Cross-border Livestock Trade Assessment Report

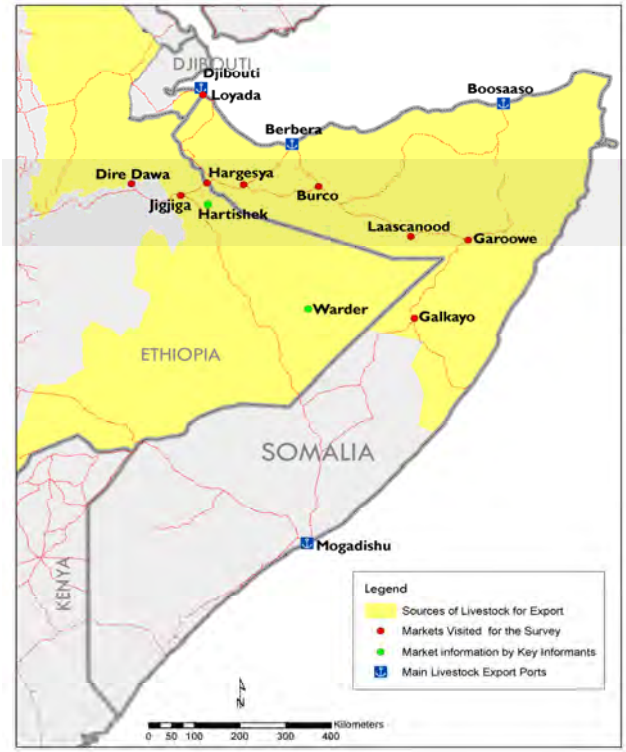
October 2010

Impacts of lifting the livestock import ban on food security in Somalia, Ethiopia, and the Djibouti borderland

Key Messages

- In the year 2000, the Kingdom of Saudi Arabia imposed an import ban on all livestock and livestock products from the Horn of Africa in response to the health risks related to the epizootic Rift Valley Fever (RVF). The ban lasted 10 years until September 2009 affecting local economies and causing several changes in livestock marketing. This report examines the magnitude and extent of these changes, and whether, with the lifting of the ban, the trading system will revert to the pre-ban state or not.
- The ban led to an increase in herd size in the region, the proliferation of *berkads* (water reservoirs) that are associated with environmental degradation, a high disparity between the Horn of Africa farm-gate price and consumer prices in importing countries, and the purchase of livestock on credit from producers with a long waiting period for payment. Many livestock exporters were either forced out of business or forced to diversify, while a significant number of very poor pastoralists moved into urban centers, leading to increased poverty levels and unemployment. Djibouti pastoralists were least affected by the ban, due to increased export opportunities and cross-border livestock movements to Djibouti city.
- With the lifting of the ban, demand for export-quality livestock has increased. Pastoralists have re-established strong links with transporters and traders through the pre-ban export routes that allow them to obtain better prices. The volume of live animal exports has increased by up to nine percent, while farm-gate prices have gone up by 25 percent. As a result, the number of imported containers with food and manufactured goods through Berbera and Bosaso ports (which is largely financed by the livestock export) has increased by about 39 percent.

Figure 1. The assessment area



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1. Introduction

Livestock export is a key element in the livelihood systems of pastoral and agro-pastoral populations in the Horn of Africa (HOA). Export trade is supported by a network of regional cross-border trade, where the interior rangelands are linked to the ports through a series of clan-based corridors. The regional cross-border trade network supports about 17 million people in the HOA including livestock producers, traders, and other groups such as trekkers, fodder traders, brokers, and middle men who directly or indirectly derive their entitlements from livestock production and trade.

Towards the end of 2000, the Kingdom of Saudi Arabia imposed an import ban on all livestock and livestock products from the HOA sub-region. The other countries in the Gulf, namely Bahrain, Oman, Qatar, the United Arab Emirates (UAE), and

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Yemen, followed suit immediately thereafter. This ban followed another import ban imposed in 1998 and 1999. Both bans were in response to the health risks related to the epizootic Rift Valley Fever (RVF) disease found in northern Kenya and southern Somalia. During the RVF outbreak in 2000, the disease spread to southwest Saudi Arabia, resulting in over 30 human fatalities.

In mid-2001, Bahrain, Oman, Qatar, the UAE, and Yemen lifted the ban on live animal imports from the Horn of Africa countries especially Sudan, Somalia, and Ethiopia. However, the embargo by Saudi Arabia was not lifted, and it continued to have major implications on trade as Saudi Arabia comprised about 94.4 percent of the export market share and offered better prices to traders. The Saudi blockade continued until September 2009, thereby affecting local economies in the sub-region. During this decade-long import ban, a number of changes took place within HOA livestock markets. These included alterations in cross-border trade routes, changes in the number of traders, changes in livestock producers' terms of trade (i.e. livestock to cereal terms of trade), fluctuations in livestock supply volumes, and modification of market actors' transactional arrangements, among others.

Despite the importance of such changes, there has been limited information on their magnitude and extent. Furthermore, it is not clear whether, with the lifting of the ban, the trading system will revert to the pre-ban state or not. This information is important in planning for interventions and for enhanced early warning and food security monitoring for the pastoral livelihood system. To gain an understanding of these issues, the FEWS NET East Africa Regional office, FEWS NET Djibouti, FEWS NET Ethiopia, and FEWS NET Somalia offices conducted a joint cross-border livestock trade assessment in May 2010 to understand the dynamics of livestock trade among Ethiopia, Djibouti, and Somalia, as well as port movements as they relate to livestock trade and export activities. These three countries were selected because of their long history of cross-border livestock trade and strong livestock trade ties with the Kingdom of Saudi Arabia.

2. Objectives

The overall objective of the cross-border livestock trade assessment was to gain an improved understanding of cross-border livestock trade dynamics between Ethiopia, Djibouti and Somalia, as well as the livestock export activities undertaken through the Djibouti, Berbera, and Bosasso ports during and after the Saudi Arabia import ban. It was envisaged that the information generated would not only inform the cross border and export monitoring activities, but would also provide useful information for decision making to support livestock trade in the three countries.

The assessment identified three specific objectives. First, to understand the dynamics of cross-border livestock trade between Ethiopia, Djibouti and Somalia, particularly after the decade-long livestock import ban by the KSA. Secondly, to assess the livestock trading systems, livestock export volumes and shifts in cross-border trade routes during and after the Saudi import ban. Thirdly, to highlight the important livestock cross-border monitoring indicators and propose ways in which they can be monitored.

3. Methodological issues

3.1 Assessment approach

The assessment was conducted between May 18-29 by the FEWS NET Somalia, Djibouti, and Ethiopia teams with support from the Food Security and Nutrition Analysis Unit (FSNAU). The teams first undertook a review and synthesis of secondary data, livelihood profiles, export and import figures, food security reports, and other related published and unpublished documents. This was followed by in-depth interviews with market actors using an interview guide that was collectively developed by the three countries. Lastly, the team held site visits to pastoral settlements, ports, livestock markets, holding grounds, line ministries, and retail and wholesale premises to collect data.

3.2 The assessment area

Figure 1 summarizes the areas covered by this assessment, including the northeast and northwest region of Somalia comprising Galkayo, Garowe, Laasanood, Burao, Berbera, Hargiesa and Togwajale; the Somali and part of the Afar regions

of Ethiopia (comprising Werer, Gawane, Chifra, Ayssaita, Elidahar, Diredawa, Aysha'a, Babile, Jigjiga, Hartasheikh, Abokor, Gashamo, Galadi and Wardher), and the Djibouti port and Lawyado market in Djibouti.

3.3 Limitations of the assessment

It is important to note that this assessment did not cover the whole of Somalia, Ethiopia and Djibouti. In addition, the assessment was conducted soon after the lifting of the import ban by Saudi Arabia and might not have been able to capture fully the impact of the lifting of the import ban. It would be prudent to repeat the assessment in the future and to expand the area and actors considered in subsequent assessments.

4. Key actors in the livestock markets of the HOA

The following market actors can be identified in livestock markets of the HOA:

(a) Small scale (petty) traders: Petty traders include the '*Gedisley*' and the '*Gadley*'. The *Gedisley* are traders who buy animals from producers in one market and sell them to another market in order to exploit price differentials between the two markets. The *Gedisley* may also try to add value to purchased animals through supplementary feeding and treatment. Many traders who are described as *Gedisley* operate at a local level, moving animals from village markets to larger markets in the same district or region or even larger markets in other regions or across international borders. On the other hand, a *Gadley* is a small-scale livestock trader who buys animals at low cost in a market and then sells them later at a profit in the same market, usually a district market. Similar to the *Gedisley*, a *Gadley* may also try to add value to the purchased animals through supplementary grazing and feeding, or by offering treatment for health problems.

(b) Agents of exporters: Agents are market participants who supply animals in response to orders or requests from actors further up the supply chain. They source and transfer animals on behalf of their clients from smaller markets to larger markets within a country or across borders based on an established rapport and trust. In some cases, agents may also act independently by using their funds and thus trading as *Gedisley* in addition to their role as agents.

(c) Exporters: Exporters are traders who act as the final link in the chain between the local livestock marketing system and the importing country. They assemble livestock from different regions of Somalia (including those procured from across borders) and transport them to destination countries and arrange for their sale.

(d) Brokers: Brokers, also known as the '*Dilaal*' or '*Dallaal*', are a central feature of livestock marketing in HOA. They are based in main markets and play a pivotal role in all transactions that are concluded in these markets. Brokers facilitate exchange between other traders, and are involved in every transaction in the market. Price is arrived at through bargaining between a buyer and seller through the facilitation of a broker. Besides facilitating exchange, brokers play the important role of guaranteeing that the livestock being traded is not stolen.

Other actors include livestock producers, traders' associations (Chambers of Commerce), veterinary departments, and port authorities.

5. Dynamics of livestock trade in the Horn of Africa

Livestock production and trade contribute directly or indirectly to the livelihoods of many households in the HOA economies. The most dominant livestock species traded include sheep, goats and camels originating mainly from eastern Ethiopia and Somalia. Livestock is marketed through clan, sub-clan, and other kinship ties that are strongly maintained across international boundaries[1]. Accordingly, the economy and trade routes are also related to these age-old links of the clan system. In the last three to five decades, livestock trade in this region has changed from a *livestock subsistence society*,

[1] Clan relations have for a long time helped livestock procurement and trekking in the HOA. The clan approach to livestock trading is an important ingredient in ensuring the success of trade; it not only facilitates market transactions, but also acts as security. The clan system is based on a highly segmented patrilineal system through which people trace their descent to common male ancestors. The major HOA Somali clan families include the *Darood*, *Dir*, *Hawiye*, *Isaaq* and *Rahaweyne*.

characterized by milk, meat and grain staples, to a *livestock export-oriented market economy* developing comparatively sophisticated trade links both within the region and across the Gulf States. Marketing of livestock enhances income earnings and with it, the inflow of food and non-food consumer goods from other markets. The primary driver of livestock trade in the region was the discovery and exploitation of oil wealth within the Gulf States. Oil wealth allowed Saudi Arabia to rapidly modernize and hence begin large-scale imports of livestock from the Horn of Africa countries.

Prior to the import ban by Saudi Arabia, there were three main routes for exports, namely Berbera in northwest Somalia, Bosasso in the northeast Puntland State of Somalia, and Garissa in northeastern Kenya. Exports from two other important areas of export, namely Kismayo in the south and Mogadishu, had largely ceased due to persistent conflict. During the 2000 to 2007 period, there were minimal exports through Djibouti port which accounted for most of official livestock exports.

Exports through Berbera and Bosasso ports were handled through two distinct clan-based corridors and transportation routes, namely the Berbera and Bosasso corridors (see Umar, 2007[2]). The *Isaaq* were the dominant clan in the Berbera corridor, although the *Ogadeni* and other clans formed part of the supply chain. The specific routes in the Berbera corridor included: (i) Harar–Jijiga–Hargeisa–Berbera; (ii) Hartisheikh–Hargeisa; (iii) the Haud route; (iv) Kebri Dahar–Burao; and, (v) Gode–Burao. The Bosasso corridor was dominated by the *Mijerteen* clan with livestock also coming from *Ogadeni*, *Marehan*, *Dhulbahante* and other clans of the eastern Somali Region of Ethiopia and the contested areas of Sool and Sanag of Somalia. The main routes on this corridor were: (i) the Warder routes; and (ii) the Kebri Dahar–Bosasso route.

6. Trends in livestock trade and impact of the import ban

1991-1997: Prior to the collapse of the Somali state in 1992, war in northwest Somalia led to closure of Berbera port, which in turn led to the growth of Bosasso as a major port for Somali livestock exports. Livestock exports from Bosasso increased by 210 percent between 1991 and 1992, with a peak of 1.2 million sheep and goats exported in 1992. Between 1991 and 1993 there was high demand for export stock in Bosasso and producers were offered competitive prices for their animals.

After the cessation of conflict in Somaliland, exports from Berbera were re-established in 1992 and trade through Bosasso began to decline, dropping 41 percent in 1993. The Bosasso traders lost business (to their counterparts in Berbera) because of their relative inexperience, their lack of a long-standing relationship with traders in Saudi Arabia and Yemen; lack of extensive market channels in the country; lack of access to Djibouti, which was by then offering banking and communications facilities; and a reputation for exporting livestock in poor condition compared to Berbera traders due to the more harsh climatic conditions in Bosasso. This downward trend in exports from Bosasso continued until 1995, when only 37 percent of the 1992 record figure was recorded. This decline in exports (through Bossaso) prompted urban traders to find alternative sources of income, but within the import/export economy. One alternative was the shift to the export of cattle. Overall, the re-emergence of Berbera led to a net increase in livestock exports from HOA from 1992 to 1997.

1998-2006: In 1998, the occurrence of Rift Valley Fever affecting human and animal health in parts of northern Kenya and southern Somalia led to the first round of livestock import bans by Gulf States. The ban was lifted in 1999 by all countries; however, a later round of outbreaks that spread into parts of Yemen and Saudi Arabia and resulted in the deaths of about 30 people caused all the Middle East countries to impose a ban on livestock imports from HOA in 2000.

By 2002, most Gulf States, with the exception of Saudi Arabia, had restored livestock imports from HOA. However, Saudi Arabia accounted for about 95 percent of the market. The continued Saudi Arabia ban led to the emergence of Djibouti port (in 2003/04), where export livestock holding (quarantine) facilities were built. The ban was lifted on animals from these facilities and Djibouti became an important regional exit port for livestock heading to Saudi Arabia. The Djibouti pastoralists were not negatively affected by the ban, but those from Somalia and the Somali region of Ethiopia were subjected to longer export routes and limited Yemen and Oman demand leading to reduced income to producers and traders, deteriorating livestock-cereals terms of trade, reduction of credit facilities from food merchants, and increased size of the livestock herd. With the increased livestock herd, there was an uncontrolled proliferation of *berkads* (water reservoirs) and an absence of water point management and maintenance. The proliferation of *berkads* resulted in

[2] Umar, Abdi and Bob Baulch (2007). Risk-taking for a Living: Trade and Marketing in the Somali Region of Ethiopia, The Pastoral Communication Initiative, UNOCHA.

increasing livestock population clustering into villages and converted the villages into all-year-round grazing areas, leading to over-grazing and environmental degradations. The lost livestock income also caused households to turn to wood-cutting and charcoal-making, accelerating the deforestation process. There was an increase in the proportion of people depending on food aid.

However, the ban turned Kenya into an important destination market, leading to emergence of Somali-managed coastal ranches in Kenya that acted not only as fattening ranches, but also as holding grounds targeting Kenyan and overseas markets. The Kenyan outlet was however limited and had minimal impact. In addition, livestock from the HOA still found way to Saudi Arabia, particularly via Oman and Yemen. While this unofficial route was useful in accessing the Saudi market, it led to reduced profits and increased risk. Many traders reportedly lost money or animals on this route through exploitation by Yemeni middlemen.

In Somalia, the ban was also accompanied with constant devaluation of the Somali/Somaliland Shilling against the US dollar, which further reduced household purchasing power. Exporters took huge risks and at times experienced a competitive disadvantage from Middle East buyers since they lacked supportive structures such as Letters of Credit which acted as a price guarantor or stabilizer by spelling out the quality and the price of the livestock prior to export. Without price guarantees they were compelled to take what the market offers. In addition, they transferred these market risks to producers from whom they obtained livestock on credit with long waiting periods before payments could be made. Many exporters were also forced out of the business while others diversified. There was increased activity in marketing of milk, hides and emergence of new modern abattoirs for meat export. The ban also forced more of the pastoral population into urban centers, increasing problems of urban poverty, unemployment, and destitution (human trafficking, piracy, joining armed groups, etc.) particularly for those without supportive kinship networks.

2007-2009: By 2007, about 90 percent of the livestock exported from Berbera and Bosasso transited through Djibouti. This increased revenue to Djibouti, but also decreased income to Ethiopian and Somali producers and traders due to higher transport costs. There was also increased cross-border movement of livestock from Jijiga, Dire Dawa and Hargeisa markets into Djibouti city, thus offering more employment to Djibouti populations. Pursuant to the wish to reinstate trade opportunities with Saudi Arabia, the Government of the regional Puntland state of Somalia and Somaliland continued to pursue approaches aimed at re-establishing the Saudi market. This constituted signature of an agreement with a Saudi trader. The agreement was that the Saudi trader would invest in the construction of modern livestock quarantine facilities in Berbera and Bosasso (similar to those in Djibouti) in exchange for exclusive rights to export Somalia livestock to Saudi Arabia. Construction began in 2007 and was complete in 2009. The agreement resulted in traders receiving a price of US $34 per head in 2007 (which was US $7 higher than the average price/head over the previous five years i.e. 2002-2007). However this monopoly caused discontent among exporters and the media. Furthermore, the traders argued that the agreed price was low compared to prices they would receive by exporting through Djibouti. In response to the concerns raised by some of the livestock traders and others, the government re-negotiated the agreement to increase the Berbera port free on board livestock price. The KSA import restriction was also removed.

7. Impact of lifting the import ban[3]

7.1 Increase in trade and incomes

With the lifting of the ban at the end of September 2009, the demand for export quality livestock has improved, which in turn has increased employment opportunities. Because of the guaranteed market, pastoralists have restored stronger links with transporters and traders that allow them to obtain better prices for their livestock. They thus have enough resources and coping options to respond to future shocks. The volume of live animal exports in 2009 slightly increased and was 9 percent higher than 2008 and 4 percent higher than the five-year average (2004 – 2008). This was also accompanied by an increase in farm-gate prices in most of the reference markets. The quantity of merchandise and food containers imported in 2010 increased by 39 percent compared to 2009, leading to a general improvement and stabilization of the terms of trade[4] and food security for pastoral communities (Figure 3).

[3] More information on the impact of lifting the ban is available from: Nisar Majid (September, 2010) Livestock trade in Djibouti, Somali and Ethiopia borderlands. Chatham House Briefing paper (http://www.chathamhouse.org.uk/publications/papers/view/-/id/938/)

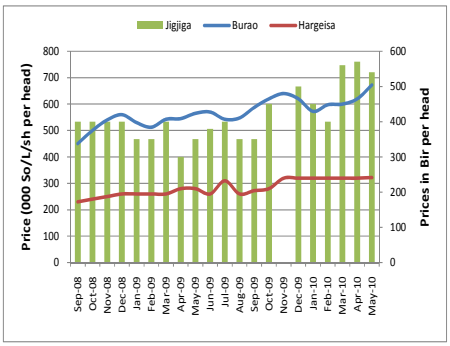
[4] The terms of trade in this case is computed as the ratio of the price of a goat to the price of a kilogram of rice.

7.2 Re-emergence of older cross-border trade networks

The cross-border livestock trade seems to be getting back to its pre-ban period. Towards the end of 2009, about 45 percent of livestock exported through Berbera and Bosasso ports was from the northwest and northeast regions of Somalia, 10-15 percent was from the rest of Somalia, and 40 to 50 percent was from the Somali region of Ethiopia. These exports took place despite restrictions and military operations along the Somalia-Ethiopia border that continued to affect the flow of commercial imports (see Human Rights Watch, 2008[5]). Despite these difficulties, however, there is a significant cross-border livestock trade from the Somali region of Ethiopia.

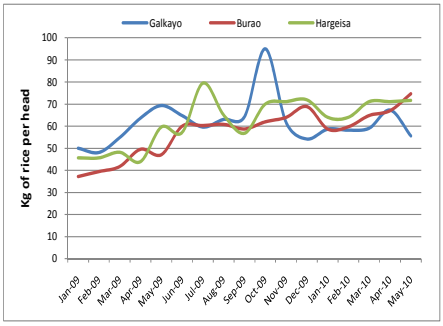
The emergence of the old networks has seen shifts from Djibouti to Somali ports (Figure 4), and within Somalia, from Bosasso to Berbera port. The shift has reduced shipment distance and costs leading to increased livestock prices in local (HOA) markets and increased incomes to producers and traders. Djibouti is a more expensive port because its high levels of investment have also contributed to higher port usage costs. In addition, since livestock require good water and feed facilities, Berbera and Bosasso also provide lower costs. There is also a positive change in incomes for the associated service sector like fodder traders, livestock trekkers and brokers. Although there has been a significant shift in livestock export routes between ports, sources of livestock for terminal markets largely remains unchanged. The re-emerging trade routes are illustrated in Figure 5.

Figure 2: Prices of export quality goats in reference markets



Source: FEWS NET

Figure 3: Changes in goats to rice terms of trade



Source: FEWS NET

7.3 Food security impacts of the lifting of the ban

The food security of pastoralists and agropastoralists in the HOA depend in large part on the terms of trade between their livestock and (often imported) food commodities. Pastoral and agro-pastoral populations vary considerably across the region depending, for example, on local environmental and market conditions. These influence the type of animals owned and terms of trade obtained in any particular area. In general, however, it is common for pastoralists to obtain over half their annual food requirements from the market and over half their annual income from the sale of livestock and livestock products. This high market dependence means that the positive impact on trading conditions brought about by lifting of the import ban has positively influenced households' food security conditions. On the other hand, households along the Somalia-Djibouti border as well as many households in Djibouti city who have been benefiting from the export trade (through direct employment and its linkages) are no longer benefiting due to the shift of the export route from Djibouti port back to Berbera and Bosasso ports.

Since livestock trade is probably the largest single source of employment in this sub-region and, the lifting of the import ban has benefited other market actors involved in the movement of animals from the hinterland to the port. They include

[5] Human Rights Watch (2008), *Collective Punishment: War Crimes and Crimes against Humanity in the Ogaden area of Ethiopia's Somali Regional State* (New York: Human Rights Watch), p. 130 – has reported increased military clampdown on movement of people, livestock and goods in much of the *Ogadeni*-occupied areas of Ethiopia since early 2007.

herders, livestock trekkers, brokers, loaders, transporters, and farmers supplying feed to the ports, all of whom have realized increased employment opportunities.

8. Ongoing and potential constraints to livestock trade in the region

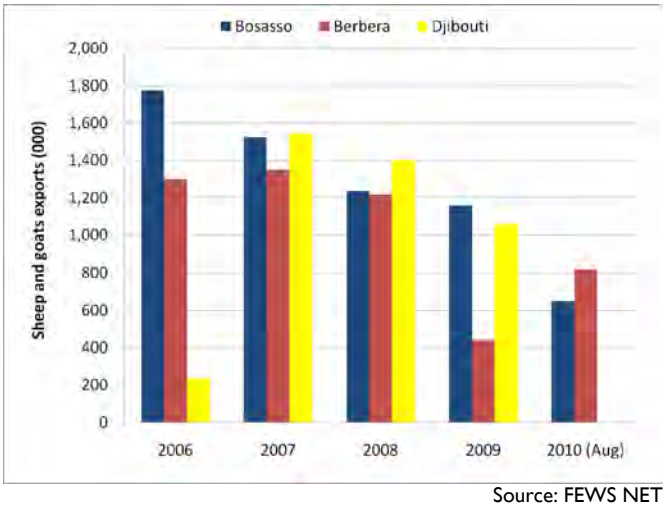
Livestock trade is the main economic activity and a crucial source of income for the pastoral population in the HOA. The cross-border trade has survived periods of high political instability and uncertainty because it is still largely sustained by inter-clan ties and networks linking common border regions. Some of the perennial constraints to livestock trade in the region include political instability, stringent regulations on livestock movement in Ethiopia, livestock diseases, poor veterinary services and weak physical and administrative infrastructure.

Informal livestock trade across borders is still illegal in Ethiopia. There is a new enforcement that restricts trekking of livestock for export. For export to be licensed, a Letter of Credit is required as a precondition. In this case, the dollar equivalent of the number of livestock exported across the border has to be deposited in a bank account of an importing country (i.e. 400 USD for each head of camel, 360 USD for cattle and 40 USD for shoats). This is a constraint on trade considering the fact that Somalia does not have a well developed banking system. This constraint continues to limit cross-border trade between the Somali region of Ethiopia and Somalia.

In addition, persistent insecurity in the Somali region continues to affect prices, food availability and the barter trade system. The new tax regimes in some areas of southern Somalia (i.e. Camel $3, Cattle $2, sheep/goats $1) may lead to decreased incomes for producers, and diminished livestock-grain terms of trade. Pastoralists in southern Somalia, Afdher and Gode zones of Ethiopia are still unable to export through Mogadishu port, which would have reduced trekking distance. Long trekking is associated with loss of body condition, value of livestock leading to lower price. Moreover, increasing cases of land enclosures in many parts of Northern Somalia, recurrent drought, environmental degradation/climate change, changing livelihood patterns from nomadic life style into more sedentary are some of the long term issues that affect livestock export.

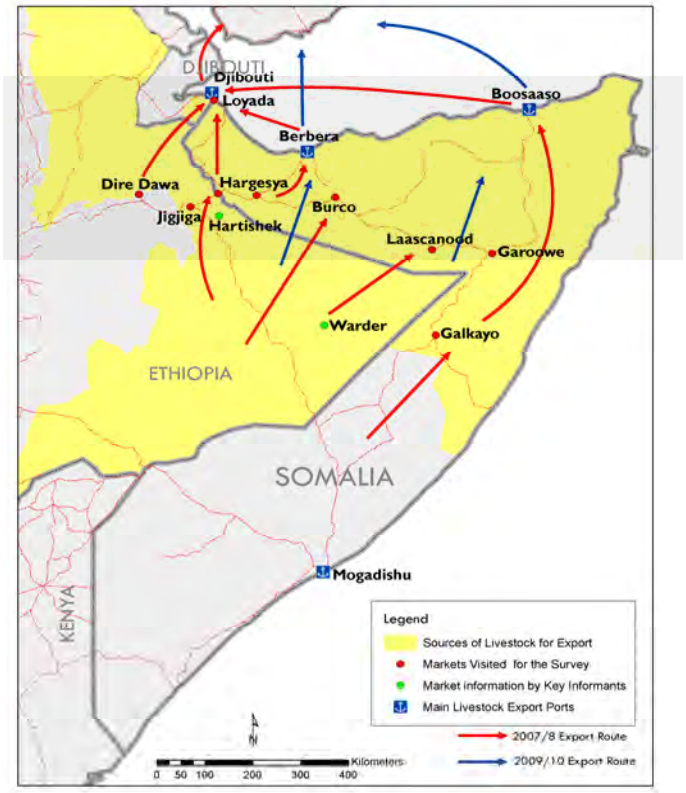
Lastly, the recovery of the pastoral livelihoods in the HOA from the devastating effects of regional drought in 2002-2004 and 2005-2007, is likely to be reversed following a forecast of a moderate La Niña event in the East Africa region. The HOA region has benefitted from above-normal 2010 long rains, leading to improved rangeland

Figure 4: Trends in the number of livestock exported through the three main GHA exit ports



Source: FEWS NET

Figure 5: Readjustment of export routes with lifting of the import ban



Source: FEWS NET

conditions and increased livestock productivity and value. The depressed rain outlook will likely increase distance between pasture and water points and lead to a general decline in the rangeland conditions. This will lead to deterioration of livestock body conditions and minimize the income from the livestock export trade. Food security will most likely begin to deteriorate in these areas toward the end of the year as the impacts of the poor October to December rains begin to be felt.

9. Conclusions and recommendations

The transhumance system has been the sustainable pastoral production system in the HOA. The system is based on mobility with reciprocal access to resources and markets. Access to markets is key to improved food security within pastoral livelihoods. For example, when national household income and consumption surveys are conducted in Ethiopia, the Somali Region often emerges as the least poor of all Ethiopia's rural regions, with the highest consumption levels and lowest poverty incidence. On the other hand, the Afar Region, which is also predominantly pastoralist, is the second poorest region, with 61 per cent headcount poverty. It is argued that the difference could reflect the higher involvement of Somalis in livestock marketing and cross-border trade; whereas those in Afar are much less engaged with markets[6]. The cross-border livestock market is supported by the export trade, which minimizes oversupply and depressed prices in local markets.

However, the traditional dependency on a single sector (livestock exports) and market (Saudi Arabia) has proven a liability in the region. To ensure that the production and marketing system effectively addresses the food security needs of the communities it is important that emphasis be put on a number of factors, some of which include: (i) improved livestock health certification; (ii) continual dialogue between the stakeholders from the HOA and Gulf States; and, (iii) regulations to avoid frequent import bans by the Gulf States, especially Saudi Arabia, which is the most important market.

Realizing that livestock cross-border and export trade remain the most profitable and sustainable forms of livestock trade in HOA, there is a need to recognize the importance of informal cross border trade for livestock off take and how it is related to livestock export trade and food import. Restrictions of the cross-border trade often lead to overgrazing, loss of income, and destitution/movement of refugees across national borders, such as in the Somali region of Ethiopia. In some of the assessed areas, the loss of livestock assets due to cross-border trade restriction is more than 60 percent of the herd size[7]. Drop out pastoralists and poor households are not expected to directly benefit from the improved livestock marketing and trade.

Given that livestock export trade contributes significantly to the livelihood system of pastoral communities, close monitoring of this trade is required. Some of the key indicators that should be monitored include:

a) The performance of the rainy seasons prior to the peak export season in the sub-region, which determines the grade of livestock and, by extension, the income accruing to producers;
b) Volumes of trade along the newly established corridors through the Ethiopia-Puntland border;
c) Marketing margins between source markets and export markets to assess trends in marketing costs and efficiency of the marketing system;
d) Animal health;
e) Off-take volumes during the 70-day period between the end of Ramadan (*Id al-Fitri*) and the start of the Hajj (*id al-Adha*), which is the annual peak of livestock exports from Djibouti, Berbera and Bosasso ports;
f) Port activities including export volumes and their destination *vis a vis* food imports realized from proceeds of livestock exports, producers' terms of trade in key reference markets, monthly and seasonal livestock supply trends.

For improved monitoring, a harmonized seasonal assessment approach and tools are required across countries.

[6] More information on this is available in: Stephen Devereux. April 2006. *Vulnerable Livelihoods in Somali Region, Ethiopia*. Institute of Development Studies. University of Sussex

[7] More information on impact of livestock import ban and cross-border trade restrictions to producers and retailers, is available from Hidden value on the hoof: Cross-border livestock trade in eastern Africa. Policy Brief No. 2. Common Market for Eastern and Southern Africa (COMESA), February 2009.