



Saudi Arabia end-market requirements and the implications for Somaliland livestock exports



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Saudi Arabia end-market requirements and the implications for Somaliland livestock exports

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Acronyms

| | |
|-------|--|
| CDSI | Central Department of Statistics and Information |
| GDP | Gross domestic product |
| ESCAS | Exporter Supply Chain Assurance Scheme |
| ISDB | Islamic Development Bank |

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Summary

Livestock is the backbone of the Somaliland economy. It accounts for about 60% of the country's gross domestic product, 70% of employment opportunities and 85% of export earnings. The livestock sector is export oriented; in 2014, a total of 3.4 million heads of livestock were exported, of which 3.1 million were sheep and goats, 0.25 million cattle and 60,000 camels. Direct taxes on these exports contributed about 15% of total government revenue.

There exists a distinct indigenous grading system for export quality livestock traded in Somaliland markets. Export quality cattle, sheep and goats are graded in three groups, viz. grades I, II and III while camels are categorized into two grades: I and II. Animals thus categorized are exported to various countries in the gulf, including the Kingdom of Saudi Arabia, Yemen, Oman, Egypt and the United Arab Emirates. Saudi Arabia accounts for about 82% and 98% of small ruminants and camels exports respectively.

Despite ample documentation on the grading and pricing of export quality livestock in Somaliland, there exists a dearth of knowledge on how the animals are graded and priced within markets in importing countries. In addition, there is limited knowledge on how the grading applied in source markets interfaces with that practiced in importing country markets.

To address this knowledge gap, a rapid appraisal of quality characteristics required by importers was carried out in the principal destination market of Saudi Arabia. Its focus was on evaluating livestock requirements in terms of age, conformation and body condition of animals in commercial grades, the pricing and use of these grades in order to provide feedback to livestock producers and traders in Somaliland, and the integration of these requirements into husbandry practices.

This report presents the results of this assessment and further draws conclusions and reflections for public and private sectors on ways to increase performance, some of which are predicated on further research.

I. Introduction

I.1 Justification and objectives

Livestock is the main economic activity in Somaliland. Livestock production accounts for between 60–65% of the country's gross domestic product (GDP), employs over 70% of the population and contributes 85% of export earnings (MoNPD 2012). In 2014, a total of 3.4 million heads of livestock were exported, of which 3.1 million were sheep and goats, 0.25 million cattle and 60,000 camels (SLCCIA 2015). Assuming an average export price of USD78 for sheep and goats, USD596 for cattle and USD650 for camels, based on the Somaliland Chamber of Commerce Industry and Agriculture (SLCCIA) livestock market information system, the estimated total value was over USD426 million. As the government charges a tax of USD3.5, 15 and 17 on every small ruminant, cattle beast and camel exported respectively, this translates into USD15.5 million as direct government revenue from livestock exports, making up over 15% of total government revenue (see also Nasir 2014). At household level, among pastoralists, especially those classified as poor, 50–80% of income is derived from sale of livestock, and 25–30% of food comes from livestock products (USAID 2013).

Cattle, sheep and goats in three grades (*viz.* I, II and III) and camels in two grades (I and II) are exported to a number of countries. In order of importance, these are: the Kingdom of Saudi Arabia (henceforth referred to as Saudi Arabia), Yemen, Oman, Egypt and the United Arab Emirates (SLCCIA 2013). In 2014, Saudi Arabia accounted for about 79% of small ruminants and 90% of camels; Yemen's share was 49% of cattle and 18% of small ruminants, while Oman accounted for about 43% of cattle. This implies that Saudi Arabia is the principal destination market for small ruminants and camels, while Yemen and Oman share cattle exports.

There has been sufficient documentation of the grading of export quality livestock (cattle, sheep, goats and camels) from the source markets within the Somali ecosystem (see for example Negassa et al. 2008; Mugunieri et al. 2012; and, www.somalilandchamber.com). However, there is limited information in the public domain about the grading of livestock of Somaliland origin in the end markets (importing countries). The most recent and detailed Somaliland livestock end-market study focused on the relative competitiveness of Somali livestock in the Gulf Cooperation Council, comprising Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE) (USAID 2013).

To redress this gap, a rapid appraisal of quality characteristics required by importers in Saudi Arabia was carried out. Its goal was to assess and document livestock requirements in terms of age, conformation, body condition and pricing of commercial grades in Saudi Arabia and to evaluate how this was interfaced with the grading and pricing practices used in Somaliland. It was envisaged that the information generated would enable identification of key attributes required in the main end-markets and facilitate their integration into husbandry practices in Somaliland. In the medium term, this would enable Somaliland producers align their production to market demand as a strategy of strengthening their market presence.

I.2 Methodology

The end-market study was executed in two phases, I and II. Phase I was implemented between July and December 2013 and entailed two steps. The first step involved a review of secondary information on the Saudi livestock and meat market

to determine its size, production and consumption trends, seasonal demand pattern, competition, pricing and veterinary health requirements.

The second step included field visits to Somaliland to map out the market structure at the production end of the Somaliland–Saudi Arabia value chain. This entailed identifying the number of exporters and nature of competition at this stage (whether the market is competitive, oligopolistic/duopolistic or monopolistic). In addition, information was collected on livestock handling practices at the port of exit and health management and certification procedures. Key informant interviews were also held with some of the largest exporters to obtain preliminary information on the market network and marketing chain in the Saudi-end market. This information was used in designing phase II of the study.

For phase II of the study, two field visits were made to the port city of Jeddah, and the cities of Medina and Mecca (see Figure 1) during the low-demand season in February 2014 and during peak-demand season in October 2014. These cities were chosen based on information obtained in phase I that they comprised the main trading markets for livestock originating from Somaliland. The following tasks were carried out during the visits:

- i) Identification of the market actors handling livestock imported from Somaliland, and mapping of the market chain for small ruminants and camels;
- ii) Assessment of the grading system of livestock imported from Somaliland and delineation of the traits used in the grading of small ruminants and camels;
- iii) Pricing of the different grades of small ruminants and camels originating from Somaliland and assessment of price variation associated with competition; and
- iv) Identification of strategies employed by importers and exporters to enhance market margins.

Figure 1. Map of Saudi Arabia



Source: <http://www.ezilon.com/maps/asia/saudi-arabia-physical-maps.html>

The information collected in phases I and II was used to provide answers to the following main research questions:

1. What are the production and consumption trends of livestock and meat products in Saudi Arabia?
2. What is the competition in the Saudi livestock and meat markets and how is Somaliland positioned in this market?
3. Which marketing chains exist in Saudi Arabia for livestock originating from Somaliland?
4. What grading and pricing system is used in the different marketing chains of livestock originating from Somaliland?
5. What traits are taken into consideration in delineating the different grades of sheep, goats and camels originating from Somaliland?
6. What strategies are employed by market actors dealing in Somaliland livestock to expand their market margins?

Information collected in step two of phase I of this study revealed that there were about 18 companies in Somaliland that exported live animals to Saudi Arabia. More often than not, each of these companies had partners in Saudi Arabia that assumed ownership of the animals when they landed in Saudi ports. Two of these Somaliland companies commanded approximately 90% of the live animals export market. This revealed that the upstream market structure of the value chain was oligopolistic, with two dominant players controlling the biggest share of the market and the remaining 16 companies sharing the remaining 10%.

Figure 2 summarizes the market chain for sheep, goats and camels in Somaliland.

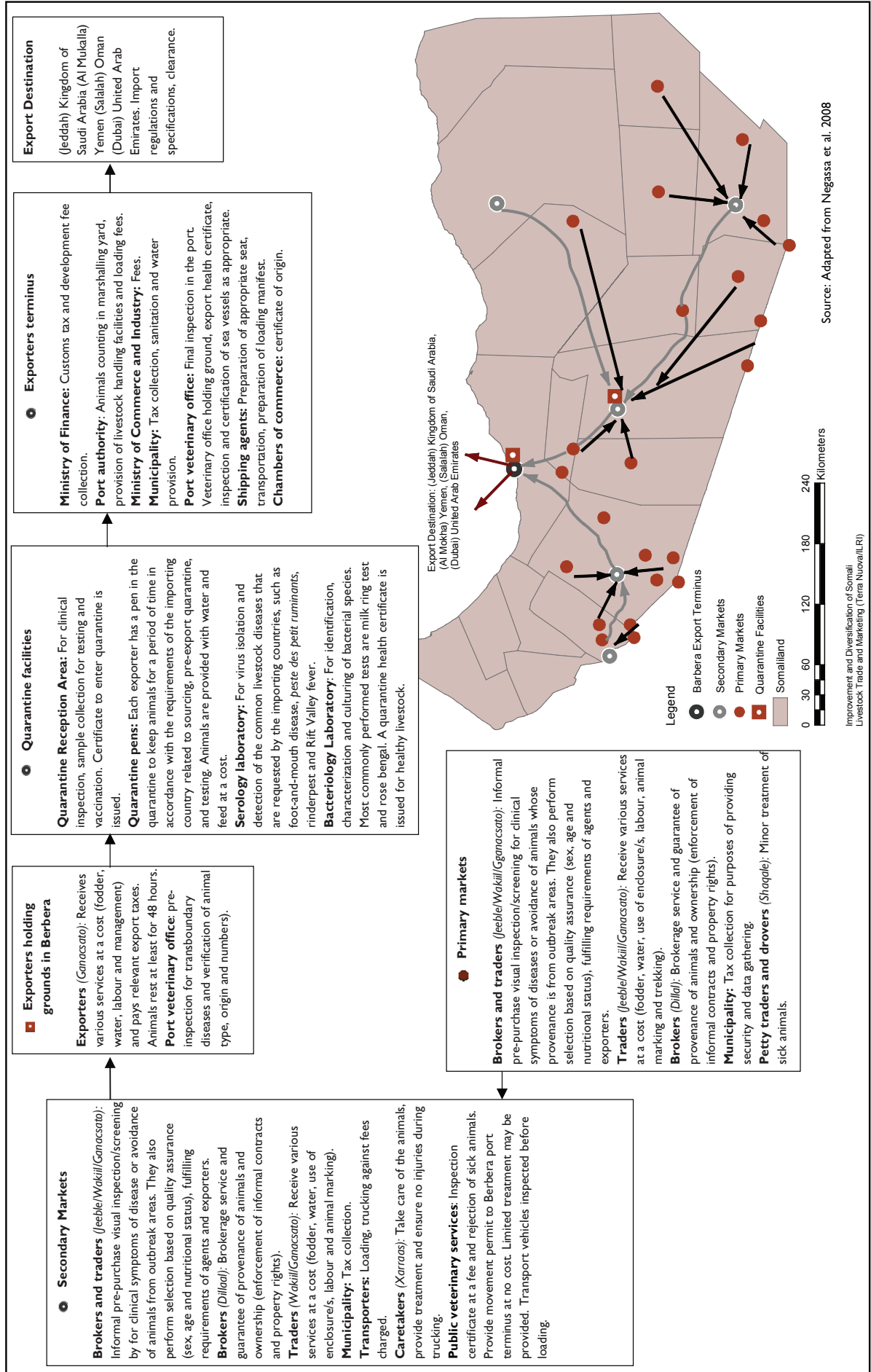
Based on the foregoing, a case study approach as suggested by Yin (2009) was applied in phase II of this study. Five Saudi traders partnering with Somaliland exporters were purposively sampled and interviewed during the two visits in Saudi Arabia using a checklist of questions. The goal was to collect data from Saudi traders handling approximately 75% of Somaliland livestock exported to Saudi Arabia.

The checklist featured questions on the volumes and types of livestock handled, taxes charged, time taken to clear livestock arriving at the port, grading system used, prices paid for different grades of livestock at port of entry, use of fattening facilities, duration of fattening and the main buyers for different species and grades. The information was collected for both peak and off-peak seasons.

Since the data collected was largely qualitative in nature, it was subjected to an iterative and reflexive analytical process that began as data was being collected (Yin 2009; Stake 1995). This process of reading through the data and interpreting them continued throughout the survey, with the analysts adjusting the data collection process itself as additional concepts needed to be investigated, or as new relationships and ideas needed to be explored. This framework of analysis is generally referred to as progressive focusing (Parlett and Hamilton 1972)¹. It should, therefore, be emphasised that quantitative measures presented in the results (like prices and gross margins) are indicative estimates and ought not to be construed as statistically derived.

¹ See more recent arguments in: Sinkovics and Alfoldi (2012)

Figure 2. Current activities, arrangements and requirements along the Berbera livestock marketing chain (2015)



2. The Saudi livestock and meat market

2.1 Key features of the Saudi economy

Saudi Arabia is the largest Arab state in Western Asia by land area (approximately 2,150,000 km², constituting the bulk of the Arabian Peninsula) and the second-largest in the Arab world after Algeria. It is bordered by Jordan and Iraq to the north, Kuwait to the northeast, Qatar, Bahrain and the UAE to the east, Oman to the southeast, and Yemen in the south. It is the only nation with both a Red Sea coast and a Persian Gulf coast (Figure 1). Its proximity to Somaliland across the Red Sea makes it a suitable and low freight-cost destination market for Somaliland's livestock².

The population of Saudi Arabia as of May 2013 was estimated to be 27,752,316, including 8,148,215 non-nationals representing about 30% of the population (CIA Factbook 2015³). The key cities include Riyadh with a population of 6.2 million, Jeddah (4.1 million), Mecca (1.8 million), Medina (1.3 million), and Ad Dammam (1.1 million). The port city of Jeddah located on the Red Sea coast is the main entry point for livestock from Somaliland and other exporting countries in the greater Horn of Africa.

Saudi Arabia's command economy is petroleum-based; roughly 75% of budget revenues and 90% of export earnings come from the oil industry. The oil industry comprises about 45% of Saudi Arabia's nominal GDP, compared with 40% from the private sector. Saudi Arabia has officially about 260 billion barrels of oil reserves, comprising about one-fifth of the world's proven total petroleum reserves. Its GDP in 2012 was equal to USD711 billion, ranked nineteenth in the world, and its share of GDP in the world was 0.98%⁴. The GDP per capita in 2012 was worth USD 25,136 ranked forty-second in the world. This GDP per capita has grown significantly in the last two decades just like of most countries in the Middle East (Table 1) and this makes it a stable destination for Somaliland livestock.

Table 1. GDP per capita in Saudi Arabia and neighbouring countries (USD, 1970–2012)

| Year | UAE | Saudi Arabia | Oman | Iran | Jordan | Egypt | Yemen |
|------|-------|--------------|-------|------|--------|-------|-------|
| 1970 | 4550 | 927 | 371 | 351 | 358 | 224 | |
| 1980 | 42962 | 16716 | 5419 | 2364 | 1760 | 448 | |
| 1990 | 28066 | 7196 | 6384 | 1615 | 1197 | 638 | 341 |
| 2000 | 34476 | 9354 | 8871 | 1578 | 1775 | 1447 | 620 |
| 2010 | 34049 | 19327 | 20984 | 5663 | 4094 | 2749 | 1369 |
| 2012 | 41692 | 25136 | 23570 | 7217 | 4414 | 3155 | 1376 |

Source: <http://www.tradingeconomics.com/saudi-arabia/gdp-per-capita>

² The distance from Berbera to Jeddah is about 873 nm (nautical miles), and at a speed of 10 knots, a ship would take 3.6 days at sea (see <http://ports.com/sea-route/port-of-berbera.somalia/jeddah-islamic-port.saudi-arabia/>)

³ The General Statistics Authority of Saudi Arabia estimates the population at 30,770,375 in April 2016 (<http://www.stats.gov.sa/en/node>)

⁴ See analyses at http://kushnirs.org/macroeconomics/gdp/gdp_saudi_arabia.html

2.2 Production and consumption trends of livestock and meat in Saudi Arabia

The government of Saudi Arabia encourages the private sector to invest in agribusiness, and offers financial, as well as technical, support and incentives in this field (Abouheif et al. 1989). This policy has been implemented for some time as the Kingdoms' policy to promote its own agricultural resources and eventually attain self-sufficiency in food. As a result, animal production projects have been developed, particularly modern dairy farms based exclusively on imported cattle. Other animals, namely camels, sheep and goats, are largely raised traditionally with a few intensive farms, with sheep being the most popular livestock. There were more than 11 million sheep in Saudi Arabia in 2012, more than the combined number of camels, cattle and goats (Table 2).

Table 2. Trends in livestock population in Saudi Arabia

| Livestock (heads) | Year | | | | | |
|-------------------|-----------|-----------|-----------|-----------|------------|------------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Chicken (000) | 145,000 | 146,000 | 146,000 | 148,200 | 175,900 | 179,000 |
| Camels | 279,338 | 241,893 | 229,871 | 230,000 | 240,000 | 260,000 |
| Cattle | 421,000 | 417,758 | 424,489 | 404,000 | 497,000 | 500,000 |
| Goats | 4,853,000 | 4,393,000 | 3,809,000 | 3,408,000 | 3,382,000 | 3,400,000 |
| Sheep | 8,082,852 | 6,974,779 | 5,885,532 | 8,741,000 | 10,096,000 | 11,000,000 |

Source: FAOSTAT 2014

Table 3 shows trends in the heads of imported slaughter stock by species⁵. The relatively large proportion of slaughtered livestock compared to local livestock populations indicates high reliance on imports of live animals for supply of meat and for religious activities. Figure 3 shows the recent trend in the sourcing of these imports, comprising imports from Somaliland, port imports from other countries and overland imports. Somaliland regained its importance as a key source market for Saudi Arabia in 2009.

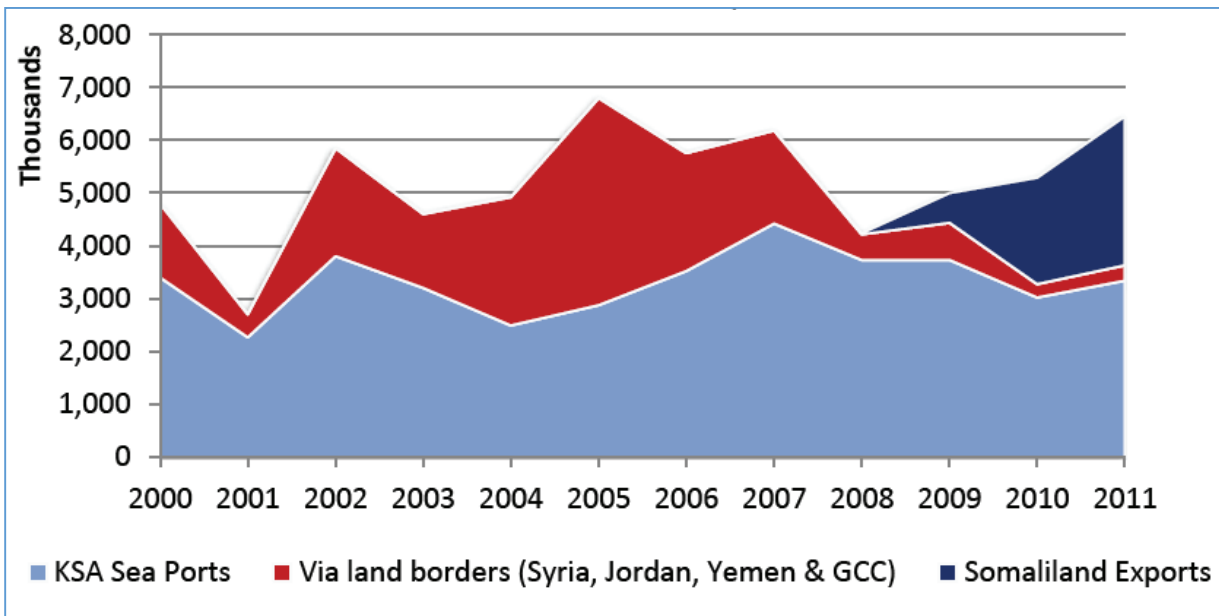
Table 3. Trends in slaughter stock imports into Saudi Arabia

| Livestock (heads) | Year | | | | | |
|------------------------|-----------|-----------|-----------|-----------|-----------|-----------|
| | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 |
| Chickens & other fowls | 2,528,757 | 588,518 | 113,150 | 689,210 | 1,171,118 | 1,441,392 |
| Camels | 80,507 | 76,901 | 92,694 | 108,839 | 141,560 | 210,726 |
| Cattle | 47,415 | 87,671 | 151,560 | 22,303 | 3,920 | 4,075 |
| Goats | 1,124,693 | 967,419 | 924,270 | 1,332,913 | 1,929,743 | 2,031,000 |
| Sheep | 4,909,173 | 3,569,882 | 3,766,042 | 3,751,963 | 4,642,033 | 5,783,820 |

Source: Central Department of Statistics and Information (CDSI) (<http://www.cdsi.gov.sa/en>)

⁵ These include those for domestic consumption as well as for religious purposes. Pure breeds imported for breeding are not included in these figures.

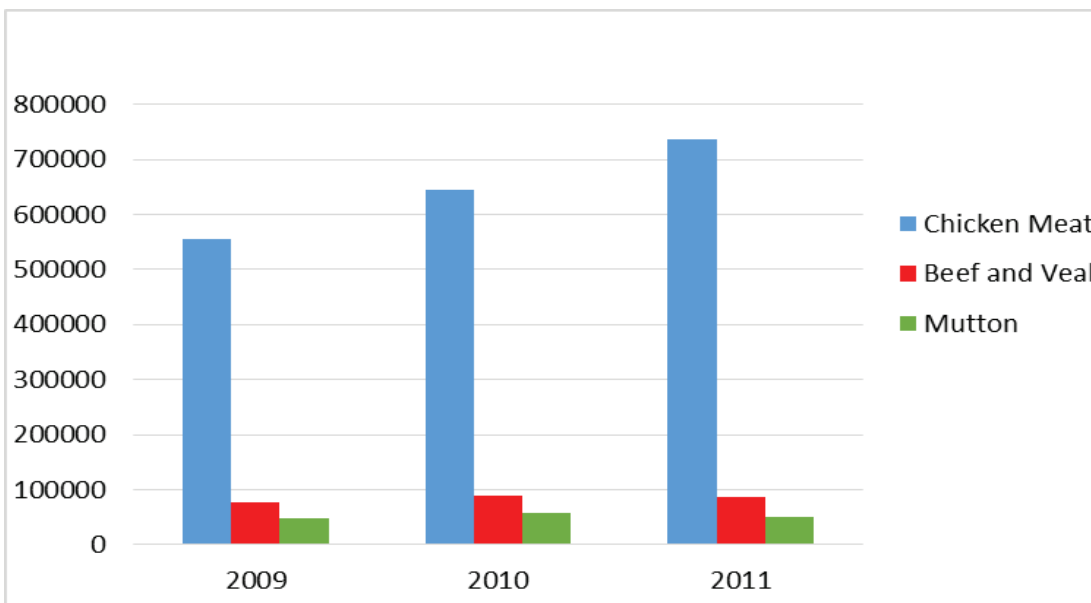
Figure 3. Trends in livestock imports into Saudi Arabia



Source: USAID 2013

Besides live animal imports, there are significant imports of various types of meats (Figure 4). Overall, total meat imports was estimated at 1,478,000 metric tons and projected to rise to 1,877,000 metric tonnes in 2015 fuelled by the demand for canned, frozen and pre-prepared meat, as opposed to fresh products (USAID 2013)⁶. It is estimated that these imports contribute to just over one-third of the consumption in the country⁷.

Figure 4. Trends in imported meats into Saudi Arabia (Mt)



Source: FAOSTAT 2014

⁶ It is, however, important to point out that Saudi customers prefer fresh over frozen meat. For example, these customers would not mind paying as much as 50% more for the fresh/chilled domestic broiler meat over the price of frozen imported broiler meat (USDA 2015)

⁷ See also <http://www.euromonitor.com/meat-and-meat-products-in-saudi-arabia-isc-1511/report>

2.3 Competition in the Saudi livestock import market

Somaliland livestock exports to Saudi Arabia (and more importantly, exports of sheep and goats) face competition from exports from other countries and to a lesser extent, imported frozen and chilled meat, poultry and fish. The leading competitors in live animals exports to Saudi Arabia are Sudan, Syria, Jordan and Australia (Table 4).

Table 4. Livestock imports into Saudi Arabia by species and origin

| Species | Country of origin | 2010 | 2011 | 2012 |
|---------|-------------------|-----------|-----------|-----------|
| Sheep | Syria | 517,872 | - | 245,464 |
| | Jordan | 88,718 | 252,868 | 225,084 |
| | Qatar | - | - | 19,338 |
| | Sudan | 1,672,600 | 2,566,266 | 3,494,340 |
| | Djibouti | 153,644 | 131,607 | 237,222 |
| | Somalia | 1,011,531 | 1,379,869 | 1,479,641 |
| | Australia | 264,088 | 23,928 | 67,803 |
| | Uruguay | - | - | 14,720 |
| | Others | 43,510 | 1,597 | 208 |
| | Total | 3,751,960 | 4,642,033 | 5,783,820 |
| Goats | Syria | 84,451 | 66,784 | 12,325 |
| | Jordan | 4,407 | 16,646 | 59,451 |
| | Sudan | 104,795 | 157,248 | 161,613 |
| | Djibouti | 107,490 | 74,024 | 229,490 |
| | Somalia | 935,938 | 1,614,584 | 1,565,270 |
| | Oman and Others | 95,832 | 479 | 2851 |
| | Total | 1,332,913 | 1,929,743 | 2,031,000 |
| Camels | Kuwait | 2,791 | 2,523 | 3,195 |
| | Qatar | 10,594 | 15,976 | 20,136 |
| | UAE | 14,355 | 8,945 | 13,293 |
| | Sudan | 5,659 | 3,517 | 12,734 |
| | Djibouti | 3,524 | 1,970 | 7,229 |
| | Somalia | 70,784 | 108,495 | 153,750 |
| | Others | 1,132 | 134 | 380 |
| | Total | 108,839 | 141,560 | 210,726 |
| Cattle | Australia | 16,485 | 3,000 | 3,625 |
| | Oman | 4,343 | - | - |
| | Djibouti | 1,185 | - | - |
| | Others | 290 | 920 | 450 |
| | Total | 22,303 | 3,920 | 4,075 |

Source: CDSI (<http://www.cdsi.gov.sa/en>)

When compared to competition, Somaliland livestock fetch lower prices due to smaller and leaner animals, particularly for consumers who purchase live animals for home slaughter. For example, Somaliland sheep are priced at USD90–120/head (during lean demand period)⁸ while the *Swakini* sheep from Sudan are priced at USD170–180/head. Well-finished local Gulf breeds (*Najdi*, *Neami*, *Hari* and *Awassi*) fetch prices as high as USD320–350/head (see Table 5 for prices during peak demand season). The average weight of the sheep and goats from Somaliland is estimated around 20–22kg⁹, which is almost half the weight of Australian or Sudanese animals. Meat prices also differ by origin, and Somaliland sheep and goat meat prices are the lowest compared to the meat prices of rest of the other countries.

Table 5. Average prices for sheep in peak demand season (a few days before the Muslim holiday of *Eid*, Riyadh municipality markets—2012)

| Type | Country of origin | Prices (in USD) | | |
|------------------------|-------------------|-----------------|--------|-------|
| | | Small | Medium | Large |
| Local <i>Neami</i> | Saudi Arabia | 440 | 493 | 507 |
| Syrian <i>Neami</i> | Syria | 427 | 453 | 520 |
| Jordanian <i>Neami</i> | Jordan | 427 | 480 | 533 |
| <i>Najdi</i> | Saudi Arabia | 427 | 467 | 520 |
| <i>Swakini</i> | Sudan | 187 | 213 | 227 |
| <i>Berberi</i> | Somalia | 133 | 173 | - |
| <i>Rafdi</i> | Saudi Arabia | 213 | 240 | - |

Source: USAID 2013

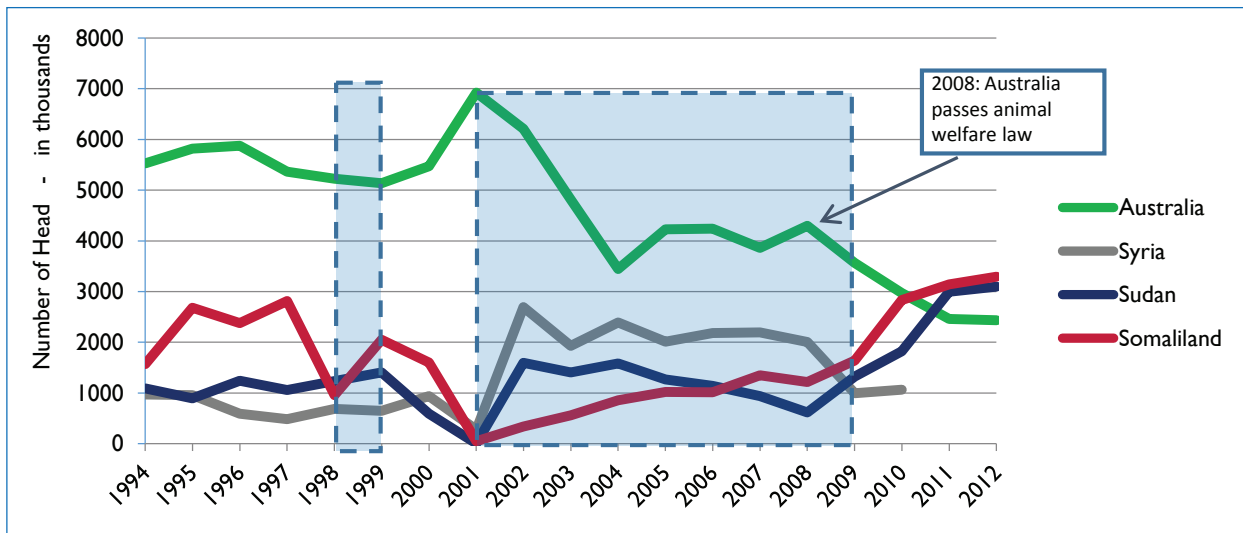
Somaliland exporters have thus traditionally served the market segment of working and middle class consumers who prefer small-size cheaper sheep and goats (MoT&I 2010; USAID 2013). The small-sized animals are also preferred during the *Hajj* since they are cheaper and affordable to most pilgrims. The Somali ecosystem provides between 70 and 85% of goat imports into Saudi Arabia, 65–80% of camels and about 30% of sheep. It has been reported that people in the midlands of Saudi Arabia (including Riyadh) prefer sheep, while those in the western regions and most expatriates (mostly Pakistanis and Indians) prefer goats (USAID 2013).

It has also been noted that recent developments within Somaliland and among its competitors have expanded the reach of Somaliland exporters into the Saudi livestock market. First, following periods of prohibition on Somaliland exports, the embrace of a livestock certification system and the establishment of quarantine stations at the production end of the market chain in Somaliland has enhanced the confidence of Saudi consumers in the safety and quality of livestock of Somaliland origin (Khadijah and Kabue 2012). Coupled with robust investments in infrastructure supporting animal welfare (loading and unloading rumps, watering points, livestock shades and modern vaccination pens) within Somaliland, this has eased procurement of livestock from primary markets to ports of exit, enabling the country to expand rapidly its exports and respond to emerging market trends. Second, civil unrest in Syria has disrupted that country's participation in the livestock export trade, enabling its competition, chiefly Somaliland and Sudan, to increase their foothold in this market (Figure 5 and Table 4).

⁸ Information collected during the survey indicated that the peak demand season spans approximated two months to *Hajj*, whereas the lean demand period starts after the *Hajj*. It was reported that prices fall by up to 15% during the lean season for live animals and by up to 40% for meat.

⁹ The mature live body weight for Somali sheep ranges from 21 kg at two years, 25 kg at three years and up to 30 kg at four to six years (see <http://www.fao.org/docrep/009/t0376e/t0376e09.htm>). On the contrary, mature Sudan desert sheep weigh between 32.5–40kg (see <http://www.fao.org/docrep/t8600t/t8600T0d.htm>). Mature Syrian/Saudi/Jordanian/Iraqi Awassi/Naimi sheep can weigh between 60–75kg for two–three year olds (see <http://www.fao.org/docrep/011/aj003e/Aj003E04.htm>)

Figure 5. Trends in sheep and goats exports to the Middle and Far East



Source: MoT&I 2013

Third, enactment of tighter animal welfare regulations for animals in transit and in destination markets for live animals exported from Australia starting in 2008/2009 (i.e. the ESCAS—Exporter Supply Chain Assurance Scheme) has led to a significant reduction in the export of live animals from Australia and to some extent eased competition in international markets in favour of Somaliland (see Figure 5). ESCAS stipulates that exporters of Australian livestock must provide evidence that the livestock will be handled in accordance with international standards set by the World Organization for Animal Health in destination markets up to and including the point of slaughter. Therefore, Australian exporters must demonstrate that they have control of the supply chain, both inside Australia and in the destination market, to enable the ESCAS to be successfully managed (DAFF 2013).

Even though Australia has supported abattoirs in Oman, Qatar and Kuwait to meet these regulations, it has not done so in Saudi Arabia and thus exports to Saudi Arabia from Australia have declined significantly. For example, sheep exports dropped from 1.03 million heads in 2007 to 69,000 in 2012. This scenario has led to an increase in Somaliland sheep and goat exports into Saudi Arabia¹⁰. Starting in 2011, Somaliland became the leading world exporter of live animals to Saudi Arabia in particular and the Middle East in general, overtaking Australia, Sudan and Syria (MoT&I 2013).

It is, however, important to note that Sudan is currently the main competitor of Somaliland in live animal export trade in the Saudi Arabian market, especially during the Hajj season. Sudanese sheep exports have grown continuously in recent years. Sudan's share of the Saudi market grew from 27% in 2006 to 40% in 2010 and 46% in 2012 (the Somaliland/Somalia share in 2012 was 40%). The total value of livestock exports for January–November 2012 period was USD408 million, an increase of 20% on the previous year. Sudan's reduction in oil revenues and foreign currency earnings, as a result of the independence of South Sudan, has forced the government of Sudan to exploit other export opportunities to generate hard currency, including agriculture and livestock exports. Sudan's livestock sector has generally become more organized (transport, feedstock, veterinary services) with expanding Middle Eastern investment in Sudan (USAID 2013).

Despite the growing competitive threat from Sudan and the hibernating competition from Australia and Syria, Somaliland sheep and goats, which are smaller and of lower weight than Australian, Syrian and Sudanese sheep, occupy an important market niche for lower/middle income consumers in Saudi Arabia. The small size is also suitable for pilgrims due to the low price. In essence, this provides a window for Somali traders to expand their share of this market segment. There is a need for Somali investors to expand their operations in this segment as a way of maintaining their share of the Saudi market.

¹⁰ This fortune might be short-lived as most countries in the Middle and Far East are at various stages of compliance with ESCAS requirements. However, the recent capital investments by Saudi traders in the Somaliland livestock sector may be an indicator of the strengthening and stabilization of the Somaliland-Saudi livestock trade.

3. Value chains, grading and pricing system in the Saudi end-market

The Saudi livestock market is linked to cultural and religious seasonal events. Two value chains were identified for livestock imported from Somaliland:

- i) the commercial livestock value chain; and
- ii) the sacrificial animal value chain

The commercial value chain is dominant during the lunar months of *Muharram* to *Jamadol Akhir*, in which livestock demand is relatively low. On the other hand, the sacrificial animal value chain dominates during the lunar months of *Rajab* to *Dul Hija'*¹¹ that are associated with *Hajj* and *Umra* pilgrim movements and associated religious occasions and festive seasons.

Table 6 summarizes the approximate volumes of livestock imported from Somaliland in 2014 that correspond to the two value-chains. About 52% of the imports were handled through the sacrificial animal value chain, with the remainder (48%) being traded through the commercial value chain. These two value chains differ in their spatial coverage, contractual arrangements and grading and pricing system applied. Most of the sacrificial livestock imports from Somaliland were handled by two dominant Saudi companies.

¹¹ These include the months of *Sha'ban* and *Ramadan*

Table 6. Saudi Arabia livestock imports from Somaliland—2014

| Gregorian calendar 2014 | January | February | March | April | May | June | July | August | September | October | November | December | Species totals |
|-----------------------------|------------------------------------|--|---|-----------------------------------|--------------------------|----------------------------|----------------------------|----------------------------------|-------------------------------------|--|-------------------------|------------------------------------|-------------------|
| Lunar calendar 1435–1436 | Safar/ Raibul- Awwal 1435 | Raibul- Awwal/ Rabith- Thani 1435 | Rabith- Thani/ Jumadal- Ula 1435 | Jumadal- Ula/ Rajab 1435 | Rajab/ Shaban 1435 | Shaban/ Ramadan 1435 | Ramadan/ Shawal 1435 | Shawal/ Thul Qaeda 1435 | Thul Qaeda/ Thul Hija 1435 | Thl Hija/ 1435/ Muharram 1436 | Muharram/ Safar 1436 | Safar/ Raibul- Awwal 1436 | 2,412,989 |
| Small ruminants | 154,701 | 93,623 | 108,019 | 102,695 | 44,319 | 208,821 | 179,085 | 207,739 | 1,010,075 | 71,917 | 124,547 | 107,448 | 2,412,989 |
| Camels | 10,852 | 10,342 | 16,256 | 8680 | 2231 | 939 | 2409 | 394 | 434 | 121 | 855 | 3579 | 57,092 |
| Cattle | 1718 | 1336 | 1559 | 1257 | 1076 | 1523 | 1865 | 1876 | 3475 | 1074 | 1094 | 1822 | 19,675 |
| Monthly totals | 167,271 | 105,301 | 125,834 | 112,632 | 47,626 | 211,283 | 183,360 | 210,009 | 1,013,984 | 73,112 | 126,496 | 112,849 | 2,489,756 |

Key



Commercial livestock value chain



Sacrificial animal value chain

3.1 Commercial livestock value chain

Value chain actors and key features

Commercial livestock imported from Somaliland arrive in Saudi Arabia through the Islamic port city of Jeddah¹². More often than not, Somaliland exporters enter contractual agreements with Saudi importers who take ownership of the animals after off-loading at the port of entry.

Upon arrival at the entry port, livestock undergo an on-board inspection by officials of the veterinary services to check the general condition of the shipment. This is a precautionary measure to ensure the consignment is not infected with any contagious disease or afflicted with pests¹³. After the veterinary inspection, the customs office undertakes document verification that includes:

- *Certificate of weight*, showing the average weight of the exported livestock
- *Health certificate*, from the exporting country's department of agriculture or livestock verifying that the livestock are free from disease. In Somaliland, this certificate is issued by the Ministry of Livestock
- Health certificate from the quarantine station in Berbera
- *Health report*, issued by a veterinarian on board the vessel
- *Pedigree certificate (certificate of origin)* issued by the exporting country (Somaliland exporters obtain this certificate from the Somaliland Chamber of Commerce).

The purpose of these documents is given in Table 7. When all the necessary documents have been filed for entry, the animals are moved to a port holding yard/terminal and undergo the following two inspections:

- Identification of the animals as indicated on the manifest provided to the customs department; and
- A laboratory test to ascertain their health status

Table 7. Purpose of import certificates into Saudi Arabia

| Title of certificate | Attestation required on the certificate | Purpose | Requesting authority or organization |
|---|---|---|--------------------------------------|
| Health certificates (Ministry and quarantine) | Livestock are disease free, were given all required vaccinations and meet all Saudi animal quarantine regulations | Animal health | Ministry of Agriculture |
| Animal health report | Up-to-date report on animal health | Information on the status of animal health from the time it left an exporting country port until it arrives at a Saudi port | Ministry of Agriculture |
| Pedigree certificate/certificate of origin | Certify that the exported animal meets the importer's animal breed quality requirements if the animal is imported for the purpose of breeding | To ascertain a genealogical record of the animal | Importing company |

Upon receipt of favourable results, the Saudi importer pays the relevant fees necessary to allow the entry of the consignment. In 2014, the customs fees were USD 0.54 (i.e. SAR 2) per small ruminant and USD 1.3 (SAR 5) per head of camel. Animals cleared from the port holding facilities are taken to any of the three following areas¹⁴:

¹² The Jeddah Islamic port is the kingdom's principal port serving the holy cities of Mecca and Medina. The port handles 59% of the kingdom's imports by sea. It is a congestion free harbour occupying 10.5 km², with 58 deep water quays having an overall length of 11.2 km with a draft reaching 16 metres that can accommodate the latest generation of large container vessels (with a capacity of 6500 TEUs). Of the 58 berths, two are livestock terminals and four are for chilled and frozen cargo terminals.

¹³ For example in March 2011, 25 camels out of a consignment of 5000 were denied entry into the country as a visual inspection revealed they were infected with a parasitic skin disease. (<http://www.saudigazette.com.sa/index.cfm?method=home.regcon&contentid=2011031195609> accessed in June 2015)

¹⁴ Those that are rejected are returned to Somaliland at the cost of the Somaliland exporter

- i) Commercial retail market holding yards (*Al-Haraj*) located in Jeddah that target retail buyers. Such buyers include households, small hotels, butcheries and restaurants, among others who procure one or a few head of small ruminants. In these retail market yards, animals are fed and watered to maintain their quality/grades (Figure 6). Each of the 18 Somaliland-Saudi partnerships is allocated in a stall at the retail market. Some of the stalls are privately owned, while others are located on public land¹⁵.
- ii) Commercial wholesale market holding grounds located on the outskirts of Jeddah (e.g. *Um-Salama* located 30 km away—Figure 7). Most large scale importers operating such holding grounds serve the buyers of larger volumes of livestock. Such buyers include slaughterhouses that serve supermarkets and large institutions like colleges and hospitals, and large wholesale traders who buy to re-sell in other cities, such as Riyadh, Medina and Mecca. Some are also re-exported to neighbouring states, namely Bahrain, Kuwait, Oman, Qatar and UAE. These wholesalers may sell up to 20,000 heads of small ruminants per month with single purchases ranging from 50 to 2000 heads.
- iii) Large fattening grounds located near Mecca. These grounds also serve as holding facilities for sacrificial animals. An example is the holding ground owned by Al-Jabiri company (*Al Shamezi*) that measures 64sq km with a capacity of about 1.1 million small ruminants (Figure 8). This facility is located approximately 10 km from the slaughterhouses serving the sacrificial animals' value chain. During the off-season, such holding grounds are used for commercial purposes to fatten and prime animals before being taken back to wholesale and retail yards. The cost of fattening was noted to be USD0.35/day covering labour, health, water, feed and feed supplements for a period not exceeding 40 days¹⁶.

¹⁵ It was reported that there are about 18 companies (registered Somaliland-Saudi partnerships) importing livestock from Somaliland operating in this market, compared to about seven that handle livestock from Sudan.

¹⁶ During the off-peak season visit, the grounds had about 25,000 heads of small ruminants from Somaliland and 40,000 from Sudan, with about 80 persons tending the animals. Somaliland grade I animals were kept in the fattening ground for up to 14 days; Grade II animals for 30 days and grade III animals for 40 days. During the peak season visit, the number of employees had increased to about 400 persons tending more than a million heads of small ruminants.

Figure 6. Commercial retail-market holding yards for Somaliland sheep and goats, Jeddah—February 2014



Figure 7. Commercial wholesale-market holding grounds—30 km from Jeddah city—February 2014



Figure 8. Fattening grounds—60 km from Jeddah (lean and peak seasons)



Grading system applied in the commercial livestock value chain

(a) Small ruminants

The grading of small ruminants in Somaliland and Saudi Arabia is done on the basis of four traits:

- i. Body condition
- ii. Conformation
- iii. Age
- iv. Sex

Different levels of these traits combined to give rise to different grades in Somaliland and Saudi Arabia. In Somaliland, three grades are traded (Table 8), while in Saudi Arabia, only two grades were identified (Table 9).

Figure 9. Schematic presentation of the commercial value chain and market network in Saudi Arabia



The following observations were made with regard to Somaliland-Saudi Arabia small ruminants' commercial value chain:

- i) Grade I and II of small ruminants traded in Somaliland markets interface well with grade I and II respectively traded in Saudi Arabia. However, Somaliland exporters do blend export batches with limited volumes of grade III. It is from these relatively cheaper grade III animals that they increase their returns (this was also observed in the Negassa et al. 2008 study). However, the proportion of grade III animals is normally kept low so as not to undermine the quality of the entire export batch. For this reason, the proportion of grade III in the entire batch does not exceed 20% at any one time. This blending of consignments is not constant throughout the year, but changes in accordance with season, and on demand and supply. In this respect the guiding principle for an export trader is for his consignment not to vary significantly from the quality of the consignments of other traders supplying the same market at the same time. Where such a variation is evident, Saudi partners, renegotiate the price of the entire shipment downwards. Somaliland exporters who consistently supply inferior batches do end up having their partnerships discontinued, and most are very well aware of such risks.

Table 8. Grading and pricing of export quality sheep and goats in Somaliland

| Grade | Export quality sheep and goats | | | | | | Retail price (USD)* |
|-------|--------------------------------|-------|------------------|------------------|--------------|----------------|---------------------|
| | Age (yrs) | | Body condition | | Conformation | | |
| | Sheep | Goats | Sheep | Goats | Sheep | Goats | |
| I | 2–5 | 3–6 | For all ages fat | For all ages fat | Excellent | Excellent/Good | 84 |
| II | 2–4 | 3–5 | 2 years fat | 3 years fat | Good | Good/Fair | 80 |
| | | | 3 years normal | 4 years normal | | | |
| III | 2 | 3 | Normal | Normal | Fair | Fair | 75 |

*Price applies to both off-peak season (February 2014) and peak season (August 2014), Burao Market in Somaliland.

Table 9. Saudi Arabia grading and pricing of sheep and goats originating from Somaliland

| Grade | Export quality sheep and goats | | | | | | Retail price (USD) (off-peak season*) |
|-------|--------------------------------|-------|----------------|----------------|--------------|-----------|--|
| | Age (years) | | Body condition | | Conformation | | |
| | Sheep | Goats | Sheep | Goats | Sheep | Goats | |
| I | 2–5 | 3–6 | Fat | Fat | Excellent | Excellent | 131 |
| II | 2–4 | 3–5 | 2 years fat | 3 years fat | Good | Good | 120 |
| | | | 3 years normal | 4 years normal | | | |

*Off-peak season, February 2014; Jeddah market in Saudi Arabia

- ii) Generally grade I animals were put on sale within 14 days after their clearance from Jeddah port. On the other hand, grade II and the unofficial grade III were finished on fattening grounds for a period to attain suitable body condition before being offered for sale¹⁷. The finishing period ranged from 21–40 days. During the off-peak season (i.e. February 2014), the price of goats and sheep in the Jeddah retail market was USD120 and USD131 for grades II and I respectively
- iii) While the price of sheep and goats was similar in the Saudi market during off-peak season, there tended to be a preference for sheep rather than goats during the peak season (September/October), leading to depressed goats prices during this season and a steep rise in sheep prices (i.e. grade I price rose by over 40%). Table 10 summarizes market prices for different livestock breeds in Jeddah during peak season. These prices are in the same range with those reported by USAID (2012) (see Table 5). As observed earlier, the price of the Somali breed of sheep (*Berberi*) was the lowest due to its small size.

Table 10. Commercial prices at the Hajj—2014

| Species | Price | |
|--------------------------|-------|------|
| | SAR | USD |
| Goat (<i>Maaiza</i>) | 450 | 120 |
| Goat (<i>Tuwais</i>) | 585 | 156 |
| Sheep (<i>Berberi</i>) | 720 | 192 |
| Sheep (<i>Swakini</i>) | 1050 | 280 |
| Sheep (<i>Harri</i>) | 1650 | 440 |
| Cow | 4200 | 1120 |
| Camel | 4650 | 1240 |

Source: Hajj prices are available at: <http://www.hajjsolutions.com/prices/>

17 All the finished grade III were sold as grade II, while a few grade II are sold as grade I

Despite favourable commercial-value chain prices in the Saudi market during the *Hajj* season (i.e. when the sacrificial animal value chain dominates), it is apparent that there were no commercial imports of sheep and goats from Somaliland. All the 1.2 million small ruminants imported served the sacrificial animal value chain (discussed later in this paper). This lack of exports, despite favourable prevailing prices could be due to limited shipping capacity, since the two large Somaliland exporters commit their resources to fulfil contractual obligations under the sacrificial animal value chain. Alternatively, the lack of commercial exports may be hampered by supply constraints, since more than one million animals need to be mobilized and exported within a period of 60 days. It is, therefore, apparent that Somali sheep and goats sold in the commercial chain during the *Hajj* are imported into the Saudi market well in advance and held in fattening grounds for long periods, which to some extent reduces the margins realized from high market prices.

- iv) Somaliland traders negotiate Jeddah cost, insurance and freight prices on a consignment basis. It is for this reason that Saudi importers desired batches with large proportions of grade I, while Somali exporters preferred those with higher proportions of grade III. This is because while grade I were priced higher in the end-market and required limited finishing time, thus offering higher margins for importers, grade III were procured at lower prices in source markets and still received favourable landing prices in end markets. To this end, a negotiated landing price that took into consideration the prevailing end and source market prices was arrived at. The average margin accruing to Somaliland exporters was estimated at USD5 per head, which was likely to decline in the case of Saudi importers offering a discounted average-batch-price when the average-batch-quality was adjudged to be compromised.
- v) Saudi importers tended to be the main beneficiaries of the higher sheep prices offered for commercial sales during the peak (*Hajj*) season. Commercial sales made during the *Hajj* were estimated to have landed in Jeddah at least two months in advance, a period of time in which Somaliland exporters could not still be claiming ownership of such consignments.
- vi) The timing of settlement of payment between Saudi importers and Somaliland exporters depended on individual partnerships, with some partnerships making payment on landing, while others after the sale of the livestock.

(b) Camels

In Somaliland, four grades of export quality camels are traded, with two grades each among the mature and young categories. The young camels range from about 3–7 years in age, and mature ones between 7 and 15 years (Table 11). Just two grades are traded in Saudi Arabia (Table 12).

Table 11. Grading of camels for export in Somaliland

| Grade | Sex | Body condition | Conformation | Price (USD) | |
|----------------------------|-----|----------------|--------------|-------------|-----|
| Matures (<i>Waaweyn</i>) | I | Male | Excellent | Excellent | 790 |
| | II | Male | Good | Good | 700 |
| Young (<i>Qalimo</i>) | I | Male | Excellent | Excellent | 368 |
| | II | Male | Good | Good | 358 |

Table 12. Saudi Arabia grading of camels originating from Somaliland

| Grade | Sex | Body condition | Conformation | Price (USD) |
|-------|------|----------------|--------------|-------------|
| I | Male | Excellent | Excellent | 985 |
| II | Male | Good | Good | 890 |

It was observed that unlike small ruminants where some of the grade I animals were sold within two weeks of clearance from the port, both grades I and II of camels were fattened for a period between two and four months before sale. The finishing costs were estimated at USD3 per camel/day.

Despite camels being used as sacrificial animals during the *Hajj*, all the camels slaughtered during this period were procured commercially from the market. It is for this reason that all camels are designated as being handled through the commercial value chain, during peak and off-peak seasons. The peak season corresponded to the *Hajj* season, and prices in the end-market increased by over 50% when compared to low or off-peak season (see Table 10).

3.2 The sacrificial animal value chain

The annual Muslim *Hajj* is held between the eighth and twelfth day of the twelfth month (*Dhul Hijjah*) of the Islamic calendar. The Gregorian calendar dates for the *Hajj* change every year since the Islamic calendar is based on the lunar year of 355 days, adding 11 days approximately of difference between the two calendars every year. There has been a significant increase in the number of people making pilgrimages in the last decade with a more than 72% rise between 2000 and 2012 (Table 13). The CDSI forecast that by 2020 the number will reach more than 4.8 million—twice the 2008 figures. The Saudi authorities have set up a quota system for the number of pilgrims from each country in order to avoid overcrowding. Pilgrims comprise two groups, those from Saudi Arabia and those from rest of the world. Demand for livestock during the season is mainly for the sacrificial animals. The timelines for this value chain are given in Figure 10, using year 2014 as reference.

Table 13. Trends in *Hajj* pilgrims to Saudi Arabia

| Year | Saudi pilgrims | Foreign pilgrims | Total |
|------|----------------|------------------|-----------|
| 2000 | 571,599 | 1,267,555 | 1,839,154 |
| 2001 | 549,271 | 1,363,992 | 1,913,263 |
| 2002 | 590,576 | 1,354,184 | 1,944,760 |
| 2003 | 610,117 | 1,431,012 | 2,041,129 |
| 2004 | 592,368 | 1,419,706 | 2,012,074 |
| 2005 | 629,710 | 1,534,769 | 2,164,469 |
| 2006 | 573,147 | 1,557,447 | 2,130,594 |
| 2007 | 746,511 | 1,707,814 | 2,454,325 |
| 2008 | 679,008 | 1,729,841 | 2,408,849 |
| 2009 | 154,000 | 1,613,000 | 2,521,000 |
| 2010 | 989,798 | 1,799,601 | 2,854,345 |
| 2011 | 1,099,522 | 1,828,195 | 2,927,717 |
| 2012 | 1,408,641 | 1,752,932 | 3,161,573 |

Source: Majestic Islam (<https://majesticislam.wordpress.com/2013/10/16/the-pilgrimage-to-mecca-hajj/>)

Figure 10. Timeline of sacrificial animals export from Somaliland in 2014

July 2014 (Ramadan—Shawal 1435)

| Ramadan | | | | | | | | | | | | | | | | | | | | | | | | | | | Eid Al Fitr | | | |
|---------|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------------|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

August 2014 (Shawal—Thul Qedah 1435)

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

September 2014 (Thul Qedah—Thul Hijjah 1435)

| | | | | | | | | | | | | | | | | | | | | | | | | Pilgrimage | | | | | | |
|---|---|---|---|---|---|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|------------|----|----|----|----|----|----|
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

October 2014 (Thul Hijjah—Muharram 1436)

| Pilgrimage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|---|----|----|----|---|---|---|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--|
| 1 | 2 | 3 | 4* | 5* | 6* | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | 21 | 22 | 23 | 24 | 25 | 26 | 27 | 28 | 29 | 30 | 31 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* Sacrificial slaughtering period.

Actors and features of the value chain

The Islamic Development Bank (ISDB) has been assigned by the Saudi government the responsibility of financing the importation of the largest share of livestock for sale as sacrificial animals to pilgrims and facilitating the slaughter of these animals. Every year, ISDB issues a public tender authorizing the supply of livestock, mainly sheep and goats, for the *Hajj* season. This is a government supported program whose aim is to “*guarantee that sacrificial sheep will be available to pilgrims at the lowest possible prices*”. The tender specifies the required number of animals and the price per head for delivery to the port of Jeddah. Every year a number of large Saudi livestock traders bid for the contract, and those who win work with Somaliland exporters; in this case they act as agents of the Saudi importers to ensure the animals are delivered at the Saudi port of Jeddah.

Upon being granted the supply tender, the Saudi importers’ agents in Somaliland mobilize their trade network¹⁸ spread across Somalia and eastern Ethiopia. Mobilization entails deepening all the logistics related to procurement of animals; this includes: increasing awareness among producers, providing additional funds for the purchase of animals, increasing the number of transporters, animal trekkers and loaders, and ensuring sufficient quantities of feed and animal health personnel are in place. This step ensures the system is ready to handle large numbers of animals that may exceed ten times its normal capacity. The mobilization period lasts about one week following the end of *Ramadan* (Figure 10).

18 As noted, these agents are essentially livestock exporters based in Somaliland. The networks managed by these exporters include agents of exporters, transporters, small-scale traders, brokers, trekkers and loaders (Negassa et al. 2008).

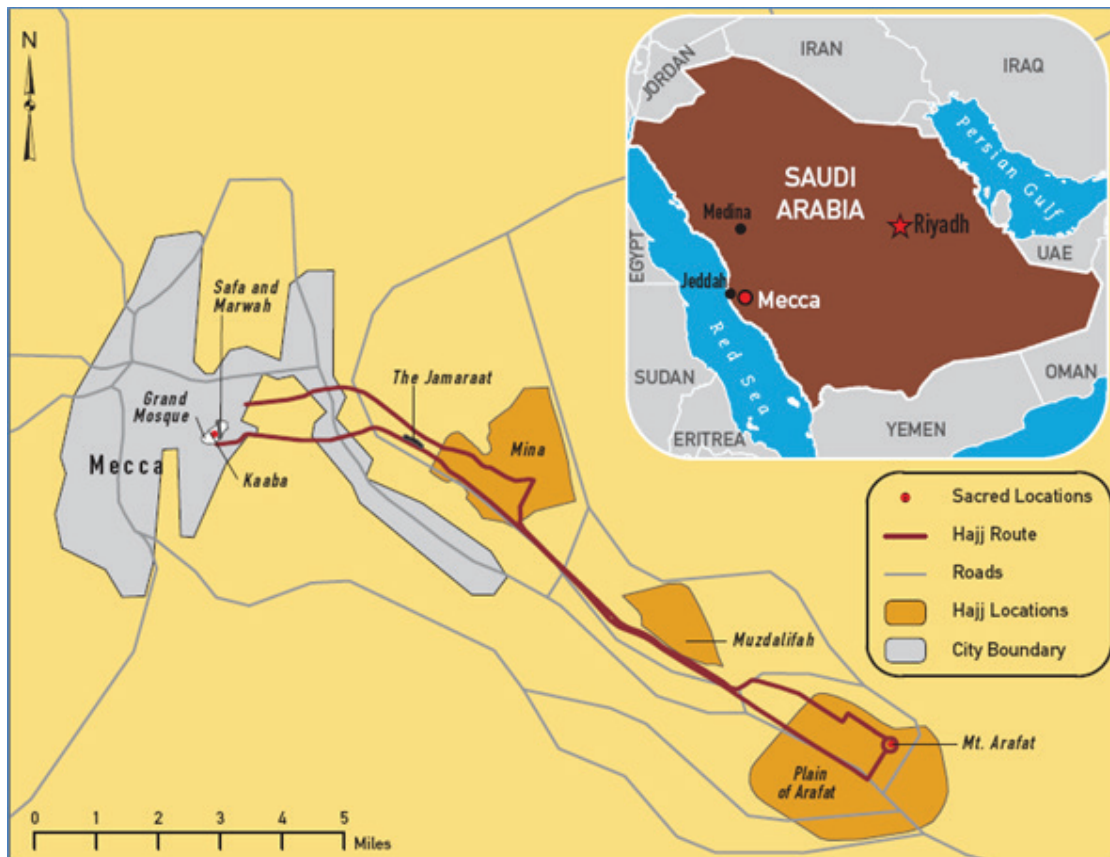
The mobilization period is followed by a two-week assembly period, where Somaliland agents coordinate the aggregation of animals from primary markets through secondary markets to the quarantine stations adjacent to the port of Berbera. By the end of the fourth week after end of *Ramadan*, sufficient animals are assembled to commence shipment to Saudi Arabia. At this point, both assembly and shipment occur continuously for the next 28 days to avoid congestion at the quarantine facilities¹⁹. These animals are held in holding grounds in readiness for sacrifice during the *Hajj*.

Animal sacrifice during the Hajj

The *Hajj* is the annual pilgrimage to Mecca, Saudi Arabia, and the largest mass gathering in the world. Every able-bodied adult Muslim who can afford to do so is required to make *Hajj* at least once in his or her lifetime. The *Hajj* takes place from the eighth to the twelfth of *Dhul Hijja* (Figure 10), the last month of the Islamic year. After arriving in Mecca, pilgrims go immediately to the Grand Mosque, which contains the *Ka'aba*, the most sacred site in Islam, and perform a *tawaf*, circling the *Ka'aba* seven times counter-clockwise. Because of the vast number of people (each floor of the three-level mosque has a capacity of 750,000), a single *tawaf* can take hours. In addition to *tawaf*, pilgrims perform *sa'i*, walking or running seven times between the hills of *Safa* and *Marwah* (see Figure 11). Once in open air, this route is now enclosed by the Grand Mosque and can be traversed via air-conditioned tunnels, with separate sections for walkers, runners, and disabled pilgrims (Gatrad and Sheikh 2005).

Hajj culminates on the Plain of Arafat, a few miles east of Mecca, where the Prophet Muhammad delivered his final sermon. Pilgrims spend the day in supplication, praying and reading the Quran; it is the pinnacle of most pilgrims' spiritual lives. The following day's ritual, the Stoning of the Devil at *Jamaraat*, is the site of some of the densest crowds during the *Hajj*. During this ritual, pilgrims throw seven tiny pebbles (specifically, no larger than a chickpea) at each of three white pillars.

Figure 11. *Hajj* destination—catchment area for sacrificial livestock



Source: <http://wwwnc.cdc.gov/travel/yellowbook/2014/chapter-4-select-destinations/saudi-arabia-hajj-pilgrimage>

19 In 2014, assembly operations started on 5 August and ended on 21–23 September, a period of 48–50 days. Overall, within the 70 day interval between Eid Al Fitr and Eid-Al Adha, there were 10 days of mobilization, 48–50 days of transactions and assembly operations and 32–34 days of shipment.

After *Jamaraat*, pilgrims traditionally sacrifice an animal to symbolize the ram that Abraham sacrificed instead of his son²⁰. Most pilgrims purchase a 'sacrifice voucher' in Mecca and perform this sacrifice by proxy²¹. Centralized, licensed abattoirs then perform the sacrifice on behalf of the pilgrim, and meat is immediately donated to charity, often reaching international locations²² (Figure 12). After a final *tawaf*, pilgrims leave Mecca, ending the *Hajj*. Although it is not required as part of the *Hajj*, many pilgrims extend their trips to travel to Medina to visit the Mosque of the Prophet, which contains the tomb of Mohammed and is the second holiest site in Islam.

Figure 12. Distribution of meat by the ISDB to the eligible recipients



Source: <http://www.adahi.org/AdahiSite/DownloadFiles/Statistics/d92ed2d3-35bd-49c3-890a-a8d05da72857.pdf>

Slaughterhouses used by the value chain

There are two types of slaughterhouses under the Saudi Project for Utilization of *Hajj* Meat: open door slaughterhouses and closed slaughterhouses. The open-door slaughterhouses (including Moaisem 2 Slaughterhouse Hall A, the Camels and Cows Slaughterhouse and the Modern Slaughterhouse) are open to pilgrims, where they can directly purchase the sheep they need from vendors and conduct the slaughtering themselves or have it done by professional butchers under their direct supervision. The other alternative is to have the slaughter undertaken by proxy by the Saudi project. In each of these units, the pilgrim would find two types of sheep offered for sale, with the price of each type displayed at the entrance to the slaughterhouse. The pilgrim chooses one type for slaughter. The price per head of sheep includes the cost of the animal and the contribution of the pilgrim towards the cost of *Shari'ah* and veterinary-related services, as well as the cost of the slaughtering, skinning, cleaning, and transport of meat for distribution to the eligible poor. The Camel and Cow open Slaughterhouse serves the pilgrims who buy camels and cows directly from the sellers of these animals. One hundred and

²⁰ Slaughtering of sacrificial animals starts on the tenth day of *Dhul-Hijjah* (*Eid Al Adha*) and ends on the *thirteenth* day.

²¹ The purchase of the coupon authorizes the ISDB to slaughter sheep on behalf of the purchaser and then distribute the meat to the poor. The value of the coupon during the 2014 *Hajj* season was SAR 490 (about USD130.7) that covered the cost of the sheep at SAR 448.03) and other operational costs (slaughter, skinning, cleaning, etc.) at SAR 81.98. The coupon was subsidized by the project by SAR 40 so as to make it widely affordable. It is important to point out that sacrificial animals used for paying a *Kaffarah* (expiation) for violating any of the restrictions of *Hajj* or for neglecting to perform one of its obligatory acts or requisites are not covered by this voucher. A certain number of pilgrims for various reasons may find themselves in the situation of slaughtering an extra animal for such motive.

²² Besides being distributed to international destinations, a small portion is consumed locally by either being distributed to the poor (*Sadaqa*) or served to the pilgrims during the final period of the *Hajj*. During this period, meat is widely available in restaurants within the *Hajj* catchment (Figure 9) at lower prices, which to some extent, dampens the commercial value chain in the affected cities.

fifty Saudi Arabian Riyal is charged as a partial contribution towards the cost of *Shari'ah* and veterinary-related services, and towards the costs of meat processing and transportation to eligible recipients.

Closed slaughterhouses are exclusively reserved for sheep (they include Moaisem No 1, Moaisem No 2 Hall B and Moaisem No 3). They implement slaughter by proxy, where pilgrims give authorization to the project to slaughter the offering on their behalf. Access to these slaughterhouses is permitted to representatives of pilgrims, where one permit is granted to a representative of a group of pilgrims consisting of no less than 30 pilgrims to perform the ritual in his name and on behalf of the pilgrims who appointed him as their representative or agent. Pilgrims interested in benefiting from the service of slaughter by proxy that entails avoiding personally going to these slaughterhouse, especially elderly people, do so by purchasing their coupons from several stations across the country or online at <https://www.adahi.org/AdahiSite/login.aspx?returnUrl=/RetailExtensions/OrderList.aspx>.

Grading of livestock within the value chain

The value chain for sacrificial animals follows religious practices stated in the *Sunnah*²³ that specifies the type of animals that can be sacrificially slaughtered. These are:

- i) Goat, either male or female, of at least one year of age.
- ii) Sheep, either male or female, of at least six months of age.
- iii) Cow, ox buffalo of at least two years of age.
- iv) Camel, male or female, of at least five years of age.

One head of goat or sheep is prescribed for one person's sacrificial slaughter (*Qurbani*). For larger ruminants like cow, buffalo or camel, one head is sufficient for seven offerings and allows seven people to offer *Qurbani* jointly in one such animal. If the seller of an animal claims that the animal is of the recognized age and there is no apparent evidence to the contrary, one can trust his/her statement and the sacrifice of such an animal is lawful.

Defective animals not acceptable in *Qurbani* include those that are:

- i) Blind, one eyed or lame.
- ii) So emaciated that they cannot walk to their slaughtering place.
- iii) Deformed with one-third of the ear or the nose or the tail missing.
- iv) Missing all or most of their teeth.
- v) Born without ears.

²³ *Sunnah* is the way of life prescribed as normative for Muslims on the basis of the teachings and practices of the Islamic prophet Muhammad and interpretations of the Quran. According to Muslim belief, this practice is to be adhered to in fulfilling the divine injunctions, carrying out religious rites, and moulding life in accord with the will of God. Instituting these practices was, as the Quran states, a part of Muhammad's responsibility as a Messenger of Allah. (Quran 3:164, 33:21). The *sunnah* of Muhammad includes his specific words, habits, practices, and silent approvals; it is significant because it addresses ways of life dealing with friends, family and government. Recording the *sunnah* was an Arabian tradition and, once people converted to Islam, they brought this custom to their religion. The *sunnah* is a source of Islamic law, second only to the Quran. The term 'Sunni' denotes those who claim to practice these usages, as part of the *Ummah*. Book 7 is dedicated to the Pilgrimage and its rites (*Kitab Al-Haji*) and book 22 to the sacrifices (*Kitab Al-Adahi*). The practices of sacrifice or *Qurbani* are here described in terms of philosophy, rules, sacrificial animals, rules of defective animals and the distribution of the meat.

The following animals are acceptable in *Qurbani*:

- i) A castrated he-goat.
- ii) An animal that has no horns, or its horns are broken. However, if the horns of an animal are uprooted totally so as to create a defect in the brain, its *Qurbani* is not lawful.
- iii) An animal whose missing part of its ear, nose or tail is less than one third.
- iv) A sick or injured animal, unless it has some above mentioned defects rendering its *Qurbani* unlawful.

A careful examination of these prescriptions shows all the three commercial livestock grades for sheep, goats and camels traded in Somaliland fit these criteria. This implies that the market for sacrificial animals offer Somaliland-based agents of Saudi importers ample latitude in the choice of animals to deliver as sacrificial animals. There is an option for them to reduce their purchase costs by blending grade I and II with a large proportion of grade III within batches they ship. Furthermore, since the ceiling price for sacrificial animals is set every year for the *Haji* season, the lower the purchasing costs the higher the profit.

4 Gross margin analysis

The two value chains for small ruminants have different grading requirements and thus offer different margins. Tables 14 to 16 present the indicative gross margins in the commercial and sacrificial value chains of small ruminants. Table 17 presents gross margins for camel. The costs in deriving the margins included:

- i) Ground handling costs, taxes and other charges (in both Somaliland and Saudi Arabia), were estimated at USD8.5 per head of small ruminant and USD87 per head of camel (of which USD3.5 and USD17 is a development tax in Somaliland per small ruminant and camel respectively). USAID (2013) estimates this cost to be USD8.51 per head of small ruminant.
- ii) Shipment costs—which involve freight charges, feed and water, and other costs during shipment—were estimated at USD5.5 per head of small ruminant and USD77 per head of camel.
- iii) Jeddah port handling charges were estimated at USD0.5 per head of small ruminant and USD1.5 per head of camel.
- iv) The importers' costs in Saudi Arabia that included health management, feed and water costs during fattening were estimated at USD0.35/day per head of small ruminant and USD3/day per head of camel. However, the maintenance charges for sacrificial small ruminants were estimated at USD0.2/day per head; this charge is lower due to their large numbers and somewhat lower inputs. The duration of stay at the fattening/holding yard was found to vary, dictated by demand and end use. Sacrificial animals lasted between 7 and 40 days, with a mode of 30 days (Figure 10), while commercial stock stayed between 14 days and three months. For example, Somaliland sheep sold in the Saudi market as commercial stock during the *Hajj* were most likely shipped in June/July, about three months in advance. Therefore, 30 days was used to derive fattening costs for sacrificial small ruminants, and 14 days, 28 days and 40 days used for grades I, II and III of commercial stock during off-peak season²⁴ respectively. Finishing of grade I did not necessarily take place in fattening grounds but also in retail and wholesale yards (Figures 6 and 7). The duration for finishing camels was 60 and 90 days for grades I and II respectively.
- v) During the peak demand (*Hajj*) season, commercial prices of sheep were higher than those of goats in the Saudi market, but remained the same in the Somaliland markets. This was likely due to a preference for sheep as sacrificial animals. In fact, the prices of goats were lower in peak than off-peak season for the commercial chain, perhaps due to dampened demand for meat in commercial markets in the *Hajj* catchment due to the availability of cheaper sacrificial meat.
- vi) Most of the small ruminants originating from Somaliland sold in the commercial chain during the *Hajj* were most likely imported three months in advance. It was observed that during the *Hajj*, imports from Somaliland mainly served the sacrificial animal value chain, because only livestock from Somaliland were able to fit within the price ceiling set by the project.

²⁴ Off-peak season refers to period outside the *Hajj* season, while the *Hajj* season serves as the peak season.

Table 14. Indicative gross margins from small ruminants in commercial value chain—Off peak season (February 2014)

| Item | Cost per head (USD) | | | Mean (USD) |
|---------------------------------|---------------------|----------|-----------|------------|
| | Grade I | Grade II | Grade III | |
| Buying price in Somaliland | 85 | 80 | 75 | 80 |
| Ground charges in Somaliland | 8.5 | 8.5 | 8.5 | 8.5 |
| Shipment charges | 5.5 | 5.5 | 5.5 | 5.5 |
| Port charges in Saudi Arabia | 0.5 | 0.5 | 0.5 | 0.5 |
| Fattening costs in Saudi Arabia | 5 | 10 | 14 | 9.7 |
| Retail price in Saudi Arabia | 130 | 120 | 120 | 123 |
| Value chain gross margin | 25.5 | 15.5 | 16.5 | 19.2 |

Table 15. Indicative gross margins from small ruminants for commercial value chain—Peak season (October 2014)

| Item | Cost per head (USD) | | | | | | | |
|---------------------------------|---------------------|----------|-----------|------|---------|----------|-----------|------|
| | Sheep | | | | Goats | | | |
| | Grade I | Grade II | Grade III | Mean | Grade I | Grade II | Grade III | Mean |
| Buying price in Somaliland | 85 | 80 | 75 | 80 | 85 | 80 | 75 | 80 |
| Ground charges in Somaliland | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 | 8.5 |
| Shipment charges | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 | 5.5 |
| Port charges in Saudi Arabia | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 | 0.5 |
| Fattening costs in Saudi Arabia | 31.5 | 31.5 | 31.5 | 31.5 | 31.5 | 31.5 | 31.5 | 31.5 |
| Retail price in Saudi Arabia | 197 | 197 | 197 | 197 | 130 | 120 | 120 | 123 |
| Value chain gross margin | 66 | 71 | 76 | 71 | -1.00 | -6.00 | -1.00 | -2.7 |

Table 16. Indicative gross-margins from small ruminants—Sacrificial animal value chain

| Item | Cost per head (USD) (October 2014) | | | Mean (USD) |
|---------------------------------|------------------------------------|----------|-----------|------------|
| | Grade I | Grade II | Grade III | |
| Buying price in Somaliland | 85 | 80 | 75 | 80 |
| Ground charges in Somaliland | 8.5 | 8.5 | 8.5 | 8.5 |
| Shipment charges | 5.5 | 5.5 | 5.5 | 5.5 |
| Port charges in Saudi Arabia | 0.5 | 0.5 | 0.5 | 0.5 |
| Fattening costs in Saudi Arabia | 6 | 6 | 6 | 6 |
| Retail price in Saudi Arabia | 120 | 120 | 120 | 120 |
| Value chain gross margin | 14.50 | 19.50 | 24.50 | 19.50 |

It can be observed that gross margins realized on the sheep and goat trade by Somaliland exporter–Saudi importer partnerships were about 24% (of the buying price) for the commercial (off-peak) and the sacrificial animal value chains²⁵. In both cases, the average margin was about USD19/head, which is shared by Somaliland exporter and Saudi importer²⁶ (the proportion received by each partner could not be established during this survey). Since small ruminants are sold in batches, this implies that for every batch of 100 animals, the export-trade-partnership fetch about USD1900 in returns. Although these returns may seem high, it is important to note that the Somaliland-Saudi Arabia livestock export trade is highly capital intensive with all the costs of capital investments being borne by the traders. It may thus intuitively be speculated that the proportion of the margins received by each partner is perhaps dependent on their level of investment made in developing the value chain. As Somali traders have invested in a social network and local transport facilities that ensures stable supplies of animals, their Saudi counterparts' investments range from construction of quarantine facilities in Somaliland, to

25 These margins have been derived on the assumption that there is no mortality of stock within the value chain. However, the mortality of one animal leads loss of returns realized from sale of five animals.

26 However, in the sacrificial animal value chain the Somaliland exporter acts as an agent as all the financing is provided by the Saudi partner under the bank loan scheme.

investments in shipping vessels and holding grounds in Saudi Arabia. However, despite the relatively high capital investment, these margins compare favourably with returns on sheep and goats trade within the region. For example AU-IBAR (2006) reported that Kenyan traders procuring small ruminants from Mwingi and selling in Nairobi received margins of between 25 and 35%.

Table 17. Indicative gross-margins in commercial value chain for camels

| Item | Cost per head (USD) | |
|--|---------------------|----------|
| | Grade I | Grade II |
| Buying price in Somaliland | 790 | 700 |
| Ground charges in Somaliland | 87 | 87 |
| Shipment charges | 77 | 77 |
| Port charges in Saudi Arabia | 1.5 | 1.5 |
| Total expenses for Somaliland exporters | 955.5 | 865.5 |
| Price received by Somaliland exporters in Saudi Arabia | 985 | 890 |
| Margins to Somaliland exporters | 29.5 | 24.5 |
| Fattening costs in Saudi Arabia | 180 | 270 |
| Retail price in Saudi Arabia (2014) | 1240 | 1240 |
| Margins to Saudi importers | 75 | 80 |

Unlike in the sacrificial chain and during the off-peak period of the commercial chain, where sheep and goats were somewhat uniformly priced, there seemed to be differential pricing between sheep and goats during the peak (*Hajj*) season, and the indicative mean peak-season-margin for the commercial chain was about 89% for sheep, but a loss of about 3.4% for goats. This means that the overall margins realized depended on the proportion of sheep *vis. a vis.* goats in the consignment. Assuming the proportion reflects farm-level ownership of the two species, i.e. 30% sheep and 70% goats (see Wanyoike et al. 2015), then the joint margin realized from a consignment of sheep and goats in commercial chain during the peak season comes to 24%. This implies that on average, the margins obtained in the trade of small ruminants both during the peak (*Hajj*) and off-peak seasons were similar at about 24% of the buying price due to differential pricing of sheep and goats in favour of sheep during the *Hajj*, and the low proportion of sheep in export consignments. However, it is possible to increase this amount by increasing the proportion of sheep in consignments of small ruminants supplied to the commercial chain (during peak season) so as to take advantage of the higher sheep prices, while reducing the proportion of goats. Similarly, the proportion of goats in batches supplied to the sacrificial animal chain could be increased to take advantage of non-discriminative pricing of both sheep and goats, which seemed to favour goats. This can be attained by diverting sheep—imported in the peak period to supply the sacrificial chain—to the commercial chain, while replacing them with goats already held in the fattening yards that were imported earlier as commercial chain consignments. This option is, however, only available to Saudi importers and is dependent on the level of demand in the commercial chain during the *Hajj* period (peak season).

The inability of Somaliland exporters to exploit the peak demand sheep prices deprived them of an opportunity to receive better returns, and in turn transferred some of the benefits to producers. There are about 18 Somali-Saudi trade partnerships involved in export trade. Although the two dominant traders commit their resources and effort to the sacrificial animal value chain during the peak-demand season, it is not clear why the remaining 16 partnerships do not continue to participate in the commercial chain during this period. For example, if a trader were to export grade I small ruminants and have them sold within two weeks of landing in Jeddah, s/he would receive margins of USD92.5 and USD15.5 for the sheep and goats respectively, representing returns of 109% and 18%. Factors constraining the exploitation of these opportunities should be explored and redressed. These may include, but are not limited to, the unavailability of adequate shipping capacity during this peak demand period or the inadequate supply of suitable animals in Somaliland caused by the rush by the two dominant Somali traders to source animals to cover the quota prescribed under the ISDB grant.

The margins realized in the commercial value chain for camels were much lower than those from small ruminants. Somaliland exporters' margins were about 3.5% with those of Saudi importers being 7.5%.

5. Conclusions

In 2012, about eight million heads of small ruminants, cattle and camels were slaughtered in Saudi Arabia compared to the local livestock population of about 15 million in the same year. The relatively large proportion of slaughtered livestock compared to local livestock populations indicates a high reliance on imports of live animals for the supply of meat and other requirements. The slaughter of live animals contributed to about 60–70% of demand, with the remainder being met by imports of meat and meat products.

Somaliland contributed a significant proportion of the live animals slaughtered in Saudi Arabia, but faced competition from other countries and to a lesser extent, from imported frozen and chilled meat and alternative sources of protein, such as poultry and fish. The leading competitors in live animals exports were Sudan, Syria, Jordan and Australia (those countries capable of exporting more than 250,000 heads and the major exporters of livestock to Saudi Arabia during the *Hajj* season). It was observed that Somaliland/Somalia controlled about 70–85% of goat imports into Saudi Arabia, 65–80% of camel and about 30% of the sheep market share. More often than not, imports from Somaliland were managed by a trading partnership comprising one Somaliland exporter pairing up with one Saudi importer.

Two value chains were identified for livestock originating from Somaliland: the sacrificial animal value chain and the commercial livestock value chain. The sacrificial animal value chain was active during the lunar months of *Rajab* to *Thul Hijja*²⁷ that are associated with *Hajj* and *Umra* pilgrim movements and other attached religious occasions and festive seasons. The commercial channel was dominant during the lunar months of *Muharram* to *Jamadol Akhir*, in which monthly livestock demand is relatively lower. Whereas in the commercial value chain the Somaliland exporter took ownership of the animals until they landed and got clearance in the Saudi port of entry, in the sacrificial chain, the Somaliland exporter acted as an agent of the Saudi importer, from the point of procuring animals in Somaliland up to the port of entry in Saudi Arabia. Trade in the sacrificial value chain was financed by ISDB.

The grading of livestock in the commercial livestock value chain closely interfaced with the grading of livestock practiced in Somaliland. The three important traits (body condition, conformation and age) were combined to confer a grade. However, unlike in Somaliland where three grades (I, II and III) were traded, only two grades (I and II) were traded in Saudi Arabia. This implies, that animals landing as grade I were sold immediately (or within two weeks of landing at port city of Jeddah). The other grades (II and III) were held at fattening grounds for periods of between 14 and 90 days for finishing before being offered for sale (either as grade I or II). On the other hand, the grading of animals in the value chain for sacrificial animals followed religious practices stated in the *Sunnah* that specifies the type of animals that can be lawfully sacrificially slaughtered.

Small ruminants that dominated exports from Somaliland were traded in consignments (or batches) comprising a mix of animals of different grades and more superior grades fetched better prices all year round. The proportion of goats in these consignments was higher (70%) compared to that of sheep (about 30%), perhaps due to adaptability and versatility of goats in the Somali production environment. However, in the Saudi Arabia end market, the pricing system was determined by the value chain supplied (sacrificial versus commercial) and also by season (*Hajj/Umra* versus other periods). In the sacrificial value chain, the price of sheep and goats was similar irrespective of grade and was determined by the price set

27 These include the months of *Sha'ban* and *Ramadan*

by ISDB, which aimed to make sacrificial animals affordable to most pilgrims. In the commercial value chain, small ruminant prices were influenced by the grade of the animal, with superior grades fetching higher prices, and there was no price discrimination between sheep and goats, except during the *Hajj* period of the peak season, where sheep of similar grades received significantly higher prices compared to goats.

The sacrificial value chain thus seemed to favour Somaliland exporters, first due to non-discrimination against goats, the dominant species in Somaliland, and secondly, by waiving the grading requirement. This provided room for more goats of lower quality (grade III) to be exported. Since these benefits of procuring goats at relatively low prices and selling them at better prices were not transferred to producers, one may thus intuitively conclude that the sacrificial chain offers an opportunity to participating traders to build their capital base and dominate the export market when compared to those who do not participate in this chain. On the negative side, given that there was a fixed sale price enforced in Saudi Arabia, there was little incentive for these Somaliland traders to pay producers any premium price. Since their margins were determined by buying costs only, there was a built-in bias against the selection of superior grades to the detriment of producers and thus present a disincentive to invest in ventures aimed at improving the quality of animals like improved husbandry and feeding.

The built-in disincentive against Somaliland producers interested in investing in quality was perpetuated throughout the commercial value chain during the two-month peak demand season in Saudi Arabia. First, the realizable margins from superior grades compared to lower grades of small ruminants were lower ruminants (even though the overall margins for sheep were higher). Second, there was a practice of discriminatory pricing against the dominant goat species. These disincentives may partly explain why limited efforts were made by Somaliland traders to engage in the commercial chain during the peak-demand season. Somaliland traders engaging in the commercial value chain during this period would need to ship consignments comprising a larger proportion of sheep to cover the risk of potential losses due to lower goat prices.

There was, however, respite offered to producers by the commercial chain during the off-peak demand season where higher grades receive premium prices, potentially encouraging exporters to transfer such premiums to producers. However, in comparative terms (to sacrificial chain), off-take volumes were usually low during this 10-month period. Furthermore, it was observed that margins realized by Somaliland exporter–Saudi importer partnerships were relatively low for small ruminants (18–30%) and poor (below 10%) for camels. Low margins in live animal trade imply that the trade is fraught with risks, such that mortality in transit leads to a severe erosion of an actors' profits. For example, a Somaliland exporter who loses one camel during shipment forgoes the profits emanating from about 30 heads of camels. Although this survey did not collect indicative data on mortality in transit for Somaliland livestock destined for Saudi Arabia, such occurrences are inevitable. For example, mortality reports were studied for 181 shipments of live sheep from western Australia to the Middle East and Singapore in 1985 and 1986, and results showed that overall death rate in the 6.46 million sheep exported in the period studied was 2.2%. In sheep bound for the Middle East, most deaths occurred during transit (overall rate 1.7%, range 0.4–4.4% per shipment), although substantial mortality was recorded during discharge (rate 0.4%, range 0.0–1.8%) (Norris and Richard 1989). However, recent reports indicate transit mortality rates for Australia being lower than 1% (DAFF 2013). Data for Somaliland are currently unavailable. Anecdotal evidence suggests that mortality rates for livestock in transit from Somaliland could be much higher than those for Australian traders. Assuming a mortality rate of 5%, the margins received from a batch of 100 small ruminants would fall from USD 1900 to about USD 1500.

Overall, Somaliland sheep and goats were noted to be smaller and of lower weight than those from competing countries and thus served a market niche for lower/middle income consumers. It is, therefore, important for Somaliland traders to aggressively expand their share of this market segment by exploiting the recently improved infrastructure in local markets and declining competition internationally. Somaliland, particularly, has comparative advantage in the supply of goats where it commands up to 85% of the market share. This is a strength that should be exploited, especially in off-peak season (i.e. non-*Hajj* and non-*Umra* season), which apparently offer better prices for goats and of which producers should be made aware.

The inability of Somaliland exporters to exploit the high prices offered in the commercial value chain for sheep during the *Hajj* season should raise concerns. Despite prices rising to as high as USD 197 per head, there were no commercial exports, with all effort directed towards the sacrificial animal value chain operated by the two dominant exporters. It was

estimated that the largest exporter shipped about 800,000 small ruminants during the August–September 2014 window, while the next largest exporter transported 400,000 as the agents of their Saudi partners; with both traders targeting the ISDB sacrificial animal program. The inability of the other 16 exporters to exploit this window may be a pointer to existing barriers. Such obstacles may include limited shipping capacity or insufficient quality stock (sheep) for export. However, research would be necessary to shed more light on this question and formulate appropriate interventions.

In addition to the aforementioned, it would also be useful to explore how the two channels support each other for those traders who participate in both. Preliminary information shows that participation in the sacrificial value chain confers one advantage, perhaps to accumulate the capital that ultimately enables them to dominate the commercial value chain. For example, there were two Somaliland export companies which operate as exporters for around 10 months a year and as agents for the remaining two months. When they act as agents, they do not use their own funds, but receive a portion of the margins as a commission for each head procured. During this two-month period, all the other 16 exporters remain dormant. It would, thus, be important to investigate the transactional behaviour²⁸ of these two traders vis-à-vis the other 16 exporters during the remaining 10-month period. This may perhaps enable the drawing of inference and confirmation of whether participation in the sacrificial chain confers advantage to the two dominant livestock export companies over the rest and thus enable them to get entrenched and dominate the market, and in essence drive it towards being oligopolistic in nature.

²⁸ This will include prices offered to producers, the duration of time between procurement and payment to producers, sales services offered, etc.

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