New Perspectives on Livestock Data

Workshop on Production, Marketing and Consumption Statistics

Arusha, Naura Springs Hotel, 10-11 August 2011

Proceedings
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1. STRUCTURE AND ORGANISATION OF THE NEW PERSPECTIVES ON LIVESTOCK DATA WORKSHOP

A Workshop on: ‘New Perspectives on Livestock Data: Production, Marketing and Consumption Statistics, was held in Arusha, Tanzania, on 10 and 11 August 2011. The workshop was jointly organized by the Tanzania Ministry of Livestock and Fisheries Development (MLFD) and the World Bank-FAO-ILRI Livestock Data Innovation in Africa Project (LDIP).

The ‘New Perspectives on Livestock Data’ Workshop built on the evidence that:

- ‘a lot of livestock data are inadequate to varying degrees as they lack consistence through time and between sources; and are not complete as they possess a lot of gaps. In addition, most of the data are unreliable due to lack of culture of data collection and data provision’ (MLFD, 2010);
- there are currently unprecedented opportunities to enhance the quantity and quality available data available to decision makers as the 2009/10 – 2013/14 Tanzania Statistical Master Plan aims ‘to strengthen the National Statistical System (NSS) in Tanzania so as to enable it to produce quality statistics for decision makers in an objective, timely and cost effective manner’ (TSMP, 2010).

About 30 Tanzania and international livestock data stakeholders, including representatives from the Tanzania Ministry of Livestock and Fisheries Development (MLFD), the Tanzania Ministry of Agriculture, Food and Cooperatives (MAFC), the Tanzania Ministry of Industry and Trade (MIT), the Prime Minister Office – Regional Administration and Local Authorities (PMO-RALG), the Tanzania National Bureau of Statistics (NBS), the Inter-African Bureau for Animal Resources of the African Union (AU-IBAR), the Japan International Cooperation Agency (JICA), the Government of Uganda, from the private and civil society actors as well as from international organizations, including the ILRI (International Livestock Research Institute), the FAO and the World Bank.

The Workshop aimed to:

- Review current systems of livestock data collection, analysis and dissemination;
- Identify opportunities / priorities for improving the quantity / quality of livestock data available for the public and private sector;
- Agree on a road map for improving methods of livestock data collection, analysis and use, and for achieving an efficient synergy amongst those organizations handling livestock data.

The Workshop was opened by Dr. Y. Budeba, Deputy Permanent Secretary of MLFD. The first day was devoted to identify strengths and gaps in available livestock data in Tanzania. It consisted of presentations by major public suppliers and users of livestock-related data in Tanzania and a roundtable on livestock data gaps and issues, with panel members representing the private sector and research institutions. The second-day aimed at agreeing on a road map towards improving livestock data systems in Tanzania under the umbrella of the TSMP. Working groups used a supply chain approach to identify major livestock data gaps, overlaps and priority areas of interventions to improve the quantity and quality of livestock data needed for public and private sector actors to design and implement efficient sector investments. The
meeting was closed by Ms Matilda Bella, Assistant Regional Administrative Secretary of the Arusha Region.

2. DAY ONE: LIVESTOCK DATA: COLLECTION, ANALYSIS AND USE IN TANZANIA

The workshop was opened by Dr. Y. Budeba, Deputy Permanent Secretary of MLFD, who stressed that ‘the importance of the livestock industry in alleviating poverty and enhancing food security need not be over-emphasized. … Currently, the accuracy, reliability and timelines of livestock data in most countries are still poor, which narrow the domestic market for livestock and livestock products. The challenge is to improve the quality and increase the quantity of livestock data in the face of increased demand for livestock data and broaden demand for livestock products. … I challenge this workshop to come up with workable recommendations that Tanzania will use to enhance the development of the livestock industry based on data guided decision making’.

S. Massawe, ILRI / ReSAKKS (Regional Strategic Analysis and Knowledge Support System), L. Nsiima (MLFD) and U. Pica-Ciamarra (FAO/LDIP) provided an overview of the broader context whereby livestock data are collected and use. S. Massawe introduced the Common African Agricultural Development Programme (CAADP) and emphasized the critical role of data, both for planning and monitoring and evaluation, in ensuring that CAADP is efficiently and effectively implemented in the African countries. L. Nsiima and U. Pica-Ciamarra stressed that the lack of adequate production, marketing and consumption livestock data prevents the effective implementation of the Livestock Sector Development Programme (LSDP) of MLFD, the Agricultural Sector Development Programme (ASDP) and the National Strategy for Growth and the Reduction of Poverty (NSGRP). They stressed that the 2010 Tanzania Statistical Master Plan provides an unprecedented opportunity for inter-Ministerial collaboration to enhance the quantity and quality of livestock data available to public and private decision-makers.

Following the introductory presentations, presentations on livestock data collection and use were given by representatives from NBS, MLFD, MIT, MAFC, PMO-RALG and AU-IBAR. The presentations from Tanzanian speakers were all based on a same template, developed by MLFD, which helped make comparisons and identify overlaps and gaps between different systems of livestock data collection. The template included information on:

1. Mandate of the institutions;
2. Livestock-related data collected / used / disseminated on production, marketing and consumption;
3. Methods of livestock data collection;
4. Livestock data processing;
5. Uses of livestock data;
6. Storage of livestock data;
7. Dissemination of livestock data;
8. Major livestock-data issues and options for improving quantity / quality of available livestock data.

The Agricultural Sector Development Programme (ASDP) is being implemented by key Ministries jointly, namely the MoAFS, MoLFD, MIT, and the Prime Ministries Office—RALG. The planning, implementation, monitoring and evaluation structure of ASDP involve all ministries and other stakeholders.
A roundtable on ‘Livestock Data Gaps and Issues’ in Tanzania concluded the first day, with panel members being in representation of the private sector and the research / academic community.

**Livestock Data Collection and Use: CountryStat in NBS**  
*By Joyce Urasa*

1. **Mandate of NBS**  
The National Bureau of Statistics is mandated to carry out statistical activities in Tanzania Mainland and, in particular: (i) to provide statistics to the government, the business community and to the general public as well as to international organizations for use in planning and decision making; (ii) to coordinate statistical activities so as to produce statistics that are consistent. CountrySTAT is a statistical framework designed to organize, integrate and disseminate statistical data on food and agriculture coming from different sources.

2. **Livestock-related data collected / used / disseminated on production, marketing and consumption**  
At production-related level CountrySTAT assembles data on livestock numbers by species, livestock production and livestock off-take rates. Market-related data include price of live animals and livestock products in national markets, and the number and value of live animals exported / imported. Currently, there are no consumption-related data available in CountrySTAT.

3. **Methods of livestock data collection**  
NBS does not collect data for the specific purpose of populating CountrySTAT. Data which populate CountrySTAT come from a variety of sources, including administrative record data collected by Local Governments, often in collaboration with MLFD and MIT; survey data collected by NBS, often jointly with MLFD, and data from other sources.

4. **Livestock data processing**  
CountrySTAT ensures that the data collected are aggregated at national, regional and district level and on a monthly and annual basis. Not all data, however, are available for all time and spatial dimensions.

5. **Uses of livestock data**  
CountrySTAT does not make use of livestock data, nor of any other statistics, as it is a framework designed to integrated and disseminate agricultural statistics.

6. **Storage of livestock data**  
The assembled data are stored in the CountrySTAT database.

7. **Dissemination of livestock data**  
Data are disseminated through the Tanzania CountrySTAT database, freely available at www.countrystat.org/TZA/

8. **Livestock data issues and options for improvement**  
In CountrySTAT, livestock data are mostly aggregated at national level and not useful for a large variety of potential users; people in the districts are hardly aware of CountrySTAT. Data are not always updated and timely disseminated. Improved collaboration between NBS, MLFD, MIT and other actors could enhance the quality and timeliness of the data inputted in CountrySTAT.
Livestock Data Collection and Use: the National Panel Survey of NBS

By Mlemba Abassy Kamwe

1. Mandate of NBS
   The National Bureau of Statistics is mandated to carry out statistical activities in Tanzania Mainland and, in particular: (i) to provide statistics to the government, the business community and to the general public as well as international organizations for use in planning and decision making; (ii) to coordinate statistical activities so as to produce statistics that are consistent. The National Panel Survey is a multi-topic questionnaire administered to a sample of about 3,200 Tanzanian households (about 2,100 rural and 1,200 urban) and covering a variety of household characteristics, such as household composition, education, health, assets as well as some information on agricultural- and livestock-related assets and activities. The sampled households are representative of the country as a whole as well as of the seven major regions (North, Central, Eastern, South, Southern Highlands, West and Lake).

2. Livestock-related data collected / used / disseminated on production, marketing and consumption
   At production-related level NPS data includes information on livestock number by species and by breed (local / cross-exotic) owned by the sampled households, and on changes in stock composition in the last 12 months due to births, deaths, losses to animal diseases and theft, sales and purchases. It also includes information on which livestock have been vaccinated and against what diseases, on fodder and on the labour force used for livestock herding,. Data on production quantity and value are also available. Price data are the only marketing-related data included in the NPS, while there is detailed information on consumption of major animal-source food by the sampled households, including quantity and value of both sold and self-consumed livestock products.

3. Methods of livestock data collection
   NPS data are collected by enumerators trained and hired by NBS at the time of the survey. Enumerators visit all the households in the sample.

4. Livestock data processing
   NBS clean and process the collected data.

5. Uses of livestock data
   NBS writes a report with major findings, including some information on livestock such as number of households keeping cattle, number of cattle vaccinated, etc. NPS data are in general used to measure poverty and simulate / monitor effects, impacts of selected policies.

6. Storage of livestock data
   The NBS Information Technology Department stores the NPS data.

7. Dissemination of livestock data
   The entire set of raw data are available to the general public for free and can be downloaded from the NBS website after registration. The report produced by NBS on major findings is also freely available.

8. Livestock data issues and options for improvement
Quality of NPS livestock data is sometimes an issue, as the 12 month recall period seems not always appropriate for asking livestock-related questions. Encouraging livestock keepers to regularly record livestock-related facts would improve the quality of the data. The implementation of the TSPS is expected to facilitate cooperation among the various livestock-data institutions in Tanzania, and to help improve the quantity and quality of NPS livestock data.

Livestock Data Collection and Use: a MLFD perspective

By Longin Nsima

1. Mandate of MLFD
The Ministry of Livestock and Fisheries Development is responsible for the overall management and development of livestock and fisheries resources in Tanzania, including the formulation, implementation and monitoring and evaluation of policies and programmes.

2. Livestock-related data collected / used / disseminated on production, marketing and consumption
At production-related level, MLFD data assembles data on livestock number by species, by breed and by economic function (e.g. milk production; drought power); on number of animals slaughtered and quantity produced of major livestock products, from meat to hide and skins. Data on animal diseases are also assembled and given some priority. At marketing level, MLFD assembles data on the average price of major live animals, by species, grade and market; on trade of live animals and livestock products. At consumption related level, MLFD assembles data on per-capita consumption of meat, milk and eggs.

3. Methods of livestock data collection
Livestock data are mostly generated by secondary sources, including administrative record data of local governments, surveys and censuses. MLFD does collect livestock-related data principally in case of outbreaks of epidemic and zoonotic animal diseases.

4. Livestock data processing
MLFD receives the cleaned data from its various sources and builds those indicators needed for policy and planning purposes.

5. Uses of livestock data
There are three major uses of livestock-related data for MLFD: (i) to formulate policies and implement sector projects and programmes; (ii) for appraisal, monitoring and evaluation; (iii) for the management of sector issues, i.e. administering a vaccination campaign.

6. Storage of livestock data
Data are stored in either MS Office Excel or MS Office Word in different folders and various computers at MLFD. There is no a central system of data storage and management.

7. Dissemination of livestock data
MLFD releases a Annual Basic Data Booklet, which contains some basic livestock statistics. Data are also available on MLFD’s website and can be found in Ministerial Reports and the Annual Budget Speech. There is no any regular system for data dissemination.

8. Livestock data issues and options for improvement
Quantity and quality of livestock data available to MLFD are serious issues. Harmonization of data collection between the different stakeholders; capacity building; and improved data
processing and dissemination are needed. Improved collaboration with other livestock-data collectors and suppliers is needed.

Livestock Data Collection and Use: a MIT perspective
By Alfred Mapunda

1. Mandate of MIT
   The Ministry of Industry and Trade (MIT) has the mandate to facilitate the development of sustainable industry and trade sectors, including livestock marketing and trade.

2. Livestock-related data collected / used / disseminated on production, marketing and consumption
   In 2005 MIT, with USAID funds, started a web-based Livestock Information Network and Knowledge System (LINKS), which currently covers a total of 53 markets in the country, of which 41 are primary markets and 12 are secondary markets. MIT collects data on price and volumes of live animals exchanged in the monitored markets, by species, sex, breed, age class and grade of the animals.

3. Methods of livestock data collection
   Data are collected by trained market monitors, who are provided with mobile phones and air time. The market monitors approach five buyers for each type of live animal (species, breed, sex, age, grade) to calculate the average buying price in the markets.

4. Livestock data processing
   Market monitors fill in a standard form, and via SMS send the calculated average prices to a central data server, which is located in MIT in Dar Es Salaam.

5. Uses of livestock data
   LINKS is used as benchmark to the establishment of an Integrated Marketing Information System in the country. Data collected are used by financial institutions, private traders and the government for a variety of purposes.

6. Storage of livestock data
   The data is coded and stored in the central server of the Livestock Information Network and Knowledge System (LINKS).

7. Dissemination of livestock data
   MIT prepares regular weekly and monthly reports on trends in prices of live animals. Data are disseminated through the LINKS website (www.lmistz.net), television and radios, market boards via Community Information Centers; news papers and sent via email to major livestock-data stakeholders, both from the public and the private sector. Price information can be also obtained through sending an SMS with codes (market – animal – etc.) to the following telephone number: 087-441555.

8. Livestock data issues and options for improvement
   While the LINK system currently works, there are serious concerns about its sustainability as donor support is going to soon terminate. Market monitors are local government officers and are not obliged to report price data to MIT and, in fact, there are some data gaps. MIT encourages both Local Governments and MLFD to join forces and co-fund the maintenance and expansion of LINKS to a larger number of markets.

Livestock Data Collection and Use: a MAFC perspective
By Charles Wambura
1. **Mandate of MAFC**
   The Ministry of Agriculture, Food and Cooperatives (MAFC) implements the Agriculture Sector Development Programme (ASDP). The ultimate aim of ASDP is to revive the agricultural sector through supporting the transformation of small subsistence farms into commercial agricultural enterprises.

2. **Livestock-related data collected / used / disseminated on production, marketing and consumption**
   MAFC collects livestock data in the context of monitoring and evaluating ASDP implementation. Twenty-three major M&E indicators have been identified, including some on livestock: number of local cattle, small ruminants and chicken; animal births and deaths; animal diseases and treatments given; livestock movements out and in from districts. Some data on livestock infrastructure are also collected, such as on dip tanks, chaco dams and livestock oxenization centres. Market data are assembled from MIT. Milk, eggs and meat consumption data are also collected.

3. **Methods of livestock data collection**
   Data are collected by Local Government authorities and Regional Secretariats. MAFC also makes use of some livestock data collected by MIT, MLFD and NBS.

4. **Livestock data processing**
   MAFC process the data to build the indicators needed to monitor the implementation of the ASDP.

5. **Uses of livestock data**
   MAFC uses livestock data for M&E purpose: livestock sector development is not under its mandate. The collected livestock-data are also used for reviewing ASDP in collaboration with other government Ministries / agencies.

6. **Storage of livestock data**
   The data collected are coded and stored in a central server at MAFC.

7. **Dissemination of livestock data**
   Data are disseminated through reports, and shared with Local Governments, Regional Secretariats and Sector Ministries.

8. **Livestock data issues and options for improvement**
   There is the need to improve the quality of data submitted by Local Government Authorities and to better coordinate / harmonize different systems of data collection. NBS is expected to release livestock-related data more timely, based either on NPS and on the Sample Census of Agriculture. A data-quality improvement programme is due to start in the second semester of 2011.

**Livestock Data Collection and Use: a Local Government perspective**

*By Joshua Amo*

1. **Mandate of Local Governments**
   Local Governments (LGs) have three major mandates in Tanzania: (i) maintenance of law, order and good governance; (ii) promotion of economic and social welfare of people in their jurisdiction; (iii) ensuring effective and equitable delivery of services to the people within their areas of jurisdiction, for which livestock data are critical. There are currently 132 Local Government Authorities in Tanzania.
2. Livestock-related data collected / used / disseminated on production, marketing and consumption

Livestock-related production data collected by LGs include livestock population (number of animals by species and breeds); breed improvement information (artificial insemination centres; number of bulls; amount of semen collected / inseminated, etc.); production of major livestock products and by-products (meat, milk, bones, blood, etc.); livestock-infrastructure (e.g. dams; number of dips and immersions; number of hatcheries; veterinary clinics); pastures and seed farms; animal diseases (disease, number of incidences by species; treatments; vaccinations); number of extension agents and input suppliers. Marketing related data include: number of holding grounds/markets and check points; numbers of animals presented/sold/rejected/moved/entered/checked by species (cattle, shoats, donkeys); number of abattoirs/slaughter houses/slaughter slabs; number of animals slaughtered, inspected, condemned by species; veterinary inspection findings and reports (numbers/frequency); market and slaughtering fees; number of milk collection centres and litres of milk collected; number of processing plans (meat, milk, hides and skins) and quantity of livestock products processed. No system for collection of consumption data is in place.

3. Methods of livestock data collection

Data are collected by local government extension officers, market supervisors and tax collectors. They are collected through questionnaires, direct counts and scattered observations.

4. Livestock data processing

Data are first processed by the collectors and then cleaned in the District Office.

5. Uses of livestock data

Major uses of livestock data include: (i) planning infrastructure and service delivery; (ii) implementation of preventive disease control measures; (iii) collection of Local Government levies.

6. Storage of livestock data

The data are stored by Local Government using simple software and no central system of data storage is in place.

7. Dissemination of livestock data

Data are disseminated through reports, usually distributed on ad hoc occasions.

8. Livestock data issues and options for improvement

There is little capacity on data collection by LG staff and resources are limited. No LG staff is primarily responsible for (livestock) data collection and analysis. There is a need to increase capacity and collaboration between local and central government authorities.

Livestock Data for Development: a AU-IBAR perspective

By Ibrahim Gashash Ahmed

Information is a pre-requisite for implementing the Livestock Companion Document of the CAADP and AU-IBAR contends that livestock data play a double role at regard. Good livestock data are critical to show that investing in livestock is an effective way to contribute to economic growth and reduce poverty; good livestock data are also needed to design and implement effective livestock sector investments.
AU-IBAR has identified a number of key indicators that member countries of the Africa Union are expected to collect in order to promote a self-sustainable development of livestock. These include:

- Livestock population data
- Livestock production system data
- Livestock productivity indicators
- Animal health and zoonosis data
- Animal movement data
- Livestock infrastructure data
- Manpower/Service providers data
- Value chain data
- Gender related data
- Livestock market and trade data
- Price data
- Livelihoods related data
- Consumption related data

In order to assist AU member countries to systematically collect, process and disseminate key livestock indicators, AU-IBAR has been developing and implementing the so-called Animal Resources Information System (ARIS 2). ARIS 2 is a web-based information system built on an open source software; it covers not only animal health but also production, marketing, trade, fisheries & wildlife. Its management is currently under AU-IBAR but will be gradually shifted to Regional Economic Communities (RECs) and AU Member States. In particular, it is expected that countries, districts and provinces will use ARIS 2 to collect animal resources data; national authorities will validate data and upload it to RECs and/or AU-IBAR servers. At the same time RECs and/or AU-IBAR can prompt transfer of the approved and validated data from the national authorities’ servers.

Finally, ARIS 2 will use best practices set by international organizations, e.g. OIE conventions for disease surveillance; ISO codes for abbreviations of country names and currencies; GIS conventions for the levels of administrative setup and geo-reference. Best practices will allow easier sharing of data with other databases (TADInfo of FAO, WAHIS of OIE and LIMS of SADC), allowing AU member countries to best meet international reporting requirements.

**Livestock data gaps and issues: A presentation of stakeholder perceptions and a roundtable discussion**

*With Derek Baker (chairman), Isaack M. Wannah, Suzana Mnkande Kiango, Mayasa Ayoub Simba, Ibrahim M. Kisungwe and Lusato R. Kurwijila*

This session moved the discussion from reviews of different livestock data housed by various stakeholders to an identification of data gaps. To identify stakeholder’s perceptions of the importance of various types of data, their use for data, and indications of data availability/quality, MLFD and LDIP jointly initiated an online “Monkey” survey and the responses of the 56 respondents are summarized below.

Of the 56 respondents, over 30% were from the MLFD, 23% from RALG, 20% from research institutes, and over 10% of the responses were from private companies and the dairy/meat boards. The majority, 75%, either collected their own data or sourced it from RALG or MLFD.
Approximately 18% referenced NBS data while others (4%) relied on international institutions. Demand for data was highest for livestock numbers, production, animal health/diseases (73, 61, 61 percent respectively). The next highest demand (40-45%) was for information on animal breeds, poverty data, prices, and consumption figures. This data was mainly used for report writing (25%), research and analysis (18%), monitoring and evaluation (14%), project formulation (13%) and institutional requirements, presumably planning, work programmes and budget (9-13%). Only 3% of the respondents indicated that data was used for sector advocacy. Surprisingly, more than half of the respondents (57%) indicated that data quality was fair; however, discussion in the workshop indicated that if the term “adequate” had been used, perhaps the ratings would have been different.

Building on the presentation of the online survey, a round table discussion was organized during which five participants in representation of the private sector (Tanzania Meat Board, Tanzania Dairy Board, Tanzania Meat Traders Associations), NGOs (Rural Livelihoods Development Company) and academia (Sokoine University) responded to three questions:

- Are livestock data really “fair”?
- What are your main source and major use of livestock data and your concerns with the data?
- Are available data sufficient to design effective investment along livestock supply chains.
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<tr>
<th>Panelist/question</th>
<th>Are livestock data really “fair”?</th>
<th>What are your main source and major use of livestock data and your concerns with the data?</th>
<th>Are available data sufficient to design effective investment along livestock supply chains?</th>
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<tr>
<td>Issack M. Wannah, Tanzania Livestock and Meat Traders Association (TALIMETA)</td>
<td>No, in the meat sector, livestock data quality is poor. It is not sufficient for detailing / implementing effective investment plans. People do not believe in the data, particularly representatives from private sector.</td>
<td>Livestock data are directly sourced from producers / traders / consumers / processors and, while often sufficient to develop and implement projects, they are insufficient to provide advocacy for the sector.</td>
<td>Current data are insufficient to design effective investments along the supply chain because of missing time and spatial-related livestock data which provides little information on the dynamics of sector.</td>
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<td>Suzana Mnkande Kiango (Tanzanian Meat Board)</td>
<td>Livestock data is not adequate. The Meat Board would need good quality data on yields, number of animals, animals slaughtered et al., which prevents taking effective decisions.</td>
<td>Major sources of livestock data are MLFD, MIT (marketing, especially on cattle), districts, NBS. Data are used to quantify the performance of the meat industry and prepare market overviews. Data is often out-of-date and units are inconsistent.</td>
<td>Current livestock data is not sufficient for supporting investments in abattoirs. For instance, there is no information on the growth potential in the sector and lack of data on animal numbers by districts.</td>
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<td>Dr. Mayasa Ayoub Simba (Tanzian Dairy Board)</td>
<td>Livestock data is 'fair' but not adequate, i.e. more livestock data would be needed.</td>
<td>Major sources of livestock data include NBS, MLFD, local governments, NGOs and research institutions. The data is used for project design, budgeting, planning, information dissemination in the dairy sector. However, data are often inconsistent and it is difficult to make joint use of data sources from different institutions.</td>
<td>Most indicators required for identify opportunities for investment along the supply chain are missing, such as on milk availability, and availability / status of current infrastructure.</td>
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<td>Ibrahim M. Kisungwe, Rural Livelihood Development Company (RLDC)</td>
<td>Livestock data is very inadequate, with missing units, scattered and variable information. In addition, data from different sources could hardly be jointly used because of different and undocumented methodologies of data collection. Direct collection of data is the only way to get reliable information on livestock, at least for project formulation.</td>
<td>Data are directly collected from project beneficiaries, both ex-ante, during and ex-post project implementation. Data However, it is difficult to jointly use self-collected micro-data and livestock data from other sources, which present several weaknesses such as a too high level of aggregation and missing values in series.</td>
<td>Both livestock and non-livestock related data are missing to detail supply chain investments, such as information on water availability, energy, transport costs. All of these data gaps limit identification of strategic investment opportunities.</td>
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<td>Lusato R. Kurwijila (Sokoine University)</td>
<td>Data quality is not fair. For instance, no or very limited livestock data is available from local levels and only aggregate data are somewhat fair, but not sufficient to develop a research programme.</td>
<td>Faostat is the major source of data for research which is international in nature. For Tanzania-focused research NBS, sector Ministries and self-collected data are the major sources of livestock information. There is discrepancy between data provided by different suppliers; level of aggregation is too high and there are serious gaps in marketing and consumption livestock-related data.</td>
<td>No, data are insufficient to detail investments along the supply chain and there is a need for accurate livestock data, such as on quantity produced and costs, value of production and, projections of effective demand.</td>
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3. DAY TWO: WHAT THE DATA SAY, INDICATOR IDENTIFICATION, DATA GAPS AND PREPARING FOR A ROAD MAP FOR ACTION ON ENHANCING LIVESTOCK DATA

The second day of the workshop moved from reviewing livestock data availabilities, ownership and systems of dissemination to a road map for improving quantity / quality of livestock data available to decision makers. The road map was built by assessing livestock data availability and gaps using a supply chain framework, as investments which promote a self-sustainable development of the livestock sector should be prioritized to implement the Livestock Sector Development Programme, the Agricultural Sector Development Programme and the National Strategy for Growth and the Reduction of Poverty. In effect, it’s both good economics and good policy to ensure that livestock sector development be market driven, i.e. that each intervention along the livestock chain is consistent with the incentives and objectives all of actors in the chain. In other words, a major investment enhancing cattle productivity could be make little sense if there are no slaughtering facilities available in the district.

Participants first jointly agreed on some high potential livestock products which are high demanded by consumers and present major opportunities for smallholders. In particular, three major product-retail outlet pairs were identified (raw milk, mixed beef cuts, and live chickens) and criteria were then outlined which determine “best bets” for smallholder inclusion in these growing markets and the key indicators identified and rated in terms of their importance/relevance for smallholder inclusion. This was followed by a supply chain mapping exercise for the selected products, the objectives of which were 1) to identify data requirements along the chain; 2) list data available/from which source; 3) identify data gaps and overlaps. The latter part of the day focused on establishing a vision and a road map for livestock data enhancement. A detailed review of the process, specific exercises, purpose, objectives for output is presented in Annex 3.

Are there opportunities for livestock producers in Tanzania?
By Ugo Pica Ciamarra, Derek Baker and Longin Nsiima

This presentation filled the void highlighted in the first day’s presentation on data availabilities, in particular, that of consumption data. Drawing on data from CountrySTAT, MIT and NBS, this analysis presented an overview of some of the key elements driving demand growth for animal source food in Tanzania, specifically population, income growth as well as urbanization. Price trends for meat products were presented as well as consumption trends for various livestock products through a price and quantity review. Building on various surveys and field work undertaken jointly by the MLFD and the LDIP, the following were reviewed: livestock consumption trends by type of products by various types of households (characterized by number of times HHs ate meat, the type of transport they used to purchase food, the type of product consumed by different income HHs, types of meat cuts preferred; food quality attributed, etc). Analysis showed that population segment showing the highest propensity to increase livestock product consumption are relatively poor HHs who currently consume no or only meal of meat per week. This growing demand for livestock products is thus for relatively low safety/quality food items which consumers purchase mainly in informal markets, including:

1. Beef / mixed pieces / wet market
2. Beef / mixed pieces / butchery
3. Milk / raw milk / small retail shop
4. Milk / pasteurized milk / milk vendor
5. Chicken / live bird / wet market
6. Chicken / live bird / road side outlet
7. Chicken / mixed pieces / wet market
8. Chicken / mixed pieces / road side outlet

Criteria for reviewing good business opportunities for livestock producers

A small group exercise

Specific criteria were presented to three groups which each selected two of the prioritized commodity pairs listed above and identified key indicators which would reveal extent that smallholders could participate and benefit from market inclusion. The indicators are listed in the table below and while selected indicators are product specific, such technologies (artificial insemination) and investment (equipment for milk transportation), many are similar and provide guidance on data which needs to be collected/analyzed/and disseminated by competent Authorities.

The criteria were then rated in terms of their relative importance to ensuring inclusions of smallholders. The rating for each specific criteria was from -2 to 2 and to allow more distinctions between the rating between pairs, the numerical ratings were weighted by 0-4. The product specific results are depicted in Annex 4. The products specific graphs while interesting, are very similar. It is only when the rating for the product pairs are compiled into one graph that comparisons are allowed to be drawn. In the figure below, average rating across criteria indicate that dairy and chicken appear to offer more opportunities for markets, income growth than beef, supported by perceptions among workshop participants that smallholders of these two commodities have more market access/potential support from service providers, potential to upscale than cattle producers targeting the market for lower quality beef cuts.
<table>
<thead>
<tr>
<th>Product/sales outlet</th>
<th>Key indicators</th>
<th>Key indicators</th>
<th>Key indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>DAIRY - raw milk from street vendors</td>
<td>1. volume of milk bought by vendors, 2. percentage of milk bought by vendors from smallholders, 3. amount of milk produced/consumer per region</td>
<td>1. % HH keeping cattle, 2. offtake rates, 3. amount of beef produced, 4. amount of beef consumption</td>
<td>1. % live chicken sold, 2. % of HH keeping local chicken, 3. % of local production sold</td>
</tr>
<tr>
<td>1. Scale and whole-country scalability</td>
<td>1. Percent of milk sold, 2. change in price, 3. price of milk, 4. consumption of milk</td>
<td>1. Price at retail/wholesale, 2. % increase in beef consumption, 3. price of beef/food expenditures in household food/expenditure budget</td>
<td>1. % of live birds sold, 2. % of chicken consumed, 3. change in retail/wholesale prices</td>
</tr>
<tr>
<td>2. Potential impact on food costs</td>
<td>1. Producer price, 2. government income, 3. proportional increase in income from milk sales, 4. change in price paid by vendors</td>
<td>1. % income derived from cattle, 2. re-stocking, 3. investment in improved breeds, 4. change in smallholder income, 5. change in producer price</td>
<td>1. Change in income from sales of live birds, 2. reinvestment/growth in chicken production</td>
</tr>
<tr>
<td>3. Potential impact on smallholder incomes</td>
<td>1. Increase in production of milk (volume), 2. increased milk yield per cow, 3. increased availability of improved breeds, 4. cost of production, 5. availability of technology (% of improved dairy breeds, use of AI by smallholders)</td>
<td>1. Availability of grazing land/capita, 2. % of improved breed of cattle/proportion of rural HHs, 3. increased in improved beef breeds, 4. use of technology, such as AI</td>
<td>1. Price of inputs (feeds), 2. mortality rate of chicken, 3. increase in chicken production</td>
</tr>
<tr>
<td>4. Capacity of smallholders to produce</td>
<td>1. # of infrastructural supported by government, 2. type/number of infrastructure, 3. % of national budget allocated towards livestock production, 4. % of government budget allocated towards livestock service provision</td>
<td>1. # of cattle sold in markets, 2. % of retail price that goes to producers, 3. % of cattle sold, 4. access to good rail and collection</td>
<td>1. Birds sold by household, 2. turn-over of chicken in local markets, 3. proportion of retail price going to producer</td>
</tr>
<tr>
<td>5. Capacity of smallholders to access markets</td>
<td>1. infrastructure (good access for roads, milk collection center), 2. % of milk sold, use of market information,</td>
<td>1. % utilized capacity of slaughter houses, 2. % of animals sold at markets, 3. increased sale of high quality animals, 4. change in input prices</td>
<td>1. Chicken as % share of meat sold in local markets, 2. number of market facilities selling chicken, 3. # of birds vaccinated, 4. # of traders collecting live birds.</td>
</tr>
<tr>
<td>6. Capacity of market actors to handle smallholders’ products</td>
<td>1. # of milk handling facilities, 2. % of traders, 3. ability to adhere to standards, 4. input prices/share of output price, 5. capital availability/use (through credit facilities)</td>
<td>1. Utilized capacity of slaughter houses, 2. % of animals sold at markets, 3. increased sale of high quality animals, 4. change in input prices</td>
<td>1. Number of visits by service providers, 2. change in inputs purchased by household, 3. % of service providers in markets, 4. increased investment/quality of services/inputs provided.</td>
</tr>
<tr>
<td>7. Capacity of market actors to provide smallholders’ inputs and services</td>
<td>1. # of investment in dairy processing, 2. demand for product, 3. increase/decrease in numbers of visits by service providers, 4. number of vendors training on milk handling, 5. change in inputs purchased by households</td>
<td>1. # of service providers in a market, 2. investment in markets, 3. quality of service provided, 4. increased in investment (facilities), 5. % of service suppliers, e.g. rural banks, AI services</td>
<td>1. % HH keeping cattle, 2. % of HH keeping local chicken, 3. % of local production sold</td>
</tr>
<tr>
<td>8. Opportunities for investment</td>
<td>1. increased number of service provider to smallholders, 2. increase in investment in breeding animals, 3. demand for dairy products</td>
<td>1. Retail price trends, 2. capacity utilization of existing facilities, 3. increased investment in beef production/processing</td>
<td>1. # of % of HHs engaged in chicken marketing, 2. share of retail price to producer, 3. number of veterinary service providers to farmers</td>
</tr>
<tr>
<td>9. Current state of infrastructure</td>
<td>1. Availability of roads, 2. # of collection centers, 3. amount of time to take milk from farm to vendor</td>
<td>1. Utilization of exiting infrastructure, 2. type/number of infrastructure, 3. availability of roads, railways</td>
<td>1. Increased bio-security, eg. houses, fences; 2. number of infrastructure servicing local chicken markets</td>
</tr>
<tr>
<td>10. Current support of government</td>
<td>1. Number of extension officers, 2. number of trained and certified vendors, 3. regulations on milk hygiene, 4. number of statutory organizations support the sector, 5. number of improved breeds sold through government breeding centers to smallholders,</td>
<td>1. # of infrastructure supported by government, 2. number of staff availability, 3. % of veterinarians, 4. % of government budget allocated towards livestock service provision</td>
<td>1. # of government assisted vaccination programmes, 2. # of extension staff trained on poultry, 3. % of chickens vaccinated regularly, 4. training provided to smallholder HHs</td>
</tr>
</tbody>
</table>
Tapping into Livestock Market Opportunities: Evidence from Livestock Supply Chains

A Group Exercise

Dividing into three groups, teams mapped out value chains for 3 high-potential product-retail outlet pairs, in particular, live chickens, dairy, and beef. The objective of this session was to provide an easily-communicable graphic presentation of the availability and organizational status of the data necessary to capture key livestock indicators.

While some of the data required for the different value chains was similar, these include some of the following data required to analyze a milk value chain. These include liters of milk sold, produced, share of milk purchased by outlets, types of services available, cost of extension, source of capital, price and quality of milk, income from milk by households. The chain analysis included a review of data on input supplies, such as extension services, credit facilities, and other input supplies such as feed, veterinary drugs, etc. The team members developed codes for various data suppliers in an effort to review where data is available, not available, or duplicated. This comprehensive livestock data review and gap analysis provided the basis for the next exercise which was a forward looking exercise to envision what an optimal system of data collection would look like.

Visioning exercise: What do we want to change during the next 5 years (between 11 August 2011 and 11 August 2016)?

A group exercise

To set the stage for data enhancement and institutional change, the participants, divided into professional groupings, e.g. MLFD, MIT, Meat/Dairy Boards, etc, were charged to indicate what is needed, in terms of data and institutional change, to develop an ideal livestock data system within five years. The results of the team consultations are listed in the table below and one of the important challenges is to identify a road map which leads to ‘results-based livestock data/dissemination systems’. While recognizing individual mandates of various Ministries/Institutions, an effective system of data sharing needs to be established with a new demand-driven system (which is utilized and appreciated by stakeholders) generating more interest in providing funding/investment in data systems.
<table>
<thead>
<tr>
<th>Which indicators? (from earlier session)</th>
<th>Who should collect them?</th>
<th>Who should process and distribute them?</th>
<th>What organisational change is needed?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which data?</td>
<td>1. NBS/research institutes</td>
<td>1. NBS</td>
<td>1. Results oriented data, collection and dissemination</td>
</tr>
<tr>
<td></td>
<td>2. MLFD</td>
<td>2. MLFD</td>
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<tr>
<td></td>
<td>3. NBS</td>
<td>3. NBS/MLFD</td>
<td>2. Recognize responsibilities of separate authorities, e.g. marketing/trade collection in MIT</td>
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<tr>
<td></td>
<td>4. NBS/research institutes</td>
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<tr>
<td></td>
<td>5. NBS/MIT</td>
<td>4. NBS/MLFD</td>
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<td></td>
<td>6. MIT &amp; LGA, MLDF</td>
<td>5. MIT/MLDF</td>
<td></td>
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<tr>
<td></td>
<td>7. Extension officers,</td>
<td>6. MIT/MLDF</td>
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<tr>
<td></td>
<td>MLFD</td>
<td>7. LGA</td>
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<td></td>
<td>8. LGA statisticians</td>
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<tr>
<td></td>
<td>9. MLFD/PMO</td>
<td>8. LGA</td>
<td></td>
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<td>10. LGAs &amp; NBS</td>
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<td>11. LGAs &amp; NBS</td>
<td>9. DPP/MLFD</td>
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<td>12. LGAs &amp; NBS</td>
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<td>13. LGAs &amp; MLDF</td>
<td>11. LGAs &amp; NBS</td>
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<td>14. NBS/LGA</td>
<td>12. LGAs &amp; NBS</td>
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<td>15. MIT &amp; MLDF</td>
<td>13. NBS</td>
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<td>14. NBS/MLFD</td>
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<td>15. MLFD, MIT, MIT, MIT/MLFD, NBS</td>
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<tr>
<th>1st STEP</th>
<th>2nd STEP</th>
<th>3rd STEP</th>
<th>OTHER STEPS</th>
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<tbody>
<tr>
<td>When and how?</td>
<td>WHAT</td>
<td>1. Partnership,</td>
<td>WHAT</td>
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Developing a road map for action on enhancing livestock data

A prioritization of data was elicited from groups divided by institutions. There were 8 groups: MIT, NGOs, Meat and Dairy Board, MLFD, MAFS, Local Governments, and others. Each Group was requested to identify three priority livestock-related indicators. The indicator data were supplemented by questions as to how frequently this data should be updated, at how many locations in Tanzania, outside Tanzania with an indicator for preferred statistical precision.

The graph above reveals livestock production and productivity as the most important indicators, followed by share of improved beefs, meat and milk consumption levels and the numbers of HH keeping livestock. In terms of frequency of data collection, it was recommended that livestock

<table>
<thead>
<tr>
<th>TO CAN</th>
<th>Development and up-grading</th>
<th>Improve data collection/quality</th>
<th>M &amp; E formulation and implementation</th>
</tr>
</thead>
<tbody>
<tr>
<td>TO LGAs and coordinating institutions</td>
<td>• Awareness building</td>
<td>• Validation of data</td>
<td>Analysis</td>
</tr>
<tr>
<td>WHO PAYS</td>
<td>• Review the current data collection tools and identify gaps</td>
<td>• Proposal to fill gaps (March 2012)</td>
<td></td>
</tr>
<tr>
<td>DP/Gov’t</td>
<td>• Identify practical solutions for filling livestock data gaps</td>
<td>• Enter into agreement with LGAs.</td>
<td></td>
</tr>
<tr>
<td>WHEN 2011-2012</td>
<td>• Training needs assessment and equipment assessment</td>
<td>• Provide training and equipment</td>
<td></td>
</tr>
<tr>
<td>WHO PAYS</td>
<td>WHEN 2011</td>
<td>WHEN 2011-2013</td>
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</tr>
<tr>
<td>DP/Gov’t</td>
<td>WHO PAYS Gov’t/private sector</td>
<td>WHO PAYS Gov’t/private sector, range of users for data/analysis</td>
<td>WHEN 2014</td>
</tr>
<tr>
<td>WHO PAYS</td>
<td>WHEN 2011</td>
<td>WHEN 2011-2013</td>
<td>WHEN 2014</td>
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The graph above reveals livestock production and productivity as the most important indicators, followed by share of improved beefs, meat and milk consumption levels and the numbers of HH keeping livestock. In terms of frequency of data collection, it was recommended that livestock
numbers be updated every 5 years, while most other data be collected on an annual basis. Market data, consumption, and disease prevalence were recommended to be updated monthly or quarterly. Budget updates for governments on livestock were recommended to be reviewed annually. Meanwhile, the preferred statistical precision of the data ranged between plus/minus 5-10 percent. Most organizations hope to have approximately 2-13 staff people involved in collecting/analyzing livestock data by August 11, 2016.

4. CONCLUSIONS: A COMMITMENT FOR MOVING AHEAD

Message-Consensus

- Need for dialogue, consultation
- Sustainability is a “measure of our ability to work as a team/coordination”.
- Need to agree that certain indicators needed to be sourced from a specific agenda/department: for example, market information from MIT, productivity indicators (universities), livestock numbers (MLFD), income indicators (NBS).
- Recognize need for livestock census.
- But also highlighted need for integrated network on livestock which leads to agreed upon road map for enhancing livestock statistics.
- Concept note to be developed agreed upon with an emphasis on best practices/methodological rigour on routine data collection.
ANNEX 1. AGENDA

New Perspectives on Livestock Data
Workshop on Production, Marketing and Consumption Statistics
Arusha, Naura Springs Hotel • 10–11 August 2011

DAY 1 • Wednesday, 10 August 2011

08:30             Assemble
09:00 – 09:30     OPENING AND WELCOME
                  U. Bake • ILRI; A. Morgan • ILRI

09:30 – 10:15     WHY DATA? WHICH DATA?
                  S. Msuya; S. S. Mshangi

10:15 – 10:45     Tea/coffee

10:45 – 12:30     LIVESTOCK DATA COLLECTION: ANALYSIS AND USE IN TANZANIA
                  Livestock data in CountryStat
                  Livestock in the National Panel Survey
                  Livestock data at MLFD
                  J. Utamici • MLFD; A. Mwakakula • MLFD

12:30 – 13:30     Lunch

13:30 – 15:00     LIVESTOCK DATA COLLECTION: ANALYSIS AND USE IN TANZANIA (cont.)
                  Livestock data at MIT
                  Livestock data at MAFC
                  Livestock data at Local Governments
                  J. Karungi • MLFD

15:00 – 15:30     LIVESTOCK DATA FOR DEVELOPMENT: AN AU–IBAR PERSPECTIVE
                  G. Mwakagha • AU–IBAR

15:30 – 16:00     Tea/coffee

16:00 – 17:30     LIVESTOCK DATA GAPS AND ISSUES IN TANZANIA
                  Roundtable
                  M. Kweka • ILRI; M. Tembe • ILRI; S. Latika • ILRI;
                  J. Kasungu • ILRI; K. Lulloe • ILRI; M. Bukasa • MLFD

19:00 – 21:00     Dinner; Naura Springs Hotel
New Perspectives on Livestock Data
Workshop on Production, Marketing and Consumption Statistics
Arusha, Natura Springs Hotel • 10-11 August 2011

DAY 2 • Thursday, 11 August 2011

08:30   Assemble

09:00 – 10:30 LIVESTOCK MARKET OPPORTUNITIES IN TANZANIA: WHAT DOES THE DATA SAY? Which markets present good business opportunities for livestock producers?

10:30 – 11:00 Tea/coffee

11:00 – 12:45 TAPPING INTO LIVESTOCK MARKET OPPORTUNITIES: EVIDENCE FROM LIVESTOCK SUPPLY CHAINS.

12:45 – 14:00 Lunch

14:00 – 15:00 LIVESTOCK DATA FOR INVESTMENTS IN TANZANIA: WHAT DATA TO SUSTAIN LIVESTOCK PRODUCTION, MARKETING AND CONSUMPTION?

15:00 – 15:30 PREPARATION FOR A ROAD MAP FOR IMPROVING LIVESTOCK DATA: IDENTIFICATION OF THE DESTINATION

15:30 – 16:00 Tea/coffee

16:00 – 17:00 A ROAD MAP TOWARDS IMPROVING LIVESTOCK DATA IN TANZANIA

17:00 – 17:30 Closure and press conference
## ANNEX 2. PARTICIPANTS IN THE MLFD-LDIP LIVESTOCK DATA INNOVATION WORKSHOP

Ministry of Livestock, Fisheries Development

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
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<td>Abel Mhehe</td>
<td>Statistician</td>
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</tr>
</tbody>
</table>

Ministry of Agriculture, Food Security and Cooperatives

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Email</th>
</tr>
</thead>
<tbody>
<tr>
<td>Charles W. M. Wambura</td>
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</tbody>
</table>

Ministry of Industries and Trade

<table>
<thead>
<tr>
<th>Name</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Dr. Alfred Mapunda</td>
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</tbody>
</table>

Prime Ministers Office – Regional Administration and Local Government

<table>
<thead>
<tr>
<th>Name</th>
<th>Position</th>
<th>Email</th>
</tr>
</thead>
<tbody>
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Regional Commissioner's - Regional Administrative Secretary Office - Arusha

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
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Regional Commissioner's - Regional Administrative Secretary Office - Pwani

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<thead>
<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Dr. Joshua B. Amo</td>
<td>Regional Livestock Advisor</td>
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National Bureau of Statistics

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<tr>
<th>Name</th>
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<tbody>
<tr>
<td>Morrice Oyuke</td>
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<td>Principal Statistician/CountryStat</td>
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<td><a href="mailto:jurasa@nbs.go.tz">jurasa@nbs.go.tz</a></td>
</tr>
<tr>
<td>Name</td>
<td>Title</td>
<td>Email/Contact Information</td>
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</tr>
<tr>
<td>Abbasy Mlemba</td>
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<td></td>
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<td>Sokoine University of Agriculture</td>
</tr>
<tr>
<td>Lusato R. Kurwijila</td>
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<td></td>
<td></td>
<td>Gerald T. Runyoro</td>
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<tr>
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<td>Assistant FAO Representative</td>
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<tr>
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<td>(Programme)</td>
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<td>AU - IBAR</td>
</tr>
<tr>
<td>Dr. Ibrahim A. Gashash</td>
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<tr>
<td></td>
<td></td>
<td>Japan International Cooperation Agency (JICA)</td>
</tr>
<tr>
<td>Kazuhiko Obama</td>
<td>Represent</td>
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<table>
<thead>
<tr>
<th>Step</th>
<th>Method</th>
<th>Purpose</th>
<th>Output, taken to next step</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Presentation of main results of demand analysis and definition of high potential product-retail opportunities. Plenary, following estimation, fieldwork and compilation of results, and key messages</td>
<td>Identification of candidate high-potential product-retail outlet opportunities for smallholder producers</td>
<td>6 candidate high potential product-retail outlet pairs</td>
</tr>
<tr>
<td>2</td>
<td>Scoring of product-retail outlet pairs for smallholder potential and identification of 2 key indicators. Randomly-selected groups are given an A3 sheet for each product-retail outlet pair (i.e. 6 sheets). For each criterion: 2 indicators are nominated a score is assigned on a Likert scale. A 10-minute introduction with examples, plus 80 minutes to complete 6 sheets (12 minutes per sheet, total of 90 minutes).</td>
<td>Narrow down to 3 high-potential product-retail outlet opportunities for smallholder producers</td>
<td>3 high-potential product-retail outlet pairs. 20 key indicators.</td>
</tr>
<tr>
<td>3</td>
<td>Value chain and organisational mapping of data necessary for use in the capture of indicators. The same groups as in step 2 are given a flipchart sheet laid flat on a large table and asked to sketch the value chain, and beside each actor to note the data that needs to be collected on that actor, in order to capture the indicators as identified in step 2. For each variable identified the existing sources are listed, with duplication identified. Data not being currently collected is also identified.</td>
<td>Provide an easily-communicable graphic presentation of the availability and organisational status of the data necessary to capture indicators. Provide a “starting point” for the road map</td>
<td>A Value Chain map for each of 3 high-potential product-retail outlet pairs, with necessary data identified and linked to the actor from whom the data is collected. Status of data availability, and identified duplication and absence of services.</td>
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<tr>
<td>4</td>
<td>Visioning of a future ideal for available data and data delivery systems Organisationally-designated groups (each Ministry in its own group, NGOs, private sector, researchers and producer boards all in their own groups) are asked to identify an ideal, 5 years into the future, by completing a form detailing 3 key indicators, specifications on those indicators, and selected resource use and management options for their organisation.</td>
<td>Provide a “destination” for the road map.</td>
<td>Organisationally-distinct statements on the desired nature of data, and data delivery systems. Oral guided presentation by groups, with questions/clarifications from members of other groups.</td>
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<td>5</td>
<td>Definition of necessary change Organisationally-designated groups are asked (again) to nominate key indicators needed, and assign duties for their collection under ideal conditions. Required changes (particularly organisational changes) are nominated and “next steps” are nominated with a timeline and identified source of funding</td>
<td>Sketch a “road map” for change</td>
<td>Organisationally-distinct statements on the desired indicators, desired organisational changes, desired investments, and identified funding sources</td>
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<tr>
<td>7</td>
<td>Presentation of proceedings</td>
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ANNEX 4: RATING CRITERIA FOR LIVESTOCK PRODUCT PAIRS (GRAPHICS)

- **BEEF - mixed cuts from butchers' shops**
  - Graph showing rating criteria for BEEF products.

- **CHICKEN - live birds in wet markets**
  - Graph showing rating criteria for CHICKEN products.
ANNEX 5: CLOSING ADDRESS BY THE ASSISTANT REGIONAL ADMINISTRATIVE SECRETARY MRS MATILDA BELLA, AT THE WORKSHOP ON NEW PERSPECTIVES ON LIVESTOCK DATA: PRODUCTION, MARKETING AND CONSUMPTION STATISTICS

A WORKSHOP HELD AT NAURA SPRING HOTEL IN ARUSHA, TANZANIA 10 - 11TH AUGUST, 2011

Chairperson.

Workshop Participants,

Ladies and Gentlemen.

Let me express my sincere gratitude for being invited to come and grace the official closing of the Workshop on “New Perspectives on Livestock Data” on production, marketing and consumption statistics here in Arusha. On behalf of the Government of United Republic of Tanzania, Ministry of Livestock and Fisheries Development and specifically, the Arusha Regional Commissioner’s Office, I wish to show my appreciation for choosing Arusha City as your best place to conduct your workshop “ASANTE SANA”.

Dear Participants; I have been told that you’ve come from outside and within Tanzania to come and participate in this important workshop. I am certain your two days stay in Arusha City gave you opportunities to enjoy seeing some important tourist attractions around. You’re warmly welcome again as there’re many places to visit which might be unforgettable to you.

Ladies and Gentlemen; I have been informed that this international workshop has brought livestock players in data collection, analysis and use with a broad aim of reviewing availability and gaps in livestock data; identifying opportunities for improving the availability both in quantity and quality of livestock data for the public and private sector; and agreeing on a road-map towards improving livestock data system in the country.

Ladies and Gentlemen; the importance of livestock country’s economic growth and poverty reduction is well acknowledged despite challenges such as increasing demand of livestock data, lack of statistical awareness and inadequate institutional and financial resources to mention a few. It is my
expectation that this workshop has come up with recommendations on how to improve the situation for the betterment of livestock industry in Tanzania.

**Dear Participants,** I was told that through this kind of gathering, sharing of ideas and experiences from different countries contributed to the accomplishment of the workshop. This is a good valuable experience. You deliberated on livestock data collection and their challenges. I commend the work done and I argue all stakeholders in livestock statistics to put the recommendations into use to facilitate the development of the livestock industry based on data guided decision making.

**Ladies and Gentlemen;** On behalf of the Government of the United Republic of Tanzania, I wish to take this opportunity to express my sincere thanks to the organizers – Ministry of Livestock Development, World Bank, FAO and International Livestock Research Institute (ILRI) for a well staged workshop.

Chairperson and Participants, having said these few words, it is now my pleasure to declare that the New Perspectives on Livestock Data Workshop on production, marketing and consumption statistics officially closed and I wish you a safe journey home.

**Thank you for your kind attention**
ANNEX 6: PRESS RELEASE
“What can’t be measured tends to be ignored”

Stakeholders recognize the importance of enhancing livestock data collection to support sector growth and poverty reduction.

11 August 2011, Arusha/Tanzania – Investing in livestock data collection leads to evidence-based policy and decision-making and opportunities for sector investment, agreed approximately 30 stakeholders who gathered in Arusha by invitation from the Ministry of Livestock and Fisheries Development (MLFD).

This meeting, “New Perspectives on Livestock Data”, was held August 10-11th and was jointly organized by MLFD with the Livestock Data Innovation in Africa project and sponsored by the Bill & Gates Foundation, implemented by the World Bank, FAO, and ILRI.

Representatives from the Ministry of Livestock and Fisheries Development (MLFD), joined by their colleagues from the Ministries of Agriculture, Food Security and Cooperatives (MAFC), Trade and Industry (MIT), National Bureau of Statistics (NBS), and the PMO’s Regional Administration and Local Government (PMO/RALG), representatives from the private sector, NGOs, and international organizations discussed options for enhancing livestock data.

The participants, recognizing the importance of data and information as a strategic tool for management of the livestock sector highlighted the need for livestock data that are relevant, accurate, consistent, timely and accessible by data users.

Cross-Ministerial Collaboration Key

Dr. Yohana Budeba, Deputy Permanent Secretary of MLFD, informed meeting participants that investments in livestock data collection, storage, processing, analysis, and dissemination could improve investments and livelihoods for the nearly one third of rural households who are involved in keeping livestock.

Stakeholders agreed to harmonize and invest in sustainable livestock data systems, through collaboration between Ministries under the Tanzanian Statistical Master Plan.

Inter-Ministerial collaboration was emphasized as a key ingredient to enhance the MLFD’s objectives of better supporting sector development through strengthening livestock data collection, processing, storage and dissemination. Strengthened linkages between MLFD, PMO-RALG, MAFC, MIT, NBS, and other data sources will lead to higher quality and cost effective collection of administrative and survey livestock data.

Heightened Interest by the International Donor Community in Enhancing Statistics

“Africa is joined by the international community to enhance data for decision making,” said Dr Budeba, “Policy makers can no longer manage sector development in a void.”
“Good reliable statistics provide us with the eyes and ears to respond to the development needs of the Tanzania population,” he added. “The livestock sector is ideally placed to generate economic growth through data-driven opportunities for investment”.

The Tanzanian Statistical Master Plan provides an umbrella for collaboration and implementation for the benefit of rural Tanzania. The ultimate output of this workshop was to establish a cross-ministerial commitment and a road map to work with the private sector and others to improve the quantity and quality of livestock data and statistics available for designing public and private livestock sector investments.