



Kenya Adopts LINKS Technologies to Provide Information for the National Livestock Marketing Information System

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The lack of and need for price information in many of the pastoral areas of Kenya remains a critical concern by producers, traders and policy makers. This in spite of the emergence of organized market intelligence particularly in relation to prices at terminal markets. In the past a number of livestock marketing information systems initiatives have been implemented in Kenya but with limited coverage, accessibility and use. LINKS has developed a livestock marketing information system based on information communication technologies that has now been adopted as the basis for developing a national livestock marketing information system for Kenya, implemented in collaboration with the Ministry of Livestock and Fisheries Development and a number of development partners. From an initial three markets it now covers 15 main markets and is still expanding.

Introduction

There is renewed institutional focus on improving livestock market information, infrastructure and efficiency to address the needs of livestock keeping communities to improve cash income from the sale of livestock and livestock products. Due to insufficient information, pastoralists or traders cannot plan or justify incurring certain marketing costs in the face of uncertain receipts. If information is limiting, providing information through regular and timely price broadcasts may have significant, positive effects. From both a research and development perspective, there is general consensus that livestock marketing information plays a role in influencing decisions to dispose of livestock not only for local consumption, but also through the market chain. The latter avails opportunities for livestock keepers to generate income to meet the exigencies of pastoral livestock households and in the process contribute to poverty reduction and improved livelihoods (Mbogoh et al. 2005). The effectiveness of livestock market information is measured primarily in terms of its usefulness to producers and traders and also consumers in helping them make timely informed decisions (Aklilu, 2002). Evidence-based analysis also shows that market information reduces risks in marketing (Bailey et al. 1999). A number of factors influence access to information: these include distance to markets; cost of collecting and analyzing the data and disseminating the information; availability, access, and cost of information and communication infrastructure; and the utility of that information in aiding decision making. The advantage that traders may have over producers can best be eliminated through enhancing competition and maintaining marketing infrastructure

and information systems. If producers have access to improved information systems, they can bypass a number of middlemen for price mediation, and link more directly to consumers and hence increase their share of the final product value. Colby (1990) supports the argument that if livestock producers have to strengthen their position against buyers, they have to check on prices and general market conditions before selling.

Past and Current MIS Initiatives

In the past, a number of Market Information Systems (MIS) schemes aimed at smallholder farmers and pastoralists have been attempted throughout Kenya. The United Nations Development Program (UNDP) started a MIS in 1978 dealing with the main markets in Kenya until 1991 when United States Agency for International Development (USAID) funded the Kenya Marketing Development Project, including the MIS system, until 2000. These MIS systems contained little or no information on livestock. Beginning 2000, the Inter-Governmental Authority on Development (IGAD) supplied information on a range of commodities but no data on livestock or their products other than egg prices were reported. With support from the German bilateral agency Gesellschaft für Technische Zusammenarbeit (GTZ), the Marsabit Development Project funded the collection, processing, and dissemination of livestock market information in the then Marsabit district for several years. The dissemination process was not extremely intensive, but traders appeared to have used it extensively (Bailey et al, 1999). The information was broadcast by radio in two local languages but because

of the limited number of radios among the pastoral communities, these radio broadcasts had limited impact (Bailey et al, 1999). Efforts to have the local county council and traders support the dissemination of the information by charging five (5) Kenya shillings (approximately 7 US cents) for each head of cattle sold did not bear fruit either; the MIS became unsustainable and was abandoned.

Within the then Ministry of Livestock Development, livestock marketing officers collected data and sent a report at the end of each month. This data would then be synthesized to a monthly report which also allowed animal owners to advertise if they had animals to sell. This reporting system however collapsed in early 1990s. A study by Colby (1990) indicated that although the division had then been in existence for more than 15 years and livestock marketing information was one of its core businesses, there were no reports or studies showing if and how this information had been used in decision making and if so what the impact had been on the livestock sector and pastoral livelihoods. Between 1990 and 1996 the Ministry, with support from the Overseas Development Administration (now the Department for International Development) of the United Kingdom, implemented the Rural Services Design Project in the districts of Kajiado and Narok in southern Kenya. Within the marketing component, monitors collected data on all the days when the markets were active. Each market monitor then relayed the data through VHF radios to Nairobi, where all the data was compiled to a single unit and relayed back to all the reporting sites. The service was discontinued after some eight months on the basis that information was limited in coverage and was not adequate to have a significant impact in the national livestock marketing sphere. In addition, the initiative was dogged by challenges including lack of transport for monitors some of whom had to travel more than 50 km to reach the markets.

The NGO Swiss Vétérinaires Sans Frontiers (VSF-Suisse) initiated a project for gathering and disseminating livestock market price information in Somalia and districts in northeastern Kenya. Mostly, transmission of information was done via telephone, fax, internet or spot delivery (mainly in Nairobi). Data was supposed to be processed daily in the VSF-Suisse regional office in Nairobi and sent back to the different markets the same day by use of SMS and posted on bill boards that are placed at the market centers, a claim that was never fulfilled. With support from the World Bank, the Arid Lands Resource Management Project (ALRMP) also initiated a project that included gathering information from markets daily for onward transmission to ALRMP headquarters in Nairobi, where it was to be analyzed and transmitted to the districts at a cost, in local languages, by Kenya Broadcasting Corporation, leading to delays of reporting this information. Apart from insufficient funding, it was argued that the MIS

was not sustainable because accurate information was not forthcoming and secondly the information was already available to the traders who were able to transmit it to their counterparts at the district level. To serve the needs of producers it was proposed that users associations be strengthened and empowered to collect and disseminate livestock marketing information. The Kenya Livestock Marketing Council (KLMC) was formed for this purpose. Recently the African Development Bank released funding for a livestock and rural livelihoods support project to be implemented in 22 districts in the arid and semi arid lands of Kenya through the Ministry of Livestock and Fisheries Development (MoLFD). A marketing information network is one of the program's key interventions to address the need for timely and quality information decision making.

Coordinating efforts to develop National Livestock Marketing Information System (NLMIS)

LINKS has responded to the livestock marketing information needs by designing an information communication technology infrastructure for reporting and requesting information on livestock prices and sales volumes from a network of different markets in Kenya. In partnership with other collaborators, LINKS has been integrated into a livestock marketing information system that facilitates dissemination of information so as to reach end users in the remote livestock producing areas. To avoid duplication in data collection, stakeholders agreed to establish a coordinated effort with the aim of minimizing cost and necessity of having more than one system of collecting the same data. The objectives of the NLMIS are to avail information through various media to all players in livestock marketing, establish a livestock marketing database for reference in planning, research and monitoring of marketing trends. The information is available to a wide range of users including policy makers, NGOs, community-based livestock traders and producer associations and individuals, middlemen and the private sector. The information is available on request fusing cellphone SMS and email. It is also available on the web at <http://www.lmiske.net>. The information is downloadable and could be saved into a computer so that national institutions can in turn print it and share it with other users and communities of livestock producers. Building a strong foundation in reliable technology and fundamental institutional buy-in has positioned the LINKS project to enter the next phase of challenges and issues that need to be addressed to ensure stability of the system.

As part of its contribution, FARM-Africa supported a workshop that was held in Nairobi bringing together participants from the private sector, development agencies, non-governmental organizations, community-based

organizations and the public sector. The specific objectives of the workshop were to: i) create awareness about the existence of a national livestock marketing information system and its functioning, ii) give an opportunity to suggest ways to improve the system and, iii) chart the way forward in the area of long-term financing of the system for sustainability. In the opening speech read on his behalf by the Permanent Secretary, the Minister for Livestock and Fisheries Development noted that technology had changed tremendously ushering in the age of the internet and mobile telephony, and that the future of market information is certainly brightened by this development in the information communication infrastructure. He called upon the stakeholders at the forefront of implementing and expanding the NLMIS to explore ways and means of sustaining the system through self-financing. He singled out the Ministry of Local Government that is in-charge of local authorities in the country as one of the institutions that are well equipped in the area of revenue collection in livestock trade and part of that revenue could assist in financing the system.

Accomplishments

The approach to implementation and expansion of the NLMIS involves intensifying awareness on the utility of the system among potential users and adopting dissemination and training approaches that reach a wide clientele while keeping the costs of achieving this to a minimum. Involving collaborators in this process ensures a larger multiplier effect and helps to build confidence in the use and adoption of the technologies. The system has incorporated a number of attributes to ensure the effectiveness of livestock markets in terms of its usefulness for producers and traders and also consumers to make timely informed decisions. These include regular and consistent reporting on a weekly basis, development of a grading system based on defined animal characteristics, a system that transfers data to a central processing unit and accessing the information through different media. The system also has the potential to provide information on lag time involved in transporting animals from one market to another, the estimated associated transfer costs, and ability to forecast how the markets are likely to perform in the future. LINKS has made significant contributions in developing a livestock marketing information system that is acceptable to a wide array of partners in Kenya. A special training program will also be developed for livestock traders via their trade associations throughout the country to assist in effective use of the information for their decision making processes. A follow up survey will be conducted to determine how the NLMIS is impacting on decision making processes for the different groups of users.

Conclusion and Policy Implications

The world is fast accelerating along the information superhighways. Access to mobile telephony and internet helps to alleviate rural isolation and this contributes to development. Delivery, consumption and use of reliable, accurate and timely information at the producer level, coupled with knowledge about market prices in other markets, is expected to enhance the capacity of livestock producers to negotiate for better prices for their livestock. To make this a reality however requires support by stakeholders in terms of development and adoption of policies that guarantee access to information communication technologies and infrastructure to a wide clientele especially in the more remote areas where marketing of livestock is a major activity contributing to the social, cultural and economic needs of their inhabitants. This should be complemented with policies that facilitate the production and supply of animals that satisfy sanitary and phytosanitary standards for export markets to meet the increasing demand for livestock-based products being fuelled by population growth, urbanization, and income growth in developing countries.

References and Further Reading

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The GL-CRSP Livestock Information Network and Knowledge System (LINKS) project developed from the GL-CRSP Livestock Early Warning System (LEWS) project which was 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 contact: 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 Africa, Central Asia and Latin America.

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