2.8 for Garissa, Dadaab and Ijara respectively. Average figures of between 5 and in some cases as high as 24, were obtained for the Pokot of Kenya (Dietz 1987), which are comparable but only at the lower end of the range.

The main focus in this study is on the production and marketing of live animals or livestock on the hoof. The discussion in this section on caloric terms of trade has therefore focused on the exchange relations between the prices for live animals (or meat on the hoof) and the price of maize. However, there are two other aspects that deserve consideration. Firstly, the exchange relations between slaughtered meat and maize are discussed. The price of slaughter meat cannot be taken as the production price but is relevant as and when pastoralists decide to purchase meat for their own consumption. Secondly, there is the exchange relation between the price of milk and the price of maize as and when pastoralists sell the milk of their animals to purchase maize, something which is becoming increasingly common.

**Slaughter meat**

So far, we have considered meat prices on the basis of animal prices, or meat on the hoof, which often remained low during the study period. However, it should be noted that meat prices in the butcheries remained fairly stable and did not fluctuate like the livestock prices in the market. The meat used in this computation is slaughtered meat. Although pastoralists do not trade in meat, they sometimes purchase it from butcheries, and we are interested in the slaughtered meat if only to show that pastoralists would rather purchase maize (grains or meal) instead of slaughtered meat, when the Tc are favourable.

Competition among butchers in Garissa and the low demand for purchased meat in the distant market centres usually resulted in substantial amounts of meat being left unsold at the end of the day. Without any refrigeration equipment, this results in high
losses for butchers. Since most of the households usually purchase their meat from butcheries in order to prepare a stew with cooked maize meal, meat prices in the butcheries may have some relevance at the household level, especially for the more sedentary households that purchase small quantities of meat from the butcheries. If we analyse the Tc between slaughter meat (cattle and small stock) and maize meal, meat prices appear to have remained unchanged for most of the period under review. With not more than 5-10 per cent in spatial and/or temporal variation, cattle meat was 100 sh/kg and sheep/goat meat was 120 sh/kg. The result of the Tc is tabulated in Table 6.5.

| Table 6.5 | Caloric terms of trade (Tc) between slaughter meat* and maize (1996/1997) |
|------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
|            | Cattle meat/maize grain |                | Small stock meat/maize grain |                |                |                |                |
|            | Garissa | Dadaab | Ijara | Garissa | Dadaab | Ijara | Garissa | Dadaab | Ijara |
| Jan - Mar 96 | 12.3 | 8.0 | 5.3 | 14.7 | 9.6 | 6.4 |                |                |                |
| Apr - June | 12.3 | 8.0 | 5.3 | 14.7 | 9.6 | 6.4 |                |                |                |
| July- Sept | 11.4 | 6.4 | 5.3 | 13.7 | 7.7 | 6.4 |                |                |                |
| Oct - Dec | 11.4 | 6.4 | 5.3 | 13.7 | 7.7 | 6.4 |                |                |                |
| Jan - Mar 97 | 11.4 | 6.4 | 4.6 | 13.7 | 7.7 | 5.5 |                |                |                |
| Apr - June | 11.4 | 5.3 | 4.6 | 13.7 | 6.4 | 5.5 |                |                |                |
| July- Sept | 10.7 | 6.4 | 4.0 | 12.8 | 7.7 | 4.8 |                |                |                |
| Oct - Dec | 10.7 | 5.3 | 3.6 | 12.8 | 6.4 | 4.3 |                |                |                |
| Average | 11.5 | 6.5 | 4.8 | 13.7 | 7.9 | 5.7 |                |                |                |

* The average price for meat in butcheries is used rather than a live weight-computed price

Source: Author's survey

When the prices for meat in butcheries were used instead of the average meat prices computed from live-weight animals, the Tc was higher in all areas, geographical and seasonal differences notwithstanding. Note again that Tc values in the case of small stock are higher than in cattle, even when the slaughter meat price is used. In all the markets, the Tc were higher in the case of small stock to maize meal than they were for cattle to maize meal since meat from small stock was more expensive than that from cattle. The higher prices for meat from small stock is a result of the preference that most Somali pastoralists have for small stock. The Tc ratios in the case of cattle meat to maize meal were between 10.7 and 12.3 for Garissa, 5.3 and 8.0 for Dadaab and 3.6 and 5.3 for Ijara. The average figures for the three areas were 11.5, 6.5 and 4.8 for Garissa, Dadaab and Ijara respectively. In the case of small-stock meat to maize meal, the Tc ratio varied from 12.8 to 14.7 for Garissa, 6.4 to 9.6 for Dadaab, and 4.3 to 6.4 for Ijara. Again Garissa town enjoys the most favourable Tc and Ijara the worst, with Dadaab in an intermediate position. The average figures for the three areas were 13.7, 7.9 and 5.7 for Garissa town, Dadaab and Ijara respectively. As shown in Table 6.5, the ratios of cattle meat to maize meal were slightly lower than those for small-stock to maize meal.

**Milk**

Although none of the households in our survey sold milk during the study period, the sales of milk are becoming more common. We discuss the Tc for milk and maize meal to determine whether it is advantageous for households to sell milk and buy maize meal.
Table 6.6 gives values for the average nominal price for milk during the dry and rainy seasons, and the average price for maize meal in the three areas of Garissa town, Dadaab and Ijara.

<table>
<thead>
<tr>
<th></th>
<th>Garissa</th>
<th>Dadaab</th>
<th>Ijara</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk: Dry season</td>
<td>43</td>
<td>36</td>
<td>29</td>
</tr>
<tr>
<td>Rainy season</td>
<td>29</td>
<td>29</td>
<td>17</td>
</tr>
<tr>
<td>Maize meal</td>
<td>14</td>
<td>25</td>
<td>34</td>
</tr>
</tbody>
</table>

*Source: Author's survey*

Average prices for milk over the rainy and dry seasons have been used. Maize meal prices are averaged over the survey period. Milk is assumed to have 700 kcal/kg and maize meal 3,200 kcal/kg. The Tc values for milk are presented in Table 6.7.

The caloric terms of trade between milk and maize meal were higher during the dry season than the rainy season in all study locations. The Tc values were highest in Garissa town, intermediate in Dadaab and lowest in Ijara. This trend is similar to that observed for the Tc between livestock and slaughter meat and maize grains or maize meal. Milk prices are usually higher in the dry season when less milk is produced, and lower during the rainy season when more milk is available. The Tc values in the three locations varied according to the variations in milk prices. It is apparent that the more remote locations like Ijara have the lowest milk prices, highest maize meal prices, and hence the lowest caloric terms of trade. However, the Tc have been above parity even for these remote locations, and there is a potential gain in caloric terms to the Somali pastoralists in trading milk for maize meal.

**Summary**

Somali pastoralists have been involved in livestock sales and purchases of foodstuffs for many years. During the colonial period, livestock commercialisation was hindered by numerous quarantines and restrictions, some of which continued well into the post-colonial period. The Meat Control Board and the African Livestock Marketing Organization (ALMO) during the colonial period, and the Kenya Meat Commission (KMC) and Livestock Marketing Division (LMD) in later years were the main livestock buyers. They
often became `monopoly' buyers and were sometimes resented by the pastoralists. The livestock export figures for Garissa District are high, which may be an indication of the potential for off-take in the area. However, the prices for livestock experience fluctuation, often at lower levels than in other pastoral areas that have a closer proximity to consumer markets. Besides the live animals, the Somali also sold hides and skins, earning good revenue from this trade.

The volume of livestock sales during this survey was found to vary geographically, with minimal seasonal variations. However, although the seasonal trend had similarities over the different markets, the regional differences were more pronounced. Garissa town was found to have the highest volume of livestock sales and Ijara the lowest, with Dadaab being in an intermediate position. Although there were price differences between the various markets as well, these were less obvious than the volume differences as depicted in Figures 6.8 and 6.9. The prices of foodstuffs showed a steady rise over the seasons, but they varied substantially across the locations. Here again, Garissa town had the most favourable prices and Ijara the least, with Dadaab prices being between two. Generally, the prices for foodstuffs increased in all three locations during the study period.

In addition to livestock products such as milk and sometimes meat, the Somali pastoralists were found to consume more maize meal than maize grains. When comparing the caloric terms of trade (Tc) between livestock (meat) and foodstuffs (maize meal), we found that the Somali pastoralists were in a favourable position when they sold livestock and bought maize meal compared to slaughtering their livestock and consuming the meat. Average meat prices were computed from the prices of live animals with the assumption that a head of cattle had a meat weight of 100 kg and a head of small stock had a meat weight of 12 kg.11 Livestock prices were found to be relatively low resulting in low Tc ratios. The average Tc in the case of cattle:maize meal were 7.8, 4.4 and 2.7 in Garissa town, Dadaab and Ijara respectively. The corresponding average figures in the case of small stock:maize meal were 8.8, 4.5 and 2.6 for Garissa, Dadaab and Ijara respectively. The average Tc between livestock and maize meal were found to be in favour of the pastoralists, with Garissa pastoralists enjoying the most favourable Tc and those from Ijara the lowest, with those from Dadaab in an intermediate position. These figures were however lower than those found for the Maasai in Kajiado District (Zaal 1998), which could be attributed to the relative distances of the two regions from Nairobi and other major towns. The distances influence the cost of foodstuffs since Garissa imports virtually all its foodstuffs from Nairobi. However, the amount of relief food in the area is an important factor as well that influences the prices for foodstuffs, and hence the Tc. Within Garissa District, the Tc decline with distance and the remoteness of trading centres, hence the low Tc for the Ijara area.

Selling livestock and purchasing maize meal (other factors remaining the same) would make the Somali pastoralists in the study area better off in caloric terms. It should be added that certain basic conditions need to be in place if positive Tc are to benefit the Somali pastoralists. The most important among these factors include: 1) the availability of

11 If our weight assumptions are on the lower side, (see note 10), the Tc values will be even lower, and may even drop to below parity in the case of the remote rural markets of Garissa District.
saleable animals in the herd; 2) the availability of buyers for the animals; and 3) the availability and accessibility of maize meal. Regarding saleable stock in the herd, a pastoralist may own some animals and yet have no saleable animals given the need to keep a certain minimum number, species and structure of animals for reproduction. Selling livestock below the minimum necessary for reproduction may mean destitution for pastoralist households. Although most households in Garissa District are still pastoralists and therefore have some livestock, many may have only the minimum number necessary for reproduction and can only sell stock at the cost of future reproduction. The availability of buyers for the animals and the availability and accessibility of maize meal also play important roles in the realisation of positive Tc for Somali pastoralists. Increased insecurity in the area, poor infrastructure for livestock marketing and the need to bring in maize meal from outside tend to upset the Somali pastoralists' participation in the market and have lowered livestock prices in remote areas of the district.

When the cost of slaughter meat in butcheries was used rather than that computed from the livestock-weight, we obtained higher figures for the Tc in all the study areas. The Tc with respect to cattle meat and maize meal had the average figures for the three areas of 13.7, 7.9 and 5.7 for Garissa town, Dadaab and Ijara respectively. Since slaughter meat from cattle was cheaper than that of small stock, the Tc were even higher in the case of small stock to maize meal. Thus, when having to purchase food, Somali pastoralists - like people all over the world - are better off buying grain than meat. Similarly, the Tc between milk and maize meal was above parity even in the remotest parts of the district, for example Ijara. Since milk prices are lowest and maize meal prices highest in the more remote areas, the Tc figures were also lowest in such areas. Somali pastoralists would therefore be better off selling their milk and purchasing maize meal. Still, it is important to acknowledge that the nutritional needs of the Somali pastoralists go beyond those of calories as derived from maize meal or grains. The Somali consume a lot of tea with sugar and expensive rice, and also purchase livestock drugs at the market with cash. Sources of cash are usually livestock sales, sales of hides and skins and other sources such as remittances and gifts.
Pastoral households in Garissa District

The chapter discusses the Somali households in Garissa District of north-eastern Kenya, the structure and composition of the survey households as well as that of their livestock. Household commercial activities, within the livestock sector and from other sources will be reviewed. The economic status, income and expenditure of the households, and the number of households involved will be determined.

Household as a production and management unit

The pastoral household is the basic unit of production in so far as it determines the distribution of labour for various productive activities such as herding, trading, cultivating, and other complimentary activities that contribute to pastoral production. Besides being the production unit, the household is also the consumption unit. Thus, while the household produces livestock and generates other sources of income, it also consumes from the same, making it difficult to estimate the economic value of production since production and consumption occur at the same level.

For the purpose of this study, a household will be defined as constituting a nuclear family of a man, his wife/wives and their children, as well as all others who contribute to the production, management and consumption with the members of the nuclear family. These may include hired herdsmen and visitors. However, the household unit as an exclusive entity does not exist. Instead, the members of the household rear their livestock within socially prescribed rules and regulations. The immediate unit to which the household is answerable is the reer. For instance, while the household head, in consultation with his immediate members, can decide to sell or give away small stock, the same cannot be said of large stock. Among the Somali pastoralists, the reer is responsible for a certain category of large stock such as the good breeders and the high milk yielders. Thus, while such categories of animals are owned by individual households, the manner of their
disposal is communally regulated by the members of the reer to which an individual belongs. This is usually done to ensure that the extended family does not lose productive capacity and is not forced to resort to the mercy of others for basic requirements. When there is a conflict between two groups from different reers, it often difficult to exchange livestock or even labour - hence the need for the reer to guard all the resources held by its members. The function of the reer is not limited to the protection of its productive capacity as its members also support each other; they pay compensation together since they are all members of a diya-paying group (see Chapter One), they negotiate with their neighbours for pastures when the need arises and they hold regular consultations on issues affecting the lives of members of the reer. However, the household is independent in its day-to-day survival as a unit of production and consumption.

Household structure and characteristics

The Somali community is patrilineal and traces lineage through the male line. It predominantly professes the Islamic faith. A typical pastoral household among the Somali usually consists of the husband, his wife or wives, their children and other relatives dependent on the family. Households cluster together on the basis of blood relations, with the main purpose of supporting each other during times of need while sharing during times of plenty. Thus, settlements are commonly based on related families or reer. Some of these settlements have been used by the government as the basis for creating administrative centres such as locations and sub-locations in recent years. From the family and the reer relations, the Somali community is divided into clans and sub-clans. For instance, the study area in Garissa District consists of the Abdalla sub-clan in Ijara and the Aulihan sub-clan in Dadaab. Both sub-clans belong to the Ogaden clan of the Somali (Figure 1.4).

An initial random survey was conducted among 110 households. From this, a sample of 80 households was selected, taking time considerations into account. The 80 households were studied for a period of one year during which data were collected on the household composition, herd dynamics, and household incomes and expenditure. The figures were then weighted on the basis of their representation in the initial random sample of 110 households to correct for the sampling selection. Most of the households were large, with the majority having more than 7 members. In the survey, 19 households (48 per cent) from Dadaab and 20 households (50 per cent) from Ijara had more than 7 members in their family. In fact, one household had as many as 14 members although this may be considered an exceptional case. Only 21 households (26 per cent) had fewer than 5 members, and 3 of them (4 per cent) had fewer than 3 members. The high number of members in the households is in conformity with the labour demands of pastoralism. Indeed, during times of stress it is those households with insufficient labour that are worst hit, especially if they cannot afford to hire labour. Pastoralism, being a labour-intensive venture, thrives on both spatial as well as temporal flexibility with respect to resources such as labour, pasture and water.

Most heads of households interviewed were male with only 14 (18 per cent) being female, eight in Ijara and 6 in Dadaab. Being a male-centred society, the Somali usually
believe in and rely on the leadership of men within the household. In the absence of a father for instance, the eldest son (over the age of 15) or the brother of the deceased acts as the head of the family. This often conceals a number of households that may actually be female-headed but which rely on men for such critical decisions as the sale of livestock and migration. Respondents usually indicate a male as the head even when he is absent or only nominally involved in many regular household decisions.

The age structure of the heads of the households was fairly evenly distributed through the age brackets, with the majority being over 40 years of age (65 per cent). There was a total of 10 households (13 per cent) which were headed by people younger than 30 years of age. These were young families in the early life cycle stages of family building. None of these young households was headed by a female. It was found that a total of 33 households (41 per cent) were headed by persons over 50 years of age, with 27 male-headed and 6 female-headed. While two households from Dadaab were headed by an unmarried person, there were none in Ijara. Traditionally, the Somali did not allow an unmarried man to take responsibilities such as heading a family and making decisions affecting society. In the event that an unmarried man became the head of a family by virtue of replacing his late father, he got married within a reasonable time in order to be a 'complete man'. However, in recent years, such rules have become more flexible and unmarried men do make key decisions as long as they have livestock and play their role in society in a responsible way. A widower or a divorced person was always allowed to take part in decision-making processes within society.

Although the Somali community were traditionally polygamous, there appear to be changing trends which may be attributed to contemporary realities with fewer resources to care for large families. As a result, many families now have monogamous heads of households (one wife), as was revealed by this study. There were 55 heads of households (68 per cent) who had a single wife, 11 heads of households (13 per cent) with two-wives, and another 6 heads of households had three wives each (8 per cent). Most of the polygamous households with three wives were in Ijara, with only one in Dadaab. Polygamous households were counted as one household. There were 6 households (8 per cent) that were either divorced, separated or widowed, and only two households that were headed by unmarried persons.

Most of the household heads in our survey (93 per cent) had no formal education with the rest of the households being headed by people with only primary levels of education.

Herd size and herd composition of the households

The populations in the two study areas, Dadaab and Ijara, were chosen because they practice different livestock systems. While Dadaab pastoralists keep all kinds of livestock, there are no camels in Ijara due to the presence of the tsetse fly and the fact that it is generally considered a cattle-rearing area. However in the actual population surveyed, only 3 households in Dadaab owned camels — 39 animals in all (Table 7.1). The majority of the households in our survey had neither camels nor cattle but only small stock. Less
than half the households owned cattle (20 per cent in Dadaab and 45 per cent in Ijara). In all, nearly two-thirds of the households did not have large stock and relied on small stock.

**Figure 7.1**
Marital status of the survey households

The Somali are known to be reluctant to disclose the number of their animals. In an effort to obtain accurate estimates of livestock ownership and herd sizes, we relied on categorised ranges of male and female stock and mature and immature animals within their herds. These ranges were in categories of 10 each and included 0-10, 11-20, 21-30, 31-40 and so on. Converting these ranges into centre values, the results are presented in Table 7.1. Somali pastoralists do not include animals in their herds that they do not claim ownership. Thus, livestock owned by others but to which the household has user rights such as lactating animals given by a relative or friend (irmansi, animals they manage on behalf of others (daranyalamaana), and lost animals in their herds (baathi) are usually excluded from the ownership figures of a household.

According to our findings, 72 per cent had fewer than 20 TLU/hh (Table 7.3). From this, calculations show that 83 per cent had fewer than 4 TLU\(^1\) per capita which is the minimum requirement for pastoral populations and indicates that pastoralists in Garissa District are not able to survive entirely on livestock. This is a first indication that many depend on foodstuffs from outside the livestock sector. The sources of such foodstuffs include purchases from the market, relief food and food from refugees in the Dadaab area. The role of relief food (discussed in Chapter 8), and income from other sources may explain how these pastoralists manage to survive with so few animals.

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\(^1\) The unit most widely used in Kenya (Peden 1984) as quoted by Zaal (1998). One TLU is 1.0 camels, 1.42 head of cattle, and 10 sheep or goats.
Dadaab households were found to have an average cattle holding per household of about 2.9 mature males and 8.3 mature females including 5.9 lactating cows. When immature males and females were included, the average number of cattle per household was 18.8. For Ijara households, the corresponding figures for cattle were 3.7 mature males and 15.4 mature females, including 6.5 lactating cows per household. When the figures for the immature males and females were taken into account, the Ijara households had 28.4 head of cattle per household.

Both for cattle as well as small stock holdings, the Ijara pastoralists, on average, had larger herds than their counterparts in Dadaab. The small stock ownership per household for Dadaab was 7.6 mature males, and 12.6 mature females including 8.2 lactating animals. The total average per household was found to be 32.9 shoats for the households in Dadaab area. The corresponding figures for Ijara were 6.1 mature males and 22.1 mature females including 10.1 lactating shoats, with a total average per household of 44.2 animals.

Most families had more mature and lactating females in their stock than in other categories. Since mature females are breeders as well as milk producers, this structure is considered positive from both herd growth and food security perspectives. In Dadaab, about 67 per cent of all mature females (cattle and small stock) were in milk, while in Ijara, the figure was lower at about 44 per cent of mature females in milk. When we convert the figures for camels, cattle and small stock to Tropical Livestock Units (TLUs), the average TLU per household for Dadaab and Ijara were 17.5 and 24.5 respectively (Table 7.1). Assuming household membership of seven on average, the TLU per capita from these figures was found to be 2.5 and 3.5 for the Dadaab and Ijara areas respectively, i.e. below the minimum of 4.0 TLU per capita mentioned before as the figure necessary for survival. Although the Ijara area records slightly higher figures in TLU per capita, it is apparent that both areas have low livestock holdings for subsistence and probably depend on foodstuffs for almost half their food needs.
Economic differentiation

A more detailed classification by TLU per household as well as per capita reveals the insufficiency of the pastoral base of almost all the survey households in the Ijara and Dadaab areas. In Table 7.2, the distribution of TLUs per household and per capita, by area are presented.

Table 7.2
Distribution of Tropical Livestock Units by area (N=88)*

<table>
<thead>
<tr>
<th>TLU</th>
<th>Dadaab n (%)</th>
<th>Ijara n (%)</th>
<th>Total n (%)</th>
<th>TLU</th>
<th>Dadaab n (%)</th>
<th>Ijara n (%)</th>
<th>Total n (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-9.9</td>
<td>14 (31)</td>
<td>9 (21)</td>
<td>23 (26)</td>
<td>0-0.9</td>
<td>8 (18)</td>
<td>2 (5)</td>
<td>10 (12)</td>
</tr>
<tr>
<td>10-19.9</td>
<td>23 (52)</td>
<td>17 (39)</td>
<td>40 (46)</td>
<td>1-1.9</td>
<td>16 (35)</td>
<td>17 (42)</td>
<td>33 (38)</td>
</tr>
<tr>
<td>20-29.9</td>
<td>3 (7)</td>
<td>5 (12)</td>
<td>8 (9)</td>
<td>2-2.9</td>
<td>7 (16)</td>
<td>5 (12)</td>
<td>12 (14)</td>
</tr>
<tr>
<td>30-39.9</td>
<td>2 (5)</td>
<td>7 (16)</td>
<td>9 (10)</td>
<td>3-3.9</td>
<td>8 (18)</td>
<td>8 (20)</td>
<td>16 (19)</td>
</tr>
<tr>
<td>40+</td>
<td>2 (5)</td>
<td>5 (12)</td>
<td>7 (8)</td>
<td>4-4.9</td>
<td>1 (2)</td>
<td>3 (7)</td>
<td>4 (5)</td>
</tr>
<tr>
<td></td>
<td>(100)</td>
<td>(100)</td>
<td>(100)</td>
<td>5-5.9</td>
<td>1 (2)</td>
<td>1 (0.2)</td>
<td>2 (2)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6+</td>
<td>4 (9)</td>
<td>5 (12)</td>
<td>9 (10)</td>
</tr>
</tbody>
</table>

* Weighted figures

Source: Author's survey

The majority (72 per cent) of the households had fewer than 20 TLU, indicating the meagre subsistence basis of most households. In Ijara, there are more households with relatively high numbers of livestock but the households tend to be larger in that area as well, thus negating the effect of the higher numbers of livestock. Similarly, the distribution according to TLU per capita ratio also indicates lesser values for the households in Dadaab. The per capita figures of less than 4.0 for the majority (83 per cent) of the households from both Ijara and Dadaab therefore show that the majority of households in our survey have fewer than the number of animals needed for their subsistence requirements. It may be assumed that other sources of foodstuffs are crucial among the Somali pastoralists in the area of Garissa District.

Resource utilisation and livestock production

The Somali nomadic pastoralists usually roam over a wide expanse of land, sometimes going as far as southern Somalia. However in recent years, increasing numbers have settled semi-permanently in the same locations for longer periods than in the past. In this study, only 5 households (2 from Dadaab and 3 from Ijara), or some 6 per cent of all households, had lived for less than 1 year in the place where they were interviewed. Most, 57 households (65 per cent), had remained for periods of longer than 3 years. There has been an increasing trend towards sedentarisation among the Somali pastoralists in Garissa District, especially for those households that had fewer head of livestock and who were unable to depend on livestock for their entire subsistence. The need for supplementary sources of livelihood and Government pressure (see 3.3) has pushed many households to remain in the same place for longer periods than in the past. The households that we selected for our survey were in the vicinity (within 15 km) of the main
centres of trade and settlement, and hence there is the possibility that households further away from these centres are more nomadic and may have remained in one area for shorter periods.

Figure 7.2
Subsistence status of households, in TLU/capita

In general, pastoralists in the Ijara area are more sedentary than those in Dadaab. This is closely connected to the existing water resources and to a lesser extent, the pastures. The north of Garissa District, where Dadaab is located, has many government-provided water sources, mainly boreholes and a few dams. The south of the district including the Ijara area has very few public dams. Instead, there are many privately-owned dams and wells, and others that are communally owned. This was reflected in the responses regarding the sources of water for both domestic and livestock use. Ijara households tend to remain in the same place for a long time, around their own water sources. Dadaab households are more nomadic since most of the water sources in that area are public boreholes and dams, and pastoralists use the water when it is available and move on elsewhere when it is exhausted. The kind and ownership of water resources tend to influence the sedentarisation of pastoral households.

All the households from Ijara used either individual or communal sources of water for domestic purposes, whereas 34 households (76 per cent) from Dadaab used borehole water. Only a quarter of the households from Dadaab, 11 households (24 per cent), used
individual or communal sources. Communal sources are distinguished from public sources because the former are provided and maintained by the community through traditional management mechanisms while the latter are provided and maintained by the government. Nearly all the households (98 per cent) from Ijara depended on individual or communal sources, for water for their livestock, with only one household taking its stock to the river Tana. Similarly, most households from Dadaab (85 per cent) were found to use individual or communal sources of water for their livestock. Dadaab households hardly use the river for watering their livestock nowadays despite the fact that it was one of the main sources of water for both domestic and livestock use in the past. This change is mainly due to the limited access the Dadaab pastoralists have to the river due to irrigation schemes, and also because of a lack of pasture in the river catchment area. There was a difference in the sources of water for human and livestock purposes in Dadaab for two reasons. Firstly, the individual and communal water sources in Dadaab are poorly maintained and heavily polluted by animal waste and other pollutants. The water is unfit for human consumption and households obtain their water from boreholes for domestic use. Secondly, the public boreholes charge a fee per head of livestock for watering while the water from the communal sources is free, albeit polluted.

Livestock production in Garissa District, and indeed in the rest of northern Kenya, faces many problems such as insecurity, wild animals, livestock disease, poor pastures and an inadequate or total lack of water supply for humans and livestock. When asked what they considered as the most important constraints to livestock production in their area, the pastoralists mentioned several factors (Table 7.3).

Table 7.3
Most important constraints to livestock production in Garissa District*

<table>
<thead>
<tr>
<th>Constraints</th>
<th>Dadaab</th>
<th>Ijara</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (n=45) (N)</td>
<td>N (n=43) (N)</td>
<td>N (n=88) (N)</td>
</tr>
<tr>
<td>Insecurity</td>
<td>25 (56)</td>
<td>7 (17)</td>
<td>32 (36)</td>
</tr>
<tr>
<td>Wild animals (predators)</td>
<td>14 (31)</td>
<td>16 (38)</td>
<td>30 (34)</td>
</tr>
<tr>
<td>Livestock disease</td>
<td>0 (0)</td>
<td>19 (45)</td>
<td>19 (22)</td>
</tr>
<tr>
<td>Inadequate/lack of water</td>
<td>3 (7)</td>
<td>0 (0)</td>
<td>3 (3)</td>
</tr>
<tr>
<td>Poor pastures</td>
<td>2 (4)</td>
<td>0 (0)</td>
<td>2 (2)</td>
</tr>
<tr>
<td>Other constraints</td>
<td>1 (2)</td>
<td>0 (0)</td>
<td>1 (1)</td>
</tr>
</tbody>
</table>

* Weighted figures
Source: Author's survey

Insecurity was mentioned as the single largest problem facing the pastoralists, more so in the Dadaab area in the north of the district. About 32 households mentioned insecurity as a constraint to livestock production, with 25 of these being from Dadaab and only 7 from Ijara. Thus in Dadaab households 56 per cent considered insecurity as a major constraint to livestock production, while in Ijara, 17 per cent of the households mentioned it as a major problem. Insecurity in the area is manifested in the form of livestock raids, rape, killings and general harassment of the pastoralists. This has been exacerbated by the collapse of the Republic of Somalia with the subsequent inflow of hundreds of thousands of refugees to North-eastern Province of Kenya. For instance, Dadaab was hosting three
refugee camps with a combined population of more than 200,000 people at the time of our survey, hence the prevalence of insecurity in that part of the district relative to the Ijara area. The second problem is that of wild animals that attack livestock. About 30 households (35 per cent) more or less equally distributed between Dadaab and Ijara mentioned this. Some of the common predators in the area were said to include lions, hyenas and foxes. Wild game is under the protection of the state and anyone who kills them is liable to prosecution. Unfortunately though, the pastoralists too often lose livestock to wild predators without any recourse for compensation from the government or protection from the Kenya Wildlife Service (KWS) which is responsible for the conservation of wild game in the country.

The prevalence of insecurity and the presence of high numbers of refugees in the area have serious implications for resource use and management. For instance, pastoralists tend to avoid areas with high incidences of cattle raids or military incursions in search of bandits. Often this leads to more people and animals in areas that are considered secure for periods longer than can be sustained by the available pasture. This is further worsened by the concentration of refugees around the Dadaab area. The greatest threat to the area's natural resources appears to be the destruction of trees for woodfuel for use by refugees. Contracts have been awarded by the refugee agencies to provide firewood locally for the refugees to use for cooking. Increasing scarcities of dry wood in the area due to the many years of continued harvesting has meant the cutting down of live trees so that they can be delivered to the agencies at a later period (see Chapter 8 for a detailed discussion of this process).

Livestock diseases, the third major limitation to livestock production, was mentioned by 22 per cent of all households in our survey. All were from Ijara. This is mainly because of the thick nearby Boni forest with its heavy infestation of tsetse flies and other insects such as ticks. Although both the pastures and water are better in the south, the tsetse flies make it impossible to rear camel and make the rearing of cattle and small stock more expensive than it is in the north. There are hardly any preventive medicines available or livestock dips in the area. Individual households occasionally dip their animals using rags to rub the animals, especially against ticks. There is a greater need for livestock drugs by the southern households around Ijara, which makes livestock rearing in that area more expensive. Livestock health costs were found to be generally high, with 75 per cent of households spending an average of Ksh. 1,000 on drugs per head of cattle per year. In Ijara, 32 per cent of the respondents mentioned drug costs of at least Ksh. 3,000 per head of cattle per year compared to only one household from Dadaab with similar figures, further confirming the difference in livestock health needs in the two areas.

Commercial transactions of households

Except for the main weekly market in Garissa town, the other livestock markets are in the distant divisional headquarters. In the past, Somali households sold animals when money was needed for various purposes such as food and non-food items including the payment
of a dowry, strengthening social relations, payment of diya (blood money paid to the reer of the deceased), and to finance other needs. In more recent years, animals were sold mainly to purchase foodstuffs because of insufficient milk in most households as well as an increasing tendency towards consumption of non-livestock products. This tendency is partly attributable to the increased sedentisation of the Somali pastoralists. More settled pastoralists have to meet additional costs such as school fees, self-help contributions (harambee) and clothing. Among the survey households, 80 (91 per cent) sold animals occasionally, while only a few sold animals on a regular basis, seasonally or monthly. Their notion of 'occasionally' was whenever they needed cash for a particular purpose. At other times, they exchanged livestock for whatever they needed. For instance, a pastoralist in Dadaab exchanged 25 goats and 15 sheep for a 4-years-old female camel. However, such exchanges were not only infrequent but varied as well, depending on the mutual agreement between the two parties. They were not necessarily mediated through the market, and lacked fixed rates of exchange.

Generally, sales considerations are influenced by whether a sale is a distress sale or not. In the case of the former, pastoralists tend to sell those animals that are marketable. But it should be noted that Somali pastoral households may have livestock that do not belong to them in their herds. In some cases, livestock entrusted to a household may actually be more numerous than those owned by the household. Generally, a household does not have disposal rights to animals that do not belong to it and it often has only user rights - mainly for milk and transport. It may for example slaughter an animal if it is either about to die or if it breaks a leg, etc. All other forms of disposal of such animals need the permission of the owners. Besides the nature of the sale (stress or otherwise), a pastoralist would sell his own animals in preference to animals on which he has only user rights, since he has no authority to sell the latter.

While most livestock sales were said to be for the purchase of food and non-food items, other reasons given included family maintenance, solving family problems and 'complex problems'. The latter was said to include the payment for diya and compensation for rape or unauthorised elopement with a girl. Among all the households in our sample, 59 (67 per cent) were found to sell animals to purchase foods and non-food items. Of these, 35 households were from Ijara and the rest from Dadaab. Another 20 households (23 per cent) gave solving family problems as their reason for selling livestock. When they have to sell their livestock, the pastoralists do not do so randomly but follow a certain well-defined procedure. Such a process is often more complex in polygamous families or in closely knit reers, where there are multiple interests in many animals in the herd. Thus, 64 households (73 per cent) mentioned the 'least valuable' animals as their priority sales. According to the pastoralists' own notion, the 'least valuable' animals were considered to be those poor in milk production, those with a history of multiple miscarriages, those with permanent injuries or disabilities, castrated bulls, old animals, and those more vulnerable to dry spells. Similar sales criteria were found among the Fulbe Wodaabe pastoralists of Niger as reported by Bonfiglioli (1992). The author mentions fertility, physical resistance and milk production as the key evaluative criteria for determining sales among the Fulbe. Some 20 households (23 per cent) in our sample mentioned small stock as their priority sales. All the households that
mentioned small stock were from Dadaab, confirming that Dadaab households are more dependent on small stock than their Ijara counterparts, because many have few or no large stock at all.

Animals are not reared merely for subsistence or for commercial transactions. They are also an integral part of the social life of the pastoralists with intrinsic values which guarantee both the survival of the individuals and the continuity of various institutions. Values of insurance, social networks, bride wealth, sacrifice and inheritance are all vested in various categories of livestock (Bonfiglioli 1992). While non-market transactions such as bride price, rituals, gifts of animals, borrowing of animals, etc. are important in most pastoral communities including those of the Somali, we did not find it necessary to include it in off-take figures because they occurred only in a small and negligible number of households during the survey period. This may have been because of the long dry period and because most of the survey households were settled for longer periods and had therefore their lifestyles.

<table>
<thead>
<tr>
<th>Table 7.4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual net off-take per average household by location, 1996 (N=80)*</td>
</tr>
<tr>
<td>Households (N)</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Cattle: Herd size</td>
</tr>
<tr>
<td>Sold</td>
</tr>
<tr>
<td>Bought</td>
</tr>
<tr>
<td>Net-offtake (%)</td>
</tr>
<tr>
<td>Small stock: Herd size</td>
</tr>
<tr>
<td>Sold</td>
</tr>
<tr>
<td>Bought</td>
</tr>
<tr>
<td>Net-offtake (%)</td>
</tr>
</tbody>
</table>

* Non-weighted results; with 'net offtake' we mean: the difference between selling and buying animals.

Source: Author's survey

Herd sizes in both Dadaab and Ijara are low and the small numbers of cattle sold are a reflection of this. On average, only one head was sold by households during the year under review. Cattle off-take was 6 per cent and 4 per cent for Dadaab and Ijara respectively. On the other hand, more households sold small stock in both areas. It is to be noted that many of the households had only small stock to sell. On average, each household sold at least 3 head of small stock during the same period. In terms of percentages, the off-take in small stock was 9 per cent and 6 per cent for Dadaab and Ijara respectively. The off-take pattern was found to be fairly uniform between the two study areas of Dadaab and Ijara, as well as between households within the same area. There was no variation according to wealth categories to warrant representation here. The net off-take for the households in the lower livestock wealth group was similar to that of the wealthier group in terms of per centages of their respective livestock holdings — although the wealthier group may have sold more animals in absolute terms.

Only 29 households (33 per cent) reported that they had potentially marketable stock while most of the other households mentioned that they had no potentially marketable
animals in their herds. We found considerable regional differences in this case. In Ijara, all the 40 survey households said they had no marketable animals in their herds; while this figure was 17 in Dadaab. This difference may be a reflection of market involvement and the different perspectives of the two areas regarding the potential marketability of livestock. The south of Garissa (Ijara) is less involved in the livestock markets due to the distance from the main livestock market in Garissa town, whereas the northern part of the district (Dadaab) is more involved, probably because of easier access to major markets. On the other hand, it may also be that the Ijara households are more dependent on their livestock for subsistence than Dadaab households. This may necessitate the maintenance of a minimum number of livestock which they cannot sell if they are not to risk starvation or destitution. When asked about the existence of buyers for their animals, 67 households (79 per cent) answered in the affirmative. The households that said there were no ready buyers for their animals were mostly from Ijara which confirms our earlier assertion that the area is less receptive to livestock marketing. In the past, Lamu, on the coast, provided a good market for the pastoralists in the south of the district - mainly Ijara and the neighbouring Masalani. However, the role of Lamu as an outlet for Ijara livestock has diminished in recent years due to government regulations and an alternative source of livestock to Lamu market through the Garsen trading centre on the opposite side of the river. Table 7.5 gives the average prices of cattle and small stock in the two areas.

Table 7.5
Average prices of cattle and small stock reported by survey households, 1996 (Ksh/animal)*

<table>
<thead>
<tr>
<th></th>
<th>Dadaab</th>
<th>Ijara</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle: Buying</td>
<td>8229</td>
<td>4064</td>
</tr>
<tr>
<td>Selling</td>
<td>5174</td>
<td>6783</td>
</tr>
<tr>
<td>Small stock: Buying</td>
<td>699</td>
<td>759</td>
</tr>
<tr>
<td>Selling</td>
<td>988</td>
<td>976</td>
</tr>
</tbody>
</table>

* Non-weighted
Source: Author's survey

Figures for camel sales are not included in Table 7.5 since only one camel was sold by one of the three households in our survey that owned a few head each, and no purchases were made by any of the household. The low stock selling prices were about the same in Dadaab and Ijara, but the selling prices for cattle appear higher in Ijara than in Dadaab. The prices for cattle in Ijara were higher than those in Dadaab because most of the animals sold at the Ijara market are of a higher quality since all the others have to be taken to Garissa market if they are to find buyers. On the other hand, the Dadaab market attracts many traders and all sorts of animals are sold there, hence reducing the average sale prices for cattle.

However, average buying prices for cattle in Dadaab were high because of the high prices paid for castrated bulls by one of the households in that area, which explains the high buying price of cattle in the area, beyond the average selling prices during the same period. The head of this household was a trader who purchased livestock, either to resell in Garissa market or to transport by truck to Nairobi. Since he was capable of purchasing
only a few animals at a time, he was also said to be an agent of a large trader for whom he bought animals. When the large trader transports animals to Nairobi or Mombasa, the Dadaab household benefits since its own few purchased stock are also transported with others and higher profits are realised in the process. When the transactions of that particular household are excluded in the computation, the buying prices of cattle in Dadaab become close to those in Ijara.

Household incomes

The sample size used in the following table and some of the subsequent tables is based on the average number of households during the survey period. The responses were recorded for six visits to all households over a one-year period. However, not all households responded to all the questions for each visit, nor did each household necessarily give only one response to each question. There were also some households who migrated elsewhere during the survey, and these absent households were discounted from the survey since they could not be followed. However, those households that later returned were re-included in the survey. The absentee households were mainly an issue in Ijara, as evidenced by their average number of 9.2 compared to that of 3.5 for Dadaab. An estimation of household incomes from various sources including livestock sales, the sale of hides and skins, and from other sources is presented in the following section. There was not sufficient milk in the survey households to allow for sales of milk, and as a result, the women in our survey areas were deprived of a key income source. We obtained the average monthly\(^2\) incomes of the households. To obtain an idea of how the incomes from different categories are distributed over the households, we will present figures from each of the study areas for the sale of livestock, hide and skin sales and the average number of households involved in these. Table 7.6 shows livestock sales.

On average, more households sold small stock than cattle during the survey period. More Ijara than Dadaab households were involved in selling livestock. The number of households without any livestock sales during the survey period was 52 per cent in

<table>
<thead>
<tr>
<th>Table 7.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of households with livestock sales by area, 1996/1997*</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>N=45</td>
</tr>
<tr>
<td>---</td>
</tr>
<tr>
<td>Average no. of households with cattle sales only</td>
</tr>
<tr>
<td>Average no. of households with small-stock sales only</td>
</tr>
<tr>
<td>Average no. of households with both small-stock and cattle sales</td>
</tr>
<tr>
<td>Average no. of households without livestock sales</td>
</tr>
<tr>
<td>Average no. of absent households</td>
</tr>
</tbody>
</table>

* Average results over six rounds of observations.

Source: Author's survey

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\(^2\) The survey was conducted once every two months and the information sought and obtained was over the last month for the sale of livestock, and hides and skins, and over the last week in the case of expenditure on foodstuffs and non-food items.
Dadaab and 26 per cent in Ijara. Thus, the Dadaab households necessarily relied more on incomes from other sources while most of those in Ijara were dependent on incomes from livestock sales.

With the exception of three households in Dadaab who mentioned high incomes of between Ksh. 19,000-50,000 each from cattle sales, the rest of the households earned incomes from cattle sales of Ksh. 750-13,000 each. In the case of Ijara, there were also three households which mentioned earnings from cattle sales of Ksh. 20,000-32,000 each. Other households in Ijara had lower earnings from cattle sales. The earnings from sales of small stock varied from Ksh. 350-2,000 for most of the households in both areas with a few exceptions where incomes were as high as Ksh. 4,400 for Dadaab and Ksh 3,300 for Ijara. However, the incomes earned by the households from the sale of livestock always depended on the number of animals sold by the household in addition to the price each animal fetched. In general, we were able to observe an increasing trend in sales, especially of small stock, as the drought intensity increased.

Table 7.7

<table>
<thead>
<tr>
<th>Number of households with livestock purchases by area; 1996/1997.*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dadaab</strong></td>
</tr>
<tr>
<td>N=45</td>
</tr>
<tr>
<td>Average no. of households with cattle purchases only</td>
</tr>
<tr>
<td>Average no. of households with small-stock purchases only</td>
</tr>
<tr>
<td>Average no. of households with both cattle and small stock purchases</td>
</tr>
<tr>
<td>Average no. of households without livestock purchases</td>
</tr>
<tr>
<td>Average no. of absent households</td>
</tr>
</tbody>
</table>

* Average results over six rounds of observations.

Source: Author’s survey

Only a few households were involved in livestock purchases (Table 7.7). Households that purchased cattle did so during the early months of the survey period. Similarly, there were only a few which purchased small stock, and these purchases were fairly evenly distributed over the period of the survey. On average, only a few households actually purchased livestock during the entire year of the study: 2.7 in Dadaab and 4.5 in Ijara. While livestock purchases were traditionally aimed at improving breeds or meeting a specific ritual obligation for slaughter or gift, present-day livestock purchases are either aimed at herd reconstitution or for resale at a later date. When a household sells a large animal (camel or cattle) to meet a specific demand for cash, the balance is usually invested in the purchase of other animals, often small stock, hence creating an investment on the hoof which is convertible as the need arises. This has multiple objectives such as minimising the risk of losing cash in a robbery, as well as increasing the value of the investment through the birth of further animals or growth and fattening after the rains. Costs of livestock purchases are not considered an ordinary expense and these are deducted from incomes earned from livestock sales during the same period.

Sales of hides and skins provided income to some households (Table 7.8). The number of households selling hides and skins was lower in Dadaab than in Ijara (10.5 and 17.6 respectively). It should be noted that three-quarters of the households which
sold cattle hides in Dadaab had done so during the last month of the survey (February 1997) when the effect of the drought was at its worst. It is likely that most of the cattle hides were the result of deaths due to the drought of that year. The number of households selling small-stock skins was higher in Ijara compared to Dadaab, but small-stock holdings are higher in the Ijara area as well. The mortality rate of small-stock due to drought is usually low unless there is an outbreak of disease. Thus, most of the small-stock skins were presumably from animals that had been slaughtered for household consumption due to an insufficiency of food during the drought. Since Dadaab households had fewer livestock for subsistence than their Ijara counterparts, it would be expected that the former households had to slaughter more animals for food (especially small stock), or sell more live animals to purchase food during the survey period. However, households in the Dadaab area had access to relief food from various agencies, while others benefited from food distribution to the refugees in the camps, unlike households in Ijara.

The total income from cattle hides varied from Ksh. 160-660 per household for the Dadaab area, and Ksh. 140-400 per household for Ijara households during the survey period. The income bracket for Dadaab was found to be broader than that in Ijara which was a reflection of the difference in market exposure for the two areas, with more trade and traders in Dadaab. The same was the case for incomes from skins; varying from Ksh. 35-560 per household in Dadaab but from only Ksh. 25-205 per household in Ijara. Given its proximity to the main Garissa market and its better transport network, the Dadaab area has more buyers of hides and skins and therefore offers better competitive prices relative to those in the Ijara area.

Table 7.8
Number of households selling hides and skins by area, 1996/1997*

<table>
<thead>
<tr>
<th></th>
<th>Dadaab</th>
<th>Ijara</th>
</tr>
</thead>
<tbody>
<tr>
<td>N=45</td>
<td>0.7</td>
<td>0.8</td>
</tr>
<tr>
<td>Average no. of households with sales of cattle hides only</td>
<td>7.8</td>
<td>16.8</td>
</tr>
<tr>
<td>Average no. of households with sales of small-stock skins only</td>
<td>2.0</td>
<td>0</td>
</tr>
<tr>
<td>Average no. of households with sales of both hides and skins</td>
<td>31.7</td>
<td>16.3</td>
</tr>
<tr>
<td>Average no. of households without sales of hides and skins</td>
<td>3.5</td>
<td>9.2</td>
</tr>
</tbody>
</table>

* Average results over six rounds of observations.

Source: Author’s survey

Incomes from sources other than sales of livestock or hides and skins are presented in Table 7.9. ‘Other’ sources of income include wage employment, cultivation, the sale of charcoal and/or firewood, the sale of fencing bushes (in Dadaab),4 remittances from members of the household living elsewhere, and gifts from friends or relatives. Some

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3 Hides and skins of livestock that die unattended cannot be sold according to Islamic. Even those that die of drought should be slaughtered to make them *halal* for sale or consumption.

4 Dadaab had about 200,000 refugees in three camps at the time of the survey. As a result there were numerous NGOs and UN agencies in the area. This created a demand for fencing for the camps and homes due to increased insecurity in the area, hence some households sold fencing materials, usually the camphora plant.
households had a combination of more than one of these sources of income in varying degrees of importance. From Table 7.9, it can be noted that, on average, there were more households from Dadaab than from Ijara at most levels of income shown in the table. About 15 households from Ijara (35 per cent) had 'no other sources' of income while the number was slightly higher for Dadaab, 17.7 households (38 per cent). This may partly explain the presence of alternative survival possibilities for Dadaab households outside the livestock sector, since they have small herds and sell fewer animals than Ijara households. Although Dadaab has many NGOs which are potentially a source of employment opportunities, most of the organisations involved in refugee-based programmes either bring in their own staff or employ the refugees for unskilled tasks. The high demand for woodfuel in Dadaab due to the large population in the area made it possible for a few households to earn income to supplement their livelihoods through the sale of firewood. In the case of Ijara, many households depend on remittances from members working elsewhere. Few sell firewood or charcoal since most people in the area are able to collect their own woodfuel.

Table 7.9
Number of households with income from 'other' sources by area, 1996/1997*

<table>
<thead>
<tr>
<th>Income category (Ksh/month)</th>
<th>Dadaab</th>
<th>Ijara</th>
</tr>
</thead>
<tbody>
<tr>
<td>None (0)</td>
<td>17.7 (38)</td>
<td>15.0 (35)</td>
</tr>
<tr>
<td>Less than 500</td>
<td>3.5 (8)</td>
<td>6.7 (15)</td>
</tr>
<tr>
<td>500 - 1000</td>
<td>9.2 (20)</td>
<td>4.8 (11)</td>
</tr>
<tr>
<td>1001 - 1500</td>
<td>3.0 (7)</td>
<td>0.8 (2)</td>
</tr>
<tr>
<td>1501 - 2000</td>
<td>2.8 (6)</td>
<td>2.2 (5)</td>
</tr>
<tr>
<td>2001 - 2500</td>
<td>5.7 (12)</td>
<td>4.2 (10)</td>
</tr>
<tr>
<td>2501 - 3000</td>
<td>0.3 (1)</td>
<td>0.3 (1)</td>
</tr>
<tr>
<td>Number of absent households</td>
<td>3.5 (8)</td>
<td>9.2 (21)</td>
</tr>
<tr>
<td>Total</td>
<td>45 (100)</td>
<td>43 (100)</td>
</tr>
</tbody>
</table>

* Average results over six rounds of observations.
Source: Author's survey

Table 7.10
Number of households with 'other' economic activities by livestock ownership, November 1996*

<table>
<thead>
<tr>
<th>TLU</th>
<th>Yes</th>
<th>Economic activities**</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N (%)</td>
<td></td>
</tr>
<tr>
<td>0-9.9</td>
<td>4 (12)</td>
<td>13 (23) 17 (19)</td>
</tr>
<tr>
<td>10-19.9</td>
<td>4 (13)</td>
<td>13 (23) 17 (19)</td>
</tr>
<tr>
<td>20-29.9</td>
<td>6 (19)</td>
<td>11 (20) 17 (19)</td>
</tr>
<tr>
<td>30-39.9</td>
<td>9 (28)</td>
<td>11 (20) 20 (23)</td>
</tr>
<tr>
<td>40+</td>
<td>9 (28)</td>
<td>8 (14) 17 (20)</td>
</tr>
<tr>
<td>Total</td>
<td>32 (100)</td>
<td>56 (100) 88 (100)</td>
</tr>
</tbody>
</table>

* Results of an initial survey in November 1996.
** Economic activities include wage employment and 'others' such as charcoal sales, firewood sales, mat-making, sales of fencing materials, construction work, etc.
Source: Author's survey
When the frequency of economic activities outside the livestock sector was investigated, it was found that such activities are undertaken by a minority of the survey households with 32 households (36 per cent) being involved, as shown by the responses in Table 7.10. Support from NGOs and relief agencies is not considered as an economic activity although it does constitute a key source of livelihood, especially for some Dadaab households. The information is presented on the basis of TLU per household to establish whether such activities were a function of household livestock wealth.

It can be observed from Table 7.10 that the external sources of income constitute an important proportion of household incomes for households outside the livestock sector. Households with fewer than 20 TLU had less than their share of economic activities from 'other' sources since only 8 of these households mentioned having such activities while 26 households in the same category did not have income from such sources. Thus, poorer households tend to have less than their share of these activities with most of the households with few livestock not partaking in these activities. Households with more than 30 TLU per household accounted for more than half of all the households involved in 'other' economic activities, 18 households, while 19 households had no 'other' income. Indeed, there is a relationship between livestock ownership and 'other' economic activities for households, with the wealthiest households with more than 40 TLU per household 53 per cent participating in these activities. Since only a third of all households have access to 'other' sources of income, livestock still forms the main basis of subsistence among the Somali pastoralists in Garissa District. However, it is possible that some households did not provide full disclosure of all their sources of income for two reasons: expectation of some support from this research or from others who may use our results as a basis for assisting the poor, and secondly, illegal or undesirable sources of income such as trading in contraband goods. That poorer households with the lowest TLU tended to take less than their share of external resources may suggest the development of a group of severely impoverished households in the area who find themselves in a downward spiral of impoverishment in terms of both livestock holdings and access to 'other' sources of income. Table 7.11 shows the distribution of household resources for each of the two areas. More households in Dadaab reportedly lacked any income when compared to those in Ijara, with averages of 6.7 and 2.5 households for Dadaab and Ijara respectively. On average, more households from Ijara had incomes from hides and skins, and sales of livestock when compared with those from Dadaab. The average number of households in Ijara with incomes from hides and skins was 17.3, against an average of 10.7 for those in Dadaab.

Livestock sales had an average of 22.7 and 18.7 for Ijara and Dadaab respectively. However, there were more households in Dadaab with incomes from sources outside the livestock sector, when compared with those from the Ijara area. The average was 24.7 and 19.0 for Dadaab and Ijara respectively. Most households in Ijara subsisted from within the livestock sector, while more households in Dadaab had to diversify their income with 'other' sources. Such income diversification practices have been found for other pastoralists in Sub-Saharan Africa as well. The women in the Somali pastoral

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5 Despite our continued emphasis that our research was not meant for any donor, some respondents still felt that it might be possible that assistance would be given based on the results of our study.
households covered by this study appear to have minimal power as far as earning and controlling income is concerned. However, they were found to earn some income from the sale of milk (very limited and not recorded), and the sale of hides and skins in some cases. In this respect, the women from Ijara were in a better position than those from Dadaab where increasing involvement in the market seems to have alienated the women from most of their traditional sources and they have lost control over their income. However, as we will discuss in the next chapter, many women among the impoverished households tend to earn and control their income through trading and other sources rather than from sales of livestock products.

![Table 7.11](http://example.com/table7.11)

<table>
<thead>
<tr>
<th>Categories of income</th>
<th>Dadaab (n=45)</th>
<th>Ijara (n=43)</th>
<th>Total (n=88)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No income</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Livestock sales</td>
<td>6.7 (15)</td>
<td>2.5 (6)</td>
<td>9.2 (11)</td>
</tr>
<tr>
<td>Hides and skins sales</td>
<td>18.7 (42)</td>
<td>22.7 (53)</td>
<td>41.4 (47)</td>
</tr>
<tr>
<td>Other income sources</td>
<td>10.7 (24)</td>
<td>17.3 (40)</td>
<td>28.0 (32)</td>
</tr>
<tr>
<td>Households absent</td>
<td>24.7 (55)</td>
<td>19.0 (44)</td>
<td>43.7 (50)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Categories of income</th>
<th>Dadaab (n=45)</th>
<th>Ijara (n=43)</th>
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</tr>
<tr>
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<td>17.3 (40)</td>
<td>28.0 (32)</td>
</tr>
<tr>
<td>Households absent</td>
<td>24.7 (55)</td>
<td>19.0 (44)</td>
<td>43.7 (50)</td>
</tr>
</tbody>
</table>

Table 7.11
Number of households with different types of income by area, 1996/97*

* Average results over six rounds of observations.

**Per centages add up to more than 100% because of double counts or households with more than one source of income.

Source: Author's survey

The incomes of pastoral households are often dependent on seasonal conditions. When no alternative sources of income are available, households with fewer animals for subsistence have to sell relatively more livestock. For households with herds that are large enough to meet their subsistence needs, fewer animals will be sold and then only for minor cash needs other than the purchase of foodstuffs, assuming that they produce sufficient milk for their domestic needs. Seasonal variations here cannot be identified as the survey period coincided with a period of drought. However, since the data were collected on a bi-monthly basis starting towards the end of the short rains, it is interesting to note how many households had incomes from the various categories over each of the two-month periods during the one year of the survey (February 1996 to January 1997).

From Figure 7.3, it can be seen that many households derived incomes from external sources outside the livestock sector during the first half of the survey period. Incomes from hides and skins were earned by fewer households during the same period. In general, the number of households with incomes from hides and skins remained fairly stable over the entire survey. There was still some grazing and water during the first half of 1996 and many households subsisted on their livestock products supplemented by remittances from members elsewhere, and the sale of firewood and charcoal for those who had sufficient labour to allow for these activities and the task of livestock rearing. As the drought intensified and water and pasture became scarcer, households resorted to survival techniques such as separating the people and their animals into groups that remained close to the towns and others who went further afield with the animals. There were fewer households who earned income from outside the livestock domain during the
second half of the survey period, which coincided with the peak of the drought. Indeed, there were fewer households earning incomes from any other sources by the end of 1996. This was because there were few households with any disposable livestock left to sell since many animals had died, and secondly, those who had some livestock remaining had sent the animals with their own members, friends or relatives to far away pastures and were inaccessible. Finally, there were hardly any means of gainful employment during that period and a poor market for firewood or charcoal as additional sources of income. Indeed by the end of the survey, many households were receiving relief food and sending some to the people who had gone with their animals to distant pastures.

Figure 7.3
Number of households with different sources of income by time of year, 1996/97 (N=80)

Table 7.12
Composition of household income by area, (Ksh./month) 1996/97*

<table>
<thead>
<tr>
<th>Source: Author's survey</th>
</tr>
</thead>
</table>

Ksh.      | s.d. | (%)   | Ksh.     | s.d. | (%)   |
---|---|---|---|---|---
Livestock sales  | 1534 (+) | 3286 | 2069 (+) | 3261 | - |
Livestock purchases (-) | 344 (+) | 1751 | 257 (-) | 931 | - |
Net livestock sales  | 1190 | - | 1812 | - | (74) |
Sales of hides and skins  | 52 | 181 | 33 | 49 | (1) |
Other sources of income  | 676 | 768 | 605 | 777 | (25) |
**Total cash income**  | 1918 | - | 2450 | - | (100) |

* Average results over six rounds of observations.

Source: Author's survey
The estimated incomes from different sources for the survey households are presented in Table 7.12. Subsistence production that was not marketed is not included in the data presented in the table. For instance, milk produced and consumed by the household, meat from slaughtered animals, and gifts of milk and meat have neither been valued nor converted to cash for inclusion in our computation. Incomes from hides and skins contribute only marginally to the household incomes in both areas; three per cent in Dadaab and one per cent in Ijara, with a higher standard deviation (SD) in Dadaab. More livestock died in Dadaab during the survey period and their hides and skins were sold if they were slaughtered before dying. The prices for hides and skins were higher in Dadaab than in Ijara, earning slightly more income for Dadaab households. The Ijara households earned about 74 per cent of their income from livestock sales compared to the Dadaab households which earned 62 per cent from the same source. The standard deviation for income from livestock sales is 3,286 and 3,261 for Dadaab and Ijara respectively. In all, livestock sales were found to be the most important source of income for the majority of the households from both areas. Income from 'other' sources was the second in importance, contributing 35 per cent of the income to Dadaab households and 25 per cent to those in Ijara. High standard deviations were recorded in all categories of income, indicating the wide range of income generated by different households which is not apparent from the averages.

Earnings from illegal activities such as trade in contraband goods and the sale of game trophies were usually not disclosed by the households, although we cannot rule out the possibility of such earnings in a few households.

Household expenditure

Few households in our survey areas only subsisted on livestock products such as milk and meat. Somali livestock producers are increasingly dependent on purchased foodstuffs as well as on non-food items. In our survey, no distinction was made between male and female expenditures within the household because expenditures are generally not differentiated as such by the households. Most expenditure was found to be on food items including maize meal (locally known as posho), rice, sugar, tea, cooking oil and coffee beans (known as buni). There was also substantial expenditure on non-food items such as clothes, livestock drugs, and diesel for boreholes for Dadaab households. Zaal (1998), in a similar study among the Maasai households in Kenya, established similar expenditure patterns.

The main household food purchases are listed in Table 7.13. Almost all the households had expenditures on foodstuffs such as maize meal, rice, sugar and tea. In general, Dadaab households mentioned the purchase of more items than their counterparts

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6 The data presented in this section were weighted for sampling. Due to the inherent difficulties of recall procedures, expenditure was asked for a period of one week preceding the interview. Six visits were made to each household and expenditures were recorded over the survey period.

7 Coffee beans or buni as they are commonly called, are used during ritual ceremonies such as prayer ceremonies for the dead members of the household. They are taken in milk together with pop-corn. Fridays, the most important day of the week for Muslims, and other religious ceremonies, are the most popular days for taking buni.
in Ijara. In addition, many Dadaab households purchased meat and milk while a negligible number of households from Ijara purchased these items. This is largely explained by two factors: Dadaab households were more strategically situated with regard to the availability and accessibility of various foodstuffs, most of which are cheaper in the local market. In addition, Dadaab households either receive foodstuffs from relief agencies or they have access to cheaper markets for these foods due to the supply from the refugee camps and NGO relief distributed in the area, both of which find their way to the market. Dadaab pastoralists are also poorer in livestock holdings than their Ijara counterparts (Table 7.4), hence the inadequacy of meat and milk for consumption and the need to purchase these from the market. Households that purchase milk in Dadaab usually buy camel milk which is brought from the Liboi area north of Dadaab where most of the camels in Garissa District are reared. The lack of milk purchases by Ijara households, on the other hand, may in fact be an indication of relatively higher milk production by their own animals.

Table 7.13
Number of households with different food purchases by area 1996/97*

<table>
<thead>
<tr>
<th>Food</th>
<th>Dadaab (n=42)</th>
<th>Ijara (n=34)</th>
<th>Total (N=76)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maize meal</td>
<td>42 (100)</td>
<td>34 (100)</td>
<td>76 (100)</td>
</tr>
<tr>
<td>Sugar</td>
<td>42 (100)</td>
<td>34 (100)</td>
<td>76 (100)</td>
</tr>
<tr>
<td>Cooking oil</td>
<td>41 (98)</td>
<td>3 (9)</td>
<td>44 (58)</td>
</tr>
<tr>
<td>Rice</td>
<td>34 (81)</td>
<td>33 (97)</td>
<td>67 (88)</td>
</tr>
<tr>
<td>Meat</td>
<td>33 (79)</td>
<td>1 (3)</td>
<td>34 (45)</td>
</tr>
<tr>
<td>Tea leaves</td>
<td>41 (98)</td>
<td>34 (100)</td>
<td>75 (99)</td>
</tr>
<tr>
<td>Coffee beans (Buni)</td>
<td>22 (52)</td>
<td>17 (50)</td>
<td>41 (54)</td>
</tr>
<tr>
<td>Milk</td>
<td>18 (43)</td>
<td>0.2 (1)</td>
<td>18.2 (24)</td>
</tr>
<tr>
<td>Others</td>
<td>25 (60)</td>
<td>0 (0)</td>
<td>25 (33)</td>
</tr>
</tbody>
</table>

* Average results over six rounds of observations.
Source: Author's survey

Households that purchased three common foodstuffs are shown in Figure 7.4. Purchases of maize meal and sugar were undertaken by nearly all the households in the survey areas all year round. After maize meal, rice is the most commonly purchased cereal. The consumption of rice declined during the survey, but rose again towards the end of the period. Variations in the purchase of foodstuffs by the survey households may have been due to less money being available during the drought, and also because some of the households in the survey area received relief food and therefore did not need to purchase food. Sugar consumption among the Somali people is usually high, especially during the dry season when it is thought that extra energy is needed. From the figure, sugar consumption exceeded that of rice during certain periods of the year. The amount of expenditure by households on each of these items is depicted in Table 7.14.

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8 Although Dadaab households mentioned the purchase of such foodstuffs as sorghum, millet, beans and wheat, these products are not commonly used products nor are they locally available. They are often distributed by relief agencies in the area.
Figure 7.4
Percentage of households with weekly purchases of maize meal, rice and sugar during the survey year, 1996/97 (N=76)

Source: Author's survey

Table 7.14
Average number of households with a given amount of expenditure on three common food items, 1996/1997 (Ksh./week) (N=88)*

<table>
<thead>
<tr>
<th>Shillings</th>
<th>Maize meal (N, %)</th>
<th>Rice (N, %)</th>
<th>Sugar (N, %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Households with no expenditure</td>
<td>0.5 (1)</td>
<td>9.5 (11)</td>
<td>0.3 (0)</td>
</tr>
<tr>
<td>&lt; 100</td>
<td>44.0 (50)</td>
<td>2.2 (2)</td>
<td>3.8 (4)</td>
</tr>
<tr>
<td>100 - 150</td>
<td>22.5 (25)</td>
<td>45.7 (52)</td>
<td>16.0 (18)</td>
</tr>
<tr>
<td>151 - 200</td>
<td>4.3 (5)</td>
<td>3.0 (3)</td>
<td>21.7 (25)</td>
</tr>
<tr>
<td>201 - 250</td>
<td>2.2 (2)</td>
<td>9.0 (10)</td>
<td>5.5 (6)</td>
</tr>
<tr>
<td>251 - 300</td>
<td>1.5 (2)</td>
<td>0.7 (1)</td>
<td>5.7 (6)</td>
</tr>
<tr>
<td>300 +</td>
<td>0.3 (0)</td>
<td>6.0 (7)</td>
<td>23.7 (27)</td>
</tr>
<tr>
<td>Households absent</td>
<td>12.7 (15)</td>
<td>12.7 (14)</td>
<td>12.7 (15)</td>
</tr>
<tr>
<td>Total</td>
<td>88 (100)</td>
<td>88 (100)</td>
<td>88 (100)</td>
</tr>
</tbody>
</table>

* Average results over six rounds of observations.
Source: Author's survey

Most households had a weekly expenditure of less than Ksh150 on the three items (maize, rice and sugar). In terms of the three food items recorded in Table 7.14, there were relatively higher numbers of households with expenditures on maize meal and sugar. Sugar and rice are usually more expensive than maize meal, and this increases the average household expenditure on foodstuffs. In general, we found more households in Ijara which purchased rice than in Dadaab, probably because of a lack of alternative to maize meal other than rice. Fewer households purchased rice compared to the other food items shown in the table. The average number of households with expenditure on each of
the items in Table 7.14 was highest in the expenditure bracket of 100-150 shillings for a one-week period. There were few households which spent more than Ksh 200 on each foodstuff.

Table 7.15
Average number of households with purchases of various non-food items 1996/97*

<table>
<thead>
<tr>
<th>Drugs</th>
<th>Clothes</th>
<th>Tools</th>
<th>Diesel</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Average no. of households with purchases</td>
<td>38.8 (44)</td>
<td>23.2 (26)</td>
<td>3.0 (3)</td>
</tr>
<tr>
<td>Average no. of households without purchases</td>
<td>37.3 (42)</td>
<td>53.2 (60)</td>
<td>73.3 (83)</td>
</tr>
<tr>
<td>Average no. of absent households</td>
<td>12.7 (14)</td>
<td>12.7 (14)</td>
<td>12.7 (14)</td>
</tr>
<tr>
<td>Total</td>
<td>88 (100)</td>
<td>88 (100)</td>
<td>88 (100)</td>
</tr>
</tbody>
</table>

* Average results over six rounds of observations.  
Source: Author's survey

In addition to the foodstuffs shown in Table 7.14 many households bought other products including clothes, veterinary medicines, tools such as knives, and diesel for use in the borehole generator in Dadaab. Only a minority of households purchased tools and diesel during the survey period, but about half of the households (44 per cent) had spent money on livestock drugs. However, their number declined with the progression of the drought, possibly due to changed priorities as a result of scarcities. When food is scarce, households struggle to keep themselves alive rather than buying medicines for their animals, which may die in any case because of the drought. While there were no boreholes in Ijara, a few of the better-off Dadaab households had purchased some diesel. On average, a relatively stable number of households purchased clothes. Livestock drugs and clothes accounted for the highest expenditure on non-food items during the survey period.

Table 7.16
Average number of households with expenditure on food and non-food items by area, 1996/97*

<table>
<thead>
<tr>
<th>Dadaab</th>
<th>Ijara</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>N (%)</td>
<td>N (%)</td>
<td>N (%)</td>
</tr>
<tr>
<td>Average no. of households with expenditure</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Foodstuffs only</td>
<td>17.8 (41)</td>
<td>4.5 (11)</td>
</tr>
<tr>
<td>Non-food items only</td>
<td>0 (0)</td>
<td>0 (0)</td>
</tr>
<tr>
<td>Average no. of households with both expenditures</td>
<td>17.2 (40)</td>
<td>25.2 (62)</td>
</tr>
<tr>
<td>Average no. of absent households</td>
<td>8.5 (19)</td>
<td>11.2 (27)</td>
</tr>
<tr>
<td>Total</td>
<td>43 (100)</td>
<td>41 (100)</td>
</tr>
</tbody>
</table>

* Average results over six rounds of observations.  
Source: Author's survey

9 In general, households are required to purchase their own fuel for the borehole generator in order to water their animals. The generator itself is provided by the government and the operator is usually employed and paid by the government too. Some pastoral associations formed recently in the Dadaab area and other parts of North-eastern Province where boreholes are the main source of water are expected to take over the running of these boreholes in future.
An aggregation was made of all the household expenditures on foodstuffs and non-food items to determine the number of households involved in each case (Table 7.16). More households from both Dadaab and Ijara had expenditures on foodstuffs, either on its own or in combination with non-food items. None of the survey households reported purchases of non-food items only. An average of 35 households in Dadaab (81 per cent) and 29.7 in Ijara (73 per cent) made purchases of either one or both products. It is clear that fewer households spend on non-food items than on foodstuffs. More households in Ijara spent on non-food items, mainly livestock drugs, than their counterparts from Dadaab. This is because there are higher incidences of livestock disease in the Ijara area due to the Boni forest which has a lot of tsetse flies, ticks and mosquitoes.

In general, Dadaab households were found to spend more on foodstuffs while households in Ijara tend to spend more on non-food items, particularly livestock drugs. More households in Ijara are apparently able to live from their livestock products, thus spending less on foodstuffs compared to Dadaab households. It should be noted that there are certain categories of expenditure that are usually not disclosed by the households involved, either because they are illegal or socially unacceptable. Such expenditure may include the purchase of firearms, the purchase of miraa (qat), the payment of a dowry or compensation for misdeeds by a member of a household against someone from another household.

Summary of the findings

Somali pastoral households were found to be large, with an average membership of up to seven people. Households are organised around the reer, which makes decisions that are binding to all its members. Settlements and grazing patterns tend to be organised on the basis of relationships such as the reer. Most households owned small herds, with the majority having fewer than twenty Tropical Livestock Units (TLU). Households in Ijara had more livestock than their counterparts in Dadaab.

The livestock off-take in the area is often through sale or death, and only a limited number in other transactions. However, we were interested mainly in commercial off-take which revealed very low figures in both study areas. The off-take of both cattle and small stock was slightly higher in Dadaab than in Ijara, indicating possibly more market involvement in the former than in the latter. The average off-take was 5 per cent for cattle and 7 per cent for small stock. Livestock with defects were the first to be sold, and more valuable animals were only disposed of as a last resort. More livestock were sold in Garissa market than in the divisional markets of Dadaab and Ijara. Most of the traded livestock ended up in the large markets of Nairobi and Mombasa for re-sale and consumption.

Sources of household income were determined. Incomes were from livestock sales, the sale of hides and skins, and other sources such as wage employment, cultivation (rarely), charcoal sales and the sale of firewood. During the first part of the survey, income from sources other than the livestock sector was more important, but all incomes declined during the drought of 1996/97. Some households did not have any income
during the survey period. For the majority of households that did have income, the sale of livestock still remained the single most important source.

In terms of household expenditure, most households were found to have bought on foodstuffs, with others spending on non-food items as well. There were no households with expenditure on neither food nor non-food items. The consumption of maize meal (posho) was found to be widespread with all the households having purchased it the week preceding each of the six rounds of interviews. Similarly, purchases of sugar were reported by all the households in the survey. Apparently more households in Dadaab participate in the market for their livelihood than their Ijara counterparts, some of whom depend on their livestock products. Households from Ijara had relatively higher expenditures on veterinary drugs than those in Dadaab, indicating the importance of livestock health problems in that area. This was expected given that Ijara is close to the thick Boni forest with high incidences of tsetse flies and other insects that cause livestock diseases. Most households in both areas earned incomes from various sources and spent it mainly on foodstuffs for household consumption and/or the improvement of their livestock through purchases of livestock health products.

It would appear from our findings that market relations are important for households from both Dadaab and Ijara. Dadaab households particularly depend on the market for most of their food needs. It is important to take into account the fact that Dadaab households have access to more sources of foodstuffs through the NGOs and refugee agencies operating in their area. Thus, more households in Dadaab are dependent on relief food for a greater part of the year than those in Ijara. Although substantially dependent on the market as well, Ijara households spend much of their income on livestock drugs and other inputs in livestock health which are obtainable in the market.
A discussion on how the Somali pastoralists in Garissa District manage to live under difficult conditions is presented in this chapter. We start with reference to coping mechanisms and survival strategies for East African pastoralists in general, as described in the literature. A categorisation of the recent problems confronting the Somali pastoralists and their efforts in coping with and mitigating the effects of these problems will then be outlined. The key problems, which we refer to as 'crises', include drought, insecurity and environmental degradation. The last two are closely connected with the high number of refugees living in the area since 1991. A discussion on the most impoverished households in Garissa town will be presented, along with the survival strategies which they use in their livelihood struggles.

Coping with drought in north-eastern Kenya

North-eastern Kenya lies within the areas described as Arid and Semi-Arid Lands (Asals), with nomadic pastoralism as the main economic enterprise involving the majority of the people. Long dry seasons and droughts are well-known phenomena. Garissa District has not been spared the problems that afflict many pastoralists in dry lands, namely, drought and the concomitant lack of food and threat of starvation. The Somali pastoralists have always had various mechanisms of coping with drought, some of which are still employed today.

One of the key drought coping mechanisms was the pastoralists' movement across wide areas with the mutual understanding of their neighbours. We understand from earlier records that the Somali pastoralists had contacts with the Boran, the Rendille, the Gabbra, the Oromo, and even the Samburu; and they could move into any of these areas during times of localised drought. This had the effect of minimising losses from livestock deaths. Unfortunately, the colonial period created exclusive ethnic zones which prohibited access
to others. The colonial restrictions on ethnic groups reduced the movement options of the Somali pastoralists even during localised crises. It is partly for this reason that the Somali became involved in grazing conflicts with some of their neighbours, especially during periods of drought. Although there were occasional tensions between neighbouring pastoral communities during the pre-colonial period, the colonial policies appear to have aggravated such conflicts.

Besides movements of people and livestock to areas that were less affected, the Somali pastoralists, like some of their counterparts in East Africa, used other options to cope during periods of crisis. Some of the strategies used have declined in recent years while others are still in use. Common strategies included dividing the animals and the family members; seeking lactating animals from relatives and livestock associates,1 selling or slaughtering livestock; seeking support from relatives living farther away; settling some family members in trading centres; and in extreme cases; leaving remaining animals with relatives and moving the whole household to settle in or near trading centres. Some of these strategies may be employed at the same time. We now look at each of them in turn and give an appreciation of the role each played during the recent droughts in northeastern Kenya.

The Somali call dry seasons hagaa or jilaal (representing the long and short dry seasons during the periods from June to September and December to February respectively), while drought is locally known as abaar. The latter implies difficult times when food and water may be scarce and it is a period the Somali pastoralists dread going through, but over which they have no control. During the early phase of the drought when expected rains fail and grazing gets scarce, one of the earliest adaptations is the division of animals into a strong herd and a weak, including some in lactation. The strong herd, usually consisting of dry females, males, and females that are in late lactation (known as gabaan) are taken away by the men and the male youth in search of better grazing. This part of the herd is referred to as jilay. The other animals are left with the women whose duty it is to look after the ailing animals as well as the more vulnerable household members such as the elderly and the children. It should be noted that those left behind may not necessarily be at a trading centre, although close proximity to a trading centre may be considered important. During the last drought, most of those left with lactating animals were found in Ijara area in the south of Garissa District, and most were within twenty kilometres of a trading centre. While in the homestead camp, the family members who are left behind may travel to the trading centres where relief food is distributed, but they often rely on remittances from those who took the other animals away. Such remittances are usually earned through the sale of livestock. It is when the drought is severe and many animals die or animals are moved so far away that contact is not possible, that remittances from the jilay cease. At such times, it may be necessary to move closer to trading centres or sell some of the animals available at the homestead.

In the past, it was a widespread practice to borrow lactating animals for the season to enable the needy household to improve its food status. Immediate relatives who were better off were usually the first option, followed by stock associates (livestock associates)

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1 Livestock associates are also referred to as stock associates. These are pastoralists who do not necessarily have kinship relations but who are friends and support each other economically.
who had mutual support obligations with the household in question. Borrowed animals were returned the next season or were retained by the receiving household for a longer period, depending on the loan conditions and the future needs of the household lending the animal. When lactating animals are either unavailable or inadequate, households tend to sell whatever livestock they may have to meet their food needs. The *jilay* may sell from the herd at their disposal while those left behind may similarly sell the animals left with them, or ask for a saleable animal from the *jilay*. Similarly, the slaughter of small stock may be common, especially when large animals (cattle and camels) are either scarce or unavailable for sale. Needy families also send messages to their kin in towns to send help (foodstuffs and money), while at the same time sending some household members to stay with relatives in towns.

Although socially accepted in times of need, asking for help may also mean a loss of social and individual esteem, and will be done only when there is no alternative (De Bruijn 1999). When the situation deteriorates further and the risk of starvation becomes imminent, most of the members of the household are taken to settle in the main trading centres while one or two male members may continue herding the remaining animals, or they may settle with their remaining animals, especially the small stock. In our survey of households in Garissa, the majority of households (68 per cent), had fewer than 20 head of cattle and were dependent on some of these options for their survival. However, when too few animals survive the drought, they are combined with those of relatives or friends in whose custody they are left, and the whole family converges around a settlement or town, where they undertake various economic activities while at the same time receiving relief food from government and relief agencies. Commenting on the strategies adopted by pastoralists displaced by the 1983-85 famine in Sudan, Salih mentioned that 'those who lost all their animals migrated to relief food distribution centres only to live as destitutes depending on international charity and relief food' (Salih 1991:51). It has been observed that the growing need for cash and a lack of cash resources tend to encourage poor, non-viable pastoral households to settle close to trading centres and small towns where job opportunities or market facilities are better (Talle 1988).

The specific income-generating activities undertaken by settled Somali pastoral households will be discussed in another section. However, suffice it here to say that household members often employ a number of options in order to feed their members once in the settlements, such as working in construction, or selling firewood, charcoal, handicrafts and *miraa*. Dietz reported some of these activities among the Pokot in Kenya/Uganda (Dietz 1987). Some Somali are reported to have married people of other faiths for material support, contrary to societal norms. In recent times, there has also been increasing involvement of some Somali in socially unacceptable activities such as prostitution, and an increased spate of theft and pick pocketing by young street children in the main trading centres.
Role of relief food in drought mitigation in Garissa District

Dependence on relief food has become a perpetual survival strategy for some of the households in north-eastern Kenya. This is confirmed when one observes the ever-increasing number of relief food recipients whenever there is a distribution of relief food in the area. In the past, a household that received relief food was not only held in low esteem but was also considered *midgan* (or a low class that was impure). As recently as the drought of 1969 when a huge part of the population was displaced in Garissa District, many pastoral households declined to go for distribution of relief food even under the threat of starvation. We have been informed of some families who lost members as a result of their failure to seek relief food, and who were finally saved only when the local chief took food to their houses (Mzee Mohamed, personal communication). It was also considered a curse on the remaining livestock and family members for a household to seek relief food when it still had a few live animals. Somewhere along the line, attitudes to relief food appear to have changed, and many Somali pastoralists today tend to see relief food as an additional survival opportunity rather than the taboo which it once was. It is taken to be one of the necessary diversification options available to poor households, while it may be absolutely critical for destitute households.

The Somali pastoral community makes a distinction between a poor person (*maskiin*) and a destitute person (*ceer*). A *maskiin* is a person or household with insufficient animals for subsistence. Traditionally, such a person was given lactating animals, milk, and assistance in a number of other forms. A *ceer*, on the other hand, is stockless and therefore destitute. Under normal circumstances, such a person is given a collection of animals by members of his *reer* to enable him to re-enter the pastoral economy. However, due to the changing economic fortunes of the Somali pastoral society, too many people appear to have landed in destitution, and are beyond the help of the traditional support mechanisms that could enable them to re-enter the pastoral economy. Although the sheer number of destitutes makes it difficult for the traditional restocking system to work. The increasing involvement of Somali pastoralists in the market economy through sales of livestock products also makes the traditional support system less likely to operate as well as it used to in the past. As a result of the looseness of the traditional support mechanism, many pastoral households no longer shy away from being seen to be dependent on relief food, contrary to previous norms. How did a poor or destitute pastoral household in Garissa District benefit from relief food in the area during the drought of 1997? In general, relief food is distributed without proper needs assessment and it often aims at benefiting the highest number of recipients — hopefully including the needy. The assumption is that those who are better off will avoid the embarrassment of asking for relief food and only the needy will seek assistance. However, reality is different because even the better-off households nowadays see relief food as an extra opportunity for saving costs or doing business. Commenting on relief food distribution procedures in northern Kenya, Little points out that:

2 *Midgan* is a term used to refer to those considered to be of a lower class among the Somali society. They are traditionally hunters (an activity often despised by society) and do not intermarry with other Somali groups. To be called a *midgan* is considered an insult.
The effectiveness of food aid was and continues to be further diminished by the manner in which it is distributed. Relief is provided in order to support the largest number of families rather than only the poorest. The lack of storage facilities means that total shipments are distributed almost immediately after their receipt rather than being allocated sequentially to the neediest families (Little, 1992:127-8).

Although a storage facility is provided by the National Cereals and Produce Board (NCPB), there is still no needs assessment conducted and many of the recipients of relief food continue to be the better off - sometimes through contacts with those responsible for the relief food. The Somali households’ strategies for enhancing their chances/opportunities of benefiting from relief food include, registering themselves in more than one distribution centre, varying the number of members of the household, enrolling as refugees in the refugee camps in the Dadaab area and trading in relief food. There may be several distribution centres within one trading centre, usually intended to ease distribution. Some households take advantage of this and register themselves in more than one distribution centre, and consequently receive shares for more than one household. Similarly, exaggerating the number of household members may bring in more food. This, in turn, enables many households, including the poorer ones, to enter the market economy and sell some of their food in order to buy other necessities such as sugar, tea, groceries and medicines. The poor households have few animals which makes it difficult for them to sell some. When they receive relief food, they can sell some of it to purchase other necessities, while at the same time allowing for the reproduction of their livestock. Although the better-off households are not commonly involved in multiple registrations, they often buy food (mainly maize grains) from the poorer households and trade for profits. The need for some starting capital usually means that the poorer households cannot engage in the trade of relief food since their consumption needs require them to use up their food allowances.

Refugees are supposed to be foreigners seeking security in the country, and it is illegal for Kenyans to enrol as refugees. However, registration in the refugee camps has also been practised by some of the local households as a mechanism for coping with the effects of drought and to minimise the loss of human life and livestock. Since all the refugee camps in north-eastern Kenya are in the Dadaab area, the households from this area may have been more involved in this practice than people elsewhere in the province. However, some of our informants mentioned that a number of households that moved from Wajir and Mandera also came to Dadaab and registered as refugees and settled in the camps. Due to its illegality, households are reluctant to disclose their registration in the camps and it has been difficult to get a reliable estimate of the numbers involved. It is because of the better living conditions in the refugee camps relative to those of the local people in the neighbourhood that many local households are attracted to the camps. While some households involved may move and settle in the camps, others may register but live outside the camps, returning only when there is a distribution of food or a headcount of people in the camps by the UN agencies.
Refugees and environmental degradation

Although it has not been quantified, it is our contention that the current levels of environmental degradation in north-eastern Kenya in general, and in Garissa District in particular, are unprecedented. In the case of the wider north-eastern Kenya, the single largest threat to the physical environment has been the establishment of settlements and trading centres in the area which have created islands of degradation. The causes and consequences of the establishment of many settlements in the area are discussed in Chapter Three in the area. It has also been observed in Turkan a District in Kenya where Watson writes as follows:

The development of trading centres, government administration posts and development projects have enabled the small urban, sedentary segment of Turkana society to increase. This segment is developing into a society largely without the economic and cultural underpinning of livestock. (...) They engage in income-generating activities such as burning charcoal for which there is a market in the settlements, but which activity is generally considered of very low status among pastoralists (Watson, 1994:28).

In addition to the effects of the trading centres on the environment, there has also been the enormous impact of the refugee population in Garissa District. Kenya hosts a large refugee population, mostly from the Republic of Somalia, but also from Ethiopia, Sudan and Uganda. Although refugee camps had initially been established in several areas of the country, all the refugees in Kenya are presently concentrated in Dadaab in Garissa District, and Kakuma in Turkana — both dry and fragile environments. The camps in Dadaab disguised up large chunks of land with the three camps being more or less a trading centre on its own. This required clearing the land to pave the way for setting up the camps. All the camps had then to be fenced for security reasons, further consuming many live trees for the fencing needed. The international agencies involved, including the UNHCR and other agencies, also had to fence their camps. Although establishing the camps resulted in a loss of vegetation, it is the need for wood fuel for the large refugee population that has caused, and continues to cause, unprecedented environmental degradation in Garissa District in general, and in the Dadaab area in particular.

Since the setting up of the refugee camps in Dadaab in 1991, all refugee households have depended on the physical environment for their wood fuel needs, just like local households. In the early period, it was possible to collect dry wood within close proximity of the settlements. With time, it became necessary to venture farther afield in order to collect dead wood for household use. It was at this point that poor local households who previously collected firewood from around the centres and sold it for their survival increasingly found it difficult to find sufficient firewood. It took three to four times longer to collect firewood than before the arrival of the refugees. As a result of the need to venture farther into the bush in search of wood, it became necessary to cut down live trees and let them dry, to be collected for use at a later date. With the intense heat in the area, wood dries within a few days. With regard to this phenomenon of cutting down live trees because of a scarcity of dead wood, Joekes and Pointing maintain that:
Dead wood can no longer be picked up while on the move, and diminishing availability of wood means that settled pastoralists are, out of necessity, adopting the more damaging practice of cutting living wood, and in extreme cases, entire trees or bushes (Joekes & Pointing, 1991:18).

Since it is the women who are responsible for the collection of firewood in Somali society, they spend much of their time looking for firewood at the expense of other duties. Cases of rape increased because the women had to travel long distances in dangerous areas. The price of firewood in the market increased due to scarcity. UNHCR was hard put to find alternatives in order to protect female refugees from assailants wandering in the bush. As a result of pressure from the refugees themselves, UNHCR and other agencies involved in the refugee programmes contracted various individuals and local NGOs to supply huge amounts of firewood. Some contractors in turn sub-contracted others. Due to the increasing disappearance of dead wood in the area, the suppliers not only transport from far-away, but they mostly depend on cutting down live trees. The massive areas devoid of trees and even shrubs leave the local Somali women without any means of getting firewood since the UN agencies only cater for the needs of the refugee population. The argument is that the local people should be provided with wood fuel by the government (Maryam, personal communication). However, the local people do not have the necessary political clout to compel the government to intervene since they occupy a peripheral position in the national political as well as economic spheres. Van Dijk explains how people may not be able to effectively redress ecological problems like the one facing the Somali community in Garissa District. He contends that:

The extent to which individuals and groups are able to deal with ecological hazard in an adequate manner depends not only on their skills and knowledge as is commonly argued, but also, and perhaps even more, on the political position they occupy and the control over and access they have to crucial resources (Van Dijk, 1999:238).

Although there is an Environmental Working Group (EWG) in Dadaab, it mainly consists of elders who may not understand the implications of wood harvesting, or who are complacent simply because they owe the UN agencies favours. Some of those who voiced environmental concerns were silenced by being awarded part of the contract to supply firewood themselves. Thus, the situation not only threatens the stability of the physical environment, but it has also deprived some of the poorest households of a source of income (firewood and charcoal) which provided one of the strategies of survival at critical times of need in recent years. At the same time, continued clearing of trees and shrubs has created large tracts of land no longer useful for pastoralists at all. As a result of the loss of livestock coupled with the degradation of the range by wood fuel collectors, many poor pastoral households have decided to settle in trading centres, with few possibilities of resuming a full nomadic life, not least because of range degradation. These pastoralists may be referred to as environmental refugees or ecological refugees in their own land due to inappropriate utilisation of the rangeland.

Although clearing trees for firewood is the main component of environmental degradation in the area, other activities include ground water extraction and pollution. The UN agencies have dug several boreholes in the refugee camps to provide water for the
refugees. This has put enormous pressure on ground water resources in the area, especially considering the large number of refugees in the area. In addition to the pressure on the quantity of water through extraction, there is also ground water pollution. Numerous pit latrines had to be dug when the refugees first arrived ten years ago. Some of these latrines have already filled up and replacements have been dug. Assuming an average of twenty people per latrine, we estimate there to be about 20,000 latrines in an area of less than 100 km². Given the porosity of the sandy soils which dominate the area, substantial ground water pollution has occurred. Cases of disease such as cholera and typhoid have taken place in the Dadaab area.

Coping with insecurity in Garissa District

Garissa District and indeed most of northern and north-eastern Kenya have been bedevilled with continued insecurity over the years. Lane and Swift summarise this as follows:

No discussion of northern Kenya pastoral development is complete without reference to violence (Lane and Swift, 1989:4).

The region has become synonymous with insecurity since independence, with different people blaming each other for the lack of security. The thugs who block roads and kill, maim and loot are known by various names across the country. In north-eastern Kenya, they are referred to as bandits or *shifta*, while those responsible for the same atrocities in the rest of Kenya are simply referred to as thugs or gangsters. In other pastoral areas in Kenya outside of north-eastern Province, they are referred to as cattle rustlers. The government blames the local population for supporting those perpetrating the incidents while the local community blames the government for lacking the ability or willingness to stamp out violence. Be that as it may, insecurity in north-eastern Kenya has affected the local economy. Denying pastoralists access to good grazing land, pushing them into settlements in trading centres and limiting possibilities for livestock marketing are some of the ways in which the existing insecurity has hampered the development of the area and has contributed towards the impoverishment of the Somali pastoralists. Although north-eastern Kenya has known little security since independence, the situation worsened following the collapse of the Republic of Somalia in 1991. Since the area has a long common border with Somalia, there was an infiltration of arms and ammunition into the area, which was exacerbated by the Kenyan government's support of one warlord against another. Consequently, many areas became heavily infested with the so-called bandits to the extent that pastoralists no longer risk taking their animals there. Indeed, our informants confirmed that certain parts of Garissa District could not be used to graze livestock even during the drought due to insecurity, thus rendering such areas *de facto* 'no-go zones' for pastoralists.

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3 The word 'shifta' is in neither the Somali language nor Swahili. It is said to have its origin in the Semitic languages of Ethiopia — and its meaning is closely related to banditry.
As a consequence, Somali pastoralists have to take their animals to areas even farther away, or practice group herding in which several families combine their livestock and herd them together. To protect their livestock, some pastoralists have purchased firearms for self-defence to counter attacks. Since it is illegal for individuals to acquire arms in Kenya, it is difficult to obtain much information as to the ownership of arms. Government security forces often invade pastoral homesteads in search of arms and those found in possession of fire arms are arrested and prosecuted. Local pastoralists point out that since the security forces in the area do not accord them sufficient protection against the bandits, they should be allowed to arm themselves for self protection — a very contentious issue. Despite the rampant insecurity in the area, only a few households lost entire herds in the process, with most affected households losing only a few head of animals which the bandits take and slaughter.

Insecurity is also partly responsible for sedentarisation in Garissa District and other parts of north-eastern Kenya. Many households have opted for moving into trading centres for security reasons. Trading centres have security personnel provided by the government, and households with only a few livestock prefer to live in trading centres where they can keep their animals and enjoy security as well. However, this is hardly an option for those pastoralists who have more livestock since grazing opportunities around settlements are inadequate. Permanent settlements also often act as relief food distribution centres, this being an additional reason for households to move in during periods of drought.

Impoverished households in Garissa District

Pastoralists in Garissa District, and indeed those in all other pastoral districts have been highly susceptible to the effects of droughts and, in some areas such as southern Garissa, disease in their animals. Following some of the drought years in the 1990s, especially that of 1992 and the more recent one of 1996/1997, many pastoralists have found themselves unable to continue with their pastoralism, either because of insufficient livestock or due to the total loss of all their stock. Most households moved into towns and trading centres in order to benefit from relief food from the government and NGOs. Some families moved into the refugee camps and registered themselves as refugees. Thus, pastoralists, who before losing their livestock were confident and self-reliant, found themselves in a precarious situation regarding their livelihoods following the loss of their livestock. They live in villages, locally known as *bullas* and they are almost entirely dependent on relief food and other assistance, with a few managing to obtain some income from casual labour in towns where this is available. Doornbos and Markakis point out that:

Devastated by famine several times in the last two decades, and unable to rebuild their herds, many pastoralists have been forced into what has been called "sedentarization through impoverishment". This accords well with official policy in the East African

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4 A *bulla* is a term referring to the shanty settlements of the poor, with hamlets mostly made of wooden materials covered with various pieces of rugs of all types and some grass, banana leaves or palm leaves.
states, whose governments regard 'settlement' as the only solution to the many problems posed by wandering herders (Doornbos & Markakis, 1990:271).

We conducted a survey among about 50 displaced pastoralist households around Garissa town in July 1997. They comprised 39 male and 11 female heads of households. The majority of household heads were married (74 per cent) and only 6 per cent were divorced and another 10 per cent widowed (Figure 8.1). It appears that not many single-parent households settled in the stockless destitute bullas around Garissa town, with only 10 per cent of household heads being unmarried. This goes against the view that single-parent households (especially female-headed ones) usually dominate in the settlements around towns as is the case for non-pastoral areas. The low number of single-parent households among the destitute households may be because of particular concern by kinsmen for female-headed families — be they divorced or widowed. Members of the reer find it embarrassing to see their members being pushed into destitution in towns as it often reflects badly on their assistance to the weaker families amongst them — even more so when they are female-headed. However, it may be that the female-headed households could not make it to Garissa town and opted to settle in the nearest relief food distribution centres instead. Besides, our sample may not necessarily be a good representation of the destitute population in the area due to its small size.

None of the survey households had any livestock with them in the bulla or elsewhere. Still, it is possible that some concealed livestock owned in anticipation of donations, despite our repeated emphasis that we were not from any charitable organisation.

Figure 8.1
Marital status of household heads, (July 1997) (N=50)

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Married</td>
<td>74%</td>
</tr>
<tr>
<td>Single</td>
<td>10%</td>
</tr>
<tr>
<td>Divorced</td>
<td>6%</td>
</tr>
<tr>
<td>Widow(er)s</td>
<td>10%</td>
</tr>
</tbody>
</table>

Source: Author's survey
Most households (54 per cent) said they had lost their livestock to drought and 42 per cent of households had lost their livestock to a combination of drought and disease. Nearly all households (96 per cent) had lost their livestock during the previous year (1996), rendering them destitute and only surviving on relief handouts and other forms of charity such as zakat⁵ and sadaka⁶, along with other sources such as gifts from relatives and the sale of miraa. Although the Somali are predominantly Muslims, gifts of sadaka and zakat are usually between related households where a richer household assists a poorer one from his own reer or lineage. Thus, poor households who have no wealthy relations tend to suffer most since they often do not receive any zakat or sadaka. This is contrary to Islamic requirements of giving alms (zakat) and sadaka to the needy irrespective of kinship affiliations.

Most respondents had settled in their present bullas after July 1996, with 70 per cent of the households falling in this group. Only 12 per cent of the households had moved into their present settlements before 1996. The households originated from all over Garissa District with only a few in our sample coming from other parts of the region. Those who said they came from Garissa District mentioned the following areas: Mbalambala (4), Bura (6), Masalani (4), Hulugh (6), Ijara (8), Galmagalla (6), Korakora (5) and Nanighi (2). Only 8 households (16 per cent) came from other parts of the province, mainly from the neighbouring district of Wajir. Some of these households moved into towns not only to benefit from relief food distributions but also to seek casual employment (18 households). While some households moved to seek alternative sources of livelihood or assistance from their relatives in town, others moved into town without knowing what was available in the town to which they were moving simply because they were unable to survive in their rural homes. 'In a big town, you will never starve', goes their saying. Almost all the households had moved with the help of motorised vehicles, with only 2 households making it on foot from Bura division to Garissa town, a distance of about 70 kms.

Relating their experiences as displaced families, the majority of the households (76 per cent) mentioned that their living conditions were better than in previous years as impoverished pastoralists in their rural homes. Only a few (22 per cent) said their new life was very difficult and they feared the uncertainty surrounding their lives. In their rural camps, the impoverished pastoralists had experienced hunger and the inability to move with the others since most did not even have pack animals left for moving their shelters and other belongings. This made their contention that life was easier for them as displaced pastoralists more understandable since they did not have to worry about migration and fetching water any more. However, this is only a short-term view emanating from the intensity of their livelihood struggles in recent periods. The traditional social system of assistance to the poor within the community seems to have declined among the Somali pastoral community. The major reason cited was the increasing number of households in need, while the number of those expected to assist continues to decrease. In addition, the marketing of most livestock products has meant that little can be spared for mutual

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⁵ Zakat is Islamic charity which makes it obligatory for a Muslim to donate 2.5 per cent of his wealth to the needy in society.

⁶ Sadaka is a gift to the poor which is not obligatory but highly recommended in Islam.
support of stock associates and social networks by households who still have animals left.

The former pastoralists (although they still regard themselves as pastoralists) received foodstuffs and other material assistance from various NGOs in the area, while only one household mentioned getting assistance from other sources besides NGOs. Although utensils, clothes and medicines are sometimes provided, the single largest form of assistance is relief food that is distributed by the NGOs once a month. This includes mainly rice/maize, beans, and oil, in various quantities amounts. In general, not more than 15 kg of rice/maize, about 10 kg of beans and about 10 litres of oil are provided to each family once a month. Such amounts cannot sustain an average family for a whole month, hence most households were involved in income-earning activities such as casual labour, handicrafts, charcoal burning and firewood gathering. Prostitution, theft, and pick pocketing by young children have also been observed to be on the rise. Socially, these are considered evil and immoral and are condemned by many people. The displaced pastoralists appear to be losing their grip on some of the common survival strategies as reflected in their projections of the future and their aspirations (Table 8.1).

Table 8.1

<table>
<thead>
<tr>
<th>Response category</th>
<th>Number of households</th>
</tr>
</thead>
<tbody>
<tr>
<td>No plans at all</td>
<td>25 (50)</td>
</tr>
<tr>
<td>Go back to rural home at the earliest opportunity</td>
<td>7 (14)</td>
</tr>
<tr>
<td>Attempt at business if possible</td>
<td>6 (12)</td>
</tr>
<tr>
<td>Other plans</td>
<td>6 (12)</td>
</tr>
<tr>
<td>Continue to live on relief</td>
<td>5 (10)</td>
</tr>
<tr>
<td>Total</td>
<td>50 (100)</td>
</tr>
</tbody>
</table>

Source: Author's survey.

As shown, half of the respondents had no idea what they wanted to do and they appeared to be taking each day as it came. They were indeed in a confused state. Some mentioned that one can plan when one has some possessions of value, whereas, according to them, they only possessed their souls. They point out that a man without livestock is not independent and, some actually said they felt like slaves because of being ceer (without livestock). In all only 10 per cent wished to continue as relief dependants while the rest would prefer any alternative, indicating the low status dependency is accorded within Somali society, including those households that were themselves impoverished. The majority blamed the 'changing times' for the loss of their livestock, and their subsequent misery. Some of the changes included limits on livestock movement, increasing settlement centres in the Garissa area as well as other parts in the region, and increased insecurity. They had some suggestions regarding possible planning for drought and managing it when it occurred to reduce its effects on people and livestock in the future. These included better animal husbandry (20 per cent), the storage of food reserves ahead of drought (16 per cent), increased support for irrigated agriculture (16 per cent), better foodstuffs and shelter for drought victims (12 per cent), and urgent and timely
intervention in drought management (22 per cent). Drought management in this context refers to both household mechanisms (if any), as well as institutional intervention in pre-drought, drought and post-drought activities necessary to mitigate the consequences of drought.

If the increasing number of impoverished pastoralists in urban centres in north-eastern Kenya is not curbed, a sad situation with emerge. Despite the low representation in our random sample, we estimate from other observations that the population of Garissa town may have doubled due to the in-migration of people from other parts of the province since the early 1990s. A recent survey by a Garissa-based international NGO has estimated the number of displaced pastoralists settled in the bullas around Garissa town to be over 185,000 people (Mikono International, Garissa 1997). Assuming that an average household in the area has about 7 members, the number of displaced households would be well over 26,000. This is 82 per cent of the total district population of 226,000 persons (32,285 households) in 1996 according to the population projections in the 1989 census (RoK 1996). However, it should be noted that Garissa town is not only the regional capital, but it is also the entry point to the rest of the country and there are thus high inflows of impoverished populations from all over north-eastern Kenya. In addition, there is a large group from Somalia who have settled in Garissa town as well. Thus, as many as half of the displaced people around Garissa town may have come from other districts in north-eastern Kenya or from Somalia. Being the provincial headquarters for north-eastern Province, Garissa town attracts many people from the region because of its better services such as water, electricity and healthcare, in addition to a concentration of organisations involved in relief food distribution in the area. Nonetheless, the number of displaced pastoralists is very high, especially considering that these households have only a remote possibility of ever resuming their former lifestyle as pastoralists.

Summary of findings

Somali pastoralists in Garissa District, like the rest of their counterparts in north-eastern Kenya, have been adversely affected by the droughts of recent years, especially those of 1992 and 1996/1997. The Somali had mechanisms for coping with droughts such as movement across wide areas, splitting their herds and separating the different species, dividing the people between those looking after livestock and those settling in trading centres, borrowing lactating animals, selling or slaughtering livestock, and in extreme cases, whole households settling in trading centres and towns. The Somali consider begging as being socially unacceptable and yet some households necessarily had to beg for money and food during the droughts. Once in the trading centres, households involved themselves in diverse survival strategies.

Most registered for relief food whenever the opportunity was available. At the same time, selling firewood and charcoal were found to be common activities in many households. Some household members went even further and involved themselves in socially unacceptable activities such as prostitution and theft, with street children taking to pick pocketing. These social evils are mostly undertaken by young girls and boys who have
left their families elsewhere and who may not be known by many in Garissa town. Increasing incidences of such socially unacceptable behaviour may be an indication of extreme poverty or cultural erosion within Somali society. Some of the poor households enhance their share of relief food through double registration or registering in the refugee camps as disguised refugees from Somalia, since the conditions in the refugee camps are apparently more attractive than those in the local community outside the camps.

The Somali pastoralists are also faced with environmental degradation in the Dadaab area due to the large numbers of refugees. Since no alternative source of energy was provided for the refugees by the agencies responsible, firewood has remained the only source of cooking energy for the thousands of households in the camps. UN agencies and other agencies responsible for the refugees have contracted the supply of firewood to be collected locally. Due to the scarcity of dead wood, many suppliers now cut down living wood so that it can be collected a few days later and be delivered to the camps. This has created large areas without trees or even big shrubs, making it difficult for the pastoralists to live in such areas, and thus creating environmental refugees. The area is also faced with problems related to the excessive extraction of ground water and is subsequent pollution. Large numbers of refugees have been getting their water from boreholes for about a decade now and this may deplete ground water supplies, depending on the quantity, although this has not been determined so far. Pollution of the ground water from the numerous pit latrines may be a disaster waiting to happen.

Besides drought and environmental degradation, Somali pastoralists are also faced with high levels of insecurity. Travellers on foot or by vehicle along most of the routes in the region are often attacked and looted, killed or maimed, and women are raped by armed gangs — referred to as bandits or shifia. Such insecurity has rendered some parts of the area inaccessible to pastoralists, creating additional pressures for livestock and people in the remaining areas. The pastoralists attempt to solve the insecurity problem by pooling their livestock into herding groups and arming their herders to counter attacks from bandits. The government does not allow private ownership of arms, even when security is clearly inadequate and the state is unwilling to contain the problem. The availability of cheap arms following the collapse of Somalia has made the security situation in northeastern Kenya worse, since there are large numbers of arms in the hands of unauthorised people.

Numerous households have become destitute following the loss of all their livestock to droughts. Most of the heads of destitute households living in bullas around Garissa town were married contrary to our expectation that the number of single-parent households would be disproportionally high in the sample. Although some may have had a few animals left in the custody of friends or relatives in the bush, none wanted to admit this. Traditionally it was considered taboo for a Somali to conceal his livestock ownership, but this appears to be changing. In addition to relief food, most of the impoverished households had sources of income or food. Gifts from friends or relatives, Islamic donations of zakat, sadaka, and the sale of firewood, charcoal, construction materials and miraa were other sources of income available to some of the households.

Most of the destitute households in our sample had moved from other parts of Garissa District, with a paltry 16 per cent moving into Garissa town from other districts in
the region. However, we believe that many of the displaced people in Garissa town have actually moved from outside Garissa District since the town is also the regional headquarters. Most of these households were found to be in a state of confusion with no idea of what they intended to do in the future. Although they still refer to themselves as pastoralists, there is a good chance that they may never go back to the pastoralist way of life again.
Synthesis and conclusions

North-eastern Kenya remains on the periphery of the economic and political decision-making processes in the country. The region continues to face a multitude of problems, some of which have been present since the colonial period. This study focused on Garissa District and Garissa town, the headquarters of North Eastern Province, and a centre for many impoverished households in search of survival resources. Some of the destitute households who lost their livestock during the droughts of 1992 and 1997 have been pushed out of mainstream pastoralist practice into destitution in towns and trading centres. They strive to survive on relief food, a number of other activities including the sale of firewood and charcoal, gifts from friends and relatives, zaka donations, and by registering in refugee camps. The pastoral sector, though still the dominant economic enterprise for many households, is under threat.

In such an environment it is also difficult to do research, leave alone a study of the scope and size as presented here. Moreover, the study is the first of its kind to be done in this area and could not draw on experience and knowledge from earlier studies. The large distances separating the respective locations of Garissa town, Dadaab and Ijara made the supervision of field assistants difficult and time-consuming. This was aggravated by the insecurity in the area and the poor transport system. The author was involved in a car accident because of the road conditions on the way to Ijara. The El-Nino rains in 1997 led to large-scale flooding in the district and made contact with Ijara impossible for three months, and Dadaab was only accessible by wading through rapid flood waters at some points on the road. The second year of the study turned out to be one of drought conditions which also interfered with the study logistics. Some households had migrated from the survey areas and could not be followed up unless they returned later. There were increased amounts of relief food as a result and this affected market prices for grains. Some of the field assistants left the project for better-paying jobs with the numerous NGOs involved in humanitarian assistance.

Still, the second year of study, 1996, was a fairly normal one and we were able to collect good quality data. The author is himself from the area and is intimately conversant
with the area and its people, in fact, being the proud owner of some livestock himself. This background had the advantage of facilitating rapport with the respondents, not to mention the endurance necessary for the completion of the study. The data for the study were obtained through a review of official records, a survey and observations of markets and actors, and a household survey. While some doubts may be cast on the accuracy of the information from various records due to poor record-keeping, mainly by the government, the data obtained through the surveys are believed to be fairly accurate and reliable.

In this concluding chapter, we summarise the five research questions set out in Chapter Two based on the findings of this study, including policy recommendations for future intervention in the Somali pastoral economy in north-eastern Kenya.

The research questions

*Does increased commercialisation improve food security for Somali pastoralists? Are there additional insecurities that may result from increased market participation, and how could these be improved in the Somali pastoralists' transition to a market-dependent economy?*

Somali pastoralists have had a history of market involvement for many years. Consumption of purchased foodstuffs such as maize meal (*posho*), sugar, tea and other consumer goods has been common among the Somali pastoralists for a long time. Most of these products are obtained from the market using cash earned from various sources, but mainly from the sale of livestock. Increased livestock commercialisation tends to have different impacts on different groups in Somali pastoral society: rich livestock owners; poor pastoralists with a limited number of livestock but who still continue living in the rangelands with their few animals; poor pastoralists with few livestock and who leave the animals in the custody of friends or relatives and move to settle in towns and trading centres; and finally destitute households who are pushed into *bullas* around rural trading centres and in Garissa town.

Commercialisation may be seen as one of the options for capital accumulation or increasing the livestock holdings for richer households in Somali pastoral society. Such pastoralists often sell animals that are suited for the market and replace them with productive stock. For instance, they sell bulls, unproductive or sick females, and old animals that are more vulnerable to drought and disease. From the sale proceeds, they may invest in a business or, more commonly, purchase breeding and productive females and young males for future sales. Thus, this group of pastoralists could use commercialisation opportunities as an additional strategy for maintaining their economic position. In addition to livestock sales, richer pastoralists sometimes sell milk as well, especially when they are within proximity of a trading centre. It should be noted that the trade in milk has never been widespread among the Somali pastoralists and it was actually considered a taboo to animals as well as people in the traditional system. However, this seems to have changed significantly and the sale of milk nowadays is an enterprise which is conducted by both rich and poor households.
It is necessary to make a distinction between the involvement of rich and poor households in the sale of milk. While the marketing of milk by rich households is voluntary and strategic, and ultimately aimed at increasing the number of livestock, the involvement of poor households is a necessity. Poor households are involved in milk marketing as a survival strategy since they cannot subsist on the inadequate amounts of milk produced by their animals, and yet they have to sell some to purchase grains and other foodstuffs. In general, Somali women are responsible for milking the animals and disposing of milk products, while the men are responsible for herding and the disposal of live animals.

The poor among Somali pastoralists used to be taken care of by kinship support systems within the reer or the lineage group. During droughts when food (milk) was scarce, needy households were lent or given lactating females, milk donations, gifts of zakā and sadāka, and gifts of livestock at the end of the drought period to enable them to reconstitute their herds. Traditionally, this social support system made it an obligation for rich pastoralists to assist the needy in society, and the rich category of households was the one to which many of the poorer households in society turned for assistance during periods of food scarcity. Although some rich households among the Somali pastoralists still assist the needy in their midst, these support mechanisms are on the decline. This may be attributed to three main factors, namely: an increased pauperisation of households with some becoming to destitute in towns; the commercial orientation of livestock production in the area where even milk is increasingly being marketed much more than in the past; and fewer livestock for many households. When those who need assistance are more numerous than those capable of assisting, the social support system tends to break down and becomes limited to kinship relations. Zakā and sadāka, despite the requirement that they be given to all Muslims in need, are often given on the basis of kinship relations. Thus, the poor who have better-off relatives tend to get more assistance than those without rich relations.

Although market participation is crucial for poor households and an opportunity for rich households, the destitute households who have lost all their livestock are not interested in the existence or otherwise of markets for livestock and livestock products. However, some of the destitute in the trading centres receive assistance from their relatives who come to sell livestock in the centres. In the meantime, many pastoralists are more and more dependent on purchased foodstuffs which must be acquired through the market - especially the caloric-rich maize meal. To that end, commercialisation may be said to improve food security since households otherwise unable to survive on inadequate supplies of milk tend to sell the little milk they have and buy maize meal. It is indeed critical and necessary for poorer households that they engage in the market for continued survival. However, the sheer insufficiency of livestock numbers in the case of many households makes the wisdom of greater market involvement questionable. Commercialisation may be beneficial, but in the rapidly changing situation in north-eastern Kenya it is difficult to give a straightforward answer. Instead, commercialisation is one of the phenomena occurring, in conjunction with many other developments.

The single major insecurity introduced as a result of market participation is the decline in social support mechanisms among the Somali pastoralists. Given the number
of former pastoralists who are unable to continue anymore and who have subsequently
dropped out, reversing that effect may be an arduous or even impossible task, unless a
deliberate and extensive restocking programme is undertaken. Restocking should be done
in small stock due to their faster reproduction rate. Although restocking may require an
enormous initial input, it may prove to be the cheapest means of ensuring the sustainable
productivity of a marginal environment as well as the survival of the Somali pastoralists
in North Eastern Province in general and those in Garissa District in particular. Although
there can be no guarantee that livestock will not perish as in the past, again it is usually a
combination of disasters that decimate herds. Restocking should be accompanied by
empowerment through skills acquisition that can be useful during periods of need.

To what extent are the Somali pastoralists involved in livestock marketing, and what
market opportunities and constraints do they face?

Sales of livestock and livestock products were found to be common among Somali
pastoral households who had livestock to sell. Involvement of the Somali pastoralists in
livestock marketing dates back to the pre-colonial period. Various policies instituted by
the colonial administration impeded livestock commercialisation, including grazing and
movement restrictions and quarantines. However, since independence, livestock market-
ing has increased with high livestock sales figures to areas outside Garissa District —
which may be an indication of an increase in off-take in the area.

Most of the livestock sales among the survey households involve cattle and small
stock. Although one of the initial considerations for choosing Dadaab in the north (camel
area) and Ijara in the south (non-camel area) was to compare the levels of market partic-
ipation of the two areas, there were no camel sales in Dadaab during the research period
and most camels were kept far from the trading centres. Many households in our survey
were found to have participated in livestock sales during the survey period, with livestock
markets being found in all divisional centres in the district. Organised livestock auctions
used to be conducted in the past by the Livestock Marketing Division (LMD), but it
ceased to operate in the early 1980s. Livestock sales in the area are now commonly and
regularly conducted on a willing-buyer-willing-seller basis. There are livestock markets
in divisional centres in Garissa District, with Garissa town being the regional market and
receiving livestock from as far away as Mandera and Wajir Districts. There is a weekly
cattle sale in Garissa market while camels and small stock are sold on a daily basis. In the
small rural markets, livestock is sold on a daily basis but in smaller numbers than in
Garissa market.

The number of cattle leaving Garissa District for other areas in the country
increased from the low figure of 7,200 head in 1983 to more than 100,000 head in 1998.
While recognising the fluctuation in numbers over the period, the increase has been very
large. The figures for both cattle and small stock show a substantial 'export' of livestock
from Garissa District. Most livestock are from the area although some of the animals are
from other districts of North Eastern Province and areas outside the borders (Somalia and
Ethiopia).
Table 9.1

**Estimated volumes of livestock sales in Garissa District, 1996.**

<table>
<thead>
<tr>
<th></th>
<th>Household off-take*</th>
<th>Volumes traded**</th>
<th>Exports to 'outside' District***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cattle</td>
<td>38,740</td>
<td>24,765</td>
<td>86,000</td>
</tr>
<tr>
<td>Small stock</td>
<td>90,400</td>
<td>74,625</td>
<td>80,000</td>
</tr>
</tbody>
</table>

* Based on results of this study; Chapter 7; Table 7.4. The average number of animals sold per household was multiplied by the projected number of households of 32,285.

** Based on results of this study; Chapter 6; Table 6.2 - volumes traded in Garissa market and divisional markets. The yearly figures for Dadaab and Ijara were averaged and multiplied by 12, the number of divisional centres in the district. The figure for small stock for Dadaab was corrected for the presence of 150,000 refugees in the area.

*** Source: Livestock Production Office, Garissa (see Figure 6.1).

Table 9.1 gives different indicators of the number of cattle and small-stock sales in Garissa District during 1996, the first year of the study. The next year, 1997, was one of drought conditions and figures for that year are less representative of ordinary conditions. There are three different indicators of which the first two consist of the estimated household off-take and the volumes traded in Garissa market and the divisional markets. The third indicator is not an indicator of sales as such but rather the number of animals exported to areas outside the district.

Estimates based on household off-take arrive at a figure of 38,740 cattle and 90,400 small stock sold yearly in the whole district. The estimated volumes traded, as expected, are below the former figure and amount to about 25,000 cattle and 75,000 small stock. The latter figures must include double-counts as pointed out earlier. This is 64 per cent and 83 per cent for cattle and small stock respectively of the off-take estimates, and suggests that about one third to one fifth of the animals are traded outside the Garissa and divisional markets. These two different estimates, imperfect as they must be, at least indicate the range in the number of animals marketed. The figures compare with the 'officially' recorded number of livestock that are exported from the district, namely 86,000 cattle and 80,000 small stock. The export figure for cattle is more than twice the estimated household off-take. The first explanation that comes to mind is that large numbers of animals from elsewhere (Wajir District, Republic of Somalia) somehow pass through the district without being traded in the local markets. As regards the number of small stock 'exported', the figure of 80,000 falls within the household off-take, but the figure is rather high since many small stock unlike cattle, are consumed locally. The number of hides and skins sold in the district confirms this. In 1996 about 2,000 cattle hides were sold versus almost 110,000 goat and sheep skins (Table 6.1). Consequently, it is suspected that in the case of small stock there is also a much larger number of animals 'exported' than can be appreciated by off-take and trading estimates. Again, the first explanation that comes to mind is that large numbers of animals come from outside the district. Whatever the case, sizeable numbers of animals from within the district are marketed and a widespread marketing system that can handle large numbers of animals also exists. It is safe to say that there is a rising trend in livestock sales (Table 6.1). This increase in sales may thus be an indication of a move by Somali pastoralists away from a predominantly subsistence pastoralism to semi-commercial livestock production.
Several opportunities exist for Somali pastoralists to engage in favourable livestock marketing. These include the liberalisation of the meat market, the presence of livestock traders in the area, the large refugee population which increases demand for livestock products, the weekly cattle sales in Garissa town, the opening up of newly tarred roads to the main consumer markets of Nairobi and Mombasa and the proposed bridge across the Tana river at Masalani in the south of Garissa District.

Since the liberalisation of the meat market in the mid 1980s, prices for livestock have been demand driven. This offers better prices for the pastoralist producers than when livestock prices were constrained by controls on meat prices. There are many livestock traders in Garissa District, and at least some are found in most of the divisional centres in the district. Thus, in most cases, pastoralists all over the district are able to sell their livestock whenever they want to. However, the prices are generally lower in the rural markets than they are in the main market in Garissa town though not always. In addition, prices tend to vary over the seasons although this did not come across in our survey due to the drought. While prices for small stock decreased in the rural markets during the survey period, those for cattle increased in Dadaab and remained fairly stable in Garissa town market. Dadaab had high cattle prices mainly because of the high demand created by the refugee population there. The large number of refugees in Garissa District may be seen as a blessing and a curse at the same time. It is a blessing when we consider the increased demand for livestock products that they create, the employment derived from the numerous agencies assisting to the refugees and the survival option it accords for some of the destitute households that have enrolled themselves as refugees. However, the enormous environmental degradation that has resulted from wood harvesting and the clearance of large tracts of land for the establishment of camps, and the inflow of arms which has exacerbated insecurity in the area, are some of the high costs that the area has had to pay for the presence of these refugees.

The weekly livestock sales in Garissa town create a regular off-take in the area. Many livestock traders from outside North Eastern Province, who would otherwise be unable to venture into the interior to purchase livestock, usually come to this market and purchase animals. Since all the livestock from Garissa are usually trucked to the main consumer markets of Nairobi and Mombasa, the newly tarred road from Garissa to Nairobi and the one to Mombasa, which is nearing completion, will facilitate the flow of animals from the area.

Although the above mentioned opportunities exist in the area with the potential for increasing livestock marketing, there are numerous constraints in the way of pastoralists and traders. The key constraint may be the lack of a livestock export policy that can effectively promote livestock marketing outside the country. Before the Somali Republic collapsed, livestock from the Garissa area was sold in the Kismayu area in Somalia, and subsequently exported to the Middle East. Following the collapse of the state in Somalia, this opportunity is no longer open to the Somali pastoralists in north-eastern Kenya, and some pastoralists from Somalia nowadays sell their livestock in Garissa town market since there is no marketing system in their own country any more. Besides, the pastoralists are faced with imperfect markets in which information on livestock marketing is minimal or totally lacking. It is as a result of such imperfections in the markets that pas-
Pastoralists view Garissa market as being better than the rural markets, often leading to excess supplies of livestock in the Garissa market, which in turn depress prices.

It should be noted that there was a drought during the second year of the study and this had consequences for the pastoralists in the area as well as for the study. Droughts tend to increase mobility and split households and some of the survey households were affected by this. Since the first year of the study (1996) was a normal year, we observed the contrasts between that and the drought year (1997). There are usually increased sales during droughts and also increased livestock mortalities. Destitute households around settlements also grew in numbers during this time. Increased flows of relief food into the area provided food for many households, but at the same time it distorted the operation of the food market.

The creation of numerous trading centres in the area since the beginning of the 1990s may be viewed as a direct, although minor, constraint to livestock production. The spatial dimension of pastoralism has been constrained since these settlements claim land that was previously used for grazing by the pastoralists. Coupled with the prevailing insecurity that makes some grazing areas inaccessible, the high number of administrative centres has meant that only a few pastoralists can effectively utilise the range, forcing many others to cross into Somalia and Ethiopian territories.

Who are the main actors/participants in the livestock and food trade in the area and what trade relationship(s), if any, do they have?

Livestock trade operates with a network of actors who play both competing as well as complementary roles. The main actors in the livestock trade are pastoralist producers, livestock traders, livestock brokers and butchers. While some may operate at the same level, others tend to operate at different levels in the marketing channel. In general, however, pastoralist producers tend to interact with each of the other actors in so far as they sell some of their livestock. Livestock traders may operate on a small scale, mainly in the rural markets, or they may be large traders operating in the main Garissa market and trucking livestock to the main consumer markets of Nairobi and Mombasa. Small-scale livestock traders usually buy in the rural markets and sell to large traders in Garissa town market. Some of the small-scale traders also act as agents for large-scale traders, carrying the money of the latter on whose behalf they purchase livestock. Most of the livestock traders in Garissa District were found to be of the Somali ethnic group, with a few being from the neighbouring Kamba community. Livestock brokers are found at every level of the marketing chain. They usually sell on behalf of the pastoralists in both the rural and the main markets, where they act as the 'owners' of the animals. Brokers also sometimes negotiate sales between the seller and the buyer. In general, livestock brokers tend to operate within kinship relations and most pastoralists usually sell their animals through brokers who belong to their reer. Butchers often buy only one or two animals for immediate slaughter although they buy more during festivities such as Christmas and the Islamic festivals of Idd. Some small-scale traders may operate a butchery as well. Thus, there is an intricate relationship between the various actors in livestock marketing at the different levels of the marketing channel and in the different livestock markets in the area.
In the case of food traders, they operate in all the trading centres as well. Two types of food traders may be distinguished: the wholesalers and the retailers. Wholesalers sell merchandise in bulk (in boxes) while retailers sell in small quantities (e.g. in kgs). Most of the main wholesalers are found in Garissa town where they bring in their merchandise from Nairobi and sometimes Mombasa. The smaller wholesalers in the rural trading centres obtain their supplies from the bigger wholesale shops in Garissa town. All the retail traders (retailers) get their food supplies from wholesalers. The retailers in the rural markets are generally smaller than their counterparts in Garissa town. Most pastoralists make their purchases from retailers in rural markets. We have noted the existence of a new kind of trade relationship between the pastoralists and food retailers in the rural markets. Due to insecurity in the area, it has become increasingly difficult for pastoralists to carry cash whenever they sell livestock in markets outside their trading centres. To minimise the risk of losing money to bandits, the pastoralists give their money to retailers from their trading centres who use it to purchase foodstuffs from the wholesalers in Garissa town. The retailers then transport the merchandise to their shops in the rural markets. The pastoralist is allowed to take foodstuffs as required and accounts are balanced later. This arrangement gives the pastoralist an opportunity to borrow usually foodstuffs from the retailer whenever the need arises.

Table 9.2

<table>
<thead>
<tr>
<th>Estimated number of livestock trade actors in Garissa District</th>
</tr>
</thead>
<tbody>
<tr>
<td>Garissa town (a)</td>
</tr>
<tr>
<td>Traders</td>
</tr>
<tr>
<td>Brokers</td>
</tr>
<tr>
<td>Butchers</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

(a) Calculated from Table 5.1
(b) Calculated from Table 5.1. The numbers for Dadaab and Ijara have been averaged and multiplied by 12, the number of divisional numbers.

From the numbers of livestock traded, it was already concluded that there is a widespread marketing system in the district. Estimates of the number of various trade actors confirm this (Table 9.2). In all there appear to be more than 350 actors of different kinds, roughly 100 traders, 100 brokers and about 150 butchers. If the number of 350 trade actors is compared with the estimates of the number of livestock traded (Table 9.1), it appears that individual traders must handle considerable numbers of animals. The brokers are more limited in their operations because they are usually restricted to the reer network; while butchers are restricted by local demand.

What are the caloric terms of trade (Tc) for the Somali pastoralists in Garissa District under different conditions?

The fourth research question is concerned with the food value comparison of livestock products (live meat) and the most common foodstuff from outside the livestock sector (maize meal). The Somali pastoralists commonly consume maize meal purchased from
sho11s with money earned from livestock sales or other sources. Caloric terms of trade (Tc) are defined as the amount of metabolisabl11e energy (in calories) that can be purchased in meat compared to the energy that can be purchased in grain for a given price. The Tc ratio is high when the price of maize meal is low and meat prices are high, and the opposite is true for high maize meal prices and low meat prices. Table 9.1 gives a summary of Tc values for cattle meat and small-stock meat in relation to maize grains and maize meal. The average meat prices were computed on the basis of prices of the live weight of animals, assuming that a head of cattle has a meat weight of 100 kg and a head of small stock has a meat weight of 12 kg. The meat weight figure for cattle commonly used is 150 kg but the cattle in Garissa are generally smaller and are assumed to have a lower weight than the average weight of livestock elsewhere. It should be noted that a lower weight has the effect of improving Tc values.

### Table 9.3
Summary of caloric terms of trade (Tc) by area, period and type of livestock species, 1/1996-12/1997.

<table>
<thead>
<tr>
<th>Period</th>
<th>Cattle meat maize grain</th>
<th>maize meal</th>
<th>Small-stock meat maize grain</th>
<th>maize meal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mar '96</td>
<td>8.3</td>
<td>5.9</td>
<td>2.2</td>
<td>6.4</td>
</tr>
<tr>
<td>June</td>
<td>9.1</td>
<td>6.2</td>
<td>2.7</td>
<td>7.0</td>
</tr>
<tr>
<td>Sept</td>
<td>6.9</td>
<td>3.5</td>
<td>2.6</td>
<td>5.4</td>
</tr>
<tr>
<td>Dec</td>
<td>8.3</td>
<td>5.0</td>
<td>2.5</td>
<td>6.6</td>
</tr>
<tr>
<td>Mar '97</td>
<td>8.2</td>
<td>3.3</td>
<td>3.8</td>
<td>6.5</td>
</tr>
<tr>
<td>June</td>
<td>7.8</td>
<td>3.2</td>
<td>2.5</td>
<td>6.7</td>
</tr>
<tr>
<td>Sept</td>
<td>6.4</td>
<td>3.3</td>
<td>2.6</td>
<td>5.1</td>
</tr>
<tr>
<td>Dec '97</td>
<td>7.4</td>
<td>5.0</td>
<td>2.3</td>
<td>5.9</td>
</tr>
<tr>
<td>Average</td>
<td>7.8</td>
<td>4.4</td>
<td>2.7</td>
<td>6.2</td>
</tr>
</tbody>
</table>

In general, the caloric terms of trade were always above parity even during the most times of the drought in early 1997, meaning that more energy would be obtained by selling livestock and purchasing maize grains or maize meal. Since maize grains are usually cheaper than the milled maize (maize meal), they offer higher Tc values. Similarly, the meat of small stock usually has a higher price than beef (cattle meat), also leading to higher Tc values. The Somalis generally prefer meat from small stock to that of cattle or camels. Regarding area differences, Garissa town had the most favourable caloric terms of trade compared to the rural markets of Dadaab and Ijara. It should be noted though, that fewer pastoralists make their purchases of maize grains or maize meal from Garissa town, instead they frequent the rural markets. Thus the Tc values in Dadaab and Ijara are more relevant to the pastoralists in the district. Garissa town had favourable Tc values mainly because of a combination of cheap maize prices combined with high livestock prices. Although Dadaab had high livestock prices as well, the presence of refugees and many relief agencies made it possible to purchase maize cheaply resulting in higher Tc values here than in Ijara. The Ijara area had higher maize prices because of transport costs and absence of adequate relief food in the area. Livestock prices in Ijara were also
generally lower than in Garissa town and Dadaab markets. Ijara represents one of the most rural locations in Garissa District and it is here that the Tc approach parity.

When we consider the period of the survey, the general trend was one of declining Tc values, with the values for the Ijara area approaching parity during the last two quarters of the survey period. The average caloric terms of trade (Tc) figures of cattle meat to maize meal in the three areas were 6.2, 3.6 and 2.3 for Garissa town, Dadaab and Ijara respectively. The figures for small stock to maize meal were 8.8, 4.5 and 2.3 for Garissa, Dadaab and Ijara respectively. Although the Tc values remained above parity over the survey period, they are only comparable to Tc values obtained during periods of crisis for the Pokot (Dietz, 1987) and the Maasai (Zaal, 1998).

It may be concluded that the Somali pastoralists would be better off by selling livestock to purchase maize grains or maize meal, when the Tc are above parity. However, it should be noted that the Somali also purchase a host of other goods such as tea, sugar and rice on which they spend a high proportion of the money they earn from sales of livestock or from other sources. For Somali pastoralists to benefit from the favourable caloric terms of trade offered by the market, they should have marketable animals in their herds, there should be an operational market in which they can sell their animals, and there should be maize grains or maize meal available in their trading centres where they can make their purchases. Although the majority of pastoral households in Garissa District has some livestock, many have few available for the market if they are to remain in livestock production. Nonetheless, since the sale of some livestock may be inevitable at times, Somali pastoralists could improve their food security situation by selling their livestock and purchasing maize meal or grains. However, we add that there is a need to improve the security situation and to put in place a marketing infrastructure for the better realisation of market benefits for Somali pastoralists.

How do the Somali pastoralists of Garissa District cope with crises during droughts? What are the options for those displaced by such crises?

Long dry seasons and droughts are not new to Somali pastoralists. However, due to changes in their political, economic and ecological environments, Somali pastoralists seem to be increasingly less able to cope with the vagaries of droughts and starvation. One of the contributing factors may be the restriction of grazing boundaries, a colonial legacy which has exacerbated existing enmities between different neighbouring pastoral groups in Kenya, and hence makes it more difficult for inter-tribal movements whenever there is a localised lack of grazing or other problems. In the past, Somali pastoralists who had less livestock wealth did not suffer during droughts because of their poverty, although they could suffer when the whole community suffered. The traditional social support system, discussed earlier in this chapter, was an important mitigating factor for many poorer Somali households.

In recent years, Somali pastoralists have become more vulnerable to the effects of drought than in the past. Although a large number of pastoralists in Garissa District have been unable to continue with their nomadic livestock keeping, others are struggling to sustain their economy, recognising that the loss of livestock will be the beginning of destitution. For those still in pastoralism in the area, a combination of factors were found
to have been employed during the recent drought of 1997. Some of the strategies used to cope with the drought crisis include; separating lactating females from the rest of the herd and leaving them with the elderly, the sick, the women and the children near trading centres. The rest of the animals were then taken to distant grazing areas, mainly by the men and male youth. In addition, households sought assistance from their kin and stock associates, and sometimes sent members to stay with relatives in the trading centres and towns. Many who lived near the trading centres also registered for relief food with the various relief agencies in the area, while another group of households registered themselves in the refugee camps in order to receive additional foodstuffs.

The displaced pastoralists around the main centres such as in Garissa town tend to have settled into a life of dependency. They display a lack of perspective and some maintain that they are better off as relief recipients in Garissa town than in their previous locations where they had little assistance. A large town is expected to offer opportunities which accounts for the influx of destitute households into the towns.

The recent drought was severe and the ability of households to cope with the effects of the drought was hampered by a number of external factors beyond the control of the Somali pastoralists. These include insecurity, environmental degradation in the Dadaab area and the creation of numerous trading centres in north-eastern Kenya in general, and in Garissa District in particular.

Policy recommendations

Pastoralists in Kenya may be said to be faced with a number of limitations, and the Somali pastoralists in north-eastern Kenya are no exception. However, there are windows of opportunities which can be utilised by the pastoralists themselves and more so by policy makers to ensure that pastoralism not only provides a secure livelihood to those dependent upon it, but also that it better contributes to the national economy. Some of the main recommendations based on the findings of this study are discussed in this section.

1. Livestock health: Livestock health is an important concern to livestock producers, including pastoralists. Somali pastoralists spend a lot of their income on livestock drugs, especially those in the southern part of the district. It is important to promote local animal health assistants (AHA) who would always be available within the community. Such livestock health attendants can be trained in the general detection of disease and the treatment of animals. The important traditional knowledge of livestock treatment should be taken into account when training the assistants since some of the traditional methods are cheaper and more sustainable because they enjoy local acceptability and familiarity. Livestock drugs should be provided at subsidised prizes and a revolving kit would take care of the replenishment of drugs. Drug subsidies are necessary considering the state of the local economy and the pressure on households to meet their food needs from whatever money is available to them.
2. **Restocking:** There is a need to enable destitute households to resume their livestock enterprises through restocking. However, for such a project to produce useful and sustained results, households should be provided with enough animals sufficient to meet the needs of their households and to make it possible for the households concerned to benefit from the positive $T_c$ through market participation. We recommend small stock as the preferred type of livestock for restocking since they have faster reproduction rates as well as being easy to sell without undermining the reproductive capacity of households’ herds. Giving impoverished households fewer of stock than the minimum they require only provides temporary relief and may not necessarily alleviate destitution. For instance, at $T_c$ values of 6.0, a household of seven should be provided with at least 54 head of small stock. This will enable the household to participate in the market without undermining the reproductive capacity of the herd, and therefore ensuring sustainable pastoralism for the household, assuming that other factors remain the same.

3. **Livestock export policy:** There is a livestock marketing opportunity in the Middle East which was formerly only partly supplied by the Republic of Somalia. Export opportunities have even increased with the collapse of the government in Somalia. The Kenyan government should undertake aggressive marketing strategies for livestock in all countries where there is a potential market. Livestock sector policies in Kenya have often tended to emphasise dairy and beef cattle in the highlands and on ranches at the expense of livestock kept in the Arid and Semi-Arid Lands (Asals) of the country. Higher benefits would accrue to both the pastoralists as well as the country if livestock exports were promoted and supported by the government. The pastoralists would benefit through high prices as a result of increased competition from additional markets. In addition to cattle and small stock, the export of camels should be promoted. With the important port of Mombasa, there is no reason why livestock exports should not do well if a deliberate policy was established by the government.

4. **Development of livestock marketing infrastructure:** Locally, livestock marketing needs an improved marketing infrastructure. Some of the key facilities include auction yards with weigh bridges, holding grounds in strategic areas, water (where appropriate), trek routes, dipping facilities, and a better rural road network to enhance the trucking of livestock from rural markets to the main consumer markets, and to enable more traders to venture to rural markets. An improved road network would also facilitate the flow of foodstuffs from Garissa town to rural markets. Rural livestock markets should be made more competitive creating incentives for livestock traders who make their livestock purchases from these markets. Such incentives may range from tax exemptions to actual financial incentives in the form of transport subsidies or credit facilities. This would promote livestock marketing in rural markets, thus saving the pastoralists time and resources. The time saved could be invested in other livestock production activities. In addition to promoting
livestock marketing through improving the infrastructure, food (grain) traders should be encouraged to do business in the rural areas as well. The availability of maize grains and other important foodstuffs in the rural markets should be facilitated. Since maize grain is usually consumed in the form of maize meal, small-scale posho mills should be encouraged and set up in the district rural markets to facilitate the conversion of grains to meal.

5. Livestock marketing information system: A market information system should be initiated countrywide to collect the necessary information for informed decision-making on livestock sales and purchases by both the producers and traders. Such information should be collected as part of a continuous process of making livestock marketing more competitive in order to reduce the costs of trading to the various participants in the market. The benefits of reliable market information to the producers saves resources by selling the better priced animals at appropriate places, assuming that a household has a number of options of places and types of animals to sell. A producer may take certain animals to sell in a given market, only later realising that he would have received a better price at another market, or for a different type of animal.

6. Off-take during drought: In general, pastoralists are usually hardest hit during droughts when the prices of livestock tend to collapse (although this did not happen during the course of this study). Stress auctions should be organised to increase off-take in the area during such periods. Sales of livestock during drought will not only provide income for the pastoralists to purchase foodstuffs, but it will also minimise livestock losses to drought. Pastoralists could actually rebuild their herds after the drought using the money earned during the drought from sales of livestock. The role of organising livestock auctions during periods of stress is best carried out by the state since it has policy implications regarding the disposal of purchased livestock. The government may however enlist the support of other institutions interested in pastoral development.

7. Environmental rehabilitation: With continuing degradation of the range in the refugee-settled areas of Garissa District, there is imminent desertification if an immediate and elaborate rehabilitation programme is not initiated. Cutting down trees for firewood should be made illegal and those caught doing so should be prosecuted. Efforts should be made to rehabilitate the degraded areas by planting drought-resistant plants. The pastoralists should be empowered to resist destruction of their rangelands since this threatens their livelihoods and their future as pastoralists. Ground water extraction and the pollution from the many pit latrines dug for the refugees require urgent attention. Diseases related to the quality of water have been reported in the Dadaab area, and we anticipate that the rapid depletion of ground water as well as its pollution is tragedy waiting to happen. Immediate measures to be taken should include the quantification of the ground-
water potential and an analysis of the extent of the pollution as a means of determining appropriate remedial measures.

8. Trading centres: The creation of new trading centres should be stopped, and any future establishment of such centres should be based on the needs of the people and their livestock rather than political expediency. Promotion of antagonistic clan politics should be stopped and replaced by one of harmony with a collective approach to all issues of mutual concern to the people and the government. All the trading centres created since 1992 should be reviewed and only those which conform to the needs and aspirations of the Somali pastoralists should be left to continue and be supported further; while the rest should be dissolved and resources concentrated in more beneficial sectors of the local and national economies.

9. Drought monitoring and forecasting: It is important to have reliable drought prediction so that appropriate steps such as pre-drought off-take and migration could be undertaken in good time. However, the local people's perception on drought forecasting should be incorporated instead of simply relying on meteorological indicators as the sole tool of prediction. There is enormous local knowledge which may even aid the scientific methods in drought forecasting, and these should be tapped.

10. Improved security: A secure environment in which resources can be optimally utilised is a prerequisite for the development of the pastoral sector in Kenya. Cattle rustling and banditry need to be controlled so pastoralists can concentrate on the production of livestock and enjoy unrestricted participation in the market. We propose a police force composed of pastoralists, or dominated by them, to be deployed in all pastoral areas. For this force to be effective, it should not only be led by a person from the pastoral areas in question, but it should enjoy the honest goodwill of the government. At present, insecurity appears to be an enterprise and the beneficiaries will create every obstacle in the book to ensure that it persists for as long as possible. There is an urgent need for a change of attitude by the government towards insecurity in pastoral areas in Kenya in general, and in north-eastern Kenya in particular. In addition, the regular military and police operations in the region which are making a misery of the lives of the Somali pastoralists should come to an end. They only contribute towards the further alienation of the Somali population in the area and portray the government forces as forces of foreign occupation in the region.

11. Political incorporation rather than political marginalisation: North-eastern Kenya and most of the northern part of the country continues to exist on the periphery of the national economy and politics, and it is time a policy of acceptance and incorporation of the region into the mainstream national spheres was pursued by the government. For the pastoral economy to develop in the area, the government should show by its actions that the region is an integral part of Kenya, and take
appropriate steps to improve the living conditions of the people in the area rather than merely giving endless promises of development. We are of the opinion that most of the problems in north-eastern Kenya are political, and the solutions must therefore of necessity also be political.
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Samenvatting


Na de studies in het relatief rustige en ten opzichte van de markt (Nairobi, Mombasa) zeer gunstig gelegen Maasai-gebied, en in het minder rustige en ten opzichte van de markt wat minder gunstig gelegen Pokot-gebied, leek het een uitdaging om een soortgelijke studie uit te voeren in het zeer turbulent, economisch geïsoleerde regio gemarginaliseerde Somaligebied van Kenia. Het is een regio met een groot aantal problemen, waarvan er een aantal al teruggaat tot de koloniale tijd. De studie werd geconcentreerd in het district Garissa, het meest zuidelijke van de drie Kenyse Somali-districten die samen de North Eastern Province vormen. De districtshoofdplaats Garissa is de grootste nederzetting in de provincie en is ook provinciehoofdplaats. Het is de plek waar vele ex-veehouders zich hebben gevestigd, die ten gevolge van de desastreuze droogteperiodes van 1992 en 1997 hun vee waren kwijtgeraakt en die het meest zichtbare bewijs zijn van een grote crisis in de veehouderij. Ze overleven door een combinatie van hulpvoedsel, de verkoop van brandhout en houtskool, giften van vrienden en familie, zaka-giften van Islamitische instituties en relaties met vluchtelingskampen in de regio. Ten noordoosten van Garissa-stad, in Dadaab, bevindt zich sinds de Somalia crisis begon in het begin van de jaren '90 een enorm vluchtelingskamp.

Het doen van onderzoek in een dergelijk gebied bleek geen sinecure. Het is de eerste studie in zijn soort over dit gebied en er kon dus niet of nauwelijks worden geput
uit eerdere studies. De geografische opzet van de studie betekende een vergelijking van drie heel verschillende onderzoekslokaties op enige afstand van elkaar: de omgeving van Garissa-stad zelf, een gebied in de buurt van het vluchtelingenkamp Dadaab en een erg geïsoleerd gebied veel meer naar het zuiden, Ijara. Deze opzet maakte het superviseren van onderzoeksassistenten ter plekke en het reizen tot een tijdronde en af en toe gevaarlijke onderneming, zowel gezien de onveiligheid als gezien de kwaliteit van de wegen en het vervoer. De voor deze regio extreme regenval ten gevolge van *El Niño* leidde in 1997/98 tot grote overstromingen en maakte contact met Ijara voor drie maanden onmogelijk, terwijl Dadaab voor een deel van de tijd slechts toegankelijk was door het doorwanden van snel stromende rivieren, die normaal het grootste deel van het jaar gortdroog zijn. Het daaraan voorafgaande veldwerkjaar 1996/97, werd getekend door droogte en dit betekende dat eerder in de *survey* opgenomen huishoudens waren weggetrokken naar onbekende bestemmingen en pas weer bij het onderzoek konden worden betrokken als ze na enige tijd terugkeerden. De toenemende hoeveelheid voedselselhulp beïnvloedde de marktprijzen voor graan. Enkele onderzoeksassistenten verlieten het onderzoeksproject omdat de talrijke NGO’s die in het gebied waren neergestreken ten tijde van de droogte veel beter betaalden voor hun diensten.

Ondanks deze moeilijkheden kon naar ons idee veel goed onderzoeksmateriaal worden verzameld. De onderzoeker is zelf afkomstig uit deze regio, kent het gebied en de cultuur goed en is zelf ook trots eigenaar van vee. Hij weet ook de weg in het labirint van overheidsinstellingen en NGO’s die bleken te beschikken over het nodige ‘grijze’ secundaire materiaal, hoewel dat niet altijd even betrouwbaar bleek wanneer het werd vergeleken met de uitkomsten van gesprekken met markthandelaren, andere sluippersonen en de huishoudens die deelnamen aan de *survey*.

We zullen in deze samenvatting kort de belangrijkste conclusies op een rij zetten van de vijf onderzoeksvragen die in de studie centraal stonden.

1 *Leidt toegenomen commercialisatie tot een verbeterde voedselzekerheid voor Somali veehouders? Zijn er additionele onzekerheden die voortkomen uit toegenomen markt-participatie en hoe zou daar mee omgegaan kunnen worden in de transitie van de Somali veehouders naar een van de markt afhankelijke economie?*

Somali huishoudens hebben een lange geschiedenis van enige betrokkenheid bij de markt. Vooral het kopen van maïsmeel, suiker, thee en enkele andere consumptiegooed- ren is al lang gewoon en het geld dat daarvoor nodig is kwam voor het grootste deel van de verkoop van vee. Er is wel sprake van toenemende gerichtheid op de markt, maar dat heeft een heel verschillende achtergrond bij verschillende groepen onder de Somali veehouders. Vier groepen worden in deze studie onderscheiden: rijke veehouders, arme veehouders die met hun beperkte kuddes leven in de *range lands*, arme veehouders die hun vee laten hoeden door familieleden of vrienden en die zich hebben gevestigd in steden of handelsposten en tenslotte verpauperde huishoudens die zich hebben gevestigd in de krottenwijken (*bullas*) rond handelsposten en vooral rondom Garissa-stad.
Commercialisatie kan worden gezien als een van de opties voor kapitaalaccumulatie voor rijkere huishoudens. Zulke veehouders verkopen ossen en onproduktieve, oude en zieke koeien op de markt en vervangen deze beesten door produktieve jonge koeien voor het uitbreiden van de kudde en voor de melkproduktie en door mannelijke kalveren die dan worden vetgemest. Ook investeren ze in allerlei soorten business. Commercialisatie van vee wordt door de rijkere veehouders gebruikt als een kernstrategie voor het handhaven of uitbouwen van hun economische positie. Deze veehouders zijn er voor een deel ook toe overgegaan om hun melk te verkopen, althans wanneer ze hun melkvlees hoeden in de buurt van de stad of van een handelscentrum. In het verleden werd het in de Somali maatschappij gezien als een taboe om melk te verkopen, maar de recente veranderingen zijn significant en melkverkoop wordt nu in toenemende mate gezien als een acceptabele enterprise, waaroverigens ook armen in participeren. Er is wel een verschil tussen rijke en arme melkverkopers. Voor de rijkere is het een accumulerende strategie; de melkinkomsten worden voor een belangrijk deel gebruikt om nieuw vee te kopen. Voor de armen is het een noodzakelijke overlevingsstrategie. De melkgift van hun koeien is onvoldoende om hen van voldoende voedsel te voorzien en melkverkoop is nodig om van de inkomsten ander voedsel te kopen. Het zit in de Somali samenleving de vrouwen die verantwoordelijk zijn voor het melken van de koeien en voor de verkoop van de melk. Mannen zijn verantwoordelijk voor het hoeden van de dieren en voor de koop en verkoop van vee.

Armere Somali veehouders werden in het verleden vanzelfsprekend bijgestaan door verwanten in dezelfde afstammingsgroep (reer). Ondersteuningsmechanismes waren o.a. het belenken van melkgiftende koeien voor de periodes waarin er een melktektor was, melkgiften, giften van zaka en sadaka, en veegiften om hen in staat te stellen om na een droogte de kudde weer snel op te bouwen. In de traditie van de Somali funtioneerde dit sociale zekerheidsstelsel voor de rijken als een verplichting om de behoeftigen te assisteren en tijdens periodes van voedselschaarste wendden vele arme huishoudens zich tot de rijken om steun. Hoewel nog steeds restanten van dit stelsel kunnen worden aangetroffen, zijn dit soort mechanismes erg aan erosie onderhavig geweest. Dit kan worden toegeschreven aan drie factoren: een toegenomen verpaupering die voor een deel ook een urbaan karakter heeft gekregen, de steeds meer commerciële oriëntatie in de veehouderij, waarbij zoals gezegd nu ook melk in toenemende mate verhandeld wordt en het afnemende aantal dieren per gemiddeld huishouden. Wanneer het aantal mensen dat hulp kan bieden in het traditionele zekerheidssysteem steeds kleiner wordt en het aantal behoeftigen steeds groter wordt er een punt bereikt waarbij het hele stelsel in elkaar klap. Dat lijkt de afgelopen jaren gebeurd te zijn. Voor zover er steun wordt verleend zijn de verwantschapsgroepen waarbinnen dit gebeurt ook kleiner geworden en is het niet langer de reer. Ook de Islamitische mechanismes van steunverlening wijken af van het principe van steun aan alle behoefte moslims in de buurt en worden verengd tot steun aan een kleinere kring van verwanten. Het hebben van een rijk direct familieïed wordt zo een belangrijker voorwaarde voor 'steunzekerheid' dan in het verleden.

Hoewel de participatie in de markt voor arme huishoudens cruciaal is geworden en voor rijke huishoudens een mogelijkheid tot accumulatie, zijn degenen die al hun
vee zijn kwijtgeraakt niet langer in de veemarkt geïnteresseerd, behalve dan als een middel om wat steun te verkrijgen van familieleden die daar net een dier hebben verkocht. Maar ook veel van die veeverkopers kunnen zich een dergelijke steun steeds moeilijker veroorloven omdat veel van hen afhankelijk zijn geworden van de veeverkoop voor het aankopen van noodzakelijk voedsel en vooral van het calorierijke maïsmeel. Het is voor arme huishoudens cruciaal geworden om vee te verkopen om te kunnen overleven, maar het ondergraait ook in toenemende mate hun overleving als veehouders op lange termijn.

Voor de samenleving als geheel is een directe consequentie van de grotere markt-participatie het ondergraven van de steunmechanismes zoals die lang hebben gefunctioneerd. Het keren van deze trend is waarschijnlijk een onmogelijke opgave, tenzij een grootsccheepse restocking campaign wordt ondernomen gericht op de armen en verpauzerden. Dan kan het beste begonnen worden met kleinvee omdat de reproductiesnelheid daarvan sneller is dan bij runderen of dromedarissen. Het vereist een grote kapitaalinjectie, maar is waarschijnlijk de beste methode om te komen tot het verbeteren van een duurzame bestaansbasis voor de Somali bevolking van deze streek, die verder weinig mogelijkheden biedt.

2 In welke mate zijn Somali veehouders betrokken bij de verhandeling van vee en welke mogelijkheden en belemmeringen biedt de markt?

Verkoop van vee was al in de koloniale tijd een veel voorkomende activiteit, zij het bemoeilijkt door graas- en migratie-restricties en opgelegde quarantaines. Vanaf Kenya’s onafhankelijkheid zijn die restricties veel minder geworden en is de vermarkting van vee sterk toegenomen. Veel verkocht vee verdwijnt naar gebieden buiten Garissa en er zijn indicaties voor een aanzienlijke toename van de oftake rate.

Veeverkoop betreft voor het allergrootste deel runderen en kleinvee. Hoewel een overweging bij de keuze van onderzoekslokaties was om gebieden te vergelijken met en zonder dromedarissen (resp. Dadaab en Ijara) bleek dat er gedurende de onderzoeksperiode geen dromedarissen werden verkocht in Dadaab. De meeste dromedarissen bleken ver weg te worden gehoed. Veel huishoudens bleken te participeren in de verkoop van runderen en Kleinvee, waarbij veemarkten bleken te functioneren in alle divisional centra van het district en een dominerende rol wordt gespeeld door de veemarkt van Garissa-stad, maar ook veel vee samenkomt uit de andere Somaligebieden. In het verleden werden veeveilingen georganiseerd door de Livestock Marketing Division (LMD), maar dat hield op in de jaren ’80. Veeverkoop gaat nu rechtstreeks tussen kopers en verkopers. In Garissa-stad is er wekelijks een grote rundermarkt terwijl kleinvee dagelijks wordt verhandeld. In de kleinere plaatsen functioneren dagmarkten, maar de aantallen zijn veel kleiner dan die in Garissa-stad.

Het aantal stuks rundvee dat Garissa District verlaat is gestegen van het geringe aantal van 7.200 in 1983 tot meer dan 100.000 in 1998. Er zijn wel grote fluctuaties van jaar tot jaar, maar de stijgende trend is onmiskenbaar. Ook de ‘export’ van kleinvee is aanzienlijk. De verkoopcijfers die afgeleid kunnen worden uit de gegevens die verkregen zijn uit het interviewen van huishoudens zijn bescheidener, wat wijst op een
grote doorvoer van vee uit andere Somali-gebieden.

3 Wie zijn de belangrijkste participanten in de vee- en voedselhandel in het gebied en welke handelsrelaties onderhouden zij?

De veehandel opereert met een netwerk van actoren, die elkaar zowel beconcurreren als aanvullen. De belangrijkste actoren zijn de veehouders zelf, de veehandelaren, de tussenpersonen en de slagers. Veehouders die vee verkopen hebben te maken met elk van de andere actoren. Onder de veehandelaren zijn hele kleinschalige handelaren die vooral in de rurale marktplaatsjes te vinden zijn, maar ook grote handelaren die vanuit Garissa opereren en die met open vrachtauto’s vee vervoeren naar de belangrijkste consumentenmarkten van Nairobi en Mombasa. De grote handelaren krijgen hun vee voor een belangrijk deel van de kleine rurale handelaren. Sommige kleine handelaren functioneren als agenten voor de grote handelaren en kopen vee met geld van hen. De meeste handelaren bleken te behoren tot de etnische groep van de Somali, met een paar Kamba uitzonderingen. Tussenpersonen zijn op elk niveau van de marktketen te vinden. Ze treden veelal op namens de veehouders en doen zich voor als ‘eigenaars’ van het te verkopen vee. Tussenhandelaren (brokers) onderhandelen ook soms tussen kopers en verkopers. Ze gebruiken de verwantschapsrelaties en veel veehouders verkopen hun vee via tussenhandelaren die behoren tot hun reer. Slagers kopen gewoonlijk maar enkele beesten voor onmiddellijke slacht, hoewel hun omzet groter is tijdens de feestdagen, zoals Kerstmis en de Islamitische Idd festivals. Kleine veehandelaren zijn in een aantal gevallen ook slager. Er zijn in het algemeen hechte relaties tussen de diverse betrokkenen bij de handelsketen.

Voedselhandelaren zijn ook in alle handelscentra te vinden. Groothandelaren kunnen vooral in Garissa-stad worden gevonden en betrekken hun waren vooral uit Nairobi en soms uit Mombasa. Ze verkopen vervolgens door aan kleine handelaren, die in Garissa-stad of in de handelscentra in de rest van het district doorverkopen. De meeste veehouders kopen hun voedsel en andere consumptiegoederen van de kleine handelaren in de rurale handelscentra. We ondertekten een belangrijke handelspraktijk in die rurale centra. Door de grote onveiligheid in het gebied is het steeds gevaarlijker geworden voor veehouders om geld bij zich te hebben. Om het risico te minimaliseren van diefstal door bandieten geven ze het geld dat ze verdiend hebben met de verkoop van vee aan de kleine handelaren die dat omzetten in voedsel dat ze betrekken van de groot-handelaren in Garissa-stad en transporteren naar hun winkel op het platteland. De veehouders kunnen dan het voedsel krijgen dat ze nodig hebben en de stand van zaken van de ‘rekening’ wordt bijgehouden. Deze relatie kan ook verder gaan waarbij de veehouder voedsel kan krijgen op krediet. Kleine handelaren gaan zo ook functioneren als spaarbank en als kredietverlener.

Op basis van ons onderzoek schatten we het aantal veehandelaren in het district op een kleine 380. Slagers zijn er het meest (ca 50 in Garissa-stad en ca 110 in de kleinere marktplaatsen), gevolgd door tussenpersonen (resp. 50 en 60) en door handelaren (resp. 25 en 80). We concludeerden al eerder dat de omvang van de veehandel in het district wijst op een wijdverbreid handelssysteem en dat wordt bevestigd door dit aantal
mensen dat bij de veehandel betrokken zijn. Als we het aantal handelaren vergelijken met de omvang van de veehandel dan kan worden geconcludeerd dat individuele handelaren vrij grote aantallen dieren verhandelen. Tussenpersonen hebben een wat beperkter bereik en slagers worden beperkt door de lokale vraag.

4 Wat is de recente geschiedenis van de calorische ruilvoet voor de Somali veehouders in Garissa District?

Om vast te stellen hoe lucratief het is voor veehouders om vee te verkopen en daar voedsel voor te kopen is het bepalen van de 'calorische ruilvoet' een goede methode. We vergelijken daarbij levend vee met maïsmehal, wat verreweg het meest wordt gekocht. De 'calorische ruilvoet' (Tc) kan worden vastgesteld door de hoeveelheid bruikbare energie (in calorieën) in het vlees van het vee dat wordt verkocht te vergelijken met de energie die opgeslagen zit in het graan dat met de verkoop van het vee kan worden gekocht. De Tc ratio is hoog wanneer de prijs van het gekochte maïsmehal relatief laag is en veeprijzen relatief hoog zijn. De tabel geeft een samenvatting van de bevindingen voor rundvlees en schapen- en geitenvlees vergeleken met maïsmehal. De gemiddelde vleesprijzen werden berekend op basis van het levend gewicht van de dieren, waarbij ervan werd uitgegaan dat een rund een gemiddelde bruikbare hoeveelheid vlees heeft van 100 kg, en kleinvee van 12 kg., waarbij moet worden aangetekend dat runderen in Garissa in het algemeen wat minder zwaar zijn dan elders in Kenia.

Tabel: Samenvatting van de 'calorische ruilvoet' per gebied, per periode (januari 1996 tot en met december 1997) en per type dier.

<table>
<thead>
<tr>
<th>Periode</th>
<th>Rundvlees</th>
<th>Vlees van kleinvee</th>
</tr>
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<tbody>
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<td>tegen maïsmehal</td>
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<td>8,3</td>
<td>5,9</td>
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</tr>
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<td>9/1996</td>
<td>6,9</td>
<td>3,5</td>
</tr>
<tr>
<td>12/1996</td>
<td>8,3</td>
<td>5,0</td>
</tr>
<tr>
<td>3/1997</td>
<td>8,2</td>
<td>3,3</td>
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<tr>
<td>6/1997</td>
<td>7,8</td>
<td>3,2</td>
</tr>
<tr>
<td>9/1997</td>
<td>6,4</td>
<td>3,3</td>
</tr>
<tr>
<td>12/1997</td>
<td>7,4</td>
<td>5,0</td>
</tr>
<tr>
<td>Gemiddeld</td>
<td>7,8</td>
<td>4,4</td>
</tr>
</tbody>
</table>

Gar = Garissa-stad, Dad = Dadaab, Ija = Ijara.

Op elk van de meetmomenten was de 'calorische ruilvoet' altijd hoger dan 1, dus was het altijd voordelig voor een veehouder om het vlees niet zelf op te eten, maar te verkopen en van de verkoopprijs maïs te kopen. Dat was zelfs zo tijdens de ernstigste
maanden van de droogte in 1997. Omdat maïsgraan gewoonlijk goedkoper is dan maïsmeel is het voordeliger voor een veehouder om dat graan te kopen, voorzover het te koop is, en met de kanttekening dat het dan nog gemalen moet worden. Het is bijna altijd en bijna overal beter om Kleinvee te verkopen dan runderen. Vlees van Kleinvee wordt in het algemeen meer gewaardeerd dan het vlees van runderen en dat van dromedarissen, wat tot uiting komt in de betere Tc waardes. Garissa-stad had verreweg de beste Tc-waardes, op afstand gevolgd door Dadaab en (meestal) ten slotte door Ijara. Voor de meeste veehouders is het echter realiteit dat zij hun maïs meestal moeten kopen in de kleinere marktplaatsen, zodat de Tc in Dadaab meer zegt voor de groepen veehouders in het meer noordelijk gelegen gebied en die in Ijara voor de groepen in het zuiden. De Tc in Garissa-stad was zo hoog vanwege een combinatie van relatief lage maïsprijzen en relatief hoge vee prijzen. De veeprijzen in Dadaab waren over het algemeen hoger dan die in Ijara en de maïsprijs aanzienlijk lager. Dit kwam door de aanwezigheid van de vele vluchtelingen en het feit dat veel hulpinstellingen het mogelijk maakten dat de maïsprijs laag was. In Ijara waren die prijzen veel hoger door de hoge transportkosten (mede door de onveiligheid) en de veel kleinere hoeveelheden hulpvoedsel in dat gebied. Ijara kan worden gezien als een van de meest rurale, geïsoleerde gebieden in het district en het is hier dat de Tc tijdens de slechtste maanden (het einde van 1997) de laagste waren. Het feit dat de Tc waardes zo sterk verschillen wijst op een grote regionale diversiteit in de marktomstandigheden binnen het district en op het niet goed functioneren van de markt. De slechtste veiligheids situatie betekent hoge transportkosten en grote risicomarges voor de handelaren en het betekent ook dat veel veehouders zelf hun vee niet durven verkopen in de plaats met de beste prijs en dat ze daar ook niet hun graan durven te kopen.

Wanneer we de hele periode van het veldwerk overzien dan was de algemene trend er een van afnemende Tc waardes. Het gemiddelde niveau bij het kopen van maismeel (6,2 en 8,8 voor Garissa-stad voor resp. runderen en Kleinvee) is vergelijkbaar met de laagste waardes die werden gevonden in de eerdere onderzoeken in het Pokot- en het Maasaigebied. Voor Dadaab en vooral Ijara liggen de gevonden gemiddelde Tc waardes daar nog weer aanzienlijk onder.

Ondanks deze relatief lage Tc-waardes moet worden geconcludeerd dat het ook voor de Somali loont om vee te verkopen en daar graan voor te kopen. Daarbij moet evenwel worden aangetekend dat de Somali ook een groot aantal andere goederen kopen dan maïs, zoals thee, suiker en rijst en dat ze daar een groot deel van het geld aan uitgeven dat ze verdienen met de verkoop van vee. Het is ook zo dat men, om te kunnen profiteren van de voor voedselzekerheid gunstige Tc-waardes, verkoopbare dieren moet hebben, dat er ook een functionerende markt moet zijn waar men met die beesten terecht kan en dat er op het moment dat men dat nodig heeft maïs te koop moet zijn. Hoewel veel huishoudens in Garissa een paar dieren hebben, is het aantal dieren zo klein dat het verkopen ervan hun continuïteit als veehouder kan ondergraven. Wanneer de crisis situatie echter zo dramatisch is als ze was tijdens 1997 zit er weinig anders op dan de markt te gebruiken voor het verbeteren van de voedselzekerheid. Wanneer de veiligheids situatie beter zou zijn geweest en de markt infrastructuur in plaatsen als Ijara beter ontwikkeld, dan zou een veel beter resultaat bereikt zijn en zouden veel minder
dieren verkocht hebben moeten worden dan nu het geval is geweest. Voor veel huishoudens is de verkoop van de paar dieren die ze nog hadden de nekslag geweest voor en toch al erg onder druk gezette levenswijze als veehouder. Veel van deze mensen kwamen in 1997 als paupers terecht in de snel groeiende krottenbuurt in het district of ze sloten zich aan bij de vluchtelingen in de kampen rondom Dadaab, voorzover dat mogelijk bleek.

5 Hoe gaan Somali veehouders uit Garissa District om met crises ten gevolge van droogte? Wat zijn de opties voor degenen die het slachtoffer zijn van dergelijke crises?

De Somali zijn van generatie op generatie gewend geraakt aan lange droge seizoenen en aan droogtes. Ze lijken echter, door een combinatie van politieke, economische en ecologische factoren steeds minder in staat om het hoofd te bieden aan droogte en voedseltekorten. Het in de koloniale tijd beperkte van de graasgebieden op etnische grondslag met als gevolg grote moeilijkheden tussen etnische groepen nadien werkt nog steeds door en beperkt de mogelijkheden tot inter-etnische mobiliteit in het geval van plaatselijk tekort aan bijvoorbeeld graas- of waterplekken. In het verleden was het voor de armere veehouders geen automatisme dat met name zij ernstige problemen ondervonden tijdens een droogte omdat ze konden terugvallen op een goed functionerend sociaal zekerheidsstelsel. Wanneer een ernstige droogte toesloeg trof dat de hele gemeenschap op het moment dat de rijkere niet langer in staat waren om de last van een 'sociaal inclusief' zekerheidsstelsel te dragen. Dan werd de hele gemeenschap bedreigd in het voortbestaan.

Gedurende derecente droogte lijkt de Somali gemeenschap in Garissa kwetsbaar te zijn dan in het verleden. Vele veehouders hebben al hun vee verloren en zijn naar de stedelijke armoedegebieden getrokken. Vele anderen balanceren op het randje van een veehoudersbestaan. Strategieën die werden toegepast om het hoofd te bieden aan deze bedreigingen waren o.a. het scheiden van melkgevende koeien van de rest van de kudde en het onderbrengen van deze melkkoeien bij de ouderen, de zieken en de meeste vrouwen en kinderen in de buurt van bevolkingscentra. De rest van de dieren werd dan vooral door de mannen en jongens naar ver weg gelegen graas- en watergebieden geleid. Huishoudens in de centra zochten steun bij hun familie en bij hun stock associates en brachten soms ook delen van hun huishoudens onder bij anderen in andere centra of in Garissa-stad. Zoveel als mogelijk probeerde men in de buurt te verblijven van hulporganisaties of probeerde men zich te registreren bij de vluchtelingenkampen om op die manier aanvullend voedsel te verkrijgen.

De paupers die zich vooral in en rondom Garissa-stad hebben gevestigd lijken zich te hebben neergelegd bij een leven in afhankelijkheid. Het ontbreekt hen aan elk perspectief, anders dan dat van langdurige hulpontvangers. Men verwacht kennelijk dat het verblijf in een relatief grote stad mogelijkheden hiertoe biedt en dat verklaart ook de grote toestroom van ecologische vluchtelingen naar Garissa-stad.

De recente droogte was extreem, maar werd verergerd door een aantal factoren waar de Somali veehouders geen greep op hadden. Dat betrof de grote onveiligheid, de milieudegradatie rondom de vluchtelingenkampen van Dadaab en de creatie van talloze
nieuwe administratieve centra in Garissa op plekken die voorheen gebruikt werden door veehouders.

De studie eindigt met een aantal beleidsaanbevelingen die er voor zouden kunnen zorgen dat de zorgwekkende situatie zou kunnen verbeteren. Het gaat dan om zaken als verbeterde veterinaire zorg, aanvulling van vee en versnelling van de wederopbouw van de kuddes en vooral van het kleinvee. Het gaat ook om het doorvoeren van een vee-exportbeleid naar het Midden Oosten, de ontwikkeling van een betere marktinfrastructuur en een beter marktinformatiesysteem. Ook betere droogte-'monitoring' en voorspelling zijn van belang. Tijdens droogtes zou veel meer kunnen worden gedaan aan 'stress offtake'. Milieurehabilitatie is hard nodig in de vernielde gebieden rondom Dadaab terwijl het beleid om steeds maar nieuwe administratieve centra te stichten moet worden ongedaan gemaakt. Van evident belang is het verbeteren van de veiligheids-situatie en het zou helpen wanneer het gebied niet langer door de centrale overheid van Kenya zou worden beschouwd als een politiek marginaal gebied en beter politiek zou worden geïntegreerd. De meeste problemen waarmee de Somali in Garissa momenteel zijn geconfronteerd hebben te maken met een falende politiek en oplossingen moeten dan ook op de eerste plaats in de politiek worden gezocht.