



The National Livestock Marketing Information System Comes of Age in Kenya

Gatarwa Kariuki, International Livestock Research Institute; Robert Kaitho, Texas A&M University; Muthoni Mwangi, Food and Agriculture Organization; John Maina, Ministry of Livestock and Fisheries Development; and Qalicha Wario, Kenya Livestock Marketing Council
LINKS Project

Research Brief 08-O3-LINKS

November 2008

Following consultations and demonstration of the functioning of the Livestock Information Network and Knowledge System (LINKS) project ICT (information and communication technology) in reporting and disseminating livestock prices, stakeholders in livestock marketing adopted the LINKS protocol to develop a national livestock marketing information system (NLMIS) for Kenya. The result is a culmination of efforts of different stakeholders to give the country a unified system that provides information on prices of different livestock species that are traded in the key livestock markets. The overall objective of the NLMIS is to increase market access for livestock producers and traders. The NLMIS allows users to bring down the costs of doing business by reducing reliance on brokers for information and to conduct market transactions on their behalf, as illustrated by the case of one Peneti Ole Parmuat, a Maasai herder and trader from Kajiado district of southern Kenya.

Background

Beginning 2003, the Livestock Information Network and Knowledge System (LINKS), in collaboration with the Ministry of Livestock and Fisheries Development, designed and piloted an information communication technology module for reporting livestock prices, mainly focusing on markets in the pastoral areas. The initial pilot markets were Garissa and Isiolo as secondary markets and Nairobi as the major destination market for the live animals. The ministry nominated members of their staff that were trained on how to sample animals and interview and record data from respondents at the market level. These trained staff were also provided with cell phones for use in reporting the data collected. The monitors would record the data on paper, after which they were taken through the process of coding the data to fit the Short Message Service (SMS) reporting protocol. They would then convert the data to coded alphanumeric messages that are fed into the cellphone and sent to a number that communicates with and delivers the messages to the server.

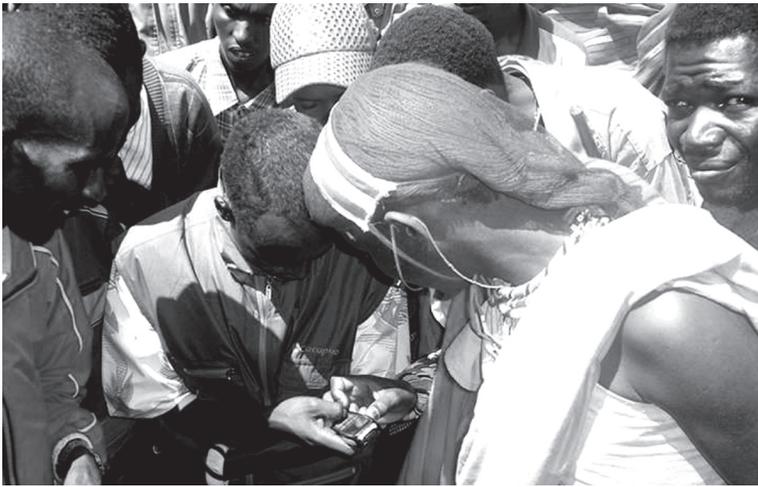
Livestock market monitors, their supervisors and representatives of relevant non-government and community based organizations are trained on how to download, analyze and summarize the information for transmission to end users in a form that fits their requirements and are called upon to help download and disseminate the information using appropriate media. Information is shared using a combination of channels, which include radio, print media, SMS, Email, Worldspace and Internet. For local users, information is printed and posted at strategic offices and on billboards that are erected in the markets and updated regularly so

that the larger public can have access as well. The LINKS office, in collaboration with field supervisors, ensures that monitors report data of reliable quality consistently and on time, as provided in the reporting protocol. The field supervisors also maintain custody of the original hard copy data sheets.

Major Findings

After stabilizing and testing the reporting system, another three markets were added into the network – Moyale, Wajir, and Marsabit. In January 2005, at a workshop in Nairobi, the livestock information system was demonstrated to other stakeholders who had expressed interest in developing livestock marketing information systems for the communities of livestock producers which whom they were working. After consultations and collective evaluation of the system, it was unanimously agreed that the underlying technology be adopted to develop a national livestock marketing information system for Kenya. Leading the pack of stakeholders were organizations such as the Kenya Livestock Marketing Council (KLMC), FARM-Africa and Vetèrinairès Sans Frontiers (VSF) Suisse, who were already running some versions of marketing information systems in their areas of mandate. A committee of representatives from these organizations was then formed to coordinate the implementation and expansion of the NLMIS.

The first task that the coordinating committee undertook was to develop a road map for the future of NLMIS. The team felt that it was necessary to sensitize other stakeholders representing government,



LINKS training session at Maralal Town Market.

non-governmental organizations, community-based organizations, local authorities, and the private sector at the district level, to their support for the system and also to their advice on which markets they considered to be key, and which could then be connected to the reporting network.

The stakeholder sessions were held towards the end of 2005 and covered fourteen districts of Isiolo, Marsabit, Moyale, Mandera, Wajir, Garissa, Samburu, Baringo, West Pokot, Turkana, Kilifi, Kajiado, Narok, and Laikipia. Using outputs from the workshops, the coordinating committee developed a proposal for financing the NLMIS beginning in 2006. In its response, FARM-Africa, through the Community Animal Health Network, funded a workshop in May 2006 for policy makers representing over 30 organizations.

The objectives of the workshop were to give policy makers an opportunity to suggest ways to improve the system and chart the way forward in the area of long-term financing, taking into account issues of sustainability. As an outcome from the workshop, KLMC committed to supporting an additional four markets. The system has since expanded from six to 14 markets, with the Kenya Livestock Marketing Council supporting seven additional markets.

The Ministry, through the Livestock and Livelihoods Project (ALLPRO) funded by African Development Bank, has extended to one other market.

The markets that are actively reporting include: Nairobi, Garissa, Wajir, Moyale, Marsabit, Isiolo, Mandera, Mombasa, Chepareria in West Pokot, Emali in Kajiado, Marigat in Baringo, Garsen in Tana River, Suguta in Samburu, and Rumuruti in Laikipia West districts. Training sessions have been conducted for four groups of monitors, while 33 market level trainings targeting producers and traders have been conducted in 15 districts.

The crowning moment came on July 31, 2007, when Kenya's Minister of Livestock and Fisheries Development, the Honorable Joseph Munyao, formally launched the National Livestock Marketing Information System. The minister emphasized that the greatest component that

needed to be addressed was ensuring that livestock producers and the primary market traders have access to the information and that dissemination of the information generated should be high on the priority list.

Munyao called upon and encouraged any organizations that were running, or had plans to develop marketing information systems, to join hands and implement a single rich national livestock marketing information system. This would provide the opportunity to get more value for the resources each

organization planned to spend by getting encompassing national information and reaching a wider clientele through joint collective dissemination efforts. He also appealed to media houses to dedicate space and airtime to disseminate the information generated by the livestock marketing information system and mobile telephone operators to explore ways of contributing to the system through support to data gathering.

Case Study: Peneti Ole Parmut and the NLMIS

Peneti Ole Parmuat is a Maasai herder from Kajiado district of southern Kenya and makes his living selling livestock, mainly cattle. With improvements in communication infrastructure, Ole Peneti no longer relies on local friends and middlemen. He uses his cellphone to make voice calls or sends text messages through SMS to the NLMIS server to get information on prices of cattle in the markets. The server generates an automated response and provides information on prices in the market requested. Based on the cost of transporting the animals by truck and the time it takes to get his cattle to the market, he is able to make a decision on which market to deliver his animals. According to Ole Peneti, prior knowledge of the expected average prices in different markets has improved his bargaining power to negotiate for better prices, and he has gradually become independent of middlemen in the livestock marketing chain. This has helped Ole Peneti to improve his income, which enables him to better meet the household demands and needs of his family.

Practical Implications

The public-private partnership interaction in developing the national system is very useful in unlocking information flows on livestock marketing. Improved access to spatial information on livestock marketing is yet another milestone in the livestock sub-sector in Kenya and is set to revolutionize the way business in this sector is conducted in future.

The livestock marketing information system provides timely information to enhance transparency and efficiency in livestock marketing, support decision making that provides source alternatives, and sell livestock through markets offering better returns for producers and traders. Given the cross-border nature of livestock trade, the system offers a regional framework where markets can collaborate, network and share information. The system is expected to enhance decision-making in livestock trade and improve the bargaining position of sellers to negotiate for better prices. Equipping market agencies and communities of livestock keepers with appropriate tools and information will help them plan for and respond to changing market conditions, including better opportunities to sell their livestock. This will lead to increased incomes and consequently improved livelihoods, particularly for livestock keepers in the more disadvantaged arid and semi-arid pastoral areas of eastern Africa.

How does the system impact communities of livestock producers? Developing the technical and human capacity to meet market information needs and decision support for livestock producers helps to bridge the gap between



LINKS training session at Isiolo Market.

markets on the one hand, and producers on the other. This means that producers can make better choices on where to sell their animals and have more leverage to bargain with traders. This in turn translates to improved returns to their marketing transactions, and therefore an enhancement of their economic status. The cash generated meets expenditures for goods and services that they cannot produce at home. This not only helps them to improve the livelihoods of their households, but also creates demand for goods and services in the local and national market arenas. Socially, it means that information can be targeted to reach specific gender, age, and wealth categories to reach a wider range of clientele, which helps producers to form and strengthen marketing associations and pool resources to invest in marketing that enables them to reduce per capita transaction costs.

LINKS training session at Maralal Livestock Market.



Further Reading

Kariuki, G., and R. Kaitho. 2006. "Application of Information Communication Technology in Developing a National Livestock Marketing Information System: The Case of Kenya." *Research Brief 06-01-LINKS*. Global Livestock Collaborative Research Support Program (GL-CRSP), University of California, Davis.

Kariuki, G., and R. Kaitho. 2006. "Kenya Adopts LINKS Technologies to Provide Information for the National Livestock Marketing Information System." *Research Brief 06-03-LINKS*. Global Livestock Collaborative Research Support Program (GL-CRSP), University of California, Davis.

Mwangi, M., G. Kariuki, J. Maina, Q. Wario, and R. Kaitho. 2007. "Report on the National Livestock Marketing Information System Field Trainings." FAO/LINKS/MoLFD/KLMC.

Stuth, J. et al., 2003. "Integrating Information and Communication Technology for the Livestock Early Warning System (LEWS) in East Africa." *Research Brief 03-01-LEWS*. Global Livestock Collaborative Research Support Program (GL-CRSP), University of California, Davis.

About the Authors: Gatarwa Kariuki is a project officer with the LINKS project based in Nairobi, Kenya at the International Livestock Research Institute (ILRI). Email: gatarwa.kariuki@cgiar.org. Dr. Robert Kaitho is the eastern Africa LINKS coordinator and is an Associate Research Scientist in the Department of Rangeland Ecology and Management at Texas A&M University, College Station, Texas, USA. Email: rkaitho@cnrit.tamu.edu. Muthoni Mwangi is a project officer with the FAO/ALRMP Support to Emergency Preparedness and Response project based in Nairobi. Email: muthoni.mwangi@fao.org. John Maina is an information officer with the Kenya's Ministry of Livestock and Fisheries Development. Email: mainalmd@yahoo.co.uk. Qalicha Wario is a project officer with Kenya Livestock Marketing Council. Email: qalichagufu@yahoo.com.

The GL-CRSP Livestock Information Network and Knowledge System (LINKS) project developed from the GL-CRSP Livestock Early Warning System (LEWS) project established in 1997. The LEWS project developed and applied a suite of information communication technology to provide a regional decision-support framework for livestock early warning. The LINKS project is placing LEWS technology inside a broader livestock information and analysis system that is designed to improve livestock markets and trade, thereby enhancing the well-being of pastoralists in eastern Africa. The project was led by Dr. Jerry W. Stuth, Texas A&M University until his death in April 2006. The project is now led by Dr. Paul Dyke, Texas A&M University. Email: dyke@brc.tamus.edu.



The Global Livestock CRSP is comprised of multidisciplinary, collaborative projects focused on human nutrition, economic growth, environment and policy related to animal agriculture and linked by a global theme of risk in a changing environment. The program is active in East and West Africa, Central Asia and Latin America.

This publication was made possible through support provided by the Office of Agriculture, Bureau of Economic Growth, Agriculture and Trade, under Grant No. PCE-G-00-98-00036-00 to University of California, Davis. The opinions expressed herein are those of the authors and do not necessarily reflect the views of USAID.

Edited by Franklin Holley & Susan L. Johnson