Pastoralists and markets: livestock commercialization and food security in north-eastern Kenya
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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 *zaka* and *sadaka*, 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. *Zaka* and *sadaka*, 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 marketing 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 participation 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-
The 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
shops with money earned from livestock sales or other sources. Caloric terms of trade (Tc) are defined as the amount of metabolisable 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</th>
<th>Small-stock meat</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>maize grain</td>
<td>maize meal</td>
</tr>
<tr>
<td>Mar '96</td>
<td>8.3 5.9 2.2</td>
<td>6.4 5.0 1.8</td>
</tr>
<tr>
<td>June</td>
<td>9.1 6.2 2.7</td>
<td>7.0 5.5 2.3</td>
</tr>
<tr>
<td>Sept</td>
<td>6.9 3.5 2.6</td>
<td>5.4 2.8 2.2</td>
</tr>
<tr>
<td>Dec</td>
<td>8.3 5.0 2.5</td>
<td>6.6 4.0 2.1</td>
</tr>
<tr>
<td>Mar '97</td>
<td>8.2 3.3 3.8</td>
<td>6.5 2.6 3.3</td>
</tr>
<tr>
<td>June</td>
<td>7.8 3.2 2.5</td>
<td>6.7 2.7 2.2</td>
</tr>
<tr>
<td>Sept</td>
<td>6.4 3.3 2.6</td>
<td>5.1 3.1 2.0</td>
</tr>
<tr>
<td>Dec '97</td>
<td>7.4 5.0 2.3</td>
<td>5.9 3.4 2.1</td>
</tr>
<tr>
<td>Average</td>
<td>7.8 4.4 2.7</td>
<td>6.2 3.6 2.3</td>
</tr>
</tbody>
</table>

*Gar.=Garissa; Dad.=Dadaab; Ija.=Ijarra

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 Somali 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 Tc 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 Tc 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.