



Enhancing the provision of livestock marketing information in Somaliland

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Livestock have historically and culturally been the main source of livelihoods for most households in Somaliland. The livestock sector employs over 70% of the population, contributes about 60% of the gross domestic product (GDP) and 85% of export earnings (MoP, 2012).

Livestock of various grades are procured by market actors through specific trade routes linking primary and secondary markets to ports of exit. Three grades of cattle, three grades of sheep and goats and two grades of camels are exported to Saudi Arabia, Yemen, Oman, Egypt and the United Arab Emirates (Negassa et al, 2008; Mugunieri et al, 2012). The exports have shown a steady growth in the last four years (Figure 1).

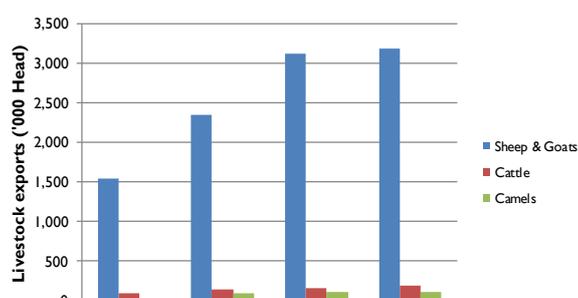


Figure 1: Trends in livestock exports from Berbera Port

Despite this growth, livestock trade continues to take place in an environment characterised by underdeveloped legal frameworks, transactional uncertainty and high information costs.

Trade is guided by traditional institutions and religious practices that include kinship and ethnic groupings, clan affiliations, identity and religious leaning; all which serve as alternatives to formal contracting (Carr and Landa, 1983).

Livestock marketing information system

The Livestock Marketing Information System (LMIS) was initiated in 2007 to address high market information costs. The LMIS collects data from livestock markets in Hargeisa, Burao and Tog Wajaale, as well as Berbera port (Figure 3). Data are collected twice a week, on Mondays and Thursdays, on sheep, goats and camels in Hargeisa and Burao, and cattle and camels in Tog Wajaale. Data are collected by a team of LMIS staff comprising two brokers, a price collector and a municipality clerk.

This data collected includes prices of the different grades of export quality small ruminants, cattle and camels, numbers of export traders active in the market, average exchange rate (Somaliland Shilling and Birr versus USD), and total numbers of animals traded in each market for the previous week (Saturday to Friday). This data is retrieved from the municipality tax records. At the port, data collected includes vessel names and capacities, numbers of livestock loaded (disaggregated by species), countries of destination and dates of shipment. Livestock exports through the Djibouti-Somaliland cross-border market of Lowya Caddo are also recorded (see www.somalilandchamber.com).

Collected data are sent by e-mail or SMS to the Chamber of Commerce in Hargeisa. There it is entered into a central database hosted by the chamber. The data are analysed to provide weekly summaries that are disseminated to producers, traders and public sector officials by SMS, radio, media and price brochures. The price brochures are distributed by livestock transporters to over 300 villages along the marketing routes (Figure 2). Monthly, quarterly and annual reports are available on the Chamber of Commerce website.

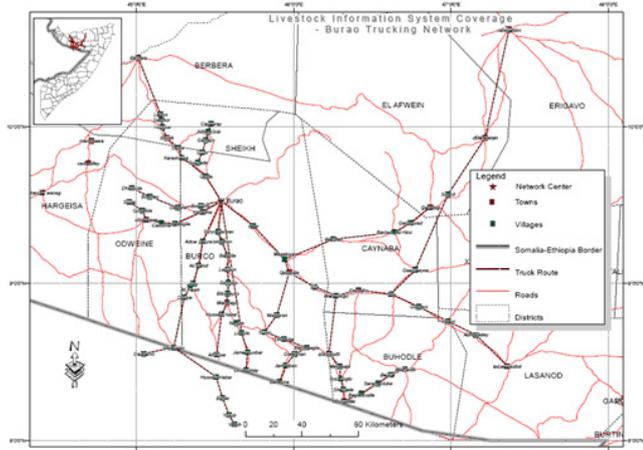


Figure 2: Price brochures distribution routes from Burao market, Somaliland

Reviewing progress

Studies show that usefulness of agricultural market information systems depend on various factors (Ferris et al, 2008; Shepherd, 1997). These include technology used in data collection, technical capability and training of personnel, protocols employed to capture data, data management and transmission methods.

After 8 years, an assessment of the Somaliland LMIS was carried out to appraise its validity as a decision making tool and to recommend improvements. The objectives were:

1. Evaluate proportion of Berbera Port Free on Board livestock volumes (cattle, sheep, goats and camels) that are captured by the LMIS in monitored markets;
2. Assess trends in livestock marketed volumes;
3. Assess trends in market prices of different grades of livestock and identify determinants for such trends;
4. Identify strengths and weaknesses of the system and suggest measures to enhance its effectiveness.

Testing LMIS validity

The LMIS validity was appraised following Jary and Jary (1995: 714) where validity is stated as 'the extent to which a measure, indicator or method of a data collection possesses the quality of being sound or true as far as can be judged by the relationship between indicators and measures and the underlying concepts they are taken to measure'. The validity of information was taken as its relevance and appropriateness to explain phenomena in markets, and the strength and direction of its association with such phenomena¹.

¹ The study did not assess the impact of the LMIS in order to generate policy recommendations for improved livestock markets. It aimed to evaluate whether the information generated by the LMIS can be relied upon for decision making.



Figure 3 Location of Somaliland

Weekly market-level traded volumes and export volumes were summed to obtain monthly totals, and the proportion of market traded volumes to export volumes established. Weekly livestock price data (for Grades I, II & III) in three markets were averaged to get monthly means. Weekly export trader numbers were summed up to obtain total monthly export trader presence in each market. All the data sets spanned 2007 to 2012.

The monthly market-level traded volumes and monthly market-level price data were graphed and the time series graphs checked for three features: (i) secular trend - a long-term trend which was either an increase, decrease or plateau; (ii) periodic movements that included both seasonal and cyclic effects; and, (iii) erratic variations - which were variations that remained after taking into account the secular and periodic movements. In addition, the long-term trend of the livestock price series was estimated using multiple regression analysis with monthly price as the dependent variable for small ruminants, camels and cattle. Other independent variables were cyclic, seasonal and irregular/shock variables, as well as supply and demand indicators.

Findings

Validity and reliability of the LMIS

It was envisaged that the validity of the information generated would be enhanced if most of the exported livestock were traded through markets monitored by the LMIS. This was important because scientifically sound protocols are used to sample subjects within the study markets, but not to sampling of the monitored markets whose selection was based on local expert knowledge. The higher the proportion of the target population (all exported livestock) covered by the monitored markets, the more reliable would be the information generated by the system.

This study showed that, in 2012, the LMIS provided livestock quality-segregated price data on about 84%, 56% and 55% of sheep and goats, cattle and camels exported from Somaliland. This can be compared to 84%, 67% and 57% respectively at the inception of system in 2007 (Table I). Although the proportion of exported sheep and goats captured by the system remains fairly high, the proportion for cattle and camels captured appears low, and declining for cattle.

This can be attributed to a number of factors. First, in monitoring camel prices and volumes, the system was designed during the period of the Saudi import ban, and three markets, Hargeisa, Burao and Tog Wajaale were selected for data collection. With the lifting of the ban and the rapid expansion of export volumes, additional secondary markets (as defined by Negassa et al., 2008) with a direct linkage to the port of exit may have emerged. It is therefore recommended to review the key secondary market trading in camels. Any key market not currently covered should be evaluated for inclusion in the

information system. Second, for cattle, only one market, Tog Wajaale, is monitored. This market is prone to climatic shocks. For example, the market and its catchment area experienced floods in 2008 and 2010 that apparently led to a decline in the proportion of total exports it handled. Although the market appears to be regaining its prominence, the reliability of the LMIS in availing cattle price data is compromised by reliance on a single market. It is therefore recommended that additional markets be identified and evaluated for inclusion in the information system.

Table 1: Trends in volumes of export-quality livestock traded in Hargeisa, Burao and Tog Wajaale markets versus total export volumes

Species	Year	Market Volumes			Market totals	Berbera exports	Lowya Caddo Cross-Border exports	Total exports	% market volume of exports passing through the markets in the study
		Hargeisa	Burao	Tog Wajaale					
Sheep and Goats	2008	456,858	644,287		1,101,145	-			
	2009	367,810	1,001,933		1,369,743	1,550,554	90,111	1,640,665	83.50
	2010	666,888	1,233,098		1,899,986	2,352,217	194,298	2,546,515	74.60
	2011	978,593	1,552,107		2,530,700	3,116,978	27,374	3,144,352	80.50
	2012	1,074,367	1,600,894		2,675,261	3,191,434	72,326	3,263,760	82.00
Cattle	2008			67,480	67,480	-			-
	2009			81,120	81,120	88,810	33,035	121,845	66.60
	2010			45,336	45,336	134,934	9,399	144,333	31.40
	2011			62,519	62,519	150,905	5,243	156,148	40.03
	2012			105,698	105,698	190,606	0	190,606	55.50
Camels	2009	1,363	13,903	4,187	19,453	19,047	15,227	34,274	56.80
	2010	2,796	26,345	4,469	33,610	98,188	14,830	113,018	29.70
	2011	8,340	27,683	5,138	41,161	106,167	4,161	110,328	37.30
	2012	5,718	44,159	8,544	58,421	101,686	3,779	105,465	55.40

Relationships between local and international market trends and opportunities

The market level data from the LMIS showed an increasing trend in traded volumes for all species of livestock (Figure 5). The increase was associated with local and international market events.

Locally, establishment of a livestock certification system and investments in infrastructure supporting animal welfare contributed to growth in traded volumes. Whereas the certification system led to the lifting of the import ban by the Saudi government, investments in marketing infrastructure eased the marketing process by reducing livestock handling time and overall marketing costs.

At the international level, the enactment of tighter animal welfare regulations in end-markets by the Australian government led to a significant reduction in exports of live animals from Australia, providing greater opportunities for other exporters like Somaliland.

Somaliland's reliance on a few markets (Saudi Arabia for sheep, goats and camels) and Yemen and Oman for cattle continues to make the live-animal export trade sector vulnerable to events in those markets. The Somaliland government needs to diversify its export markets and product portfolio so as to stabilise the livestock export trade sector.

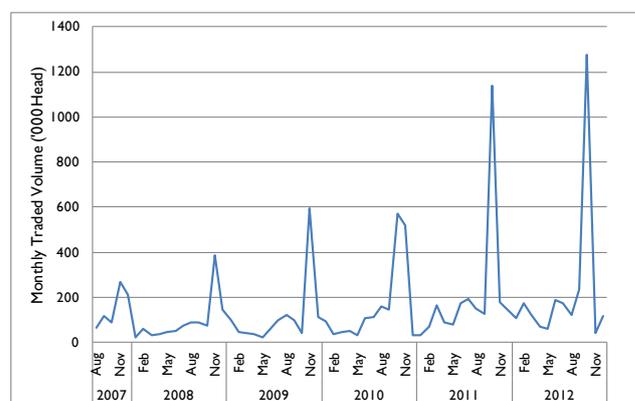


Figure 5: Traded volumes of small ruminants in Burao and Hargeisa markets (2007-2012) Source: LMIS data (2007-2012)

Trends in local prices of small ruminants and camels

The study found that prices of small ruminants and camels had an upward secular trend between 2007 and 2012 (figures 6 & 7).

Results from regression analysis showed that external market shocks (the Saudi import ban) had significant but negative impact on prices of small ruminants, but not on camel prices.

This is because camels are exported to several countries, including Saudi Arabia, Egypt, Oman and Yemen, unlike small ruminants that are exported mainly to Saudi Arabia.

The impacts of calendar seasonal factors on prices were more decipherable in camels than in small ruminants. This may be due to the fact that most small ruminants are exported for sacrificial purposes while most camels are for commercial markets. Commercial value chains are more driven by quality of animals than the sacrificial chains.

Unlike the sheep, goat and camel prices that underwent an upward secular trend, cattle prices stayed the same over the study period. The same trend was reflected in prices of Free on Board live cattle from Australia that increased by about 4% from US\$660 in 2007 to US\$690 in 2012. The trend in prices of cattle was explained only by events on the local market, key among them being the number of exporters available in the market.

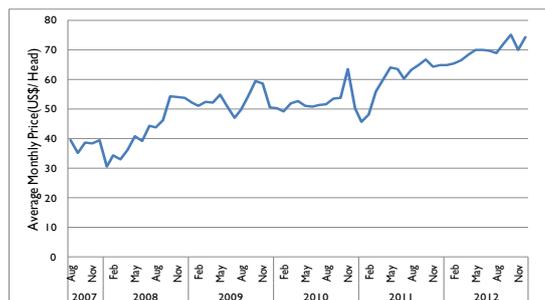


Figure 6: Mean monthly prices of small ruminants in Burao market (2007-2012) Source: LMIS data (2007-2012)

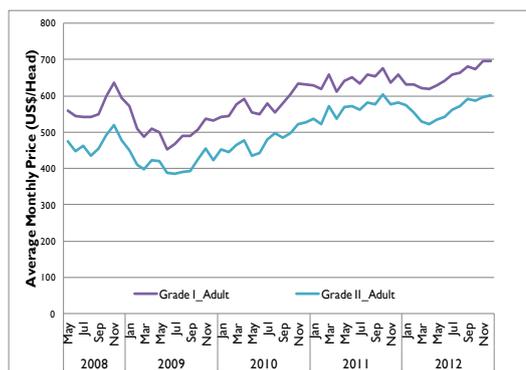


Figure 7: Mean monthly camel prices in Burao, Hargeisa and Tog Wajaale markets (2008-2012) Source: LMIS data (2007-2012)

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