



IGAD Centre for Pastoral Areas and Livestock Development (ICPLAD)



Regional Workshop on Livestock Market Information System, 5th- 6th March 2018 , Sportsmans Arms Hotel, Nanyuki, Kenya



1. Introduction

The livelihood of a vast majority of people in IGAD region is highly dependent on income from livestock and livestock products. And thus development of reliable and timely livestock market information (LMIS) is vital for livestock producers and traders to make marketing decisions. Very recently many countries in the region directed institutional focus toward improving livestock market information, infrastructure and efficiency. Given the high dependency of pastoralist who live in cross-border areas on cash income from the sale of livestock and livestock products, it is important strengthening such initiatives both at the Member State and IGAD region levels.

Regardless of high economic importance of livestock trade in IGAD member States, information on price differentials across markets has generally not been fully available at both country or at regional levels. Information and communication technologies (ICT) can play a critical role in improving access to market information. Uganda, Kenya and Ethiopia are aiming to develop livestock market information system (LMIS) in order to provide a means for timely livestock market information system to be reported digitally, and then made it available to the public for use for decision making. The LMIS will be designed to allow data collected from primary, secondary, and terminal livestock markets to be entered into the system via short messaging service (SMS) messages from cellular telephones. Livestock producers, traders, and other interested stakeholders can then request the price and volume information for specific markets using SMS. The data collected from these systems will not only improve information delivery, but the time series of the market data will be used for evaluation of price changes over time in relation to shocks such as drought, and in evaluating price transmission between markets.

In 2005, Kenya and Ethiopia began developing LMIS as part of the livestock information network knowledge system (LINKS) project. However, changes in focus areas within government ministries and changing priorities and lack of resource have resulted in periods where data collection has lagged. Furthermore server currently in use is purchased more than 10 years ago and the hardware and software are out of date. Updates to the firmware and software on these systems are no longer supported by the vendors. In Uganda, such system is not yet initiated. It is, therefore, important, to build on existing system and improve already started NLMIS in the region by upgrading the system, and improving capabilities through capacity building and training. Texas A&M AgriLife Research (TALR), headquartered in College Station, Texas, USA, is the research component of the Agriculture Program at Texas A&M University. As the agricultural research agency for the State of Texas, it is charged with conducting basic and applied research in agriculture, life sciences, and natural resources. Its mission is to generate scientific knowledge, which will improve the lives of people. Since 1998, Texas A&M AgriLife Research and its partners have been working to develop livestock market information (<http://cnrit.tamu.edu/pagesmith/15>). Livestock market information systems developed by TALR were tested in Kenya, Ethiopia, Tanzania, Mali, and

Mongolia and use both SMS and internet as a means of delivering price and volume information to livestock producers and other stakeholders. Based on feedback from users, TALR has been improving and upgrading the system.

The World Bank funded IGAD RPLRP is mandated to address the issue of market information system at both national and regional levels, by focusing on the three project participating countries. Discussion has been going on since 2016 among the three project countries on how to improve the LMIS in Kenya and Ethiopia by Texas A&M and further expand to Uganda. It was now suggested that a regional meeting be organized in order to discuss challenges to previous LMIS and agree with Texas A&M way forward in order to hasten the process of realize the full capacity of newly upgraded LMIS.

2. Objectives of Regional Meeting

The objective of the meeting is to review current status of LMIS in the three project countries, collect input to improve previously developed LMIS in Ethiopia and Kenya and develop action plan to operationalize upgraded LMIS at the countries and ICPLAD levels.

Expected outputs

- Obtain update about the LMIS status and input for upgraded LMIS by the three countries;
- Review preparation of the three countries and agree roadmap for operationalizing LMIS;
- Compile experiences of MIS implementation in the IGAD region by different actors and sectors.

3.1 Summary of Proceeding

OPENING REMARKS FROM ICPALD DIRECTOR SOLOMON MUNYUA

The director recognized the presence of the director of livestock production and welcomed all participants to the regional meeting. He observed that the subject of LMIS was not new, as all previous initiatives had failed after withdrawal of project financing and wondered whether we are on the same path thus setting ourselves for failure. He emphasized the need to address sustainability and seriously consider anchoring the system in private and not public sector lead.

KEY NOTE SPEECH BY THE CHIEF ADMINISTRATIVE SECRETARY/PRINCIPAL SECRETARY, STATE DEPARTMENT FOR

LIVESTOCK READ BY THE DIRECTOR OF LIVESTOCK PRODUCTION MR JULIUS KIPTARUS.

THE speech emphasized the significance of livestock sector to the economy of the country and the role it plays in the livelihood of people residing in Arid and Semi arid lands of Kenya. It described key challenges and existing policy instruments currently guiding the development of the sector. It further expounds on previous initiatives undertaken by the government and gives a commitment on the current initiative of upgrading the national livestock marketing information system.

WORKSHOP OBJECTIVES & EXPECTED OUTPUTS

Dr Dereje, the IGAD RPLRP Team Leader took participants through the session on objectives for the meeting where he stated that workshop objectives were;

- To give the participants an opportunity to get an update on experiences and challenges MS are having on LMIS
- To discuss the LMIS and other supportive tools that have been developed.
- To build a consensus on a way forward on LMIS

LMIS: SIGNIFICANCE FOR THE IGAD MEMBER STATES AND KEY ISSUES **By Dr Osman**

deliver market information and services to producers, stake holders for their benefit

Importance:

- Transaction transparency
- Good decision making and value addition
- Improved product competitiveness
- promotes marketing opportunities
- used in early warning system

History:

1. First Generation (1980s-1990s) was characterized by lack of timeliness and mainly public sector driven
2. Second Generation (end of 1990s to date) is cell phone and internet driven, mostly private sector driven

Challenges:

1. Institutional; overlapping mandates between Government Ministries, Departments and Agencies, the relationships lack collaboration and coordination
2. Technical; infrastructure, capacity building servers etc
3. Policy related; not mainstreamed in government budgets, and lack of grading system

Lessons learnt:

1. Need for building relationships and trust
2. Policy support importance for effective LMIS-to avoid conflict between government agencies
3. Skills development and training
4. Coordination and communication
5. Institutional linkages

6. Strengthening traders and producers associations

Recommendations:

1. Streamline policies to avoid multiple Ministries, Departments and Agencies (MDAs) claiming mandate of information collection and dissemination
2. Strengthen linkages among government MDAs and private sector
3. Coordination and collaboration building, and harmonization between MDAs, private sector and other stakeholders

PLENARY DISCUSSIONS

Question; Presentation identified linkages and working relationships as an institutional challenge and the question was, what can be done to get this fundamental issue right?

Answer; LMIS, by its nature involves multiple players and stakeholders and the important approach is to find a way of involving these interested parties either through a platform or a technical working group to learn from each other, and where possible identify opportunities to harmonize and avoid duplication.

Remarks; The presentation by Dr Osman was good and capture very relevant issues and what the participants need to agree on is a concrete way forward on LMIS.

Question; the presentation acknowledges that there are multiple players from the public sector. A case I point being the existence of institutions responsible for national statistics and the line technical ministries, which begs the question, which public agency is the contact institution for LMIS?

Answer; If the lead agency is private sector this confusion might not arise. A unique challenge in Kenya, arises from the 2010 constitution that gave rise to devolution that clearly assigns roles and responsibilities to different levels of government. As a result field data collection needs to be harmonised and these presents a new challenge.

Question; As concerns dissemination, which institution can be a reliable source of information for the media, as they are on record expressing disappointment on accessing consistent reliable content on LMIS to disseminate in their channels?

Answer; Experience in Tanzania, has shown that where the ministry responsible for livestock takes responsibility, the system works efficiently

Remarks; Livestock traders and exporters require a whole range of information to be in LMIS and it is therefore ensure private sector support by providing a wider range. It is preferable that the content of NLMIS is comprehensive enough to enable it to be relevant to different user groups (private sector, public, government etc) along the value chain. It is therefore important that the content include additional issues such as services, status of infrastructure and pasture availability just to mention a few.

THE STATUS OF LMIS IN THE IGAD MEMBER STATES: CURRENT STATUS AND GOOD PRACTICES; CHALLENGES AND RECOMMENDATIONS : (SUDAN, SOMALIA, SOUTH SUDAN, AND SOMALILAND)

This session had presentation from Sudan, Somalis, Somaliland, and South Sudan on the current status of LMIS. Of these countries, Sudan and Somalia indicated the existence of a functioning system, while South Sudan and Somaliland indicated that their systems have major limitations and are down. All the systems reported are characterized by only functioning whenever project/donor support is available. The Somalia system was unique in as far as using livestock marketing brokers for data collection and reporting. In addition, they consistently underscored the need for continuous training of key actors in the system.

Question; Livestock marketing brokers are known to have an interest on livestock marketing information and are therefore likely to distort the prices in their favor. The question therefore is what logic was Somalia using to engage the brokers for data collection and how are they guarding against bias?

Answer ; The selection of participating brokers was rigorous, ensuring that those identified are well known in the markets they collect data in. They are incentivized by a stipend of 100 dollars a month and are closely supervised to guard against bias, in addition, the brokers play a part in the price discovery process, hence their relevance.

Question; There is a significant cross border livestock movement from Ethiopia to Somaliland, especially for trade. What is the impact of these movements.

Answer; under nomadic pastoralism that is practiced across the region, animals have no boundaries but the concerns on disease control must be looked into. There is therefore a need to put in place effective surveillance and disease control mechanism

Remarks; the presentations have generally highlighted issue of sustainability and the need to enhance public/private resource allocation for LMIS.

THE SITUATION OF LMIS IN THE IGAD MEMBER STATES: CURRENT STATUS AND GOOD PRACTICES; CHALLENGES AND RECOMMENDATIONS : (UGANDA, KENYA AND ETHIOPIA)

Presentation of the three MS currently implementing RPLRP was presentation in this session. Common thread amongst them being that, the countries have funding from World Bank to strengthen LMIS. Ethiopia and Kenya have similar system that was designed by Texas & AM. Uganda has experimented with both public and private sector lead system, and noted that the level of interest on livestock marketing is low and thus not able to sustain private sector interest. The

presentation further raises a concern that LMIS , as currently configured is likely to be of value to the rich pastoralists and livestock traders and of little relevance to poor pastoralists who are the majority.

Min 04: Significance of LMIS in IGAD, by Dr. Osman

Definition of LMIS; integrated and coordinated processes and tools to collect and

Discussion of Member States Presentations

Question	Answer
Are data collection nodes only targeting livestock markets? What about abattoirs, quarantine stations, holding and auction grounds	Data collection is spread out in all livestock take off areas
Why include animal disease information in LMIS?	The objective is to ensure transparency and lower operational costs. So provision of animal disease information is important for the traders and farmers to plan appropriately
How are data collectors controlled so as not to manipulate data	There are various levels of supervision and quality assurance of the data collectors by the immediate supervisors, including visits to the data collection sites and insistence of geo-referenced data collection
Who does the capacity building of data collectors on collection, processing and dissemination	The competent agencies; IITA Foodnet, Texas University A&M
How can information on Trans Boundary Animal Diseases be transmitted	The Competent Veterinary Authority in each Member State is mandated to report on the TBD as provided for by the OIE
Are statistics of users of LMIS available	Can only be secured from the service providers-telephone companies
How the Ministry of Agriculture in Uganda was working with the private sector, after having divested from the provision of this function	Through Private Public Partnerships, the MAAIF secured services of competent agencies to collect, process and disseminate MIS
How is the insecurity information linked and incorporated in the LMIS, does it not kill of the intended purpose	For purposes of transparency and accountability, stakeholders are informed of the security provisions and situations in order to avoid reprisals from rustlers. Considering that congregated animals are easier to roundup and rustle, compared to grazing animals
What can be done to sustain the LMIS system, considering that most efforts of LMIS are donor funded	Deliberate Government funding initially, with extensive stakeholder awareness creation for the need to cost share provision of market information, then later divest this to the private sector

	Integrated approaches: Private Public Partnerships (PPP)
Is the LMIS able to provide draught information	Yes



Figure 1:

Texas A&M University Presentation, Professor Jay Angerer

Question	Answer
Is the Texas A&M LMIS flexible to add new products on the list	The system can add new products, but one can't delete already entered data (e.g., new breeds)
Are there examples of other data streams which can link with it	Can be linked with other digital data systems, may however need some middle layer software though
Is the software available to other countries	Setup is generic, it is not specific for particular countries. However, you need to setup appropriate language to suite the stakeholder requirement
Is it easy to export data from other programs, e.g MS excel	Data is exportable to Ms excel and word, system generated reports are possible too

How safe is the data	Data is saved safely in the cloud and is retractable for over a long period of time
How much and for how long can Texas A&M University give technical support	Texas A&M gives technical support to management issues of the system once installed at no cost. In addition, training is packaged within the purchase agreement. However, system programming is costed separately from installation.
Who is authorised to add additional layers/characters on the system	The country specific systems administrator is responsible for adding additional characters
How are system updates accessed and how often are updates provided	Updates depend on user demands. Usually updates are done within three months. Texas A&M sends email to system Managers to migrate data into new system whenever need arises
Does the system provide quick dashboard for quick decision making by management	The system front page has provision for quick information summaries which is ideal for decision makers
Is there provision to compare market information for a range of issues on a single screen	It is possible to have two
When can the supervisor raise questions on the outlier entries	There is provision for the supervisor to verify information, this is in-built
If a data entrant changes station, is it possible for them to change/manipulate data entered	Data entrants are georeferenced and have specific user names restricting them to specific areas
Is it possible to have query boxes with option/drop down provision	Drop down boxes are available for this
What expenditure is required to setup and handle the system	Depends on client requirements and specifications, it is not generic
How easy is it to migrate data from the system to newer models	Yes, it is pretty straight forward

Presentations by AEFF, KMCU, ILRI KAZNET:

Question: what is the linkage between the County based Livestock Marketing Associations (LMA) and the National Livestock Marketing Information System (NLMIS). Is the practice of having LMA managing the LMIS docket being up-scaled across the country?

Answer: RPLRP support will assist to up-scale the LMA, the LMA is synergizing the NLMIS-Maurice expound please.

Kind Request by Somalia for development partners, FAO and other agencies to assist the rural producers in Somalia with LMIS interventions because such rural areas are in critical need of market information yet it is not available.

4. GROUP WORK

The participants were divided into three groups and were to cover three issues namely

- Sustainability of LMIS in member states
- Coordination of LMIS stakeholders
- Policy concerns related to LMIS



Group work

GROUP I - SUSTAINABILITY

Key Issues/challenges	Areas of focus	Proposed strategy and recommendations (at national and regional levels)
Sustainability : how to operate sustainable LMIS	a. Institutional aspects	<ul style="list-style-type: none"> a) Lead agency should be ministry responsible for livestock & related ministries b) Establish stockholder forum include private sectors discussing how to drive markets as a long time strategy. c) IGAD-AU important for guiding and harmonization of LMIS related issues & establish regional forums and experience sharing in the region.
	b. Technical aspects	<ul style="list-style-type: none"> a) Harmonization & input efforts relating to the data collecting from markets. b) Readiness of technical group, infrastructures,

		<p>capacity building for enhancing LMIS .</p> <p>c) Conducting Data quality control through supervision & possibility of geo-reference.</p>
	c. Financial aspects	<p>a) Budget allocation for development and running costs related LMIS process.</p> <p>b) To charge fee for system use partially sustainability LMIS demand.</p> <p>c) Fee collected from sale of livestock.</p> <p>d) Private sector investment</p>
	d. Information dissemination	<p>a) By using, internet, sms, radios , newspapers and traditional systems.</p> <p>b) Payment should be established for certain information like market trends.</p> <p>c) Sufficient awareness creation to promote the usage of the system.</p>
	e. Attitudinal aspects	<p>a) Capacity building for team of system operators.</p> <p>b) Through awareness creation to all stakeholders.</p>
	f. M&E	<p>a) Each country should establish M&E frame-work with clear indicators to track progress.</p>
	g. Staff turn over	<p>a) Skilling core team.</p>

GROUP II - COORDINATION

Key Issues/challenges	Areas of focus	Proposed strategy and recommendations (at national and regional levels)
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Coordination of stakeholders: what kind or coordination is needed to enhance complementarity and synergy among actors?	Strategic market selection for data collection	<ul style="list-style-type: none"> - Define/identify actors - Define a criteria to identify the markets - No. of markets from which to collect data - Agree on the data collection tools, frequency of data collection and dissemination
	The need for value chain actors' platform	<ul style="list-style-type: none"> - Map/identify stakeholders along the value chain and define/harmonise roles and responsibilities - Define minimum information required within the system - Form national and regional platforms
	Research and technology development	<ul style="list-style-type: none"> - Address identified gaps - Adopt the existing system by member states - Continuous improvement of the system in terms of functionality
	Institutional arrangement	<ul style="list-style-type: none"> - Identify a lead agency preferably the line Ministry - Setup a cost effective institutional arrangement from the grassroots like the UNFFE¹, KLMC² for purposes of ownership - Define roles and responsibilities of each player

GROUP III - POLICY

Key Issues/challenges	Areas of focus	Proposed strategy and recommendations (at national and regional levels)
Policy aspects: what are policies required to support LMIS environment?	data collection and sharing protocol	<ul style="list-style-type: none"> ➤ Development of a regional protocol at the regional level and domesticate at national level on data collection and sharing ➤ LMIS should be included all National livestock related strategies/policies. ➤ IGAD should develop regional Soft ware to be used by all MS eg ; (SADC, ECWAS and ARIS)

¹ Uganda National Farmers Federation

² Kenya Livestock Marketing Council

	Use of harmonized software	<ul style="list-style-type: none"> ➤ Each Country need to identify one senior IT specialized (maintenance and repairing, other issues)
	Regulatory and quality control	<ul style="list-style-type: none"> ➤ National Policies of acquisition Software should be observed. ➤ Each MS should establish Inter-Ministerial Team of relevant Departments to control quality LMIS (Collection, Analysis and Dissemination) aligned with National Policies and procedures. ➤ Soft Ware Developed should give room for quality control
	Incentive to empower private sector	<p>Governments should incentify private sector through direct funding of organized sector programs on LMIS</p> <p>By linking the private sector websites with IGAD LMIS website in order to get and share information</p>
	on information sharing	<p>The system should be robust enough to support sharing of information among member states</p>
	Grades and standards	<p>The software deployed must conform with set international standards and must work across all platforms</p> <p>Every IGAD MS must conform with latest hard wares standards</p> <p>All the local IT experts must be capacitated (knowledge transfer) with the latest versions of the software</p> <p>IGAD should complete the initiated processes on grades and standards and member states in time shall adapt the agreed grades and standards and domesticated them</p>

REACTIONS FROM PLENARY AFTER GROUP WORK PRESENTATION

- *Comment;* RPLRP is playing a key role currently on LMIS. The concern is what will happen, when the project exits the scene and hence the need for the project to have an exit strategy to ensure smooth transition.
- *Question;* We need to collectively ask ourselves, why did the past efforts fail? Until we get honest answers, we may get ourselves failing again.
 - *Answer;* Running the system has been relatively expensive because of the need to support in terms of salaries/allowances the enumerators and supervisors. MS, faced with financial challenges, have tended to address other areas like education and health and less on areas such as LMIS. The gap has therefore largely been addressed through project funding. It is also possible, that within the countries, some stakeholders have realized the importance of the system as an attractive area for donor funding and have therefore not supported efforts to establish sustainability.
- *Comment;* Group III indicated that private sector need be incentivized to play an active role in LMIS. This might not be entirely true, as they are generally profit driven and as long as they can appreciate the value of the system they will invest.

5. Workshop Recommendations

1. IGAD should promote up-scaling initiatives like co-management of marketing infrastructure to contribute to sustainable management of LMIS
2. MS are encouraged to strengthen farmer federations/associations /value chain actors to enable the institutions play a significant role in LMIS
3. IGAD should coordinate harmonization of data collection tools, grades, protocols for LMIS in the region to facilitate cross-border livestock trade.
4. IGAD should harmonize LMIS software and hardware to promote interconnectivity and information sharing.
5. In recognizing the current input of RPLRP in LMIS, the project should have a well thought exit strategy to ensure smooth transition in the management of LMIS in the three MS.(governments and not the projects should do this)
6. MS should ensure continuous capacity building that is tailor made specifically for continuity of LMIS.
7. MS are encouraged to provide resources for managing a central database from either levies on export of livestock and livestock products or normal government budgetary allocation. (the focus should be the players in the Value chain and

- ensure that the beneficiaries pay? Lets consider the types of data that can be charged)
8. MS should promote sensitization of stakeholders/users and advocacy on LMIS
 9. IGAD should establish a regional platform for coordination and experience sharing on LMIS.
 10. MS should be encouraged to put in place policies that would address key issues such as quality control, private sector empowerment and resource mobilization.
 11. IGAD and MS should establish M&E frame-work with clear indicators to track progress.

6. CLOSING REMARKS FROM DR MUNYUA

The presentations were very enriching, for example the one on co-management. To those who have no historical background on how levies from livestock markets were cash cows for revenue clerks may not appreciate fully, the effort it took to establish the co-management model. The model currently stands as a critical step towards sustainability.

Secondly, bad habit of “falling into compartments” and playing victims is still with us and we need to change these naratives. ICPALD has demonstrated that confronting country treasuries as serious partners and not beggars has lead to more resource allocation to the livestock sector. In addition, there is currently a lot of support for Livestock Identification and traceability system(LITS) and this presents an opportunity to recast LMIS and enjoin with LITS. A comprehensive system, possibly incorporating Early Warning System for drought can be more relevant and efficient. The director emphasized that LIMS must not be regarded as a project but a product whose value stakeholders appreciate. He wished all participants a safe journey and those proceeding to Samburu for field excursion, a fruitful session.

Appendixes

OFFICIAL CLOSING REMARKS FROM VINCENT GITHINJI, DEPUTY DIRECTOR OF LIVESTOCK PRODUCTION AND HEAD OF LIVESTOCK MARKETING KENYA.

Mr. Githinji begun by acknowledging that the participants had crafted strong recommendations that could significantly impact revival/development of the system in the region. He encouraged policy makers in the meeting to be champions for pushing the LMIS agenda forward in the region. He suggested that as neighbours with similar operating environment, there was need to engage

more frequently and share experiences. He wished all participants safe journey in their travel back home and declared the works

APPENDIX I

KEY NOTE SPEECH BY THE CHIEF ADMINISTRATIVE SECRETARY/PRINCIPAL SECRETARY, STATE DEPARTMENT of LIVESTOCK

Your Excellency the Governor, Laikipia County;

Distinguished Delegates from Ethiopia and Uganda;

Senior Staff from IGAD Center for Pastoral and Livestock Development;

Our Guest from Texas A&M;

Distinguished Participants and Stakeholders,

Ladies and Gentlemen:

It gives me great pleasure to preside over the opening of this Regional Meeting on Harmonization of Livestock Market Information Systems. This is important for all of us because IGAD region has vast Arid and semi-Arid Lands where majority of people depend on income from livestock and livestock products. In Kenya for instance, livestock is an important driver of Kenya's economy. It accounts for an estimated 12% of the country's GDP and about 42% of the agricultural GDP, employs about 50% of the country's agricultural sector labour force

It is good to note that over 70% of the country's livestock population is located in the ASAL areas. Kenya's ASALs are expansive and comprise nearly 84% of the total land area of the country. This therefore calls for focussed and deliberate interventions to ensure that the potential that exists is tapped for the benefit of Kenyan pastoralists. Furthermore, since over 90% of the ASAL livelihoods are livestock based, it is imperative that the livestock sector provides leadership in efforts to sustainably develop these areas.

Ladies and Gentlemen:

The ASAL are characterized by low livestock productivity and production, persistent food insecurity, high levels of poverty and resource based conflicts. Livestock marketing and marketing infrastructure are poorly developed and are not able to facilitate optimal off-takes and enhanced access to the markets. You may be aware that Kenya's development

blueprint, the Vision 2030, places a lot of emphasis on the development of the ASAL with special focus on promoting access of livestock and livestock products to the domestic and export markets, value addition and branding. Increased livestock production and productivity calls for active engagement of all actors in the livestock value chain. All these actors require adequate and reliable information for informed decision making. The broad objectives in Vision 2030 are also articulated in the Agricultural Sector Development Strategy (ASDS), which we are currently reviewing, and Sessional Paper NO.2 of 2008 on the National Livestock Policy

Ladies and Gentlemen:

Information about our livestock markets is often inadequate, inaccessible, non-standardized and costly to collect. A good market information system should promote rational decision making, allows for easy interpretation of information and ensures that optimal choices are made on price, location for transaction and quantity to transact.

To realize an innovative, commercially oriented and modern livestock industry, routine livestock off-take must be promoted and sustained. To this end the National Government and County Governments, in partnership with development partners and non-governmental organizations are currently supporting the development of livestock markets in the ASAL's. These markets are meant to facilitate routine livestock off-take for improved trade. Information about these markets should be readily available and in real time to enable proper decision making.

In addition to improving and establishing sale yards in the livestock producing areas of this country, other necessary interventions include; development of roads, stock routes, holding grounds and abattoirs; and establishing an efficient market information system for data gathering and dissemination

My Dear Participants:

During the early 2000s, the then Ministry of Livestock in collaboration with a consortium of organizations that included the World Bank, ILRI, FEWSNET and FAO with the support of Texas A&M University facilitated the implementation of the National Livestock Marketing Information System (NLMIS). This system involved collection of specific data from 44 livestock markets that were linked to a central server, uploading data and thereafter

disseminating market information to users via internet, short text messages, bulletins and local FM stations. The disseminated information assisted users to marketing decisions that promoted competitiveness of the markets, increased livestock prices and reduced transaction costs. This system was then anchored in a drought recovery project in my department called the ASAL Based Livestock & Rural Livelihoods Support Project (ALLPRO). However when ALLPRO ended and with reduced or no financial support from the respective organizations, the operations of the system were adversely affected.

Ladies and Gentlemen:

My Department embarked on a process to revitalize the NLMIS with the support from the Regional Pastoral Livelihood Resilience Project. A situation assessment mission was carried out and the findings presented to a stakeholder's workshop held in Isiolo in July 2016. That workshop recommended reviving of the NLMIS and so far, 82 data monitors and 14 supervisors have been trained to cover all the 14 ASAL counties. Data reporting resumed in December 2016.

An efficient LMIS require appropriate software and hardware and a supply of information that will be useful to pastoralists. Moreover, such a system requires inbuilt mechanisms to ensure it is not be solely dependent on development programs but should have strong support from National and County Governments and the private sector. To this end, I wish to pledge my Department's support to the NLMIS to ensure it is upgraded to be more efficient and collect and disseminate marketing information for a broader range of livestock and livestock products. I also appeal to County Governments to equally support the NLMIS by providing the necessary human resource for data collection.

Finally, I wish to take this opportunity to thank you all for sparing your time to attend and participate in this important meeting. I belief this meeting will come up with suggestions on development of integrated livestock marketing information system that will revolutionise livestock trade in the region.

It is now my great pleasure and honour declare this workshop officially opened.

Thank you and be blessed

APPENDIX II

**IGAD Centre for Pastoral Areas and Livestock Development
(ICPLAD)**

**Regional Workshop on Livestock Market Information System, 5th- 6th
March 2018 Nyanyuki, Kenya**

Tentative Schedule

Day	Time	Topic/activity	Presenter	Facilitator
4th March, 2018	14.30	Arrival of international participants Travel by bus start to Nyanyuki from ICPALD office in Nairobi	Ahmed 0710930333	
Day 1		5th March 2018		
	08.30 – 08.45	Registration & self introduction	Ahmed/Mequanent	Dr. Ameha S.
	08.45 – 08.50	Welcome & Program Introduction	Dr. Ameha	
	08:50 – 08:55	Opening Remark	Director of ICPALD, Dr. Solomon Munyua	
	08.55- 9.00	Official Opening	Hon. Guest of Honor	
	9.00 – 09.05	Workshop objectives & expected outputs	Dr. Dereje	
	9.05– 09.20	LMIS: Significance for the IGAD member States and key issues	Dr. Osman B.	
	09.20-10.00	General Discussion	All	
	10.00-10.20	Health break & Group photo		
	10.20-11.20	The Status of LMIS in the IGAD member States: current status and good practices; challenges and recommendations : (Sudan, Somalia, South Sudan, and Djibouti)	15 minute per country	TBD
	11.20-11.40	Q&A and Discussion		
	11:40 -12.35	The situation of LMIS in the IGAD member States: current status and good practices; challenges and recommendations : (Uganda, Kenya and Ethiopia)		
	12.35-13.00	Plenary: Q&A and general discussion	Participants	
	13.00-14.00	Lunch break	IGAD RPLRP	
	14.00-14.40	Experience of LMIS support in East Africa, West Africa and Asia: benefit, lesson and Challenges Upgraded LMIS software: schematic for data flow and dissemination, features, capability, room for adapting and sustainability:	Jay Angerer ,Texas University A&M	TBD
	14.40-15.00	Q&A, discussion		

	15.00-15.20	LMIS implementation experience and challenges: ILRI KAZNET	Andrew M.	
	15.20-15.40	Q&A and discussion		
	15.40-16.00	Kenya Livestock Market Council (KLMC): Experience in livestock market information system collection and sharing livestock market management in ASALs	Abdikadir Mohamed, Chief Executive Officer	TBD
	16.00-16.20	East Africa Farmer Federation: Experience in collection and dissemination of market information on agriculture and livestock	East Africa Farmer Federation	
	16:20-17:00	Q&A and Discussion		
Day 2		6st March, 2018		
	08:45-09:00	Recap of day 1	Maurice Ouma	TBD
	09.00- 09.20	PAT: Livestock Body condition assessment tool	Luca Innocente, PET	
	09:20–09.40	Q&A and Discussion		
	09.40–10.00	Group Work ToR (to be enriched at the meeting) and group formation: Ideal LMIS (system, institutional set-up, data required, data collection and dissemination, quality control and cost, etc)	Dr. Ameha S	
	10.00-12.00	Group Work: three group	All participants	
	12:00-13:00	Group Work presentation and Discussion	Group Rapporteur	
	13.00-14.00	Lunch break		
	14.00-15.00	Plenary: General discussion, way forward recommendations and roadmap with proposed time line		
	15.00-	Closing		
	15:00-17:00	Side meeting with Texas University A&M (Jay A.)		

APPENDIX III
Participants list

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