



## PROCEEDINGS OF INCEPTION WORKSHOP

Support to Capacity Building to Promote Formal  
Marketing and Trade on Livestock and Livestock  
Products from Horn of Africa





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31 May–1 June 2010, Djibouti

## FAO Subregional Office for Eastern Africa (SFE)

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# Preface

The Economy of the countries of the Horn of Africa is dependent on livestock-based production and trade characterized by pastoralism. Marketing of live animals and meat products in the countries and intra-boundary trading within the neighbouring countries is well established through existing business arrangements which are normally ethnic-clan based enterprises representing a traditional trade from the old days.

The Horn has in the last few years lost part of its share in the livestock market, especially in the Gulf, due to failure to meet the health and hygiene standards. The lack of skills and capacity on the part of producers and traders to implement regionally/internationally acceptable standards in the production, traceability, handling and preservation of meat for exports as well as variations in the quality of animals are the major constraints to retain competitiveness in the market. Coordination and stronger agribusiness linkages between the key actors in livestock marketing chain, is seen as requisite to enhanced competitiveness and increase trade.

The Inter-Governmental Authority on Development (IGAD) and the Sub Regional Office for Eastern Africa of the Food and Agriculture Organization of the United Nations (FAO/SFE) have jointly identified that “capacity building to various players in the livestock industry” is a priority area to improve marketing and promote livestock marketing efficiency and competitiveness in order to access regional and export markets to the Gulf region . A project was jointly formulated to address these issues.

The executing agency of this Regional project on capacity building is the IGAD Secretariat with the technical assistance from the FAO Sub Regional Office for Eastern Africa. IGAD has seven member states; Djibouti, Eritrea, Ethiopia, Kenya, Somalia, Uganda and Sudan covering the Horn where livestock plays a fundamental role in the national economies, the project is covering IGAD members countries.

The IGAD Secretariat and FAO/SFE then organised a two days Inception Workshop on Support for Capacity Building to promote formal marketing and trade of livestock and livestock products from the Horn of Africa in Djibouti from 31 May- 1 June 2010. Particular emphasis was laid on the constraints of the livestock and meat marketing and trade of the Horn countries hampering export to the Gulf region.

The workshop covered key topics like the current status and constrains of livestock production in Ethiopia, Kenya, Sudan, Uganda, Somaliland and Djibouti. The Djibouti Chamber of Commerce role and partners was highlighted, while the IGAD Secretariat programmes and priorities were introduced. The IGAD LPI initiatives on pro-poor livestock policies assessment and formulation was presented, regional livestock trade and the importance of TADs in livestock and livestock product was underlined by ECTAD representatives (Emergency Centre for Transboundary Animal Diseases). The annexes on OIE standards and Rift Valley Fever viruses were brought in as learning examples of international trade standards and common TADs affecting the region.

The experts that participated in the workshop were representatives from Ministries of Trade and Agriculture from different countries in the region, IGAD Secretariat, IGAD-LPI, ECTAD/OIE/IBAR/FAO and Djibouti Chamber of Commerce.

These proceedings are a compilation of the presentations given at the workshop and the knowledge gained from the workshop is expected to impact key stakeholders like government livestock departments and the private sectors, including chambers of commerce in the countries to promote and improve marketing efficiency in livestock and livestock product with the Gulf countries and beyond.

### **Castro Camarada**



Subregional Coordinator for Eastern Africa  
and FAO Representative in Ethiopia, to AU & ECA

# Acknowledgement

FAO/SFE expresses sincere thanks to the Executive Secretary of the Inter-Governmental Authority on Development (IGAD) , Mr. Mahboub Maalim, also for the strong collaboration in the implementation of this regional initiative, the FAO Representation in Djibouti for their strong support and to all the authors of the various papers presented during these two day workshop. SFE wishes also to acknowledge and thank Dr Rudolf Fombad, FAO National consultant for Cameroon, for the expert work done to compile the presentations into this publication.





## Welcome Address

The FAO Assistant Representative in Djibouti welcomed the participants to the workshop and said that FAO Representation in the country was pleased to be involved in the hosting of the regional workshop at the IGAD Secretariat. He said the issues of livestock trade were important to the entire region and Djibouti in particular as it handled a large number of livestock exported through the port of Djibouti. He wished the stakeholders fruitful deliberations.



# Opening Remarks

Mahboub Maalim\*

The FAO(SFE), FAO Representative in Djibouti, Program Manager , IGAD Agriculture and Food Security, the IGAD- LPI, the ECTAD/OIE/IBAR/FAO, the FAO Technical Adviser in Somalia, CVO Djibouti, chambers of commerce, IGAD member countries representatives, participants, ladies and gentlemen.

I wish, on behalf of IGAD, to welcome you all to IGAD Secretariat and to this important workshop and hope that despite the hot summer weather, your discussions will achieve the objectives of the workshop.

The IGAD region is endowed with a large resource base but despite this, it is food deficient and is in need of large quantities of food aid. It is, therefore, critical for the region to improve food production to secure livelihoods, reduce poverty and generate employment. This was the objective of the IGAD request to FAO for assistance and cooperation to promote livestock marketing by supporting relevant and practical capacities building to various players in livestock industry to improve marketing efficiency and competitiveness in order to access regional and export markets. The resultant livestock export earnings would then be invested to boost economic development for the region. Active participation of all stakeholders in project planning and implementation was vital in order to instil ownership and poor implementation.

The success of the project depended to a large extent on facilitating the producers to understand and acquire better skills for managing diseases at farm level, other support services and information on market requirements including price of livestock to enable them make informed decisions to improve product quality and related measures to achieve acceptable market certification.

The traders need to be informed on trading and animal transportation regulations and other market requirements. The processors of meat and other livestock products require skills and information to avail products with added value to satisfy health and quality needs of the markets or consumers.

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\* Executive Secretary of IGAD Secretariat

Pastoral production system in the region was associated with extensive movement of livestock across national borders. Practical ways to manage this through identification and traceability of the animals should be found. To improve marketing, a network system with a regional depository centre equipped with infrastructure to facilitate information sharing and flow to all stakeholders is needed. The strengthening and partnership of public and private service providers is necessary in improving livestock marketing.

It is hoped that these issues will be addressed during the implementation of the project. IGAD is keen to look for funds for a longer project to deepen the application of the knowledge and information assembled during the implementation of this project for improved livestock marketing performance in the region.

It is with pleasure, therefore, that I declare this inception workshop officially open.

# 1

## Project Introduction and Objectives of the Workshop

**Project Title:** Support to Capacity Building to Promote Formal Marketing and Trade on Livestock and Livestock Products in the Horn of Africa

**Project Number:** TCP/RAF/3301 (D), an IGAD project supported by FAO  
Emmanuelle GuerneBleich\*

**Figure 1:** Bosasso Export Port, Somalia: photo M. Bleich



### I. INTRODUCTION

The lowland areas of the Horn of Africa, despite being characterized by arid and semi-arid environment, have the most important landmass for livestock production in Africa. The region's economy is dependent on livestock-based production and trade characterized by pastoralism. Livestock production systems are similar and linked within neighbouring countries of the Horn and

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pastoralists move animals across the national borders between Djibouti, Eritrea, Ethiopia, Somalia, Kenya, Uganda and Sudan following the feed and water and transport routes to reach sub-regional export and marketing points. Marketing of live animals and meat products in the countries and intra-boundary trading within the neighbouring countries is well established through existing business arrangements which are normally ethnic-clan based enterprises representing a traditional trade from the old days.

Trade and export of live animals from the Horn of Africa especially to the Arabian Peninsula and Egypt represents one of the largest markets in the continent. While Ethiopia, Somalia and Djibouti have in the past been able to seize the opportunity to export animals to the relatively close Gulf countries, demands to meet certified quality and health standards required for export market (especially to Saudi Arabia) have been difficult to attain.

The formal export market comprises of many international regulations, taxes and market fees, which are in contrast to the informal and unofficial systems that do not have to deal with such requirements while successfully moving live animals within and out of the region for many years.

The Horn has in the last few years lost part of its share in the livestock market, especially in the Gulf, due to failure to meet the health and hygiene standards. For example, Ethiopia, Djibouti and Somalia were not able to export live animals for a period of more than a year on two occasions. The lack of skills and capacity on the part of producers and traders to implement regionally/internationally acceptable standards in the production, traceability, handling and preservation of meat for exports as well as variations in the quality of animals are the major constraints to retain competitiveness in the market. More specifically, there is need to improve the managerial and entrepreneurial capacity of livestock producers and traders in the Horn in order to adjust their operations to the demand. Coordination and stronger agribusiness linkages between the key actors in livestock marketing chain, is seen as requisite to enhanced competitiveness.

## **II. PROJECT COVERAGE**

The project covers members of the Inter Governmental Authority on Development (IGAD): Kenya, Uganda, Ethiopia, Sudan, Somalia, and Djibouti.

**Figure 2:** North Eastern Kenya, Somali Region: photo M. Bleich



### **III. TARGET BENEFICIARIES AND STAKEHOLDERS**

The target groups are mainly the various service providers, both in the private and public sectors, that are actively involved in the facilitation and promotion of livestock production and trade (especially export) in the Horn of Africa. These include the chambers of commerce, livestock development and trade departments of national governments and producers/traders associations in the respective IGAD member states. The ultimate beneficiaries of the project will be pastoralists/producers and traders of livestock and livestock products as well as poor groups including women-headed households who will benefit directly through improved market oriented production and more effective and sustained livestock trade. The project will contribute to the improvement in the performance of the livestock sub-sector and continuity of the trade.

### **IV. PROJECT IMPACT**

The envisaged impact is directly supplementary to the region's development objectives, to boost and sustain livestock trade within the region and export from the Horn of Africa to the Arabian Peninsula and other importing countries. The project will impact small scale and medium level traders and pastoralists to develop and strengthen income generating activities in a sustainable way, by facilitating the animal trade flow within the region and to the Arabian Peninsula



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from all remote places of production in the arid lands as markets will be more regular and secured.

### **V. OVERALL PROJECT OUTCOME**

The overall outcome will impact all the key stakeholders in regional livestock trade and export; government departments and the private sector including chambers of commerce in the seven IGAD member countries will be well informed and trained on the issues and conditions related to trade and export thereby contributing to the development of sustainable economic growth through regional integration of trade and marketing of livestock and livestock products.

### **VI. EXPECTED OUTPUTS**

#### **A. The project has three expected outputs:**

##### **Output 1**

Technical training packages on livestock/livestock product quality and certification procedures are developed and made available. Two-level technical manuals - (i) for service providers (ii) for producers and traders will be produced in English, French and Arabic and pilot tested in three IGAD countries.

##### **Output 2**

Entrepreneurship and agribusiness strengthening training materials are developed (in English, French and Arabic) and pilot tested in 2 sub-regional training courses under a LoA.

##### **Output 3**

Support the establishment of livestock market information Regional Network.

### **VII. SUSTAINABILITY**

The project will strengthen the existing local and sub-regional capacities to meet export requirements and improve the managerial and entrepreneurial capacity of livestock producers and traders in the beneficiary countries. These efforts and achievements will be integrated into the ongoing development actions to ensure the sustainability of the process beyond the project duration.

## VIII. OBJECTIVES of the INCEPTION WORKSHOP

The objectives of the workshop were to introduce the regional project to the key stakeholders and implementing partners, receive feedback on perceived needs of the stakeholders and review and revise the project work plan.

The expected outputs of the workshop are:

- Capacity needs of the stakeholders documented;
- Agreed activities and enriched work plan;
- Recommendations on networking and on the way forward

**Figure 3:** Chilled Goat Meat, Ethiopia: photo A. Sebsibe





## 2

# Current Status and Constraints in the Formal Livestock and Meat Marketing and Trade in Ethiopia

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and Getachew Legesse\*\*\*\*

## Summary

Ethiopia is rich in livestock resources and located near the Middle East-North Africa (MENA) lucrative market for live animals and meat. Although the country has recently made some improvement in the export performance, the recorded foreign income is not commensurate with the resource base. The global challenges are also growing and the traditional markets are taken over by other competitors. The major constraints are traditional marketing system, poor market information system, poor market infrastructure (like roads), seasonality in production, competition between the domestic and export sector, traditional production system, limited knowledge and skills of actors involved along the value chain and a combination of several other factors.

## I. INTRODUCTION

### Background

Ethiopia has one of the largest livestock populations in Africa. Livestock in Ethiopia provides draught power, income for farming communities, and serves as a means of savings and investment which is an important source of foreign exchange earnings to the country. It is an important economic sector providing approximately 16 percent of the total GDP (equivalent to 30 percent of the agricultural GDP) and generating 14 percent of the country's foreign exchange

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earnings. Livestock production systems in Ethiopia are generally subsistence oriented and productivity is very low (Belachew and Jemberu 2003). The supply of livestock comes in small numbers from highly dispersed small producers that supply non-homogenous products to local markets. The market availability of livestock has been affected by low productivity of animals and the lack of market-oriented production systems. Where the supply is adequate, the live animals supplied to the market by pastoralists and farmers do not meet the quality attributes required by diverse markets. This is due to the poor link between producers and other actors in the chain to the critical support services.

Some of the problems related to the support services include:

- absence of commercial animal health services;
- non-existence of appropriate trucking equipment;
- underdeveloped feed industry;
- lack of commercial fattening and holding facilities.

Another challenge to the livestock market is the rampant and sporadic occurrence of certain diseases such as Rift Valley Fever (RVF) that result in unstable market environment and imposition of bans on exports of livestock products from the country. Livestock trade in Ethiopia is also characterized by informal cross-border trade between adjacent neighbouring countries, mainly Somalia and Kenya, where the animals are used either for re-export or domestic consumption. Ethiopia can improve competitiveness for live animals and meat export, through interventions that coordinate livestock marketing, and make the necessary market support services available. Cost-effective marketing channels and coordinated supply chains aimed at reducing the non-value transaction costs among different actors are crucial to maximize benefits from the livestock sector, ensure food security and improve export performance. In other words, if livestock producers and exporters are to be competitive in both domestic and international markets, their supply value chains need to be more efficient and more effective. This will require not only the competitiveness of individual firms but also improving the efficiency of all its elements; from production to processing, handling, distribution and marketing.

## **II. LIVE ANIMAL AND MEAT EXPORT ECONOMY (SECTOR) OF THE COUNTRY**

Ethiopia has diverse agro-climatic zones suitable for the production of different kinds of livestock.

According to the Central Statistical Agency (CSA) 2010 sample surveys, Ethiopia has 51.8 million cattle, 33.07 million sheep, 30.3 million goats and 2.4 million camels. Ethiopia's agriculture has received a great deal of attention over the past decade due to the rapid growth of its export to the external world. Live animals and meat export have become one of the most dynamic sectors in international trade. They are increasingly important in Ethiopia's economy. This growth has undoubtedly contributed to increase rural incomes and reduce rural poverty in Ethiopia. Despite this growth, exports from the livestock sector represent a fraction of Ethiopia's overall earnings from the agricultural sector.

The net commercial take off rate for both cattle and shoats is very low at different periods in Ethiopia. In 2009, the average net commercial take off rate of cattle, sheep, goats and camels for small holder farmers in the highland and lowland areas of Ethiopia was 10%, 35%, 38% and 6.5% respectively (CSA,2009). The annual potential for export was estimated at 72 000 metric tonnes of meat. The existing abattoirs have a capacity to process 2.45 millions of shoaat per annum. There is the possibility of expanding these to attain a maximum working capacity of 4.5 million shoats per annum.

In 2010 Ethiopia earned \$124.5 million from meat and live animal export. From the total amount of foreign earnings, live animals accounted for 70 percent while 30 percent of the currency was obtained from the meat industry. On the whole, the live animal and meat export sector has benefited substantially from government's hands-off approach, enabling the sector to expand from a small trade centre to an extensive trade that delivers products to overseas markets today.

The good investment opportunities in the country have led to the establishment of new export abattoirs and meat processing plants in different parts. This is expected to stimulate a corresponding growth in meat exports with improved quality of products. However, between 2006 and 2010 the average amount of meat exported by Ethiopia did not exceed 7 000 metric tonnes. The total earnings were raised by 23.1 percent and it reached \$34 million in 2010, with the highest meat export of the country to different destinations being recorded in the same year (10 182 metric tonnes of meat). The Ethiopian meat is exported to Middle Eastern and the North African countries, with the largest share being imported by the United Arab Emirates and Saudi Arabia. These two countries in 2010 have imported a total of 4 589.3 and 3 659.2 metric tonnes of meat, respectively, from Ethiopia.

**Table 1: Main Export Market for Ethiopian Meat**

Country	2005/2006		2006/2007		2007/2008		2008/2009		2009/2010	
	Qty in tonnes	FOB value(\$)	Qty in tonnes	FOB value(\$)	Qty in tonnes	FOB value(\$)	Qty in tonnes	FOB value(\$)	Qty in tonnes	FOB value(\$)
UAE	3 358	8 371	2 849	7 526	3 214	10 715	4 565	16 476	5 104.5	18 300
Saudi	3 308	7 839	2 655	7 056	3 209	10 007	2 612	9 597	4 073.1	14 300
Egypt	936	1 613	212	619					162	400
Yemen	105	183	48	96	37	100	43	133	38.4	100
Vietnam							238	329	195	200
Kuwait							2	9	36.15	100
Other	211	444	111	274	22	55	10	40	573.45	600
Total	7 917	18 450	5 875	15 471	6 484	20 884	7 468	26 584	10 182.9	34 000

**Table 2: Ethiopian Meat and Live Animal Export**

Year	Meat export in (MT)	Value- (in 000 USD)	No. of animals exported	Value (000 USD)	Total (000 USD)
2000/2001	870	1 725	4 919	181	1 906
2001/2002	663	1 103	32 383	343	1 446
2002/2003	1 700	2 400	10 372	480	2 880
2003/2004	3 317	6 335	41 966	2 377	8 712
2004/2005	7 754	15 598	103 905	13 081	28 679
2005/2006	7 917	18 448	163 375	27 259	45 707
2006/2007	5 875	15 471	233 925	36 507	51 978
2007/2008	6 487	20 888	297 644	40 902	61 790
2008/2009	7 468	26 583	214 683	52 678	79 262
2009/2010	10 182	34 000	333 271	90 750	124 500

FOB (Fixed onboard price calculated from the total value of export)

Source: Ethiopian Revenue and Customs Authority and Ethiopian Meat and Dairy Technology Institute

The Ethiopian government's long-term strategic plan is to increase the volume of meat export by assisting and/or improving the capacity of the private and public stakeholders and increasing investment and market promotion to exploit the additional benefits from the hides and skin, the by-products and the associated job creation. Recently, the government established and strengthened the Ethiopian Meat and Dairy Technology Institute to assist the commercial livestock operators in the indicated areas. Despite the reported high livestock population of the country, the major meat and live animal exporters complain of shortages of supply and inferior quality animals (especially shoats). Generally, most abattoirs operate at less than 50 percent of their installed capacity.

Implications of under capacity operation of export abattoirs are:

- less competition in international markets due to the high cost of production;
- inconsistency in the continuous supply of meat to meet the demands of consumers in importing countries due to inadequate supply of the required high quality live animals for meat processing;
- inability to make use of economies of scale to minimize the cost of operation per unit of processed animal;
- additional high operational costs due to long inland transportation to the ports, high freight rates and port charges;
- lack of well maintained quarantine, holding grounds and stock route facilities;
- lack of adequate cold storage facilities and standard packaging materials;
- high internal service charges, fees and taxes.

### **III. MAJOR OPPORTUNITIES AND CONSTRAINTS IN THE LIVESTOCK EXPORT MARKET**

#### **A. Opportunities**

The existing opportunities in the livestock market are:

- enabling policy environment i.e. good investment opportunity;
- highly diverse livestock population;
- better proximity to importing countries;
- existing demand from importing countries (MENA and West Africa);
- appreciations from importers to the taste of Ethiopian meat;
- willingness of new firms to engage in the meat export sector; and
- participation of development partners in supporting the livestock market initiatives.



## **B. Constraints**

The main constraints can be examined from the perspectives of supply and marketing.

### **1. Problems related to supply**

The major problems related supply include:

- inadequate supply both in quantity and quality (Livestock potential cannot be exploited and hence supply of sheep and goats to slaughter houses is limited.);
- seasonality of supply (Pastoralists/producers are not motivated to sell their sheep/goats on a regular basis. However, sales are done when there is financial need for the family or when there is a specific market demand for the animals.);
- disorganized traditional sources, and malfunctioning livestock markets;
- absence of organized regional suppliers (Regional livestock suppliers are not properly organized to provide marketable products.);
- unproductive competition;
- high involvement by unproductive middlemen;
- weak veterinary services and prevalence of trade limiting trans-boundary diseases;
- lack of standard transportation facilities for live animals;
- illicit border trade constraining supply of live animals to slaughter houses;
- potential risk of different disease outbreaks among the groups of animals;
- multiple and disharmonized taxation;
- limited access to value chain finance;
- lack of infrastructure ( Farm-to-market roads to ease transportation of the animals is unavailable. Also, marketing infrastructure is inadequate.);
- non-market oriented livestock production system;
- lack of processing facilities (Except for the newly constructed export abattoir, most of the existing abattoirs can process mainly shoats.),

- lack of capacity (facility and technical competence) to de-bone beef and vacuum pack;
- shortage of standard live animal transportation facilities to the port and export abattoirs;
- recurrent drought;
- stringent sanitary and phytosanitary standards (SPS) requirements by importing countries;
- lack of a well-coordinated livestock supply chain that links many producers and buyers;
- lack of primary markets in remote pastoralist areas;
- limited knowledge and skill of actors on production, handling and processing along the value chain.

## **2. Problems related to marketing**

This refers to:

- lack of adequate cold chain for meat; Non tariff trade barriers such as sanitary and phytosanitary standards (SPS) and hazard analysis critical control point (HACCP). They are crucial for the performance of meat export. The compliance needs to be maintained both at the firm and industrial levels as failure by one exporter to respect the regulations will jeopardize exports by all other exporters.
- weak linkages of pastoral areas with highland markets;
- lack of reliable sources of livestock market information including promotion;
- limited knowledge and skill on value addition.

## **III. CONCLUSION**

To be much more competent in the export market, Ethiopia needs to acquire a much wider range of SPS conditions and quality requirements. Understanding importers' perspectives and requirements would enable the Ethiopian meat and live animal exporters to exploit the existing and further potential markets in the Middle East and North African countries (MENA). Undertaking a huge investment in areas where the resource is available would be a basic ground that the government and other key stakeholders must consider.

The existing export abattoirs in Ethiopia, almost more than 90 percent of them, are located within 100 km radius of the capital Addis Ababa. So, establishing export abattoirs in the pastoral areas will help these communities to get markets for their products at an acceptable price. In addition, there might be a possibility to protect the illegal live animal trade across the border motivated by the need for good prices for their animals. Government incentives to those who invest in pastoralist areas must be attractive. All potential key stakeholders assisting the government effort must introduce new technologies in the meat industry that make Ethiopian export abattoirs highly acceptable in the potential market. The export abattoirs must be committed to adopting new skills and knowledge.

There must be a comprehensive livestock market information system at national level for the country. Recent attempts by the Sanitary and Phytosanitary Standards-Livestock and Meat Marketing (SPS-LMM) and the Ethiopian Meat and Dairy Technology Institute (EMDTI) in collaboration with other non-governmental organizations to establish livestock market information system have yielded good results in increasing the awareness of the pastoralists about the market. The extension services that are given to the pastoralists must be improved to lead producers into commercialized ways of production as well as creating a bridge to link the producers with the ultimate end users by establishing livestock marketing associations.

To produce internationally acceptable standard products, good quality veterinarian services must reach all the resource endowed regions of the country. The meat and live animal exporters of the country must avoid unnecessary unproductive competition and they must act together to exploit the existing market. All potential key stakeholders involved in assisting the meat and live animal export industry of the country must unite their efforts to bring about a big change in the industry.

## **IV. RECOMMENDATIONS**

### **A. The following is recommended for the Ethiopian meat and livestock industries**

- Encourage market oriented production.
- Develop livestock market extension.
- Establish efficient market information system.

- Develop market infrastructures.
- Introduce cost effective transportation systems.
- Improve animal health services.
- Develop internationally recognized sanitary and phytosanitary standards (SPS) certification system.
- Encourage and support commercially integrated livestock production initiatives.
- Push towards trading using Ethiopian brands in importing countries.
- Complement each other in order to develop good markets for Ethiopian meat and live animals.
- Monitor animal purchasing system frequently and take corrective measures.
- Select the most competitive channel that will enable provide price competitive products.
- Special and coordinated attention to capacitate the major value chain actors including provision of continuous awareness program on export requirements

## **B. Ethiopian meat and live animal exporters shall comply with the following market strategy in the industries**

- Research the retail and food service meat markets in Gulf states for beef, sheep and goat meats and other variety meats and live animals
- Clearly identify market intermediaries or local providers in each country of the Gulf who have the capabilities to enhance market linkage and represent Ethiopian meat and live animals components by penetrating the market segments identified as the most promising.
- Prepare promotion materials and attend food shows such as international food fair in the region.
- Undertake a promotion program for hotels, markets and restaurants with the help of local service providers.
- In collaboration and coordination with relevant bodies of the industries, undertake appropriate capacity building activities following the value chain and make continuous awareness program to help the actors meet the importing requirements.

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# 3

## Constraints of Livestock Trade in Somaliland

Ali Mohamed Ali\*

### Summary

Some 55 percent of Somaliland's three million inhabitants are pastoralists and agro-pastoralists producing about 12 million grazing animals consisting of sheep, goats, camels and cattle. Livestock is the backbone of this country's economy generating up to 65 percent of gross domestic product (GDP), 85 percent of the foreign currency earnings and providing the main source of livelihood to an estimated 70 percent of the population.

Livestock in most of the country are managed traditionally with low input while livestock and livestock products are primarily used for home consumption. Production constraints are either natural, institutional, infrastructural or financial. The decision to sell animals by pastoralists is usually taken when there is an urgent need for cash and when livestock sale prices are high in the market such as during the Hajj season.

Somaliland has a potential to export up to three million live animals annually to the Saudi Arabia, Abu Dhabi and Yemen, if given market access to these countries. In 2009, even when the ban was still in place through most of the year, live animals export from Somaliland to the Gulf countries was 1 662 780 heads, mostly of sheep and goats.

However, market access for the country has often been challenged by several constraints, including suspicions of the presence of highly contagious diseases like Rift Valley Fever; lack of marketing knowledge and information; lack of internationally recognized animal health certificate; lack of awareness by livestock traders on global market situation, international rules and regulations, quality and safety standards of products to enhance their effectiveness in the export market; ineffective and inadequate infrastructural and institutional setups; dependence on single market and stiff competition from other livestock exporting countries.

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Recommended interventions are building the capacity of all value chain actors in the system on appropriate training on animal health and product certification, information on market requirements, on agribusiness and entrepreneurship development. Somaliland also needs to regulate its livestock trade and conform to international health and safety standards, and seek regional collaboration in livestock marketing.

## **I. BACKGROUND**

Somaliland is a country with a population estimated at about three million in 1997. It has been self-proclaimed as a separate state since 1991 following the collapse of the Somali Democratic Republic.

It is situated in the Horn of Africa with boundaries defined by the Gulf of Aden in the north, mainland Somalia in the east, the Federal Democratic Republic of Ethiopia in the south and west, and the Republic of Djibouti to the north-west. (Fig 1)

Somaliland's territory covers an area of 137 600 square kilometres with a coastline of 850 kilometres. About 80 percent of the land is used for livestock production while the rest serves for rain-fed farms and small scale irrigation farms along seasonal river banks. It is estimated that about 55 percent of the population of Somaliland are pastoralists and agro-pastoralists.

A proportion of the urban population is involved in the marketing of livestock for their livelihood.

The climate of Somaliland is classified as arid and semi-arid with erratic and scanty rainfall. The average yearly rainfall in most of the country is between 100 and 300 mm. The country has two wet seasons locally known as the "gu" (April–June) and the "deyr" (October–November, with two dry seasons known as, "Jilal" and "Hagaa" in between the rainy seasons.

**Figure 1:** Map of Somaliland

Somaliland has a predominantly nomadic pastoral community that is engaged in the market economy to subsidise their livelihood with other food items apart from milk and livestock products. They sell some of their animals to cover the cost of other basic needs. Livestock production contributes 60-65 percent to the GDP of the national economy (Ministry of Agriculture, Somaliland, 1997).

About 70 percent of Somaliland's population relies mainly on livestock products such as meat, milk, and skins for their daily subsistence. The government's revenue is heavily dependent on livestock sales in the local markets and exportation of animals. Livestock is exported to the Arabian Gulf countries like Saudi Arabia, Abu Dhabi, and Yemen, yielding about 85 percent of the total hard currency earnings and income for Somaliland's population.

Saudi Arabia imposed a ban on Somali livestock, which has severely affected the overall income of Somaliland's population, particularly of nomadic pastoralists whose livelihood is entirely dependent on income generated from livestock marketing.

## II. LIVESTOCK PRODUCTION AND MANAGEMENT SYSTEMS

There are two types of livestock production and management systems in Somaliland - nomadic pastoralism and agro-pastoral production. They operate on several factors such as area, availability of labour, herd sizes and types of livestock.



## **A. Nomadism**

Due to limited rainfall, Somaliland has become one of the countries in the Horn of Africa where nomadic pastoralism is the major mode of production.

The majority of Somaliland's population identify themselves as pastoralists with large numbers maintaining a nomadic or semi-nomadic life style designed to enable livestock keepers to shift locations as rain and pattern of pasture growth dictate. The movement of these pastoralists is often organized and follows a regular pattern in which each group or all groups have their traditional grazing areas, common watering points, and temporary camps. The nomads usually maximize the herd size in belief that the more animals they have entering a drought period, the more will survive.

## **B. Agro-pastoralism**

This is a production system that is characterized by the maintenance of a permanent home in farming areas by a family. There are several different sub-types ranging from farmers owning large herds and keeping only a few domestic animals, to small –scale farmers owning only a few animals.

This production system was initially practiced in the southern and western farming regions, but it is now becoming more common even in drier regions of the country as the pasture lands gradually diminish and deteriorate.

While this system of livestock management has proven sustainable over hundreds of years, it is essentially a strategy designed for a harsh and fragile environment.

## **III. LIVESTOCK POPULATION**

Four livestock species – sheep, goats, camel and cattle – are reared in Somaliland. There are no accurate livestock numbers, but an FAO Report on livestock survey pilot project conducted by Reynold (Feb, 2008) gives the following estimates:

- Cattle – 308 890
- Camels – 1 308 260
- Sheep – 5 837 320
- Goats – 4 790 000

The numbers of livestock, however, dropped as a result of the 1991 civil war and diseases.

## **IV. LIVESTOCK PRODUCTION CONSTRAINTS**

The livestock sector in Somaliland faces several challenges that limit and hinder the actual potential and benefits the people could enjoy. These challenges are:

### **A. Natural Constraints**

- livestock diseases;
- environmental degradation in a fragile ecosystem, improper range and land use and man-made enclosures that restrict livestock movements;
- insufficient and irregular rainfall and droughts.

### **B. Institutional Weaknesses**

- weak law enforcement schemes;
- challenges to comply with international and regional livestock trade regulations or quality assurance requirements.

### **C. Lack of Adequate Services Infrastructures**

- lack of export livestock services infrastructures;
- poor and inadequate laboratory infrastructures;
- lack of services infrastructures for animal health;
- limited human resources both in public and private sectors.

### **D. Financial Constraints**

- low government budgetary allocations;
- absence of private investments;
- insufficient donor funds which are mostly relief or emergency but not development oriented.

## V. LIVESTOCK TRADE

After the collapse of the former Government of Somalia, Somaliland re-established itself in 1991 and since then ensured security, stability, governance and administration structures which allowed increased development activities.

Immediately after the civil war, livestock export was resumed through Berbera Port and the country entered a period of rapid economic recovery and a period of prosperity.

Somaliland has since established itself once again as an international trade hub with exports that far exceed pre-war levels, demonstrating the importance of livestock trade in the country.

The livestock export through Berbera steadily increased between 1991 and 1998. During that period, export markets had achieved unprecedented growth of 2.8 million heads valued at \$120 million that were exported from Berbera Port in 1997.

The livestock export trade to the Arabian Peninsula dates back to the 1970's and 1980's coinciding with the period of economic boom experienced by the Gulf oil-rich countries. The outcome of this was the creation of a large and lucrative export market for Somali livestock. The rapid commercialization of livestock market has impacted the life style of the pastoralists who had to adopt and adapt to this new demand. The market then transformed into a livestock export oriented and trade links were established, which resulted in cash earnings and imports of food and commodities.

The situation changed again in February 1997 following an outbreak of (RVF) in East Africa. The Kingdom of Saudi Arabia (KSA), together with most other countries in the Arabian Peninsula imposed a ban on livestock imports from all African countries to prevent the disease from reaching their region. The ban was lifted in May 1999 but was re-imposed in September 2000 because of human deaths and animal disease as a result of RVF occurring in the south-western parts of the KSA and north-western Yemen. The ban was lifted in May 2001 by all countries in the region with the exception of KSA, where it remained in place. Since the 1980s, the KSA has also placed a ban on the importation of cattle from the Horn of Africa for fear of the risk of Rinderpest introduction. This ban abruptly ended the livestock export business and wiped out what had quickly become the dominant income stream for Somaliland population.

The import bans seriously impacted pastoralist livelihoods in the Horn of Africa, where livestock trade was the primary source of income and food security. While the ban of 2000 was short-lived in most of the Arabian Peninsula countries, livestock producers and exporters in the Horn of Africa remained under threat of market closure from RVF and other disease outbreaks. The higher-priced KSA market also remained closed to direct importation.

The cessation of livestock export has had a serious impact on the economy of Somaliland. The terms of trade are deteriorating with animal prices going down while those of other commodities are increasing. Due to peoples' significantly reduced purchasing power, the general trade business in the country suffered drastic setbacks.

Trading activities reduced, some livestock traders lost large amount of their money and business premises started to close down. The Administration lost its main source of revenue to cover for salaries of civil servants, the military and police.

Not knowing how long the Saudi livestock ban will remain in place, there was an urgent need to look for solutions to the current economic problems of the country.

The livestock exporters were, therefore, able to explore and obtain new market ties for live animals and chilled meat with Yemen, Egypt, Oman and the United Arab Emirates. Available data indicates that in 2004 and 2005 (see Table 1), a total of 1 887 970 sheep and goats, 277 829 cattle and 8 633 heads of camel were exported to Yemen, Abu-Dhabi and Egypt. Many people believe that a majority of these animals exported from Berbera were getting through to the Saudi Arabian market.

## **A. Livestock Markets**

Livestock trade in Somaliland is principally export oriented. The private sector plays an important role in the development of livestock trade and most of the livestock exporters have links with business people in the Arabian Peninsula.

Livestock markets in Somaliland are venues where the rural producer, urban consumer and livestock exporter come together to make exchanges. Pastoralists tend to sell a significant part of their livestock for cash to enable them buy other basic needs like sugar, rice, clothes, and home utensils. All livestock

destined for export, especially sheep and goats, are transported from the local markets on trucks to Berbera, which is the only port in Somaliland for exportation. The major livestock markets in Somaliland are located in Burao, Hargeisa and Togwajaale. Togwajaale market is exclusive for cattle coming from Ethiopia. Half of Somaliland’s livestock export consists of animals trucked from the interior of the country, southern part of mainland Somalia and eastern Ethiopia.

These markets are among the busiest in the Horn of Africa. Formerly, pastoralists were paid half in cash and half in kind for their animals. Presently, the practice is that all export animals are paid for in cash and on the spot in the market.

Saudi Arabia is Somaliland’s main trading partner for sheep, goats and camels. Most of the cattle exported comes from Ethiopia and is sent to Yemen and Abu-Dhabi.

The regular trend is that female sheep, goats and camels are generally kept within the flock for reproduction purposes and milk production, while the males are exported to Saudi Arabia and other Gulf states. Although the female livestock are not exported they are sold in local markets for domestic consumption when they are too old to reproduce.

The Somali–black-head sheep is appreciated and sold in the Saudi Arabian market, followed by goats, cattle and young camels in that order. The peak period for trade is at the end of the Islamic fasting month of Ramadhan and Eld Al-Adha or Arafa holidays as well as during the Hajj (the yearly Pilgrimage) to Mecca when millions of Muslims from around the world gather in Mecca.

Livestock markets are regulated by local governments but the sellers and buyers bargain the prices. It is to be noted that facilities such as water, feed, shade, inspectors and loading ramps are inadequate in the market places to sustain the animals.

**Table 1:** Livestock exports through Berbera

Year	Sheep/goats	Cattle	Camels	Total
2004	866 571	131 884	3 888	1 002 343
2005	1 021 399	145 945	4 745	1 040 689
2006	1 200 289	97 333	522	1 298 144
2007	115 061	83 979	19 626	218 666
2008	1 223 095	81 668	26 090	1 330 853
2009	1 554 327	88 048	20 414	1 662 780

Table 1 shows that in 2004 and 2005 when access to markets in Saudi Arabia was possible because of the lifting of the ban, livestock traders exported a larger number of animals to Arab countries.

## **B. Milk Marketing**

There are no milk processing plants in the country. Fresh milk is collected from the country-side and is used by urban consumers on daily basis.

Milk sales provide a regular and reliable income (80 percent of the total income) to meet the daily needs of pastoralists who often depend on this for their livelihoods. Women are in charge of marketing the milk, which is the staple food and major source of proteins and vitamins for both rural and urban populations.

There is an umbrella association for women milk traders. Each woman in the association has agents in the country-side who collect milk from nearby pastoralists and then send it to them in the town. However, milk transporters and milk traders lack the technical skills for long distance transportation (80 kms and more) and basic understanding of milk hygiene to be able to provide quality fresh milk to the market. Milk that has gone sour is sold for lower prices than fresh milk reducing the incomes of both traders and producers. Milk marketing is complex as it involves a variety of actors.

**Livestock Owner:** Livestock owner milks his animals and keeps the milk in small container for sale in exchange for other needs of the household. Every day, he takes the fresh milk to the primary collector.

**Primary milk collectors:** They are women who stay in the remote villages close to the livestock mobile herders through hired milk vans. They buy milk daily from the herders and transport it in 24 litres large plastic containers to the secondary milk collectors through regular milk vans. The primary milk collectors pay the herders either in cash or in kind.

**Milk trucks:** They are hired by women collectors to carry milk and other goods between production areas and urban markets.

**Secondary milk collectors:** Live in major towns (urban areas), receive the milk sent each day and sell it directly or distribute it to the retailers. The secondary milk collectors send the empty containers back to the primary collectors with their money through the milk trucks.

Retailers: They take milk from the secondary collectors and sell it to the consumers in urban markets.

## **B. Current Status of Livestock Export**

In November 2009, the government of Saudi Arabia lifted the ban on livestock imports from Somalia after it had been in place for eleven years. This announcement was well received across Somalia as hundreds of thousands of pastoralists rely on animals export to the Arabian Gulf countries. This decision coincided with the establishment of veterinary quarantine facility in Berbera by Aljabiri Company, owned by a rich Saudi Arabian livestock trader. The quarantine facility ensures that all animals exported from Berbera destined for Saudi Arabia are inspected and certified for being free from clinical symptoms of relevant diseases. Blood samples are collected from all animals coming into the quarantine for tests for Brucellosis. They are also vaccinated against Rift Valley Fever disease. This quarantine facility issues international health certificates for animals passing through its inspection. The certifications are acceptable by the Saudi Arabia Livestock Authority.

Even though the animals are certified in this new quarantine facility, sometimes a whole shipment of livestock is rejected on arrival in Saudi Arabia. In the first week of August 2010, a ship carrying 57 000 sheep and goats was sent back from Jeddah sea port.

According to the Berbera Veterinary Port Officer, the following number of livestock were rejected by Saudi Arabia in different months of 2010:

- December 2009 = 1 600 heads of cattle
- April 2010 = 2 000 camels
- May 2010 = 3 040 camels
- August 2010 = 57 000 of sheep and goats

No reason was given for the rejection of these animals by the Saudi veterinary authorities.

## **C. Current Certification System**

Sanitary standards in export trade in Somaliland are based on the following certification processes:

- movement permit (ground movement of animals);

- inspection certificate;
- vessel inspection certificate;
- health certificate issued when everything is checked by Somaliland veterinary port officer (It is issued when it is declared that all livestock are free from any signs of relevant disease by Somaliland veterinary inspectors);
- health certificate issued by veterinarian representing the company managing the quarantine facility when animals are on board.

#### **D. Constraints of Livestock Trade**

In a series of stakeholders' workshops held in Hargeisa, Somaliland, over the past years with the help of international organizations, many constraints affecting livestock trade were identified. The constraints include: Lack of effective veterinary services and limited vigilance on trans-boundary diseases.

- lack of internationally recognized animal health certificates;
- poor knowledge about market information for prices;
- lack of alternative markets and information on marketing systems;
- the effect of drought on markets (closure of the markets due to water shortages);
- various fee charges imposed by different local institutions;
- absence of proper public meat inspections, certification verification procedures;
- non-compliance with the procedures and guidelines set by the Office Internationale des Epizootique (OIE);
- lack of awareness on importing countries marketing requirement/preferences;
- lack of skilled personnel for quality and safety control;
- lack of investment on export meat processing plants;
- lack of awareness by livestock traders on global market situation, international rules and regulations, quality and safety standards of products required that will enhance their effectiveness in the export market;
- dependence on a single main market (Saudi Arabia);
- stiff competition from other livestock exporting countries to the Arabian Gulf market.



## VI. RECOMMENDATIONS

The Livestock sector will remain the mainstay for the people of Somaliland. The majority of the people depend for their livelihoods on returns from their activities in animal production and trade. To improve the wellbeing of the people, the following recommendations should be given priority:

- Train veterinary personnel on disease surveillance, diagnosis and treatment of trans-boundary diseases.
- Develop a system of certification for health and quality assurance acceptable by exporting and importing countries.
- Develop a market information centre for disseminating information regarding export livestock prices and alternative markets.
- Increase and upgrade the knowledge and managerial skills of the stakeholders in the livestock industry.
- Reduce the fees in order to enhance the competitiveness of livestock exporters.
- Organize awareness creation about the rules guiding international livestock trade (compliance of OIE).
- Encourage investment on meat processing plants.

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# 4

## The Status of the Livestock Industry in Uganda

Rwabushaija Bernard\*

### Summary

Livestock production contributes for about nine percent of NGDP and 17 percent of AGDP of the Ugandan economy. Livestock production system practised in Uganda, notably, are; pastoral, agro-pastoral, settled mixed crop-livestock, commercially oriented and non-ruminant systems for pigs and poultry. Some of the constraints to the development of the livestock industry include endemic diseases, low genetic potential of indigenous breed types and poor breeding methods, feeding and water, weaknesses in enforcement of laws, regulations and standards and marketing constraints.

In order to address issues limiting development of the livestock industry, the government has been implementing macro-economic policy reforms and programmes to serve as guides for implementation of interventions in the livestock sub sector by the stakeholders in both public and private sectors. One of the current interventions is the Uganda Meat Export Development Programme (UMED). Broadly, UMED aims at substantially reducing the prevalence of trade sensitive diseases, increasing livestock productivity, creating an orderly livestock marketing protocol, modernizing the public Sanitary and Phytosanitary control system and generating value-added products. To achieve these broad aims, the programme is being implemented under four components. Furthermore, any other intervention such as the capacity building project to promote formal marketing of livestock and livestock products in the Horn of Africa brings onboard regional and international information necessary for the future trade in livestock and livestock products, and more specifically, for the export market.

### I. LIVESTOCK CONTRIBUTION TO THE NATIONAL GROSS DOMESTIC PRODUCT (NGDP)

Livestock production constitutes an important sub-sector of Uganda's agricul-

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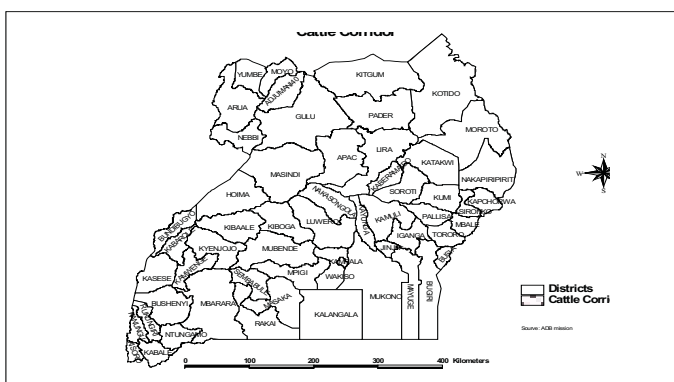
ture contributing about nine percent of NGDP and 17 percent of Agricultural Gross Domestic Product (AGDP). It is an integral part of the agricultural system in many parts of the country. Livestock contributes significantly to the welfare of the population at both household and national levels by:

- being the source of human food such as meat, milk and eggs, which are all high value sources of essential nutrients;
- providing income to farmers through sale of animals and their products;
- serving as mobile banks from which the funds can be liquidated for other uses;
- using the dung as organic fertilizers for sustainable agriculture;
- providing draught power (traction) for ploughing and transport;
- contributing to socio-cultural values of society in the form of dowry, gifts and pride.

## II. LIVESTOCK POPULATION

According to the Uganda National Livestock Report 2008, the estimated livestock population is: 11.4 million cattle, 12.8 million goats, 3.4 million sheep, 3.2 million pigs and 37.4 million chickens.

Most of the livestock is owned by small holders although there are a small number of commercial ranchers. The main concentration of the cattle population is in the cattle corridor (Figure 1) in two regions in the south western and central part of the country.



**Figure 1:** Uganda Cattle Corridor  
*National Livestock Production Levels*

**Table 1:** Trends in the Production of Meat and Other Livestock Products (Tonnes)

Product	2000	2001	2002	2003	2004	2005	2006	% Change 2000- 06
Cattle meat	96 750	101 400	106000	110000	106000	106000	106000	10%
Chicken meat	44090	48 822	53 625	37 700	37 700	43 618	43 618	17%
Goat meat	24600	25 440	25 344	28 800	28 800	28 800	28 800	17%
Pig meat			84 000	60 000	75 618	79 179	79 179	-6%
Eggs			20 000	75 000	77 400	80 880	20 000	0%
Honey			300	19 600	20 000	20 000	327	9%

Source: FAO Statistics

Note: Percentage change for pig, eggs and honey are computed from 2002 - 2006

### III. LIVESTOCK PRODUCTION SYSTEMS

#### A. Pastoral

This is an extensive, low input – low output, subsistence oriented production system in which the livestock owners practice nomadism. They move with their herds in search of grazing and water. At night, animals are kept in a night enclosure (Boma) for protection. Indigenous breeds of cattle, goats and sheep are kept.

Milk is an important output for family nutrition. Small stock may be slaughtered for meat, but larger animals are rarely slaughtered. Donkeys and camels provide transport. Camels also provide milk for domestic consumption. Marketed off-take is low and animals are sold only to meet immediate cash needs.

The main pastoral areas are found mainly in the north-eastern districts where population density and rainfall are low. Pastoralists are increasingly planting small areas of crops to supplement their food supplies from livestock. Cropped areas are found naturally on the more fertile land and, in the long term, have serious implications to the provision of feed to mobile herds because their freedom of access will become more limited in order to protect crops.

Pastoralism in south-western Uganda is decreasing in importance as land is taken under titled freehold and leasehold, especially since the adoption of the

Public Lands Act of 1969. Livestock are the major saving vehicle available in pastoral societies.

## **B. Agro-pastoral**

Agro-pastoralism is derived from pastoralism as households start to settle, and a cropping component is introduced. Although it is a mixed farming system, the emphasis remains on livestock production, reliant on communal land for grazing, supplemented with crop residues grazed in situ on farmland after harvest. Herds are moved in the dry season in search of water and grazing, leaving some animals behind to provide milk for those remaining on the farm. Production levels are higher than in pastoral systems, and in particular reproductive performance is enhanced by access to crop residues in the dry season, but not as markedly as in settled communities where they have access to adequate feed. Crop production is practiced for subsistence on farms averaging 1.5 ha. Objectives for keeping livestock are milk, savings, draught power, meat and income. Herds are smaller than in the pastoral system, but larger than in settled systems. Cattle, goats/sheep and poultry are kept. This system is common where land is communally owned in the north and east.

Milk sales provide the main regular income from livestock, taken to trading centres or in some cases collected by middlemen. Production is around 1 kg/cow/day of lactation, fluctuating widely between seasons.

## **C. Settled Mixed Crop-Livestock**

This is the most common form of livestock ownership. Farms are usually under five hectare in mixed systems. The major source of household food and income is cropping. Usually, herds are smaller than in the agro-pastoral systems. There are mutual benefits from the mixed system. The crops benefit from manure from the stock while the latter feed on the crop residues. In this system, livestock depend on natural grazing either from communal areas or individualized land under a variety of tenure arrangements. In some areas like Lira and Soroti in the north-east, draught power is essential as it provides a link between crops and livestock sub-systems.

Currently, only 35 percent of farmers in Lira are estimated to own draught oxen, far below the levels in the 1980s. Although households with an off-farm income source have been able to restock with draught oxen, poor rural households continue to till the soil with hoes. Objectives for keeping livestock include milk,

draught power, manure, income and meat. Animals remain the major saving vehicle in these areas.

## **D. Commercially Oriented Systems**

In commercially oriented systems, a variable level of inputs is used to produce a sustainable off-take at a profit. The following classification follows a decreasing size of land holding and increasing intensity of labour use.

### **(1) Ranching**

This is an extensive commercially oriented system, on large areas of land, often over 1 000 ha to produce animals for sale. Management intensity varies from little more than external fencing around the boundary with watering points, to bush clearance, regular veterinary care and supplementary feeding.

Ranches are important suppliers to abattoirs in the urban centres and potential sources of meat for export. The main breed types here are Boran and Boran crosses

### **(2) Dairy Systems**

The bulk of milk in the country is produced from indigenous cattle, mainly in the cattle corridor, on communal grazing land. However, commercial dairy systems have been adopted by some farmers in the Central, Western and South-Western milk sheds where the climatic conditions and the feed resources are conducive to the exotic dairy breeds and crossbreeds.

Uganda has 300 000 dairy cattle, mostly crossbreeds. Friesians are the most popular exotic breeds and are widely used in crossing with indigenous breeds. The commercial dairy systems are in three categories:

- Small fenced farms
- Large fenced farms
- Zero grazing units

Larger dairy farms have paddocks of natural and improved pasture, and provide farm-mixed supplementary feeds to milking cows. Total herd size is usually below 50 animals with no more than 20 in milk. Milk production largely depends

upon availability of forage as a basal diet. Therefore, productivity per cow depends on the breed and the area devoted to improved fodder. Yields will vary from 2-3 kg/day from indigenous animals to 20 kg/day from Friesian. Artificial insemination (AI) and high grade bulls are used in breeding.

Zero-grazing units have a high labour requirement, often provided by a family with 1-2 ha of land. Housed animals are fed cultivated grass, grass from natural pasture areas (including roadsides in densely populated areas), and supplements – usually agro-industrial cereal by-products. Milk production varies from 5 to 30 kg/day. The household consumes 1-2 kg milk, and the rest is marketed. Zero grazing units are found in peri-urban and the main population centres. Herds are usually 2-4 cows in a single unit. As herd size rises beyond four cows, the labour demands for fodder collection results in the adoption of semi-zero grazing. Animals are grazed in fenced paddocks for part of the day. In addition, they receive forage cut from cultivated grass areas and other supplements. Milk yields tend to be lower than in the zero-grazed system.

Although a minor aspect of the dairy system for farmers, significant quantities of meat are generated per cow through unwanted male offspring, and culled animals.

## **E. Non-ruminant Systems**

### **(1) Pigs**

The production system of pigs is mostly scavenging in small groups of 2-3 animals. Animals are tethered under a shade tree to prevent crop damage, and fed on household scraps and brans. Production is low, but a few commercial pig units exist in peri-urban sites, supplying hotels and supermarkets.

Commercial units with several sows either mix their own feed from readily available components, or purchase commercially produced feed. Most of the basic ingredients are readily available in the Central, Eastern and Southern regions

### **(2) Poultry**

They are estimated to be one million layers and 2.4 million broilers. Flock size for exotic birds averages less than 100, and many rural producers will buy as few as 30 day-old chicks at a time.

In the rural households, small numbers of indigenous birds are kept, scavenging and receiving scraps from farm produce. They are all raised on free-range and have a slow growth rate.

#### IV. POTENTIALS AND OPPORTUNITIES IN THE LIVESTOCK INDUSTRY

Studies on the livestock sub-sector over the past years have identified potentials for growth in the agricultural sector due to, among other factors:

- The national per capita consumption of meat and milk is far below the recommended levels of WHO and FAO. As the people's income improves, the effective demand for animal products will increase.
- Export of animal products to other countries in the region is likely to increase due to Uganda's comparative advantage of animal production and location.
- Recent surveys indicate high potentials for export of live animals (particularly goats) and meat to the Middle Eastern countries, provided they satisfy the specifications required.
- There is largely untapped resource base with only 40 percent of arable land currently being utilized.
- Ample supplies of both surface and ground water.
- Goodwill of and support by government.

#### A. Livestock Production Constraints

Livestock production constraints include among others:

##### (1) Diseases

A number of livestock diseases remain endemic in Uganda, notably:

**For cattle:** Foot and Mouth Disease (FMD), Contagious Bovine Pleuropneumonia, Tick borne diseases, Helminthiosis and Trypanosomiasis.

For small ruminants: Contagious Caprine Pleuropneumonia, Orf, Helminthiosis.

For poultry: New Castle Disease, Gumboro, Coccidiosis and Salmonellosis

For pigs: African swine fever and Helminthiosis

Zoonotic diseases: Tuberculosis, Brucellosis and anthrax



## **(2) Breeds and breeding**

Low genetic potential of indigenous breeds and poor breeding methods have resulted in low production and productivity of the national herd.

## **(3) Feeding and water**

Inadequate feed resource, especially the seasonal variation in quality and quantity, are among key constraints to livestock production. The low legume content of pastures, especially in the cattle corridor (Figure 3) where most livestock is kept, has resulted in low protein content and digestibility. Consequently even the exotic breeds with high genetic capacity are producing below their potential. Poor nutrition also increases susceptibility to diseases especially of young animals. Pasture improvement is constrained by the lack of seeds, poor management and the absence of an effective extension service delivery.

Water for livestock is a constraint in the semi-arid regions of south-western and north-eastern parts of the country. These areas hold over 40 percent of the national herd of cattle and goats and often experience seasons of drought when water reservoirs dry-up.

## **B. Livestock Marketing Constraints**

There is inadequate infrastructure for marketing of livestock and its products at the primary, secondary and tertiary markets. The abattoirs and slaughter slabs do not meet international standards. There is also lack of information for the local and international markets. Limited investment has been directed to value addition, quality and standards on livestock products in order to attract better prices.

## **C. Institutional Constraints**

Weak enforcement of policies, laws, regulations and standards has led to the spread of diseases and production of sub-standard products, resulting in limited access to highly competitive international markets for beef, milk and hides and skins.

## **D. Inadequate Livestock Advisory Services**

The low level of funding to the sector has affected the capacity of the Ministry

of Agriculture, Animal Industry and Fisheries (MAAIF) and local governments to carry out their role of providing technical assistance, training, support supervision and monitoring of livestock activities among farmers.

### **E. Lack of Reliable Livestock Data.**

This affects the planning of intervention programmes.

## **V. ON-GOING PROGRAMMES TO PROMOTE STRATEGIC EXPORTS**

### **A. The Uganda Meat Export Development Programme (UMEDP)**

On request from Uganda, the leading Norwegian meat company, Nortura, conducted a feasibility study for developing an export oriented meat industry in Uganda in 2007. The conclusion from the study was that it is feasible to develop such an industry with the vision to export beef to Europe, provided a number of critical success factors are met. One of the crucial factors is that Uganda should have a modern animal health and meat hygiene (SPS) infrastructure, including legislation, organization and enforcement systems, and laboratory services that satisfy international markets requirements.

The UMEDP's goal is to substantially reduce the prevalence of trade sensitive diseases, increase livestock productivity, create an orderly livestock marketing protocol, modernise the public Sanitary and Phytosanitary control systems, and generate value-added products.

The programme is being implemented under four main components.

### **B. Establishment of Disease Control Zones (DCZ)**

Activities proposed under this component seek to register, prevent and control all diseases of trade importance particularly FMD that have the potential to impact on export of meat and meat products. The planned activities include:

- strict demarcation of proposed FMD disease free export zones by appropriate natural, artificial or legal barrier;
- construction and equipping quarantine stations and holding grounds;
- provision of water for livestock in and outside the Disease Control Zones;

- creation of a 200-strongman Animal Law Enforcement Unit to regulate animal movements and help in the enforcement of livestock sub sector regulations;
- enactment of bylaws to support the establishment of disease control and zone with particular reference to FMD.

### **C. Enhancing Livestock Production in the DCZ**

The objective is to change the current perspective of low-input low-output systems, making livestock farmers more market-oriented and guaranteeing sustainable production of grade slaughter stock. Activities aimed at improving livestock productivity will include:

- facilitating the formation of the Uganda Meat Producers Cooperative (UMPC);
- establishing and operating livestock marketing centres;
- developing a meat grading system;
- improving livestock productivity through genetic improvement (facilitating private sector to establish nucleus breeding centres and rehabilitation of Maruzi ranch);
- feed resource development (facilitating farmers to establish feedlots);
- provision of at least 3.2 million cubic meters of water for watering about 800 000 Tropical Livestock Units (TLU) a day including the dry season.

### **D. Developing Animal Health and Meat Hygiene**

The objective is to meet all food safety requirements for export including animal health and meat hygiene issues. Development activities will include:

- establishment of an internationally recognised competent body to implement food safety and quality requirements;
- reviewing legal and institutional provisions regarding animal health and food safety service provision to adequately create an enabling environment;
- upgrading national laboratory capacity;
- mandatory vaccination programme against FMD to achieve above 80 percent coverage in the DCZ and 65 percent in the buffer zones;

- initiating local FMD vaccine production capacity;
- establishing a system for livestock identification, and traceability including compulsory branding of all livestock in the DCZ and re-activation of the brand registry and a national farmers register.

## **E. Establishing and Developing the Uganda Meat Export Company**

The objective is to improve livestock market efficiency and enterprise development. Currently, the marketing system is disorganized and characterized by high transaction costs. The programme will restructure the livestock marketing system to guarantee greater control and management of the marketing chain by the farmers.

As a starting point, the first Uganda Meat Producers Cooperative (UMPC) was recently inaugurated. This national apex body wholly owned by livestock farmers will work with the Norwegian Company – Nortura – and other stakeholders to register the Uganda Meat Export Company (UMEC) as a Limited Liability Company for purposes of exporting meat to EU.

It is proposed that ownership and management of some of the primary and secondary livestock markets within the DCZs will be shifted from local governments to UMPC. The Uganda Meat Export Company will also acquire land and initially construct two Export Standard Abattoirs with a meat processing line for value addition.

## **F. Training Needs – Export and Trade on Livestock Products**

This capacity building project should address some of the current limitations affecting trade on livestock and livestock products both at institutional and private sector levels.

### **(1) Institutional**

- livestock identification system for traceability;
- setting of national standards for infrastructure and products; and
- training of trainers for advisory services.

**(2) Private sector**

- skills based training programmes for farmers, traders and animal products processors;
- increasing awareness and sensitization among stakeholders on practices to ensure product safety, quality and wholesomeness;
- livestock marketing information collection and dissemination systems/networking.

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## 5

# Current Status and Knowledge Gaps in Formal Marketing and Trade in Kenya

Julia Kinyua\*

## Summary

The livestock sector contributes about 12 percent of Kenya's GDP, 40 percent of the agricultural GDP and employs 50 percent of agricultural labour force. About 80 percent of Kenya's landscape falls under the Arid and Semi Arid Lands (ASALs) category, where 70 percent of the total livestock population is reared. Livestock play important roles in Kenya's socio-economic development and contribute towards household food and nutritional security, particularly among pastoralists and vulnerable members of the society such as women and children.

The country has a total livestock population estimated at 31.1 million heads. There is a high potential for export that is limited by market accessibility and diseases. The recognition is emphasized in various government policy documents which are in line with the Millennium Development Goals. The lack of disease Control and Management to reduce mortality and increase growth rate, breeding for quality and intensification of production are factors that have contributed towards the inability of livestock and livestock products to access international markets.

Ninety percent of hides and skins produced in Kenya is exported and this earns the country approximately K.shs 4.5 billion (a year) and employs about 10 000 people. In order to penetrate and gain acceptance in the world market it is important to brand the produce and to get into established markets in leather and leather goods that have to develop linkages with regional and international leather fairs. Short, medium and long term trainings are recommended for the various categories of actors of the leather industry to catch up with its changing technologies. The market for live animals is constrained by frequent outbreak of trade sensitive diseases. Several knowledge and capacity gaps that deter livestock production and trade, exist.

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## I. INTRODUCTION

### A. Livestock in Kenyan Economy

As stated earlier, the livestock sector accounts for about 12 percent of Kenya's GDP and 40 percent of the agricultural GDP while employing 50 percent of agricultural labour force. About 60 percent of Kenya's livestock herd is found in the arid and semi-arid lands (ASALs). It is estimated that 10 million Kenyans living in the ASALs derive their livelihood largely from livestock.

The majority of livestock keepers in the ASALs have limited modern livestock husbandry and marketing skills. Thus, overstocking, poor animal health services and cattle rustling impose heavy constraints that adversely affect the productivity of livestock in terms of meat, milk and hides and skins.

Beyond its important roles in Kenya's socio-economic development and contributions towards household food and nutritional security, livestock is also used as a medium for social exchange in the payment of bride price, fines and gifts to strengthen kinship ties.

Livestock have a variety of characteristics that make them important contributors to sustainable rural development and in addressing some of the above challenges. They directly enhance crop output through animal traction and improvement of soil fertility. They act as a store of wealth for future investment. Livestock provide marketable products, which are generally of higher value and less vulnerable to critical harvest timing than many crops.

Livestock products with relatively high income elasticity are particularly attractive as a means for rural households to participate in urban-based economic growth. Despite the above advantages, livestock are widely seen as a poor investment for rural development.

Livestock are essential assets for livelihoods that could provide employment and incomes through the sale of livestock products and by-products. They could also be used as a means to access the lucrative international markets and earn foreign currencies in addition to being important cultural resources, social safety nets and means of saving.

The livestock sector has the potential to provide adequate supply of all animal products and by-products to meet domestic needs and generate surplus for ex-

port. The country has a livestock population estimated at 12.2 million heads of cattle, eight million sheep, 10 million goats and 900 000 camels. There is a high potential for export that is limited by market accessibility and diseases.

The stakeholders in the sector recognize that a vibrant livestock industry can play tremendous role to reverse the poverty levels and contribute to the nation's economic growth. The recognition is emphasized in various government policy documents such as the ninth National Development Plan 2002–2008, Poverty Reduction Strategy Paper (PRSP), Economic Recovery Strategy for Wealth and Employment Creation (ERSWEC) 2003–2007, Strategy for Revitalizing Agriculture (SRA) 2004–2014, Kenya Vision 2030 and the National Livestock Development Policy.

These policies are in line with the Millennium Development Goals (MDGs), i.e. contributing to food security, protection of the environment and establishment of global linkages.

## **B. Red Meat Industry**

The meat sub-sector provides both red and white meat to meet the country's protein requirements. Kenya produces 320 000 MT of beef, 35 000 MT of mutton 200 750 MT of poultry meat and 7 000MT of camel meat annually with an estimated farm-gate value of Ksh. 214 billion. The current per capita meat consumption is estimated to be about 10.8 kg of red meat and 1.1 kg of white meat. This consumption level is expected to increase as peoples' income increase.

## **C. Beef Production**

Beef production in Kenya is practiced primarily in the ASAL areas of the country. Although Zebu cattle in the ASAL dominate the national beef herd, there is a significant proportion of beef coming from dairy bull calves and cull cows. The marketing of beef animals currently is conducted on ad hoc basis with pastoralists, middlemen and butchers playing a major role.

The increase in beef consumption is higher than the increase in production, and demand is expected to outstrip supply in the near future. This will lead ultimately to an increase in consumer prices. Beef is derived from three major livestock production systems, i.e. Extensive Pastoral Beef, Dairy Bull Calves and Commercial Beef Production System.



Kenya’s beef cattle population stands at over nine million, most of which are kept in the rangelands. Currently, most of the beef produced is consumed locally. There is high potential for export whose exploitation is limited by market accessibility and diseases. The main potential markets for Kenya’s meat and meat products are other African countries, the Middle East and Europe.

### D. Camel Production

Camels are potentially the most valuable species of livestock for the ASAL areas of Kenya, which represent over 75 percent of the country. Their value is seen both in their production and in ensuring a balanced ecosystem of the rangelands in the long term. Overall, northern Kenya is the most important camel producing area in the country, keeping over 95 percent of the national herd.

The camel population is estimated at 895 100 heads. At present, camels are reared in 17 districts in the country. Total meat production from these animals averages at 8 000 MT annually.

### E. Sheep and Goats Production

The sheep and goat industry contributes about 30 percent of the total red meat consumed in the country. In addition, the industry produces other products such as wool, skins and milk. The bulk of the hair sheep and meat goats are reared in the arid and semi-arid areas (ASAL) under nomadic pastoralism and limited ranching systems. Wool sheep and dairy goats are reared in the medium and high potential areas of the country under intensive/semi intensive systems.

The population of sheep and goats is estimated at about 21.08 million heads, comprising 7.30 million hair sheep, 0.85 million wool sheep, 11.08 million meat goats and some 0.08 million dairy goats. Estimated meat production from shoats is 68 000 MT annually.

**Table 1:** Annual Livestock Products and Value

Year	Cattle	Camels	Ruminants	Total
2003	16 833	7 437	6 160	30 430
2004	5 101	2 930	5 860	13 891
2005	27 766	2 987	8 371	30 753
2006	42 682	7 417	237 226	287 325
2007	83 984	48 779	1 545 406	1 678 169

There is great potential to increase meat production through:

- improved disease Control and Management to reduce mortality rate and increase growth rate;
- breeding for quality in terms of size and growth rate;
- intensification of production.

Poor market outlet for the country's livestock has been a disincentive for investment to exploit the potential. Factors that have contributed towards the inability of Kenya's livestock and livestock products to access international markets are:

- run down disease control and marketing infrastructure;
- inefficient production that make products not competitive in the internal market;
- stringent sanitary and phytosanitary measures imposed by importing countries as technical barrier to trade;
- unfair competition in the world market from highly subsidized production from developed world.

## **F. Hides, Skins and Leather Sub-sector**

Ninety percent of hides and skins produced in Kenya are exported to external markets in both raw and semi processed form. 80 percent of the exports are currently in wet blue state. There are 2 760 registered hides and skins traders, 12 operating tanneries, 1 500 registered slaughter houses/slabs and 16 registered exporters.

The source of raw materials for the leather sub-sector is pegged on the slaughter of livestock. In addition, there is potential for growth from emerging livestock such as crocodiles and ostriches. Currently the export of hides, skins and semi-processed leather generate on average K.Shs 4.5 billion annually but have a potential to earn K. Shs 10 billion. The hides, skins and leather industry employ about 10 000 people in the informal and formal sectors.

However, the industry is constrained by poor extension services, poor coordination and lack of skills for the development of leather cottage industries.

## **G. Quality Assurance Output Standard, Domestic and Emerging Livestock**

Lack of standards in quality assurance has been an impediment in the sector and there is dire need to develop quality standards for both domestic and emerging livestock which are globally acceptable. The situation is worsened by the mode of buying of hides and skins in bulk. Standards development and pricing per quality will go a long way in improving the quality of hides and skins in the country. These would be enhanced through specific standards development based on species (goat, sheep, camel, cow and ostrich, etc). Type of curing (salting/air drying) type of tanning (mineral, oil or vegetable) and finished leather pigment (wax or oil,) leather goods and footwear manufacture.

## **II. VALUE ADDITION AND VALUE CHAIN ANALYSIS**

Value addition chain in the sub sector can be rightly classified into three areas based on the activities undertaken in the places. They include pre-slaughter phase, peri-slaughter phase and post slaughter phase.

### **A. Pre-slaughter Phase**

These include activities in the farm which are hindrances to quality of the hides and skins and impact negatively on the hides more so during the tanning operations. Over the years the size of the Kenyan hide have continued to reduce in size, cases of Ecto and endoparasitic infections and the general herd health situations, which have negatively impacted the sector. The other activities which are worth mentioning are scratches and animal identification practices which damage the hides and skins.

### **B. Peri-slaughter Phase**

This is an area which constitutes the highest damage to the hides and skins and therefore needs to be taken seriously in the value addition initiatives. Among the defects in this area include cuts, gouges, bad shape, etc, which are irreversible and clearly show on the final product.

### **C. Post-slaughter Phase**

This relates to the activities after the slaughter house operations and they include curing, tanning and leather goods manufacturing. Several damages including delayed curing leading to putrefaction and improper curing among others, occur in these areas, and need to be adequately addressed.

Building the capacity of the stakeholders, in the short term, is therefore desirable in all areas of the production chain; e.g. preservation techniques, selection and grading, tanning, and leather goods manufacture etc.

The importance of environmental waste management in all areas of the production chain need not be over-emphasized. Development of clusters and leather parks is, therefore, earmarked to spur growth in the sector.

Hence, assistance is required to adopt curing techniques that are in tandem with environment practices which are relevant to the eco zones of the country.

## **III. BRANDING, CORPORATE AGREEMENT TO GAIN WORLD WIDE ACCEPTANCE**

In order to penetrate and gain acceptance in the world market it is important to brand the country's products. This is as expensive venture which needs a lot of capital but with good returns. Entering into corporate agreements with other partners is the way forward in marketing Kenya's products.

Brand is one of the best reciprocal ventures in the value addition chain development where optimization of value is obtained.

### **A. Linkages to Regional and International Markets through Trade Fairs**

To get into established markets in leather and leather goods, Kenya has to develop linkages with regional and international leather fairs and organize leather fairs itself as well. These fairs act as venues for getting market for Kenya's products apart from gathering knowledge, acquiring chemicals, accessories and machinery for the sector and exchanging ideas and notes for development of the sector. It is, therefore, necessary that Kenyan hides, skins, leather and leather goods dealers attend to such fairs as they also act as eye openers.

## **B. Capacity in Market Linkages and Knowledge Gaps**

Knowledge gaps have continued to be hindrance in the sector as currently there are a few technocrats in the leather-science field. The knowledge of staff both in the public and private sectors also need to be enhanced to adopt the latest technologies in the sector. The farmers are also supposed to be equipped with knowledge on proper animal husbandry practices (in particular to care for hides and skins on the live animals, while the flayers and curers require the necessary knowledge for production of high quality hides and skins.

## **IV. SHORT, MEDIUM AND LONG TERM TRAININGS**

Capacity building is a mandatory component for improvement in any industry, more so in the leather industry where manufacturing technologies keep changing on regular basis depending on market demands. Short specialized courses are, therefore, desirable for flayers, curing premises owners, tanning and finishing and leather goods manufactures, especially in design and marketing. Middle level courses for upgrading of technology for field staff is desired so as to be abreast with the latest technology in the sector such as finishing techniques, design and pattern making, waste management, greener tanning options and life circle assessment.

### **A. Technology Transfer**

For any industry to thrive technology transfer is an important area which should be given due consideration. In this regard, the dealers and industries will have kept abreast with the latest technological advancement in the sector geared towards production of quality and competitive goods in the global market not to mention encompassing acceptable practices in the world market which include labour practices, echo tanning and waste management etc. Kenya's development partners will play a pivotal role by assisting in such fields as:

- quality assurance, output standards – domestic and emerging livestock;
- value addition and value chain analysis;
- branding, (corporate) agreements to gain world wide acceptance;
- linkages to regional and international markets through trade fairs;
- capacity in market linkages;

- short, medium and long term training;
- technology transfer; and
- strengthening of institutional capacity for leather, leather goods and related aspects.

## V. TRADE IN LIVE ANIMALS

Through bilateral agreements, Kenya exported 22 059 cattle and 9 211 goats to Mauritius between 2004 and 2008; 600 goats and 400 sheep to Dubai in 2005 and 5 000 camels to Egypt in 2003. These exports earned K.Shs 490 million. These achievements were realized ahead of the planned creation of disease free zones which are expected to produce over 59 200 tonnes of export-quality meat worth over K. Shs 7.4 billion annually.

The market for live animals is constrained by frequent outbreak of trade sensitive diseases. For instance, the outbreak of Rift Valley Fever in 2006 and 2007 led to losses estimated at K. Shs four billion. Other challenges include:

- other trade sensitive , trans-boundary , vector borne , emerging and re-emerging diseases which restrict production and marketing;
- reduced productivity of indigenous animals;
- reduced capacity to accept appropriate technologies and inputs by producers;
- rampant land degradation, land tenure system and land subdivision;
- lack of stimulating markets, marketing information and poor infrastructure;
- limited capital;
- poor processing skills;
- unpredictable weather with frequent droughts, seasonality of rainfall and pastures;; poor range management;
- insecurity, conflicts, rustling, and tribal clashes;
- lack of essential services;
- non competitive nature of meat and live animal industries;
- nonexistent technical barriers by some importing countries;

- insufficient incentives to export;
- export slaughter houses, quarantine stations, holding grounds and other market infrastructures;
- no veterinary attaches in foreign missions. They are mainly agriculture based hence no concern with livestock;
- shifting requirements in external trade and stringent requirements by trading partners that has impeded trade in livestock, livestock products and inputs;
- changing consumer demands continuing to pose challenges for the country to comply;
- information flow through producers, middlemen, traders, service providers, policy makers and consumers;
- weak cooperative movements.

## **VI. KNOWLEDGE AND CAPACITY GAPS**

There are several knowledge gaps in the following areas:

- product processing and marketing;
- pasture and fodder conservation;
- dry land water harvesting technologies;
- diversification to develop new enterprises suitable for the environment;
- capacity to carry out risk analysis and laboratory diagnosis of animal diseases;
- inadequate capacity to test for residues in meat, poultry and dairy products;
- value addition skills, development of cottage industries, e.g. rural tanneries;
- lack of access to information on foreign markets and product standards;
- knowledge gap on HACCP/ISO 22 000;
- lack of awareness on SPS matters at all levels and inadequate involvement of the private sector in implementation of SPS issues, insecurity in areas of production;
- SPS issues at origin, traceability, link between health and products;
- lack of knowledge on changes in quality demands transportation, welfare issues,

- lack of quality links with husbandry, productivity- breed improvement- meat, h/s;
- value addition of products is highly limited by both resources and inadequate skills;
- knowledge gaps in world trade organization, sanitary and phytosanitary issues, technical and non technical barriers to trade for service providers, producers and traders;
- lack of standards for camel milk, goats, h/s certification, fish, bees;
- market intelligence for both local and external markets (Producers do not know where to market or where to advertise their products), no linkage with chamber of commerce;
- provision of credit facilities;
- value addition in various forms and packaging,

The characteristic feature of Kenya's livestock is the dominance of primary production. There is very little on-farm and off-farm processing of livestock products, which translates to low income for farmers and less jobs. Processing and value addition of livestock products prolongs shelf life and enhances packaging with increased earnings.

## **VII. CONCLUSION AND RECOMMENDATIONS**

- Sound animal husbandry practice capable of increasing livestock productivity leading to high quality beef, hides and skins is of key importance should be practised.
- There is need for all the players to re orientate their approach – to include total quality management technique within the value chain.
- The challenges are notable within the production chain as such if appropriate interventionist strategies are put in place, economic benefits are potentially viable.
- Critical approach to enhance quality realization all along the value chain is to integrate all the stages of the production chain i.e. from the animal to the product.
- Credit sourcing geared towards affordable funding for Agro-based Industry including MSME development.



- Develop standards for hides, skins, leather and leather products.
- Resource mobilization and budgetary support in improving the value chain industry development.
- Develop policy of anti-dumping of leather, leather goods and synthetics.
- Enhance capacity building in research and development and technology transfer.
- Capacity building in the value addition chain from pre, peri and post slaughter is of paramount necessity for sustainable improvement of quality of hides and skins.
- Awareness creation on modern animal identification methods for traceability and identification of animals as well as hides and skins.
- SPS awareness for all value chain players.
- Focus on enhanced productivity and profitability by producers to produce according to market demands and agro-processing initiative to be in accordance to standards set.
- The promotion of private/public sector and trader/producer partnerships. This will ensure access to markets of value added livestock products.
- Strengthen animal health services for increased productivity and high quality products.
- Establishment of disease-free zone to facilitate access to the high value export markets for animal and animal products.
- Focus research on value addition especially processing, storage and packaging of the livestock products.
- Capacity building in the short term for flayers.

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## 6

# Livestock and Livestock Products Current Situation in Sudan

Ali Raziq\*

### Summary

The private sector plays an important role in the production and marketing services needed to support livestock trade in Sudan. The government's role is now limited to regulation, research, planning and investment promotion. Sudan's around 140 million heads livestock population comes second to that of Ethiopia's in Africa. Livestock provides a flow of essential food products, export earnings, means of transport for goods and individuals, draught power, manure and employment. To pastoralists livestock is a capital on hoof, hedge against draught and cash buffers.

Annual meat production from cattle, sheep, goats and camels in the country is about two million tonnes with only about 0.94 percent of the total meat converted into value added products valued at about \$32 million as at January 2010.

Livestock markets in Sudan are categorized by volume of transactions, effect on the domestic trade, activity of the markets during the year, their location relative to the national roads and railways and proximity to the nomads routes. The domestic markets are categorized as: primary, secondary and terminal.

Private sector marketing of live animals and meat is organized through a network of traders, corporate entities, brokers, agents and sub-agents throughout the country. Export trade is dominated by individual traders, family-owned companies involved in slaughtering and meat processing. Constraints of live animal export are attributed to the deterioration of holding grounds, stock routes, watering points, quarantine stations and poor market places.

The supply chain in Sudan's livestock sector comprises six functional stages: Input supply, livestock production, livestock marketing, primary processing,

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secondary processing and distribution. These factors have also led to the development of a unique internal livestock market system in Sudan. This has resulted in a marketing chain that comprises four tiers. Different levels and actors are involved at various points in the export chain from primary market up to the port in the Gulf region for inspection and selection for quality assurance and certification for live sheep export. Main development policies have been formulated to promote livestock in the past 15 years. Lately, policy priorities for livestock sector development under a five-year development plan have also been formulated.

## I. INTRODUCTION

Sudan is situated in north-east Africa and is the largest country on the continent with an area of 2 505 813 square kilometres. It shares borders with Egypt to the north, Ethiopia and Eritrea to the southeast, Kenya, Uganda and Zaire to the south, the Central Africa Republic and Chad to the west and Libya to the northwest (Figure 1).

### A. The Role of the Private Sector in Sudan’s Economy

Following the liberalization of livestock marketing in Sudan, the private sector is playing the lead role in production and marketing services needed to support livestock exports. Nearly all slaughterhouses and tanneries have been privatized. The responsibilities of the government in fostering a supportive policy and public sector infrastructure are now limited to regulation, research, planning and investment promotion.

**Figure 1:** Map of Sudan Showing Neighbouring Countries



## **B. Overview of the Agriculture Sector**

Over three decades, Sudan's policymakers have increasingly recognized the importance of the private sector to its development. In the early 1980s, the private sector was called upon to create urban employment and ameliorate the impact of rural-urban migration resulting from desertification and drought. The Government of Sudan's twenty-five year (2002–2027) strategy focused on restructuring the Sudanese economy with a major emphasis on agriculture and industry with special attention to small-and medium-scale industries.

In the past, the government intervened in agricultural markets through a variety of instruments that reduced incentives to produce. Interventions were ad hoc and inconsistent over time and included distorted exchange rates, export taxation, tariff policies, incentive payments, and trading monopolies. Many of these distortions have been reduced, but government involvement in the sector remains strong. Specific reforms for the sector include transformation of traditional farming to generate increased production and income. Actions in the traditional sector should focus on improved management and marketing of livestock and gum Arabic, and for improved crop varieties, sustainable soil and water management, water harvesting and other low risk technologies. The main constraint for traditional farming is the current land policy. While improved infrastructure in the traditional rain-fed farming areas will be important to improve access to markets, the first priority should be to improve the incentives for traditional farmers to invest in improved technology and increase production.

## C. Livestock

The table below shows details of Sudan's livestock population.

**Table 1:** Livestock Population and Products (2004–2008)

Livestock population (000 heads)	2004	2005	2006	2007	2008
Cattle	39 760	40 469	40 994	37 728	41 426
Sheep	48 910	49 797	50 390	46 427	51 067
Goats	42 179	42 526	42 756	40 523	43 104
Camels	3 519	3 908	4 078	4 105	4 406
Total	134 368	136 699	138 218	128 783	140003
<b>Livestock products (000 tons)</b>					
Skins products (ooo pieces)	31 240	32 106	32 744	33 199	33 806
Mil	7 534	7 534	7 649	7 298	7 360
Meat	1 694	1 694	1 721	1 725	1 808
Fish	70	65	57	65	70
Eggs	28	30	20	31	32
Poultry meat	22	24	18	27	27

Source Ministry of Cabine – Central Bureau of Statistic

According to FAO, Sudan has the second largest livestock population Africa, next to Ethiopia. Good natural pastures cover almost 24 million hectares and the nomadic pastoral sector accounts for more than 90 percent of the huge animal population. Cattle, sheep, goats and camels provide an important capital asset and a risk management tool for pastoralists and farmers in times of drought and they are increasingly important in agricultural irrigated areas as well.

The sheep population represents almost 37 percent of key livestock population, followed by goats, cattle and camels with their shares of 36%, 30% and 3%, respectively. The livestock products are mainly milk, meat, eggs, fish, and poultry-meat as well as hides and skins products. Skins products have dominated the sector with almost 79 percent share and have shown a compounded annual growth rate (CAGR) of two percent over the last five years.

Milk and meat jointly represent 21 percent of livestock products. Meat produc-

tion has been growing at CAGR of 1.6 percent from the year 2004 to 2008 (Table 1). One of the reasons for the reduction in milk production is due to slow growth in cattle and goat population over the same period.

## II. MARKET ANALYSIS

### A. Livestock Sector

The livestock sector plays a critical role in the Sudanese economy and welfare of Sudan's rural population. It provides a flow of essential food products, export earnings, means of transport for goods and individuals, draught power, manure and employment. Distribution of livestock wealth is more egalitarian, compared to land. Hence, from the equity and livelihood perspective, it is considered an important component in poverty alleviation programs. Sudan possessed 140.9 million heads of livestock in 2009 as shown in Table 2:

**Table 2:** Livestock Numbers Products, Live Animal and Meat Export in 2009

Item	Cattle	Sheep	Goats	Camels	Total
Number (x1000)	41 563	51 555	43 270	4 521	140909
Total meat production (x1000 ton)					1 841
Total milk production (x1000 ton)					7 406
Total skins & hides (pieces)					34 165
Total live animal export (number)	19 265	1510996	104630	154477	1789368
Total meat export (ton)	18	121 161	91		1212534

Good natural pastures cover almost 24 million hectares and the nomadic pastoral sector accounts for more than 90 percent of the huge animal population. Cattle, sheep, goats and camels provide an important capital asset and a risk management tool for pastoralists and farmers in times of drought and they are increasingly important in agricultural irrigated areas as well. Table 2 presents the population of livestock and the share of key livestock products in the Sudanese economy for 2009.

### A. Livestock and Meat Sector in Sudan

Meat is produced from cattle, sheep, goat and camels under different systems of production. The pastoral system in Western Sudan (Greater Kordofan and

Dar Fur) provides the bulk of cattle consumed in central Sudan and Khartoum. Greater Kordofan and Dar Fur area is also an important supplier of sheep, goats and camels for both local and export markets. Blue Nile State is an important exporter of sheep. The Gezira, Sennar and White Nile states have ample crop residues and by-products of sugar cane industry. They are important areas for finishing pastoral cattle brought all the way from western and southern Sudan.

Livestock marketing is an important option for both increasing returns to producers and reducing grazing pressure. However, the behaviour of pastoralists towards marketing animals is complex and market does not occupy the top priority in pastoralists' pursuit for animal keeping. To pastoralists livestock is a capital on hoof, hedge against draught and cash buffers. Primary markets exist in almost every livestock raising area though they are not formally and strictly defined.

In the migratory system of cattle herding in Western Sudan, few cattle are disposed for sale in small and remote areas along the migratory routes. Purchase is usually undertaken by agents who work for cattle merchants. Increasing numbers of cattle are sold in secondary markets located in larger urban clusters, near or at the wet season (July–September) base being in accessible areas for cattle merchants. In late dry season (February–June), cattle are far away in the south and are out of the reach of cattle merchants, and this decreases cattle supply to markets in the north and results in price hike. Omdurman (Al Miwalih market) is the only terminal market for cattle in Sudan. The major dealers in the market are exporters, wholesalers, inter-state traders, butchers and individuals.

Cattle are driven on hoof over a long journey from breeding areas to secondary and terminal markets and that could reduce their body. Fattening of range cattle on energy rich feeds is often carried out near urban centres to improve their weight before they are marketed. Nevertheless, some cattle are marketed off pastures. Commercial ranching as carried out in USA and some African countries is not practiced in Sudan.

## **B. Export Marketing and Trade**

The structure of Sudan's livestock exports for the period 1998–2006, and the quantities of live animals and meat exported for the same period are shown in Table 3 and 4, respectively. The trend of live sheep and total meat exports has declined over the stated period. For live sheep, the rate of growth was -2.3 percent and for total meat it was -18 percent.

**Table 3:** Livestock Exports from Sudan for 1998–2006

000 Heads	Cattle	Sheep	Goats	Camels
1998	3.4	1 705	51	93
1999	1.8	1 998	69	45
2000	35	1 237	13	328
2001	-	-	-	7
2002	0.7	1 603	53	155
2003	0.2	1 315	58	88
2004	0.8	1 704	102	133
2005	0.5	1 272	110	131
2006	-	1 422	102	116

Constraints of live animal export are attributed to the deterioration of holding grounds, stock routes, watering points, quarantine stations and poor market places. The state of such infrastructure would require substantial amount of funds to rehabilitate them for export services particularly between the primary and the terminal markets.

Sudan exports live sheep and goats and also mutton and lamb. Other types of meat exported in small quantities that are very much in demand in the Gulf markets but are not commercially produced in Sudan are: juvenile camel known as Hashi and Gaoud, goat kid, castrated male goat and veal.

### C. Livestock Health and Meat Safety Issues

Animal health authorities are primarily concerned with major infectious diseases that are of potential economic importance because they lower total output and reduce export of livestock. Under migratory pastoral production long treks on hoof, seasonal limitation of feed intake, mixing of different types and overstocking provide ideal conditions for the extensive spread of infectious diseases such as Foot and Mouth Disease and Contagious Bovine Plueropneumonia. Tick borne diseases are also easily acquired and disseminated in this way



**Table 4:** Meat Exports from Sudan for 1998–2006

Tons	Cattle	Sheep	Goats	Camels	Total Meat
1998	13 385	-	-	-	13 385
1999	10 231	-	-	-	10 231
2000	7 281	-	-	-	7 281
2001	5 385	-	-	-	5 385
2002	7 478	-	-	-	7 478
2003	178	7 837		221	8 236
2004	765	5 571		217	6 553
2005	656	4 711		29	5 396
2006	-	2 264		8	2 272

## D. Slaughterhouses

It is generally accepted that a high proportion of meat consumed locally is from animals that are illegally slaughtered. Illegal slaughter of livestock is widespread practice especially on religious and social occasions. Slaughterhouses range from Grade I to Mastaba types. . Very few export slaughterhouses are currently able to serve export trade of carcasses. Slaughterhouses do not meet international standards of export abattoirs and have inadequate cold storage facilities.

Small public slaughterhouses cater for much of the domestic market. Two large public slaughterhouses – Kadaro and Sabalowka (in Omdurman) – and four private abattoirs – Ghanawa, Gezira International Meat Company (GIMCO), Port Sudan and Nyala – cater for the export market.

The capital, Khartoum, has 10 slaughterhouses. According to the system of classification adopted by FAO, Khartoum has three grade I, four grade IV and three grade V slaughterhouses. Two other export slaughterhouses are located in Omdurman and one in Khartoum.

## E. Meat Processing

Annual meat production from cattle, sheep, goats and camels in the country is about two million tonnes. However, only about 0.94 percent of the total meat

is converted into value added products like sausages, burgers, luncheon meat, kebabs and meatballs. The total meat export during 2004 was worth \$150 million consisting mostly of live sheep, camels, cattle and goats and mutton carcasses.

There is a huge potential for setting up modern slaughter facilities and development of cold chains in meat processing sector. The domestic market has not been tapped for ready-to-eat and semi-processed meat products.

### **III. LIVESTOCK MARKETING CHANNEL**

The total market size of the processed meat market in Sudan is about \$32 million as at January 2010. Looli Company with 35 percent market share appears to be the major player in the meat processing business. Trade estimates show that three main activities characterize the livestock chain:

- purchase of animals from producers, usually at primary markets and at production sites;
- collection of animals in larger flocks, usually at secondary and terminal markets;
- distribution of the collected animals to the final consumers (butchers and households) through a network of wholesalers, retailers, and exporters.

Livestock markets in Sudan are categorized by volume of transactions, effect on the domestic trade, activity of the markets during the year, their location relative to the national roads and railways and proximity to the nomads routes (Maraheel). Accordingly, the domestic markets are categorized as primary, secondary and terminal.

Primary markets depend on the movement of nomads during summer and fall. These markets are usually patronized by Baggara Arabs of western Sudan who migrate to the south in the dry season to take advantage of the wetlands grazing, and then move north in the rainy season to escape the mud and biting flies and utilize the ephemeral forage in the semi-arid rangelands. The transactions occur between the producer and a Gallaga, with or without a broker. Some primary markets are found at the small villages throughout the year, but supplies are affected greatly by the nomads' movement.

Secondary markets are located at the main towns in production areas or other population centres usually near the main roads. They are the main suppliers of

sheep to the consumption and export areas. They are characterized by their daily activities round the year. The main agents in these markets are Gallaga, Wakils, and Jellaba. The brokers may work as independent small-scale traders (Jellaba) and some as agents (Wakils) or sub-agents for the big traders. Middlemen (Sabbaba) are important besides Eldamin (guarantors) for the completion of the transaction. A second broker may sell to a third broker in the same market or in another secondary market and this process goes on until the livestock are bulked into larger lots and reach the terminal markets.

Terminal markets are located far from the main production areas, in the big cities. They supply the main consumer with their needs and prepare sheep and sheep meat (mutton) for export. The final transactions in the terminal markets are processed through local traders (Sabbaba, Jellaba or Wakils). Livestock are said to change hands two to six times between the point of purchase and the final point of sale. Terminal market prices may eventually be twice as high as the secondary and four times as high as producer prices.

Private sector marketing of live animals and meat is organized through a network of traders, corporate entities, brokers, agents and subagents throughout the country whose activities are guided as much as possible by rules and regulations and by their own norms, practices and customs derived from tradition.

Export trade is dominated by individual traders, family-owned companies slaughtering and meat processing (FAO 1997). Buying is the first step in a business chain that includes ranching, fattening, feed milling, and shareholding companies. Many of these have some vertical integration, with a livestock bank that has 22.71 percent government shareholding but is managed as a private enterprise. The banking services are provided by commercial banks, which include the Animal Resources Standard Specifications for Meat and Meat Products and the Sudanese Standards and Metrology Organization (SSMO) working in collaboration with MARF issues.

Other government institutions that are important in the livestock export sector include the Ministry of Foreign Trade (MFT) and the Central Bank of Sudan. The MFT acts as a moderator between the private business and the government. It issues export licenses and sets minimum indicative prices for export. In 2006, the minimum export prices were \$1400/t for beef, \$700/t for live cattle, \$1 665/t for live sheep, \$3 750/t for mutton and lamb meat, \$25 per head for live goats, and \$175 per head for live camels.

## A. Supply Chains for Livestock and Livestock Products

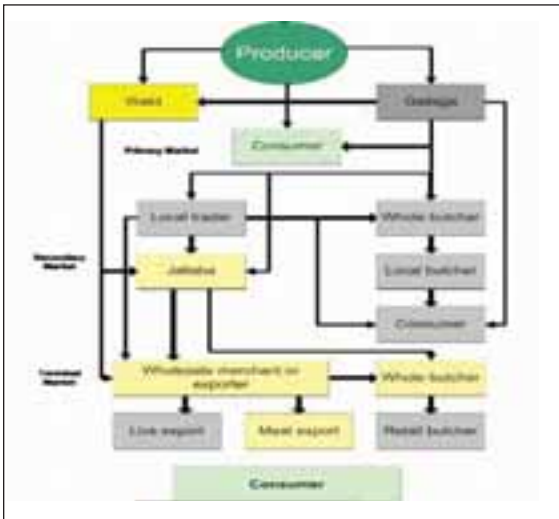
A market chain is the sequence of actions necessary to take a product from raw material to a deliverable customer item. The supply chain in Sudan's livestock sector comprises six functional stages:

- input supply
- livestock production
- livestock marketing
- primary processing (abattoirs, minced meat and meat preparation plants)
- secondary processing
- distribution

Most of the production areas for livestock species in Sudan are located far from the main consumption or export centres. Production areas and seasonal migration patterns significantly influence domestic, cross-border and formal export trade routes for livestock (Figure 3). These two factors have also led to the development of a unique internal livestock market system in Sudan. This has resulted in a marketing chain that comprises four tiers:

- direct sales from the farm or pastoral herd;
- primary markets that handle individual or small groups of animals;
- secondary markets that handle larger groups of animals;
- terminal markets in large cities that represent the final point of sale for domestic consumption or export.

**Figure 2:** Marketing Channels of Livestock in Sudan Terminal markets are in



large cities that represent the final point of sale for domestic consumption or export. Thus, the supply chains for live animals and meat link producers and consumers through a series of institutions (organizations, rules and regulations) and related actors up to a point elements of the chains for domestic and export markets overlap, beyond which they take different shapes and routes and involve additional actors and institutions.

**Figure 3:** Domestic, Cross Border and Official Trade Routes for Sudanese Livestock



## **IV. HEALTH SERVICES, FACILITIES AND DELIVERY SYSTEMS**

Today's primary policy focus is on livestock for trade and export – relating to a general concern to 'modernize' the sector, and boost production. This entails adopting a new approach to both livestock production and management and the delivery of animal health care and veterinary services to increase production and export. Potentially, this comes at the expense of more simple initiatives to support productivity, breeding and disease management.

### **A. Inspection and Certification for Quality Assurance**

Different levels and actors are involved at various points in the export chain from primary market up to the port in the Gulf area for inspection and selection for quality assurance, and certification for live sheep export. For meat export, Khartoum Airport and any other export ports for meat (e.g. Nayala), export slaughterhouses, inspection and vaccination centres are involved in addition to inspection at livestock markets. There are two major bodies through which inspection and selection for quality assurance and certification of export livestock is processed. The first is the exporter (a private sector enterprise or a company). The second is the Federal Ministry of Animal Resources and Fisheries (General Department of Quarantines and Meat Hygiene) playing its role through inspection and vaccination centres and veterinary quarantines.

The role of appropriate agencies with appropriate facilities is to apply quarantine measures adopted from Codex Alimentarius (Sudan has been a member since 1965), OIE, FAO/WHO measures and HACCP requirements.

## **V. LIVESTOCK POLICIES**

The main development policies formulated during the last 15 years include The Economic Salvation Program (1990–92) and the Comprehensive National Strategy (1992–2002). Unfortunately, neither of these made any significant impact in the livestock sector. A more recent policy document is the Millennium Strategy for the Development of the Agricultural Sector (2003–2007) which adopts a five-year development plan (2007 to 2012). Policy priorities for livestock sector development under the five-year development plan include:

- expansion of manufacturing of veterinary drugs and vaccines;
- provision of veterinary services to nomads;
- research, capacity building and genetic improvement of livestock;
- rehabilitation of veterinary quarantines, slaughterhouses and tanneries;
- production of baled dry fodder to ensure availability of feed during summer;
- establishment of dams, hafears and other water reservoirs for livestock;
- provision of credit facilities for the public and private livestock sectors (The cost of finance – equivalent to rate of interest – will be five percent annually, instead of the present 12 percent and the difference will be paid by the Ministry of Finance and National Economy. Credit facilities will have longer grace period and four-year payback period.);
- establishment of specialized livestock industry institutes;
- promotion of dairy and beef production (both for milk and meat);
- establishment of programs to promote and develop livestock production and export;
- designing programs to develop livestock production exports.

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# 7

## The Livestock Sector and the Promotion of Livestock Trade in Djibouti

Yonis M. Adar\*

### Summary

Livestock contributes 3.5 percent of the GDP in the Djiboutian economy and is a source of livelihoods to all the people in the rural areas. About 90 percent of livestock farming is nomadic and the rest is sedentary. Djibouti produces about 1 000 000 ruminants, 40 000 cattle and 50 000 dromadaire annually. The Directorate of Livestock and Veterinary Services supervises the Balbala Cattle Parc, the Djibouti Abattoir and the Damerjog Quarantine Centre. Veterinary services conduct sanitary checks at three levels for animals that are to be exported. The Regional Livestock Centre carries out the improvement of the transportation of cattle to and from the quarantine centre, screening of diseases and monitoring and surveillance (quarantine) of cattle.

The area of the structures holding animals is 605 hectares and comprises of three blocks (A, B and C) with three kilometres distance between each, and divided into different fences to hold the different types of livestock, a laboratory for diagnosis of diseases, a clinic and a veterinary pharmacy, a room for autopsies, an area for slaughter during emergencies, an incinerator, an area for deticking and houses for personnel. 1 700 000 heads of livestock were exported to some Gulf states since its opening. Recommendations are made at the national and international levels for what could be done to improve the export of animals

### I. INTRODUCTION

The primary sector in which livestock plays an important role contributes 3.5 percent of the GDP. Livestock farming is a source of livelihoods to all the people in the rural areas and employs about 150 000 Djiboutians and thousands of sedentary farmers in the peri-urban area.

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\* Coordinator, IGAD, Djibouti



Animal breeding is nomadic and sedentary. About 90 percent of livestock farming is nomadic and the rest is sedentary. Nomadic livestock farming is characterised by seasonal mobility with rainfall. It is known as pastoral if it uses exclusively natural paddocks. Sedentary livestock farming is practised by livestock farmers who stay around the towns, villages and watering points. It is often associated with agriculture. The farms are practically designed for dairy production because of the big profit derived from the dairy business.

Numbers of animals: Djibouti produces about 1 000 000 ruminants, 40 000 cattle, 50 000 dromadaire annually. It has reasonable livestock numbers distributed to the human population at an average of 0.5 tropical cattle to one inhabitant.

## **II. VETERINARY SERVICES**

The veterinary services are made of a directorate and dozens of offices spread across the country. The Balbala Cattle Parc and Djibouti Abattoir fall under the supervision of the Directorate of Livestock and Veterinary Services. This also supervises the Damerjog Quarantine Centre. The livestock programs and the disease surveillance are re-enforced by law No. 142/AN/01 4th L of 2001 organizing the Ministry of Agriculture (2001). The Directorate of Animal Breeding assures the development of livestock, the safety of animal health and the sanitary control of animal feed stuff.

## **III. DEVELOPMENT OF CATTLE TRADE**

The countries of the Horn of Africa have considerably large livestock population. The Republic of Djibouti serves as a natural outlet for exchange to countries of the Arabian Peninsula that import cattle. Djibouti is strategically located, has a liberal economy, is political stability, has port facilities, and an adapted bank system.

The development of the cattle trade is made of a sure route which integrates the Republic of Djibouti into international trade. Veterinary services conduct sanitary checks at three levels for animals that are to be exported. At the level of the border livestock office, verification of documents, inspection of the animals on hoof, and rejection or driving back of the animals is done in case of any diseases.

The regional quarantine centre near the capital is responsible for the sanitary inspection, laboratory analysis, vaccinations etc. Before loading or unloading at the Djibouti Port, this centre undertakes inspection of the documents, re-inspection on hoof and a possible rejection of animals in cases of infections.

**Table 1:** Summary of exports

Year	Cattle	Camels	Small ruminants	Total
2003	16 833	7 437	6 160	30 430
2004	5 101	2 930	5 860	13 891
2005	27 766	2 987	8 371	30 753
2006	42 682	7 417	237 226	287 325
2007	83 984	48 779	1 545 406	1 678 169

**Figure 1:** Djibouti Quarantine Centre



#### IV. THE REGIONAL LIVESTOCK EXPORT CENTRE

The objective of the Regional Livestock Export Centre is to:

- develop commercial exchange and facilitate the sale of cattle between the countries of the Horn of Africa and those of the Gulf in the first step before extending to other countries of the Near East;

- assure the exportation of good quality products at competitive prices;
- create a suitable environment for investment with the hope of exploiting the rich animals resources of the region;
- raise the standard of living of cattle rearers to develop their standards and fight poverty.

### **A. Activities of the Centre**

Under the supervision of the Directorate of Livestock and Veterinary Services, the Centre (Figure 1) carries out the following activities:

- improvement of the transportation of cattle to and from the quarantine centre;
- monitoring and surveillance (quarantine) of cattle over a deadline prescribed by the importing countries before exporting them to their final destination (Figure 2);
- screening of diseases (Figure 3);
- issuing a health certificate before export (Figure 4).

**Figure 2:** CERB Regional Livestock Export Centre (Quarantine of Animals)



**Figure 3:** Screening of Diseases in the Laboratory



## **B. Structures**

There are various structures to hold the animals. The total holding area of the structures is 605 hectares (Figure 1) which comprises of three blocks (A,B and C) with three kilometres distance between each. It is notably made of a shaded fence for the cattle, a laboratory for diagnosis of diseases, a clinic and a veterinary pharmacy, a room for autopsies, an area for slaughter during emergencies, an incinerator, an area for deticking (consisting of a dip and showers) and houses for personnel.

Regarding the fence, there is: Part A-B made of 10 shaded fences for camels (with capacity of 500 each); 20 fences for cattle (with capacity of 700 each) and 30 fences for small ruminants (with capacity of 1 000 each).

Part C is made of 102 fences for small ruminants. The extension of the comprising of 12 more fences is under construction with a capacity to accommodate 1,000 cattle each. Each fence is dotted with a net work of distribution of water and feeders.

The staff of the centre include specialists in the field (veterinarians and technicians) and laboratory assistants.

The centre has all the infrastructure necessary for good working conditions. 1 700 000 heads of livestock, majority being small ruminants, were exported to countries of the Arabian Peninsula since its opening. The principal destinations for the export of the animals are Egypt, Yemen, Oman, United Arab Emirates and Saudi Arabia. Several associations of livestock traders in the national territory and bordering countries use this centre.

Figure 4 shows the health certificate used for export issued by the Ministry of Agriculture and Livestock .It gives the names and addresses of the importers and the exporters , port of destination, identification of the animals, quantities, breeds, sex and other information like the dates and types of vaccinations that the animals have had. The certificate finally indicates that the animals have been examined and tested and found to be healthy and free of contagious diseases.

**Figure 4:** Health Certificate Used for Export

**CERTIFICAT SANITAIRE** N° 0828

Nom et adresse de l'Expéditeur ASHIBI YOUSSEF MOHAMMED SULTAN SAUDI ARABIA		République de Djibouti Union - Égypte - Pays		جمهورية جيبوتي اتحاد - مصر - بلد	
Nom et adresse de destination MOHAMED MOHAMMED ALI SAADAT SULTAN SAUDI ARABIA		MINISTRE DE L'AGRICULTURE DE L'ÉLEVAGE ET DE LA MER CHARGE DES RESSOURCES HYDRAULIQUES		وزارة الزراعة و التربية الحيوانية و الثروة السمكية و الموارد المائية	
Identification du moyen de Transport 08282 08282 8		Direction de l'Élevage Et des Services vétérinaires BP : 999 Tél : 02 45 23 11 11 Fax : 02 45 61 11 11		1000 999 23 11 11 45 61 11 11	
Lot d'identification رقم التعريف		Espèce النوع	Race السل	Sexe الجنس	Âge العمر
		08282	SAUDIA	MALE	
Quantités ( Chevres et Laines ) : 08282 08282 08282 08282 08282 08282					
Informations supplémentaires : 08282 08282 08282 08282 08282 08282					
Je soussigné Vétérinaire officiel, certifie que les animaux décrits ci-dessus ont été examinés ce jour et sont reconnus indemnes des maladies contagieuses. أنا موقّع طبيب بيطري رسمي، أقدم بالشهادة على أن الحيوانات المذكورة أعلاه قد تم فحصها في اليوم و وجدت أنها خالية من جميع الأمراض المعدية.				Tampons et signatures officiels الختم و توقيع الرسمي	
Lieu : SAUDI ARABIA Nom du Vétérinaire officiel : 08282		Date : 2014 11 07 اسم الطبيب بيطري الرسمي :			

## **V. RECOMMENDATIONS**

Recommendations take the regional and the national levels into account.

### **A. At the Regional Level There Should be:**

- institution of a system of sanitary inspection at the place of origin of animals similar to the former system of ECELEX;
- training groups and associations of livestock traders;
- harmonization of the legislation and coordination of activities of the veterinary services of the region notably in the surveillance of diseases.

### **B. At the National Level:**

- enhancement of the capacities of the veterinary services (in training, human resource and equipment);
- construction of loading/unloading platforms /slaps for livestock near the quarantine centre;
- strengthening the diagnostic capacity of the laboratory for diseases (the central laboratory and the branch at the Djibouti Port).



# 8

## **Djibouti Chamber of Commerce**

Zahra Omas Ahmed\*

### **Summary**

Djibouti is located at the crossroad of three continents and enjoys a strategic geographical position. It has a liberal economic environment with no restriction for investors to repatriate their profits. The economy has had dynamic growth since 2004. The Foreign Direct Investment was 31.8 percent of the PIB in 2008.

The Djibouti Chamber of Commerce (CCD) is a multi-sectoral public institution, headed by a chief executive and administered by a secretary general. CCD's main mission is to promote and support the private sector through a wide range of services such as commercial information, preparation of trade related events, support and advice on the management of small and medium size enterprises (SMEs), development of skills through vocational and professional training, trade facilitation etc.

Livestock export process goes through five steps starting with inspection before delivery of certificate and ending at the embassy of the importing country.

### **I. INTRODUCTION**

A country located at the crossroad of three continents enjoying a strategic geographical position, Djibouti is situated on the world's second maritime route and it has always been a meeting and exchange ground. It is an active member of numerous regional organizations such as COMESA and IGAD. Its population stands at 818 159 inhabitants.

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\* Officer in Charge, Chamber of Commerce, Djibouti



## **II. ECONOMIC ENVIRONMENT**

Djibouti has a liberal economic environment with freedom for foreign investors to engage in any business activity. There is no restriction for foreign investors to repatriate their profits. The national currency is convertible with fixed dollar parity.

The economy has had dynamic growth since 2004. The increase of the public investment budget was 5.1 percent in 2009. The distribution of the GDP was services 81 percent, Industry 16 percent as well as agriculture and fisheries three percent. The Foreign Direct Investment was 31.8 percent of the PIB in 2008. It imports various products from Saudi Arabia, United Arab Emirates, (UAE), Yemen, India, China and Ethiopia, and exports to Saudi Arabia, Yemen and Egypt.

### **A. Modern Transport Infrastructure**

Djibouti, which is located in the Free Franc Zone, has two ports: the Djibouti international Port and the Doraleh Port.

### **B. Djibouti Chamber of Commerce Administration**

The more than 100 years old Djibouti Chamber of Commerce (CCD) is a multi-sectoral public institution, and is the sole representative of the private sector in the whole country. The CCD is headed by a chairman who is the Chief Executive Officer and is assisted by a bureau made up of eight elected members. The members of the bureau are non-state stakeholders from the country's private sector chosen for a five year term of office. The day-to-day management of the CCD is carried out by a secretary general, who is tasked with advising the elected members of the CCD board and to direct the different services offered to the members. Apart from its role as the representative, the CCD's main mission is to promote and support the private sector through a wide range of services which; commercial information, preparation of trade related events, support and advice on the management of small and medium size enterprises (SMEs), development of skills through vocational and professional training and trade facilitation.

### C. Exportation of Livestock with Certificates of Origin

Three kinds of livestock totalling 308 447 animals consisting of sheep, cattle and dromadaires were exported from the Djibouti Quarantine Centre in 2009 (Table1).

**Table 1:** Livestock Exported from the Djibouti Quarantine Centre

Type	Number of heads of animals in 2009
Sheep	67 267
Cattle	209 570
Dromadaires	31 640
Total	308 477

Three companies – Abu Yasser, Okar Transit and Societe Iftin – deal with the exportation of livestock to Saudi Arabia, UAE, Egypt, Oman and Yemen, which are the main destinations for Djibouti’s animal export.

### D. Livestock Export Process in Djibouti

The livestock export process has five steps.

Firstly, inspection of the animals is done in the Damerjog Quarantine Centre. This is followed by the issuance of a sanitary certificate for the animals by the Ministry of Agriculture and Livestock. The third step is the delivery of the Certificate of origin done by the Djibouti Chamber of Commerce. The fourth step is the validation of the certificate of Origin by the Ministry of Foreign Affairs and the last and the fifth step is the validation of all the documents by the embassy of the importing country in Djibouti. After this, the animals can leave for the country of destination and should arrive there with no problems.



## 9

# A Brief Introduction to IGAD

Samuel Zziwa\*

## Summary

The countries that make up the Intergovernmental Authority on Development (IGAD) are Sudan, Ethiopia, Kenya, Somalia, Uganda, Eritrea and Djibouti. The agro ecological zones of the region are arid, semi arid, sub humid and humid. The region suffers from chronic food insecurity. It also holds half the species of cattle, sheep and goats in the Sub Saharan Africa.

The regional bloc of Eastern Africa nations, IGAD was created in 1996 to supersede the Intergovernmental Authority on Drought and Development (IGADD) which was founded in 1986.

IGAD's mission is to assist member states achieve regional integration through closer cooperation in the areas of agriculture and environment protection, economic cooperation and social development. Its main objectives are to facilitate policy dialogue within and among member states; initiate, formulate and implement, regional interventions and interactions; and lobby, advocate and do awareness creation for member states.

The main out puts include policy matters, development information sharing, capacity building, establishing partnerships and alliances, and facilitating research and technology development.

The IGAD comprises four hierarchical policy organs made up of summit of heads of state, council of ministers, committee of ambassadors and the secretariat/executive secretary. IGAD priority areas of action are agriculture, livestock and food security, natural resources management, environmental protection, social development and gender, trade, infrastructure and communications, conflict management and resolution and disaster risk management. Programmes of intervention range from livestock, water management, climate change to conflict and HIV/AIDS, among others. Members of IGAD's information network are government ministries of trade and agriculture, chambers of commerce, producer/trader associations and civil society organizations.

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## I. INTRODUCTION

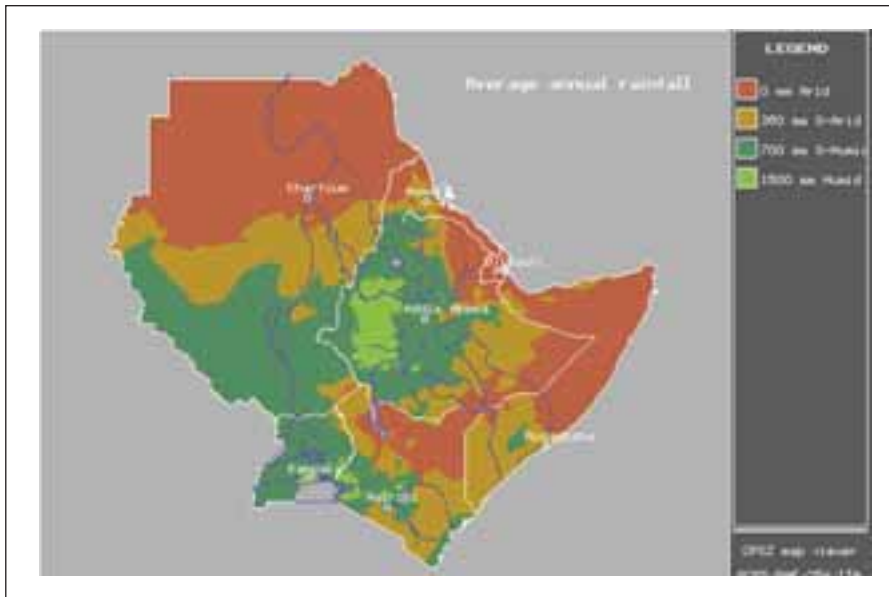
The Intergovernmental Authority on Development is made of seven countries in East Africa shown in figure 1.

**Figure 1:** Map of East Africa



As stated earlier, the agro ecological zones of the region vary from arid and semiarid to sub humid and humid zones as shown in figure 2.

Sudan has arid, semiarid and semi humid agro-ecological zones while Ethiopia has all four zones. Most of Uganda is semi humid with some patches of semi-arid and humid while Kenya has arid, semiarid, semi humid and some patches of humid. Somalia is arid and semiarid with some small patches of semi humid around Mogadishu. The whole of Djibouti is arid and Eritrea is arid and semiarid.

**Figure 2:** Agro-ecological Zones**Table 1:** IGAD recent food availability trend

Food balance items	Million metric tons of cereals		
	2004	2006	2008
Domestic supply	22.0	20.7	29.2
Requirements	26.0	25.7	33.0
Surplus/deficit	-4.0	-5.0	-3.8
Food aid imports	1.1	1.7	1.0

Source: Compiled from FAO/GIEW

The table above shows IGAD's recent food availability trend for 2004, 2006 and 2008. The domestic supply, requirements and the surplus deficit of metric tonnes of cereals for 2004 was 22, 26 and -4 respectively. This fell in 2006 and rose again in 2008 to 29.2, 33 and -3.8 metric tonnes, respectively. Food aid imports were 1.1 in 2004 rose to 1.7 in 2006 and fell to 1.0 metric tonnes in 2008.

**Table 2:** Livestock Numbers ('000) - indicative

	Djibouti	Eritrea	Ethiopia	Kenya	Somalia	Sudan	Uganda	IGAD
Land (Km <sup>2</sup> -000)	23	124.5	1 120	583	638	2 505	236	5229.5
GDP (2005 B\$)	07	1.0	11.2	18.0	-	27.7	8.7	67.3
Cattle	40	1 900	42 000	13 000	5 200	40 000	6 500	108640
Sheep	400	2 300	18 000	-	13 500	50 000	1 600	92 800
Goats	600	-	-	-	-	42 000	7 800	100400
Horses	-	-	-	-	1	800	10	2 330
Camels	50	-	-	800	6 200	4 000	-	11 050
Pigs	-	20	200	-	-	-	1 700	1 920
Poultry	-	25 000	43 000	30 000	3000	39 000	34 000	174000
Agriculture as % of GDP	-	20	50	26	67	45	39	41
Livestock as % of GDP	-	4	-	8	47	9	17	17

*Main Source: AU/IBAR Website (2007)*

In the IGAD Region there exist 109 million cattle and 193 million sheep and goats. This amounts to almost half the species of these animals in the Sub Saharan Africa. The number of poultry is 174 million, which is about 20 percent of Sub Saharan Africa's poultry population. While cattle, sheep and goats and poultry are highly kept throughout the region, pigs are mostly kept in Uganda, and to a less extent in Kenya. In the rest of the region pig raising is not common because the population is mostly Muslim.

## II. BACKGROUND

The Intergovernmental Authority on Development (IGAD) in Eastern Africa was created in 1996 to supersede the Intergovernmental Authority on Drought and Development (IGADD) which was founded in 1986. The recurring and severe droughts and other natural disasters between 1974 and 1984 caused widespread famine, ecological degradation and economic hardship in the Eastern Africa region. In 1983 and 1984, six countries in the Horn of Africa – Djibouti, Ethiopia, Kenya, Somalia, Sudan and Uganda – took action through the United Nations to establish an intergovernmental body for development and drought control in their region. The Assembly of Heads of State and Government met in Djibouti in January 1986 to sign the Agreement which officially launched IGADD with headquarters in Djibouti. The State of Eritrea became the seventh member after attaining independence in 1993.

In April 1995 in Addis Ababa, the Assembly of Heads of State and Government made a Declaration to revitalise IGADD and expand cooperation among member states. On 21 March 1996 in Nairobi the Assembly of Heads of State and Government signed “Letter of Instrument to Amend the IGADD Charter /Agreement” establishing the revitalised IGAD with a new name The Intergovernmental Authority on Development”. The revitalised IGAD, with expanded areas of regional cooperation and a new organisational structure, was launched by the IGAD Assembly of Heads of State and Government on 25 November 1996 in the city of Djibouti, the Republic of Djibouti.

### **III. VISION**

IGAD will be the premier regional organization for achieving peace, prosperity and regional integration in the IGAD region. IGAD mission is to assist member states achieve regional integration through closer cooperation in the areas of:

- agriculture and environment protection;
- economic cooperation and social development;
- peace and security.

### **IV. OBJECTIVE**

The main objective of IGAD is to achieve economic integration and sustainable development for the region. Others objective are to promote joint development strategies and gradually harmonize macro-economic policies and programmes in the social, technological and scientific fields; to harmonize policies with regard to trade, customs, transport, communications, agriculture, and natural resources, and promote free movement of goods, services, and people within the region; and to create an enabling environment for foreign, cross-border and domestic trade and investment. IGAD also aims to initiate and promote programmes and projects to achieve regional food security and sustainable development of natural resources and environment protection, and encourage and assist efforts of member states to collectively combat drought and other natural and man-made disasters and their consequences; develop a coordinated and complementary infrastructure, in the areas of transport, telecommunications and energy in the region; promote peace and stability in the region; create mechanisms within the region for the prevention, management and resolution of inter-state and intra-state conflicts through dialogue; mobilize resources for



the implementation of emergency, short-term, medium-term and long-term programmes within the framework of regional cooperation; and facilitate, promote and strengthen cooperation in research development and application in science.

## **V. OUTPUTS**

Key strategic issues pertaining to the complex and ever changing nature of regional cooperation include policy matters, development information sharing, capacity building, establishing partnerships and alliances, and facilitating research and technology development.

### **A. Priority Areas**

IGAD has Seven priority areas of action which are:

- agriculture, livestock and food security;
- natural resources management;
- environmental protection;
- social development and gender;
- trade, infrastructure and communications;
- conflict management and resolution;
- disaster risk management.

## B. On-going Programmes/Projects

IGAD on-going programmes/projects are:

- Livestock marketing (FAO) ✓
- SOLICEP (FAO/IBAR)
- PAN-SPSO (EU/IBAR)
- Livestock policy initiative (EU/FAO) ✓
- Conflict Early Warning (CEWARN/USAID/GTZ) ✓
- Climate prediction and applications Centre (ICPAC/WMO) ✓
- Water resources assessment/mapping (ADB/OSS)
- Water harvesting (ADB)
- Water resources management (EU) ✓
- African monitoring of the environment with satellites (EU/AU) ✓
- REFORM (EC)
- Conflict Prevention Management and Resolution (EU)
- Disaster Fund (EU)
- Infrastructure development (EU, Djibouti, Ethiopia, Kenya)
- HIV/AIDS cross-border monitoring and control (WB) ✓

## VI. STRUCTURE

Figure 3: IGAD's Organisational Structure



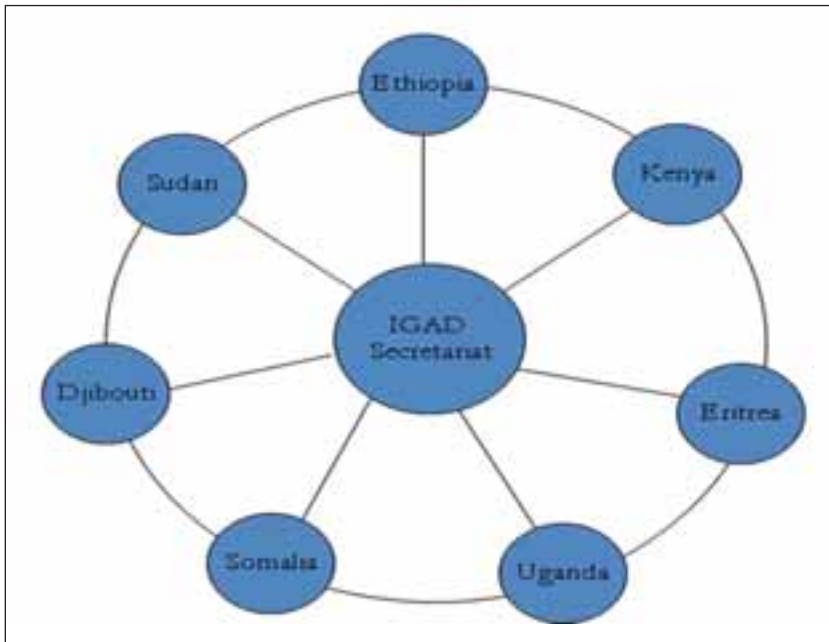
## A. Policy organs

The Intergovernmental Authority on Development is comprised of four hierarchical policy organs (Figure 3) which are :

1. The Assembly of Heads of State and Governments (Summit) is the supreme policy making organ of the Authority. It determines the objectives, guidelines and programmes for IGAD and meets once a year. A Chairman is elected from among the member states in rotation.
2. The Council of Ministers (Council) is composed of the Ministers of Foreign Affairs and one other Focal Minister designated by each member state. The IGAD Inter-Parliamentary Union and the ministerial committees work along with the Council of Ministers. The Council formulates policy, approves the work programme and annual budget of the Secretariat during its biannual sessions.
3. The Committee of Ambassadors (COA) is comprised of IGAD member states' ambassadors or plenipotentiaries accredited to the country of IGAD headquarters. It convenes as often as the need arises to advise and guide the Executive Secretary.
4. The Secretariat is headed by an Executive Secretary appointed by the Assembly of Heads of State and Government for a term of four years renewable once. The Secretariat assists member states in formulating regional projects in the priority areas, facilitates the coordination and harmonisation of development policies, mobilises resources to implement regional projects and programmes approved by the Council and reinforces national infrastructures necessary for implementing regional projects and policies. The Secretariat is responsible for the implementation of programs in food security and environmental protection, infrastructural development and communication and transport, conflict prevention, management and resolutions, and humanitarian affairs.
5. The Executive Secretary is assisted by four directors heading divisions of Economic Cooperation and Social Development; Agriculture and Environment; Peace and Security; and Administration and Finance plus 22 regional professional staff and various short-term project and Technical Assistance Staff. This 22 staff fall into sections such as specialized offices, legal adviser, internal audit and planning.

## VII. THE STRUCTURE OF IGAD'S INFORMATION NETWORK

**Figure 4:** Structure of IGAD Information Networks



The individual national information nodes will form the backbone of IGAD's Regional Livestock Policy Information Network (Figure 4). This will be an electronic network that provides access to data on livestock and livestock policy. Data and information collected by various government organizations, and perhaps non-governmental organisations as well, will be linked through the project web-portal and made accessible through several national nodes. Implementation of the regional network will be accomplished through these information nodes in each of the IGAD member states that serves as interconnected entry points for the information held by different partners.

Potential members of IGAD information network are: government ministries of agriculture and trade, national chambers of commerce, producer/trader associations and civil society organizations (NGOs).



## IGAD LPI and Regional Livestock Trade

Otieno Mtula\*

### Summary

The objective of the Intergovernmental Authority on Development, Livestock Project Initiative (IGAD LPI) is to enhance the contribution of the livestock sector to sustainable food security and fight poverty reduction in the IGAD region. The purpose is to strengthen the capacity in IGAD member states, other regional organizations and stakeholders to formulate and implement the livestock sector and related policies that sustainably reduce food insecurity and poverty. The livestock project located at ILRI campus, Addis Ababa, is funded for 6 ½ years by the European Commission with Euro 5.5 million.

Estimates show that there are 43 million poor livestock keepers in the IGAD region, representing around 61 percent of the poor in the region. Poor livestock keepers rarely participate in policy formulation processes. The potential of the livestock sector to support the livelihoods of the poor and of women depends on the policy and institutional environment in which it operates.

Poverty Reduction Strategy Papers were at the centre of development planning and the allocation of resources. IGAD is known to have a significant comparative advantage in livestock and this is due to the great numbers of livestock the region produces and to the trade and movement patterns across the region. The free trade area (FTA) of the region, if well designed and managed, could promote regional economic integration in the livestock sector that has the potential to deliver benefits of particular value to poor and vulnerable livestock keepers.

Recent IGAD LPI research shows that the contribution of livestock to household livelihoods through markets is very limited. Livestock accumulation is a key objective for most rural households, and for many this begins with a process of acquiring small animals, increasing their numbers and sequentially trading up to larger species.

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\* Policy Advisor, IGAD LPI

## **I. OVERVIEW OF THE PROJECT**

The objective of the IGAD LPI is to enhance the contribution of the livestock sector to sustainable food security and fight poverty reduction in the IGAD region. The purpose is to strengthen the capacity in IGAD, member states, other regional organizations and stakeholders to formulate and implement the livestock sector and related policies that sustainably reduce food insecurity and poverty.

The livestock project located at ILRI campus, Addis Ababa is funded by the European Commission for five years 2002-2007 with Euro 5.5 million, but then took off in September 2005 to end August 2010. It has now been extended to 6½ yrs to end in February 2012.

## **II. POVERTY FOCUS**

Estimates show that 70 percent of the livelihood of the world's rural poor is made of livestock component. Some 43 million poor livestock keepers are found in the IGAD region, representing around 61 percent of the poor in the region. The Steering Committee Meeting (SCM) of IGAD instructed the project coordinator to work with the region's ministries responsible for livestock to ensure that their areas of operation enable them to respond to the diverse roles of livestock in the livelihoods of the livestock dependent poor.

### **A. Focus on Livelihoods and Institutions**

Reviews of livestock policy have highlighted a reality that the impacts of many livestock policies either bypass the poor or in some instances constrain their ability to make a living. Poor livestock-keepers are rarely engaged in policy formulation processes; and the apparent assumption that what is beneficial for wealthier, larger-scale livestock producers will also assist poor livestock-keepers, is now being questioned.

The success of development interventions does not depend solely on the quality of a technical solution that an intervention introduces. The history of development is littered with the examples where enthusiastically-supported technical innovations have failed or similar innovations have performed radically. This is not to say that technical interventions have no benefits, but that in order for them to achieve the desired impact, they should be appropriate and accompanied by an enabling environment.

The potential of the livestock sector to support the livelihoods of the poor and of women depends on the policy and institutional environment in which it operates.

## **B. Gender Aspects**

It is important to recognise that both the IGAD Financing Proposal (page 8) and the Contribution Agreement (page 21) state that "...the project will ensure that policies and strategies developed with its assistance have a strong pro-poor orientation; that gender issues are appropriately dealt with..."

## **C. Building Capacities for Gender Responsive Pro- poor Policy Making**

Limited understanding of the pro-poor policy making process: There is lack of understanding among target groups that policies and institutions influence livelihoods of the poor with special emphasis on women. There is also a need to promote the working principles of IGAD LPI policymaking and the models and the actors involved in this process, are pro-poor, evidence based, participatory and gender-sensitive.

Capacity is being developed through practical engagement such as learning by doing with key policy processes, or 'interventions' by national policy hubs and information nodes. Policy hubs are multidisciplinary fora drawn from civil society and government. From the experiences of the hubs, lessons which will then inform the institutionalisation of pro-poor policy making at the national level are gained.

## **III. KEY POLICIES PROCESSES OR INTERVENTIONS**

The Regional Policy Framework in the context of trade and vulnerability Agreement was signed in December 2009. National positions were developed by the policy hubs and working groups in all IGAD member states, enabling IGAD on behalf of its LPI, to convene the region's ministers responsible for livestock in Djibouti, in December 2009, where the regional policy framework was signed. This is where IGAD LPI vision on Intra-Regional Trade is anchored.

Poverty Reduction Strategy Papers were at the centre of development planning and the allocation of resources. They were originally conceived as a method of



linking development assistance to strategic planning at the national level. They have become increasingly dominant in defining development priorities in general. In many countries of the IGAD region, they now constitute the country's national development plan.

The signing of the Regional Policy Framework ushers in an agreement on a fairly comprehensive framework for the harmonization of policies in the context of Regional Economic Integration (REI). An initial focus of IGAD's regional economic integration will be in the livestock sector, including its products and inputs. IGAD is widely accepted to have a significant comparative advantage in livestock and this initial focus is a response to both the quantity of livestock within its borders and to the trade and movement patterns across the region. Furthermore, livestock underpin the livelihoods of over 40 million of the region's poor. Regional economic integration will therefore be structured in order to capitalise on the livestock sector's potential.

Article 4 of the Regional Policy Framework particularly recognizes the importance of the creation of an IGAD wide free trade area to foster intra-regional trade in livestock and livestock related products, inputs and services. The development and signing of the Regional Policy Framework is, in itself, an important step towards the development of an IGAD wide Free Trade Area (FTA) for two reasons: the harmonization of policies is an essential step in delivering a Free Trade Area (FTA), and conversely the existence of an FTA is likely to increase the benefits of harmonizing policies.

FTA will require tariffs and non-tariff barriers to trade within the region to be largely eliminated, though each country will still set its own tariffs with respect to third countries. The successful establishment of an IGAD FTA is anticipated to benefit all member states. It would result in larger markets which would be expected to result in higher levels of prosperity. Most of IGAD's current cross-border trade is informal. Regional Economic Integration (REI) would be expected to increase the proportion of trade that is carried out through formal channels where appropriate monitoring and regulation is more feasible.

History has shown that REI is a potentially powerful force in reducing conflict among member states. If it is well designed and managed, REI in the livestock sector, has the potential to deliver benefits of particular value to poor and vulnerable livestock keepers. Through an understanding of how poor livestock keepers also participate in markets, the benefits of increased trade can be channelled towards poorer livestock groups. Similarly, by including the voice of

poorer livestock keepers as regional livestock policies are developed, key issues of vulnerability and productivity can be addressed more effectively.

Cross-border trade provides a practical means of offering economic opportunities to address marginalisation and poverty in livestock keeping communities. This, in turn, can also offer an incentive to reduce conflict. The context for the project is therefore increasingly one of regional economic integration, with its implications, opportunities and implementation.

## IV. CONCLUSION

As important as livestock trade and the poor may be, there are still some considerations that must be made. These are:

- Recent IGAD LPI research shows that the contribution of livestock to household livelihoods through markets is very limited. Some data on the proportion of cash income from livestock for households belonging to different income quintiles/quartiles are 1.6 to 11.3 percent in Mbale District in Uganda; from 4.5 to 15.8 percent in Mubende District, Uganda; between 6.3 to 12 percent in Northern Ethiopia; from six to 22 percent in Vihiga District, Kenya; and from five to 18 percent in Kakamega District, Kenya.
- Even for the wealthiest households, cash income is (on average) just one of the livelihoods services provided by livestock.
- Rather than keeping livestock for the relatively narrow contribution of income alone, most livestock-keepers keep their livestock for the multiple contributions they make to their livelihoods i.e. enabling savings, providing security, accumulating assets, financing planned expenditures, maintaining social capital, and providing livestock products and services (e.g. traction).
- One of the routes out of poverty pursued by the poor is to progressively accumulate assets such that they no longer need to be sold to ensure livelihood security and can, therefore, become productive and contribute to enhancing livelihood status. Livestock accumulation is a key objective for most rural households, and for many this begins with a process of acquiring small animals, increasing their numbers and sequentially trading up to larger species.

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# Importance of TADs in Livestock and Livestock Products

Bouna Diop\*

## Summary

Trans-boundary Animal Diseases (TADs) are diseases that can cause damage or destruction to farmers' property, may threaten food security, injure rural economies and potentially disrupt trade relations. TADS are drivers of rapid growth in human and animal populations; rapid urbanization; can impact negatively on trade whether local, regional and international and affect market access. Main TADS in East Africa are Rift Valley Fever (RVF), Foot and Mouth Disease (FMD), Peste de Petits Ruminants (PPR), New Castle Disease (NCD), Contagious Bovine Pleuropneumonia (CBPP), among others.

Burundi, Djibouti, Ethiopia, Eritrea, Kenya, Rwanda, Somalia, Sudan, Uganda and DRC are covered by the Emergency Control of the Trans-Boundary Animal Diseases East African Region (ECTADEA).. ECTADEA carries out activities in research on diseases, poultry and bi-security and agri-business. Among partners in the fight for TADs are governments, international organizations working on diseases, NGO's and universities.

## I. INTRODUCTION

TADs are defined as diseases that are of significant economic, trade and /or food security proportions affecting a considerable number of countries spreading to other countries and reach epidemic levels. Control or management of TADs including by exclusion requires cooperation between many countries. Within the definition, there are many diseases that can cause damage or destruction to farmers' property, may threaten food security, injure rural economies and potentially disrupt trade relations.

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\* FAO ECTAD

## **A. Emerging TADS**

TADs are infectious and emerge or re-emerge from interfaces between animals, humans and the ecosystems.

TADs are drivers of rapid growth in human and animal populations, rapid urbanization, changing farming systems, promote closer integration between wildlife and livestock, do forest encroachment, globalization of trade in animal and animal products and majority are zoonoses associated with food safety and trade issues.

## **B. Current Status**

Currently, little is known about TADs. Besides livestock and human losses, TADs negatively impact trade whether locally, regionally and internationally. International trade is increasingly important in livestock industries disease status which often generates reactions from regulators and consumers that subsequently affect product prices. Many policies on TADs and trade incorporate rules that reflect disease, risk minimization or disease risk avoidance.

# **II. IMPACT OF TADS ON LOCAL TRADE**

The importance of TADs on trade is associated with three factors:

- TADs are used as technical barrier to local and international trade in animal, animal products and by-products to protect livestock, livelihoods and human life.
- TADs outbreaks deplete livestock assets reducing supply of animal and animal products for the markets.
- Outbreak of zoonotic TADs interrupt trade operations even in clean areas as a result of consumer panics.

## **A. Consequences of Zero or Reduced Market Access**

The consequences of reduced market access are:

- increased supply to the local market and lower prices and therefore lower returns (short term);

- production adjustments, dropping off better technologies – lower production and productivity (long term);
- reduced or forgone income loss spills over to the other sectors as households purchase less goods from the other sectors;
- happens for local market bans on animal movement and market closures (limits market access);
- loss of employment (e.g. when meat export abattoirs or local markets are closed); change of prices of substitutes (e.g. an outbreak of HPAI would result in increase in beef prices);
- Outbreaks of TADs can deplete livestock assets, leading to reduced supply of animals for trade – with subsequent price shifts.

**Figure 1:** Map of Africa Showing the Coverage of Different Zones of TADs



### III. GEOGRAPHIC COVERAGE

The countries: Burundi, Djibouti, Ethiopia, Eritrea, Kenya, Rwanda, Somalia, Sudan, Uganda and DRC coloured orange as shown in Figure 1 are covered by the Emergency Control of the Trans-Boundary Animal Diseases East African Region (ECTADEA).

### IV. ECTAD EA OVERVIEW OF ACTIVITIES

ECTAD EA carries out the following activities:

- support to the Eastern Africa Regional Laboratory Network (EARLN) established in June 2008;
- support to the Eastern Africa Regional Epidemiology Network (EAREN) established in April 2009;
- study tour by National AI Coordinators from EAC countries to Ghana, Nigeria and Egypt (countries that have experienced Highly Pathogenic Avian Influenza (HPAI));
- desktop and field simulation exercises for HPAI preparedness plans;
- poultry sector review (Burundi, Ethiopia, Kenya, Rwanda, Sudan (North), Tanzania and Uganda);
- biosecurity assessments (Kenya, Rwanda, Tanzania, Burundi, Uganda, Ethiopia);
- biosecurity and safe poultry production trainings (all countries);
- biosecurity guidelines and training materials;
- compensation plans (Kenya, Uganda, Tanzania, South Sudan);
- livelihood analysis, (Kenya, Uganda, Tanzania);
- value chain analysis, trade flow mappings (Kenya, Tanzania, Uganda);
- cost-benefit analysis of the national prevention systems (to begin in Kenya and Tanzania);
- development of regional communication strategies; and
- technical backstopping for various projects being implemented at country level (e.g. RVF and PPR control).

## **V. PARTNERS**

Various partners in the fight against TADs are:

- governments
- African Union –Inter Bureau for Animal Resources (AU-IBAR)
- Office Internationale d’Epizooties (OIE)
- World Health Organisation and other UN agencies
- East African Community (EAC)
- Intergovernmental Authority for Development (IGAD)
- International Research Livestock Centre (ILRI)
- Centre for Disease Control (CDC)
- universities
- non-governmental organisations (NGOs)
- Participatory Epidemiology Network for Animal and Public Health (PENAPH)





# RECOMMENDATIONS AND THE WAY FORWARD OF THE WORKSHOP

## Work plan of activities and implementation mechanism

- The National Project Coordinators (NPC) are expected to take leadership in project implementation of activities and involve all stakeholders to enhance ownership.
- Organize a stakeholder workshop in each country to launch the project with the support of the TCDC.
- Assist the NPCs with facilitation mechanism relating to activities information sharing, budgeting and flow of funds and reporting procedures for efficient and effective implementation.
- Assist the NPCs with the project document and revised work plan.
- Explore possibility of involving all participating countries in the Training of Trainers (ToT) to ensure sustainability after end of project.
- The value chain analysis and mapping of stakeholders to be the first activity to be implemented in the countries as a pre-requisite for logical implementation and coordination of activities.
- Reports would be prepared by NPC, NC and TCDC immediately after each activity is completed.

## Support to establishment of regional livestock market information network

- The TCP has to support the existing nodes at country and at IGAD Secretariat levels to meet the specific livestock marketing needs.
- This structure is adequate to collect and disseminate the information.
- Awareness and sensitization on the existence of the website [www.igad-data.org](http://www.igad-data.org) should be conducted to stakeholders.
- Private sector is a key partner and beneficiary and should be encouraged to contribute to its sustainability.
- The project TCP/RAF/3301 should meet and discuss this issue with representatives of FAO/IGAD-LPI project.



## CLOSING REMARKS

- Emmanuelle GuerneBleich made the closing remarks.
- She acknowledged the very active participation of all the participants at the Inception Workshop of the project which will be implemented by the IGAD Secretariat with the support of the FAO.
- She also appreciated the contribution, participation and cooperation of the participants which enhanced the understanding of the project and anticipated outputs and that it was going to assist in the right orientation of the interventions to be undertaken within the project.
- She finally gave special thanks to Samuel Zziwa, IGAD Secretariat and other members for the good organization of the event and facilitation that resulted in achieving the objectives and outputs of the workshop.



# ANNEX 1: WORKING GROUPS DISCUSSIONS AND PRESENTATIONS

In this session, participants were divided into three working groups.

## Working Group One

### Product quality and certification needs assessment

Name	Organization/ Country	Responsibility
Fred Wandaka	FAO/SFE TCDC	Consultant /facilitator
Ameha Sebsibe	FAO/SFE	FAO/SFE
Bouna Diop	FAO /ECTAD/IBAR	FAO /ECTAD/IBAR
Henok Mechal Haile	Ethiopia EMDT	National Project Coordinator
Ali Mohammed Ali	Somaliland	National Project Coordinator
Julia Kinyua	Kenya Ministry of Livestock	National Project Coordinator
Ilni Awaleh	FAO	Consultant

The group was asked to discuss the above subject and answer the following questions. They were to appoint a secretary to present their deliberations at the plenary session.

What are the critical knowledge gaps to respond to market requirements related to quality and certification of livestock and livestock products at:-

- producers/pastoralist level?
- brokers and transporters level?
- traders level?
- processors/Exporters level?
- service providers levels (Ministry Agriculture/Animal Resources/Trade, Chamber of Commerce, Trade Associations).

## Working Group Two

### Entrepreneurship and agribusiness value chain capacity needs assessment

Name	Organization/Country	Responsibility
Susan Minae	FAO/SFE	Facilitator
Mtula Otieno	FAO IGAD LPI	IGAD-LPI
Ibrahim Taher	Djibouti Breeders	
Wubie Mengistu	Ethiopia Chamber of Commerce	
Dr. Ali AbdelRazig	Sudan	National Project Coordinator
Yahia	Djibouti	
Kaviti Ndungi	Kenya	Ministry of trade
Mohamed Samatar	Somaliland	Chamber of Commerce

The group was asked to discuss the above subject and answer the following questions. They were to appoint a secretary to present their deliberations at the plenary session

What are the critical knowledge gaps related to agribusiness and entrepreneur development at:-

- producers/pastoralist level?
- brokers and transporters level?
- traders level?
- processors level?
- service providers levels (Ministry Agriculture/ Animal Resources/Trade, Chamber of Commerce, Trade Associations)?

## Working Group Three

### Support on establishment of livestock market information regional Network Forum

Name	Organization/ Country	Responsibility
Emmanuelle GuerneBleich	FAO SFE	Facilitator
Samuel Zziwa	IGAD Secretariat	
Jotham Musime	Advisor FAO Somalia	
Rwabushaija Bernard	Uganda	National Project Coordinator
Tazareu Mohammed		
Yonis M. Adar	Djibouti	Coordinator

The group was to discuss the above subject and answer the following questions. They were to appoint a secretary to present their deliberations at the plenary session.

- What will be the main outputs of the Forum?
- What sort of specific issues should be discussed at the Forum?
- What type of structure, membership and operational mechanism is needed to make the Forum sustainable?
- Where should the Forum be housed at national and regional levels?



## Presentation at the plenary

### Group One

#### Product quality and certification capacity building

- There is need for the various levels of actors, from pastoralist production to the stage where the product is ready for market, to know the market requirements and understand that each level of actors in the chain should play their role(s) to achieve a market acceptable certification for the livestock and livestock products.
- Public and private sector service providers play an essential role in building the capacity among the chain actors, in certification and in ensuring sustainability.
- Information networks flow and linkages (vertical and horizontal) is necessary to facilitate decision making by actors including adjustment to changes in market requirements.

#### Producers Level

- The pastoralists and agro pastoralists need to understand that they should practice good livestock husbandry to improve the quality of their animals to meet market requirements.
- They need capacity building in breeding, feeding and watering, animal and welfare, appropriate branding and traceability.
- They need training in effective disease prevention and control and control of drug and pesticide residues levels in the animals.
- They need capacity building in simple grading and pricing of livestock (simple scoring by weight and age).
- These producers need to be facilitated to know market requirements including production and import regulations, product quality standards inspection and certification procedures and processes and market linkages.
- They need capacity building to organize themselves in associations for collective bargaining and to access production inputs and services.

### **Dealers/Brokers and transporters level**

- These need capacity building in animal welfare and guidelines on animal and meat transportation standards in order to maintain product quality for acceptable certification.
- They need, as well, capacity building in organization of associations and business ethics.
- They need market information on import regulations, product quality standards and inspection and certification procedures and processes and market linkages.

### **Traders' level**

- The objective of capacity building at this level of the chain is to maintain product quality standards integrity for acceptable certification.
- The traders need capacity building on guidelines for animal welfare and hygienic animal and meat transportation standards, appropriate treatment of hides and skins and records keeping.
- They need market information on import regulations, product quality standards and inspection and certification procedures and processes and market linkages.
- They require capacity building to organize themselves in associations for collective bargaining to access needed inputs and services and to practice acceptable business ethics.

### **Processors and exporters level**

- The objective of capacity building here is to ensure conformity to market product quality standards during processing and value addition for domestic, regional and export markets certification.
- This level of actors need capacity building in pre-slaughter or pre-export handling of animals including quarantine, inspection, testing and certification processes and procedures.
- They require capacity in hygienic slaughter, flaying and evisceration.
- They need capacity in slaughterhouse and environmental hygiene, cold chain management, appropriate processing technology for value addition such as cutting, grading, packing and appropriate product storage to reduce post harvest losses.
- The processors need capacity in slaughterhouse management including records keeping.

- They need information on market requirements regarding import regulations, product quality standards, inspection and certification procedures and processes and market linkages.
- They require capacity building to organize themselves in associations for collective bargaining and to access needed input and services.

### **Services Providers**

- Effective services delivery by providers is vital in ensuring that the livestock chain actors play their roles in the certification process from farm to table for conformity compliance to market requirements certification and in sustainability of market access.
- These will also act as training of trainers for sustainability of the interventions after the end of the project.

### **Public Sector Service Providers**

National ministries of agriculture/livestock/trade/public health fall under this category. These need technical capacity strengthening targeted at headquarter, laboratory and field levels in:

- livestock diseases prevention, surveillance and control;
- WTO SPS Agreement and trade in livestock and livestock products;
- general principles and procedures for commodity certification;
- livestock and products import/export risk analysis;
- codes of practice for live animals and livestock products (meat, hides, skins).

They also need information on market requirements regarding import regulations, product quality standards and inspection and certification procedures and processes and market linkages from the importing countries.

### **Private sector service providers**

These include national chambers of commerce and management of livestock producer/ trade/processor and professional (veterinary)/associations.

- They need capacity strengthening/ building on market requirements regarding import regulations, product quality standards, inspection and certification procedures and processes and market linkages.
- They require capacity building in organization and management of associations.

## **Group Two**

### **Livestock Value Chain; Agribusiness Capacity Building**

- Market Intelligence to the pastoralist and other actors in the chain. i.e. they need to know the prevailing market prices and the demand.
- There is need to clearly understand the critical role played by each set of the actors in the value chain and how they relate to each other and the need to facilitate platform for information flow between the actors to improve market efficiency.
- There is need to appreciate the role played by the brokers and other service providers to strengthen vertical linkages in the value chain.
- Government can play an important role in terms of providing essential market linkages and incentives to increase investment in facilities to support marketing and value addition, pastoral areas (for instance by providing tax concessions and incentives to investors).

### **Producer Level**

- There is need for producers to learn and appreciate that they are doing business which needs to be responsive to demand. The producers need to know the prevailing demand in terms of prices and quantities, and how to plan the production to meet the demand.
- The government and other service providers should play the key role of linking the farmers to the markets by providing essential services such as market information and facilitate platforms for business to take place.
- Farmers should be educated and trained on how to handle animals to meet market requirements, such as the market standards requirements.
- Capacity building on entrepreneurship including management skills on their production systems.
- The farmers should be trained to understand the market along the value chain especially on the prices and quality/quantity so that they are better equipped to bargain in order to counter the exploitation tendencies by the brokers who capitalize on the lack of knowledge by farmers.
- Facilitation and strengthening of farmer organization to enhance their bargaining power and to joint activities in marketing.

**Brokers, Transporters and Other Handling Along Value Chain**

- Capacity building to improve the skills by brokers and other service providers to enhance information flow and strengthen vertical linkages in the value chain.
- Transporters need to appreciate the standards requirements and how handling will affect operational costs and marketing margins.

**Traders Level**

The traders need to appreciate that they need to work together in order to:

- tap the economies of scale such as in organizing services such as transport;
- get information on how they can organize themselves in terms of short term credit facilities and banking services;
- avoid losing their business during the time of unexpected disaster;
- strengthen their knowledge base to improve on their bargaining position.

**Processors Level**

- They need capacity building to access the necessary information to enable them access credit and at a low cost to reduce operational costs in value addition.
- They also need enhanced skills in management and entrepreneurship.

**Service Providers**

- There is need to create public/private sector forum where information will be shared.
- From the experiences from each country, it emerged that there are best practices that can be borrowed from each country.
- There is need to carry out value chain analysis to identify the gaps.

## Group Three Report

### Support on establishment of livestock market information Regional Network Forum

Assumption TCP project will be followed up by a longer term regional project to ensure the sustainability in existing Information Nodes (Country nodes, information management (IGAD-LPI), as a good tool that includes organized and defined information on animal health, animal production, regulations/laws, livestock commercialization/trade, prices, meetings, events, dates, etc.

- No need to start from scratch-the TCP should build on existing system in place; country nodes will be tasked to take on the responsibility of information management and network for this project with additional support from this TCP.
- This TCP will assist the nodes to meet the information needs for the purpose of this project.
- There is a need to develop further the mechanism for the country nodes to share information ([www.igad-data.org](http://www.igad-data.org)). This is where all information from country nodes are gathered, ARIS-II (Animal Resources Information System) is being developed by AU-IBAR, LMIS Livestock Market Information System, (not used-no funds).
- There is a need to create awareness on the existence of this data base (ministries, technical departments, chambers of commerce and producers and traders associations. The private sector should be sensitized so that they can allocate funds to sustain the mechanism as it is an efficient/relevant information tool that sustain their business.
- The TCP is looking at improving market information dissemination, its cost effectiveness and sustainability to combine resources on the information nodes. At the end of the two projects, what mechanism should be in place to carry on with this activity; IGAD secretariat, COMESA, Country Government, Chambers of Commerce?
- House at country level is the information nodes, house at regional level is the IGAD Secretariat.



## Annex 2: List of Participants of Inception Workshop of the Project TCP/RAF/3301

No	Name	Organization /Country	Position	Address, e-mail, Tel.
1	Taher/Brahim/SSA	Djibouti Breeders	President	taheriissa@Hotmail.com
2	Jotham Musiime	FAO Somalia	Consultant	musiimet@yahoo.com
3	Bouna Diop	FAO ECTAD		Bouna.diop@fao.fr
4	Otieno Mtula	IGAD LPI	Policy Advisor	O.mtula@cgiar. Org
5	Wubie Mengistu	Chamber of Commerce, Ethiopia	Department Manager	ethiochamb@ethionet.et eyoswubie@gmail
6	Fantahun Assefa	FAO/SFE	FPSMO	Fantahun.assefa@fao.org
7	Mohamad Samatar	Chamber of Commerce, Somaliland	Advisor	C/F aish.awale@yahoo.com
8	Ali Mohammed Ali	Somaliland, NPC	NPC	Alibid20@yahoo.co.uk
9	Ali Adkelrazig	Ministry of ARDF	NPC	aalutfi@hotmail
10	Ameha Sebsibe	FAO/SFE	Livestock Officer	Ameha.sebsibe@fao.org
11	Ilni Awaleh	Consultant FAO		Aliwi_awaleh@hotmail.com
12	Aden Abdillahi Bowedh			Adenalaw211@live.fr
13	Marc Thyssen	PROCONEX East Africa	Consultant	m.thyssen@telenet.be
14	Ahmed Mounir	Preconex East Africa Degrica	Director	samcoateam@yahoo.com
15	Zahra Omas Ahmed	Chamber of Commerce/ Djibouti	Office in charge	Zahra.o.ahmed@gmail.com



16	Tazanek Rorang	Ministry of Agriculture	Head BPSC	Tolachan600@yahoo.com
17	Yonis M Adar	IGAD/cei Djibouti	Coordinator	yonisadar@yahoo.com
18	Julia Kinya	Ministry of livestock Kenya	DDVS/NC	juliakny@yahoo.com
19	Kavits Ndumgi	Ministry of Trade		ndungik@yahoo.com
20	Benard Rwabushaira	Ministry of Agriculture	NPC	brwabushaija@yahoo.com
21	Henok Mechal	Meat and Dairy Technology Institute, Ethiopia	NPC	Henok.mechal@yahoo.com
22	Susan Minae	FAO/SFE	Agribusiness Officer	Susan.Minae@fao.org
23	Samuel Zziwa	IGAD	Manager	
24	Ismael Abdoukader	FAO Sudan		
25	Emmanuelle Gueb\ Bleich	FAO/SFE		Emmanuelle.GueBlech@fao.org
26	Fred Wandaka	FAO/SFE		mjamagahayr@yahoo.co.uk
27	Moumina AboubakerKako	FAO-Djibouti		Moumina.AboubakerKako@fao.org

# **Annex 3: Excerpt from the Dubai Workshop for Livestock Stakeholders of Importing Gulf and Exporting Horn Countries**

Ameha Sebsibe\*

## **I. INTRODUCTION**

Two officers from the FAO Sub-regional Office for Eastern Africa participated in the workshop for livestock stakeholders of importing Gulf and exporting Horn countries held in Dubai, United Arab Emirates from 01–04 August 2010. The objectives of the workshop was to promote information sharing between Horn of Africa countries and Middle East livestock stakeholders, sharing information on the regional TCP project entitled Support to capacity building to promote formal marketing and trade on livestock and livestock products from the Horn of Africa with the workshop participants and gathering relevant information on livestock import requirements.

The African Union Inter-African Bureau for Animal Resources (AU-IBAR), which organized the workshop, is a specialized technical office with the mandate to support and coordinate the utilization of livestock, fisheries and wildlife. It organized the workshop with the objectives of creating awareness on Somali Livestock Certification Project activities on animal health, certification in Somalia and Somali Eco-System. It allowed Middle East countries to explain their requirements and perceptions in live animal export and expose other opportunities for trade between the Horn of Africa and Middle Eastern countries. It was also an opportunity to receive livestock traders' perspective on trade policies and regulations and come up with recommendations for continuous dialogue between the Horn of Africa and trading partners.

The workshop was attended by 50 participants, including CVOs from seven trading partners of Middle Eastern countries (UAE, Qatar, Saudi Arabia, Jordan, Egypt, Lebanon and Syria), from Somalia and Ethiopia; livestock traders from Somalia and Middle East; and representatives from OIE, USAID, COMESA and FAO/Sub-regional Office for Eastern Africa.

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\* Livestock Officer, FAO/SFE

The importing countries presented the status of their veterinary services and import requirements while the exporting countries from the Horn presented the status and the efforts being made to meet the standard requirements. It was understood that there is a strong demand in the Gulf for products such as chilled shoat carcasses, live animals, frozen beef and mutton.

## **II. CONCLUSION AND RECOMMENDATIONS OF THE WORKSHOP**

Finally, the workshop participants made the following conclusions and recommendations for follow up by the concerned bodies:

- Enhance transparency, trust and accountability in animal health certification processes including identification of animals, disease reporting to AU-IBAR, FAO and OIE and information sharing with importing countries.
- Transportation means (by road, sea and air) for livestock, should observe international animal welfare standards and sanitation including disinfection and insecticide application.
- Importing countries have the right to inspect veterinary services of the exporting country and quarantine facilities in line with the OIE guidelines.
- The ministries responsible for veterinary services in the exporting countries should be strengthened to take the responsibility to supervise and regulate the quarantine operations and certification to ensure continuous upgrading and validation of the systems.
- Continuous communication at all levels between the exporting and importing countries should be strengthened and sustained with the involvement of the stakeholders.
- Effort to harmonize trans-boundary disease control at the regional level should be strengthened.
- Need to develop a protocol to harmonize the pre, during and post-importation systems pertaining to animal health and welfare between the exporting and importing countries.
- The participants also recommended having such a meeting annually.

### III. SOME GENERAL IMPORT REQUIREMENTS

Requirements for import are different for different countries. However, one of the common requirements of all the countries to import animal and animal products is fulfilment of the SPS and related issues that must be confirmed by provision of health certificate to be issued by the regulating body. The following are some of the general and major requirements to get product entry permit into these countries. However, for very specific import requirements, consultation shall be made to the country of interest.

- The health and other certificates issued for animals and animal products export must indicate that the animal or meat is free from diseases, safe and fit for human consumption; i.e. without harmful level of chemical, biological or antibiotic residue in the meat and that it has an original veterinary health certificate.
- Animals be quarantined for 21-30 days before slaughtering or live export.
- Animals be vaccinated twice for FMD and once for PPR (shoat).
- The animals should be transported in cleaned and disinfected vehicles.
- The animals should be slaughtered in an approved slaughterhouse.
- Certificate of country of origin.
- Halal certificate.
- Meat must come from young and intact male animals.

The exporting country in consultation with the importing country shall also organize for a visit of the delegate of the regulating body of the importing country when a new facility is ready for an export or for supervision of the already exporting customer facilities. For instance, Jordan indicated that recently it gave live animal export permit to Sudan and Ethiopia after consulting OIE and making technical study tour to these countries.

The presentation by OIE regional representative for the Middle East on International Sanitary Certificates adopted by Middle East and African countries is annexed in this paper.



# **Annex 4: International Sanitary Certificates Adopted by Middle East and African Countries in 2004**

Presented at the AU IBAR Workshop on Certification  
Dubai, UAE 02–04 August 2010

Ghazi Yehia\*

## **I. INTRODUCTION**

The OIE was created in 1924 by 28 countries that decided to implement an international agreement that would enable them work together to end the epizootics that were devastating their livestock. In particular, they sought an undertaking from infected countries to inform the others in case of an important sanitary event, thereby enabling them to take protective actions. They also wanted to have information on the most effective methods of controlling the most dangerous animal diseases.

These objectives of sanitary and scientific information in the veterinary field are still among the priority areas of the organization, both for diseases solely affecting animals and those transmissible to humans.

The standards, guidelines and recommendations issued by the OIE were designated as international reference in the field of animal diseases and zoonoses. According to a 2009 OIE report, its membership grew to 174 countries, with five Permanent Regional Representations located in Bamako, Buenos Aires, Tokyo, Sofia and Beirut. There are two sub-regional offices based in Bangkok, Thailand and Gaborone, Botswana. There are five Regional Commissions located in Africa, America, Asia and Pacific, Eastern Europe and Middle East. The number of countries represented from these Regional Commissions are Africa 51, America 29, Asia and Pacific 28, Eastern Europe 51 and Middle East 13 (Figure 1).

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\* Regional Representative for Middle East, World Organization for Animal Health (OIE)

**Figure 1:** World Map Showing OIE Numerical Representation in Each Region

## II. OIE's GLOBAL OBJECTIVES

The OIE was established in 1924 to prevent the spread of epizootic diseases around the world. The Strategic Plan (2005- 2010) extended the mandate to include the improvement of animal health in all countries, for the benefit of livestock production and public health.

Accordingly, the specific Objectives of the OIE are to:

- ensure transparency in the global animal disease and zoonosis situation;
- collect, analyse and disseminate veterinary scientific information;
- provide expertise and encourage international solidarity in the control of animal diseases;
- within its mandate under the WTO SPS Agreement, to safeguard world trade by publishing health standards for international trade in animals and animal products;
- improve the legal framework and resources of national Veterinary Services;
- provide a better guarantee on the safety of food, animal origin and promote animal welfare through a science-based approach.

### III. THE OIE INTERNATIONAL COMMITTEE

The World Assembly of Delegates is the highest authority of the OIE. It comprises of all the OIE Delegates and meets at least once a year. The General Session of the World Assembly of Delegates lasts five days and is held every year in May in Paris, the headquarters of OIE. The Delegates conduct voting in the Assembly based on the democratic principle of 'one country, one vote'.

The main functions of the World Assembly of Delegates are to:

- adopt international standards in the field of animal health, especially for international trade;
- adopt resolutions on the control of the major animal diseases;
- elect the members of the governing bodies of the OIE (President and Vice-President of the Committee, Members of the Council, Regional and Specialist Commissions);
- appoint the Director General of the OIE;
- examine and approve the annual report of activities and the financial report of the Director General and the annual budget of the OIE.

In addition, two technical items of general interest are dealt with by speakers chosen for their specialist knowledge, and the animal health situation worldwide is presented in summary form with additional information provided by each Member Country.

The work of the World Assembly of Delegates is prepared by the Council, which consists of nine Delegates, and meets under the chairmanship of the President of the Assembly each year in February and May.

#### A. The Delegate, OIE Focal Points and Responsibilities

- He or she is usually the Chief Veterinary Officer of his/her country and must be a member of the International Committee (General Session).
- The individual is responsible for harmonising his/her country's import regulation with OIE standards and/or basing them on scientific risk analysis.
- He/she informs the OIE of the animal disease situation of his/her country.



## **B. National Specialist Focal Points**

The national specialist focal points are from different fields of specialisation representing aquatic animal diseases, wildlife diseases, animal health information systems, veterinary medicinal products, food safety and animal welfare.

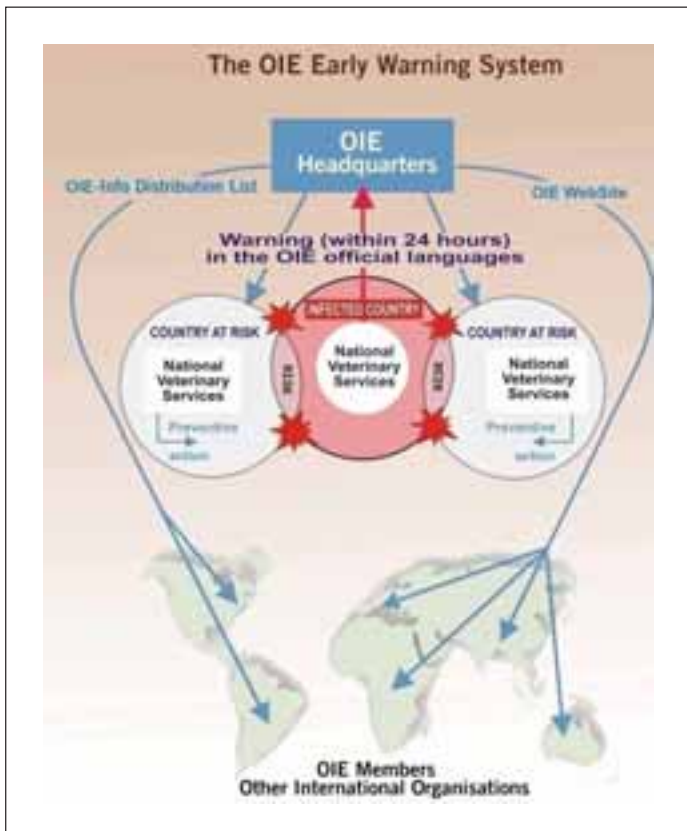
The regional and sub- regional offices are usually located in the capitals of the counties. Africa has a regional office in Mali, with sub-regional offices in the Maghreb, Kenya and Tunisia. The regional office for the Americas is found in Argentina with a sub-regional office in Panama. For Asia, Far East and Oceania the regional office is in Japan and the sub-regional office in Thailand while for Europe the regional office is in Bulgaria and the sub-regional office is in Belgium. The Middle East has only a regional office in Beirut, Lebanon.

## **C. OIE Animal Health Information System**

One of OIE's main missions is to ensure the transparency in and knowledge of the world animal health situation. The OIE in 2005 launched the World Animal Health Information System (WAHIS) in accordance with the commitment of its Member Countries and Territories (the Members) to notify cases of the main animal diseases detected in their territories, including zoonoses.

WAHIS is an internet-based computer system that processes data on animal diseases and informs the international community. Sources of Early Warning Disease (Figure 2) reports are:

- information from member countries;
- information from worldwide network of OIE Reference Laboratories;
- active tracking of unofficial sources, such as scientific and lay publications, and ProMed, with member country verification (Figure 3).

**Figure 2:** OIE Early Warning System of Disease Occurrence

Immediate notification by members of significant epidemiological events considered as OIE's early warning system to the OIE headquarters should include the following information.

**(1) For terrestrial animals:**

- the first occurrence of an OIE-listed disease or infection in a country/territory or zone/compartments;
- the re-occurrence of an OIE-listed disease or infection in a country/territory or zone/compartments following a report by the Delegate of the Member declaring the previous outbreak(s) closed;

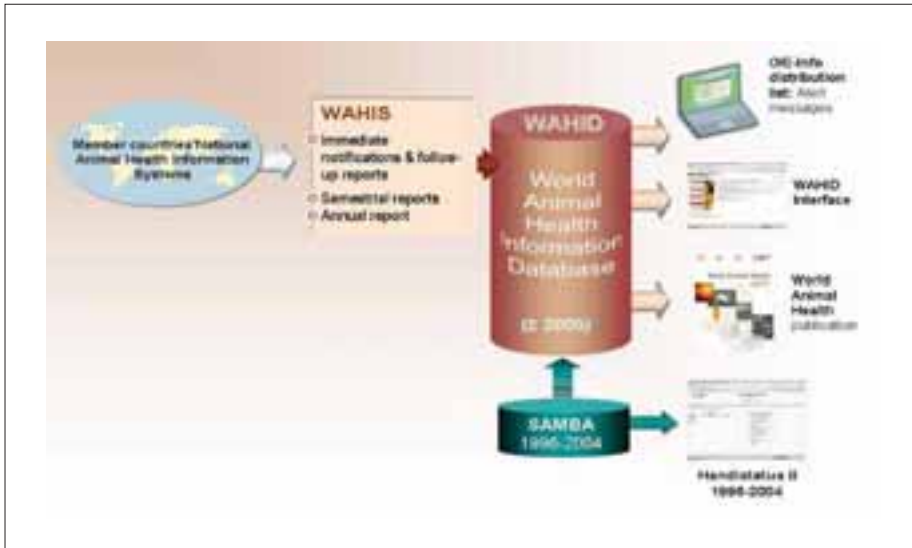
- the first occurrence of a new strain of a pathogen of an OIE-listed disease in a country/territory or zone/compartment;
- sudden and unexpected increase in morbidity or mortality caused by an existing OIE-listed disease;
- an emerging disease with significant morbidity/mortality or zoonotic potential;
- evidence of a change in the epidemiology of an OIE-listed disease (including host range, pathogenicity, strain of causative pathogen), in particular if there is a zoonotic impact.

**(2) For aquatic animals:**

- the first occurrence or the re-occurrence of an OIE-listed disease in a country or zone/compartment of the country previously considered to be free of the disease;
- any occurrence of an OIE-listed disease in a new host species;
- any occurrence of an OIE-listed disease caused by a new strain of the pathogen or in a new disease manifestation;
- any occurrence of an OIE-listed disease, if the disease has newly recognised zoonotic potential;
- any occurrence of an emerging disease or pathogenic agent if the event is of epidemiological significance to other countries.

## The OIE Global Information System

Figure 3: The OIE 's Global Information System



Once information has been received, verified and validated by the OIE, the immediate notifications are published in the OIE's three official working languages (English, French and Spanish) under the heading Alert and sent to everyone on the OIE-info Distribution List, an electronic distribution list set up to facilitate and widen the dissemination of animal health information (Figure 3). The list can only be accessed by the Delegates of Members, the OIE Reference Laboratories and Collaborating Centres and international and regional organizations. The list can also be accessed by subscription, to any institutions or individuals interested in receiving such information directly.

### (3) Alert Messages

Significant epidemiological events notified by OIE Member Countries are published, on receipt, as alert messages under this heading and through the OIE-Info Distribution List exemplified below.

West Nile fever in Romania  
 Foot and mouth disease in Chinese Taipei  
 Newcastle disease in France  
 Enzootic bovine leukosis in Germany  
 Aujeszky's disease in Luxembourg

Newcastle disease in Israel

Highly pathogenic avian influenza in Hong Kong (SAR-PRC)

Highly pathogenic avian influenza in Japan

Aujeszky's disease in Germany (in a dog)

Newcastle disease in Peru

Low pathogenic avian influenza (poultry) in the Republic of Korea

African swine fever in the Central African Republic

#### **(4) WAHIS on-line notification application**

Notification application to OIE is only done on-line. The data and information provided by Members are accessible via the Web interface WAHID (World Animal Health Information Database) and can be accessed by the public through the OIE Website. Exceptionally, paper forms can be used.

## **IV. OIE INTERNATIONAL STANDARDS**

The organization develops and publishes two types of international health standards for animals and animal products; trade standards and biological standards. Elected Special Commissions work to develop the standards which are then adopted by the OIE Members during the annual OIE General Session.

There are four OIE standards:

- Terrestrial Animal Health Code
- Manual of Diagnostic Tests and Vaccines for Terrestrial Animal Health Code
- Aquatic Animal Health Code
- Manual of Diagnostic Tests for Aquatic Animal Health Code

The two OIE trade standards, the Terrestrial Animal Health and Aquatic Animal Health codes are intended to assure sanitary safety of international trade in terrestrial animals (mammals, birds and bees) and aquatic animals (fish, molluscs and crustaceans), and their products. This is done by providing detail health measures to be used by the veterinary services or other competent authorities of importing and exporting countries in establishing health regulations for the safe importation of animals and animal products. These measures will help to avoid the transfer of agents pathogenic to animals and/or humans, without the imposition of unjustified trade restrictions.

Codes are primarily reference guides for international trade, but have also been expanded to cover the new OIE mandates for animal welfare and food safety to improve animal health worldwide.

The health measures in the codes take into account the nature of the commodity and the animal health status of the exporting country. As a first principle, the health measures make reference only to the animal health situation in the exporting country as they assume that the relevant pathogen either is not present in the importing country or, if it is present, that it is the subject of an official control or eradication programme.

The following additional principles apply.

- The importing and exporting countries are in compliance with their various WTO obligations.
- The latest scientific information is used.
- The health measures are based on an assessment of the risks presented by the commodity being traded.
- An evaluation of veterinary services or other competent authorities has been conducted.
- Zoning and compartmentalisation are being applied where appropriate.
- Claims by importing and exporting countries regarding their health status are based on sound epidemiological surveillance.

The two OIE biological standards, the Manual of Diagnostic Tests and Vaccines for Terrestrial Animals and Manual of Diagnostic Tests for Aquatic Animals, provide a harmonized approach to disease diagnosis by describing internationally agreed laboratory diagnostic techniques.

The Terrestrial Manual also includes requirements for the production and control of biological products (mainly vaccines). The Manual is to provide general information on sampling methods, good laboratory practice, etc, and to provide detailed information for laboratory technicians on diagnostic tests. The Terrestrial Manual also provides information on the principles of veterinary vaccine production and, where appropriate, the requirements for vaccines or diagnostic biologicals.

## **A. OIE's World Trade Organization (WTO) Mandate**

The WTO's SPS Agreement states that "to harmonize sanitary and phytosanitary measures on as wide a basis as possible, Members shall base their sanitary or phytosanitary measures on international standards, guidelines or recommendations". This agreement recognized the OIE as the relevant organization for animal health.

WTO SPS Agreement recognises OIE as a reference organisation for international standards (one of the three sisters).

The three standard-setting organisations are:

- OIE for animal health;
- CODEX for food safety;
- IPPC for plant health.

## **B. OIE's International Standards**

The international standards enable OIE to develop and publish:

- health standards for trade in animals and animal products;
- biological standards for diagnostic tests and vaccines.

The standards developed are adopted by OIE Member Countries during General Session each May by consensus and there is no other pathway for adoption.

## **C. Influence in Standards**

The stakeholders that influence OIE international and what they want are:

- The exporting countries demanding less restrictions on the products.
- The importing countries on their part request for maximum protection against diseases (e.g Avian influenza).
- Producers, consumers and NGOs put quality first.
- The health sector calls for ethics and public health protection based on scientific proof.

## **D. Updating OIE Standards**

The request for the development of a new chapter or the revision of a past chapter or text of an OIE international standard is from Delegates, OIE Commission, the industry and individual scientists. When there is, for example, a new disease that is emerging the OIE Director General (DG) decides on how the work will be done. It could be the new approach by vaccination. He will decide on which specialist commission will have the responsibility and the terms of reference and membership of any ad hoc group or permanent working group of

experts. The DG of OIE, in convening such a group of experts, attempts to obtain the broadest regional representation and diversity of experts specialised in animal welfare or the diseases Bovine Serum Encephalitis, Epidemiology, Avian Influenza, Tuberculosis etc.

A member country may offer to provide a first draft of a new or revised chapter based on work that its experts have been doing on a particular disease or procedure. After this, the DG may also request a “supporting document” by an expert from an OIE Reference Laboratory or Collaborating Centre to include the latest scientific information related to the chapter, particularly relating to the infective period, host distribution, transmission mechanism, available treatments and controls, etc, to be used by the ad hoc group as the scientific basis for its work. During their bi-annual meetings the specialist commissions examine the various submissions from the OIE members and other sources, the work of permanent working group and reports from the ad hoc groups they have convened, and determine how to incorporate the scientific recommendations into the Code of Manual format.

The OIE process for developing and updating standards differs from that of other international standard-setting organisations in that they are very flexible and allows for continuous improvement to standards as the supporting scientific information justifies it. The above figure illustrates the process.

Draft texts for new or updated standards are developed by small groups of independent experts selected from all regions such as expert groups from industry, academia, government, and other OIE Commissions or Reference Laboratories reviewed by the relevant Specialist Commission and then circulated to OIE members for comments. These comments are reviewed by the experts and Specialist Commissions and appropriate changes made before the texts are submitted to the OIE members for adoption.

Although the normal cycle for the adoption of new or updated standards is two years, the OIE process allows for modification of standards on an annual basis if warranted.

## **V. REFERENCE LABORATORIES**

OIE had 160 reference laboratories in 2006. Currently (in 2010) there are 190 reference laboratories in 36 countries covering some 100 diseases worldwide. The principal mandates of Reference Laboratories of the OIE are to:



- serve as a centre of expertise and standardization for a designated disease(s) or topics;
- store and distribute to national laboratories reagents used in the diagnosis and control of the designated disease(s) or topics;
- develop new procedures for diagnosis and control of the designated disease(s) or topics;
- gather, process, analyse and disseminate epizootiological data relevant to their specialty;
- place expert consultants at the disposal of the OIE;
- provide scientific and technical training for personnel from OIE Member Countries and territories.
- provide diagnostic testing facilities to OIE Member Countries and Territories.

In the case of results that are confirmed positive for diseases that are reportable to OIE, the Reference Laboratory should immediately inform the OIE Delegate of the Member Country or Territory from which the samples originated, as well as the OIE headquarters.

- to organise scientific meetings on behalf of the OIE;
- to coordinate scientific and technical studies in collaboration with other laboratories or organisations;
- to publish and disseminate any information in the sphere of their competence that may be useful to OIE Members.

## **A. Collaborating Centres**

OIE also had 20 collaborating centres in 13 countries in 2006 that have increased to 37 centres covering 21 countries in 2010. The centres covered 18 and 25 topics, respectively, in 2006 and 2010.

Expert Centres on horizontal subjects, for the OIE and Member Countries:

- assist in the elaboration of procedures that will facilitate harmonisation of international regulations applicable to the surveillance and control of animal diseases;
- short list and place expert consultants at the disposal of the OIE;
- provide scientific and technical training to personnel from OIE Member Countries and Territories;

- organise and host scientific meetings on behalf of the OIE;
- coordinate collaborative scientific and technical studies with other laboratories or organisations;
- publish and disseminate any information in their sphere of competence that may be useful to OIE Member Countries and Territories.

## **VI. OIE DISPUTE SETTLEMENT PROCESS**

### **A. OIE Mediation**

The OIE offers a voluntary dispute settlement mechanism for mediating trade conflicts between OIE members. This is a science-based approach which is distinct from the legal based approach used in formal WTO systems. The role of the OIE is to assist the parties to arrive at a scientifically sound conclusion. The mechanism is voluntary in that the agreement of both parties is needed for OIE to start the process. The outcomes of the settlement are not binding unless both parties agreed from the start. Once the terms of reference are agreed by the two parties, OIE experts meet with both parties to conduct the mediation and then submit a confidential report on their conclusions and recommendations to the OIE Director General who then transmits it to both parties. The OIE decisions can be alternative or precursors to WTO process of settlement if either side is not satisfied.

If requested by Member Countries, OIE may act as 'mediator' to help resolve differences on a particular technical issue.

### **B. Publications Available at the OIE Website (<http://www.oie.int>) are:**

- Early warning;
- Weekly Disease Information;
- International Standards (Codes, Manuals, etc.);
- Scientific and Technical Review (contents and abstracts);
- Scientific and general information on OIE activities;
- Animal diseases and zoonoses;
- Editorials from the Director General.

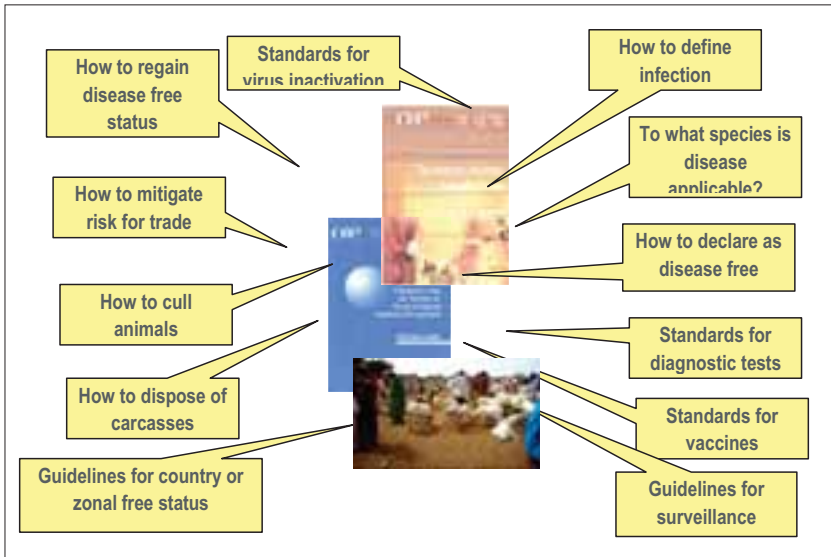
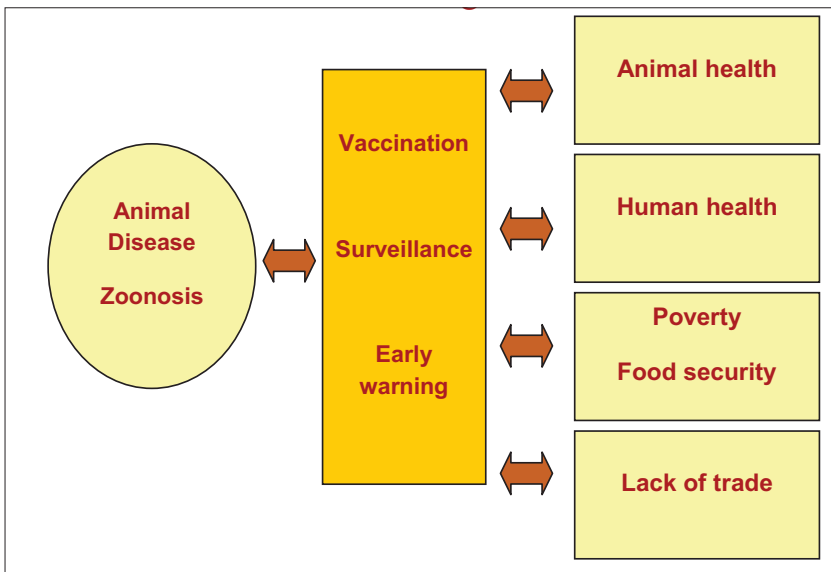
## VII. OIE STANDARDS ON RIFT VALLEY FEVER (RVF)

Figure 3 shows a schematic representation of the OIE standards on RVF as found in the OIE manuals of animal health and diagnostic tests and vaccines. The manual defines RVF as an insect borne disease (mosquitoes) which affects animals (small ruminants and camels) and humans. In endemic zones for the disease, any unusual abortions in pregnant animals and increased mortality, especially after floods, should alert the authorities of a possible outbreak of RVF. Standards have been set on how to declare the disease but also on how a country can regain the status of disease free (absence of a clinical disease for more than six months and should be determined by a surveillance programme).

There are mitigation standards set to enable trade between disease zones and disease free zones (certification, quarantine methods and vaccination). In country, measures to cull the animals and dispose of the carcasses of deceased animals should be respected by the veterinary department. Specific laboratories with specific tests have been instituted in different regions of the world to assist in the diagnosis of the disease and others for proper management of the condition, and development of corresponding vaccines for mitigation strategies. A surveillance system should be put in place under the responsibility of the veterinary administration with the role to:

- detect and investigate an outbreak of disease;
- have a procedure to rapidly collect and transfer samples from suspected cases to the laboratory;
- record, manage and analyze diagnostic and surveillance data;

The system should include an early warning system throughout the whole production, marketing and processing chain. It should regularly and frequently inspect and test risk groups etc.

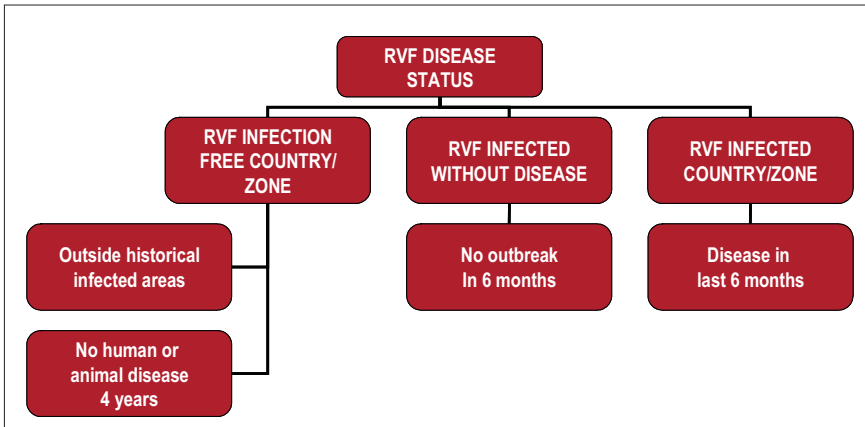
**Figure 3:** OIE Standards on RVF**Figure 4:** International Standards Acting as a Buffer for RVF

In Figure 4, it can be seen that the outbreak of any animal disease in any part of a country can affect animals in other parts of the country or even countries

through trans-boundary transportation. The international standards have instituted the use of early warning signs and regular surveillance as methods to detect disease occurrence.

Vaccination is used to prevent otherwise healthy animals from being contaminated. Animal disease zoonosis does not only affect animal health but also the health of humans as the diseases can be transmitted from animal to human. Infected animals will increase poverty and reduce food security through the death of large flocks and lack of trade. The figure above illustrates the roles of vaccination, surveillance programmes and early warning signs to alleviate the burden of animal diseases on the animal and human populations.

**Figure 5:** RVF Disease Classification in the Terrestrial Code



The OIE classification of countries or zones according to the absence or prevalence of RVF for the purpose of trade is shown in Figure 5.

### A. RVF Infection Free Country or Zone

A country or zone may be considered free from RVF infection when the disease is noticeable in animals throughout the country, and either the country or the zone lies outside the historically infected regions, and not adjacent to historical infections; or a surveillance program that demonstrated no evidence of RVF in humans, animals or mosquitoes in the country or zone during the past four years following an RVF epidemic.

## **B. RVF Infected Country or Zone without Disease**

An RVF disease free country or zone is a country or zone that is not infection free but in which the disease has not occurred in humans or animals in the past six months provided that climatic changes predisposing it to outbreaks of RVF have not occurred during this time.

## **C. RVF Infected Country or Zone with Disease**

An RVF infected country or zone with disease is one in which clinical disease in humans or animals have occurred within the past six months.

## **D. Trade Risks Considerations for RVF**

The trade risks considerations are made only for live ruminants and meat and meat products. Hides, skins, and dairy products (milk, cheese, yogurt and butter) are not included. This follows the same classification of countries into RVF free, RVF infected without disease and RVF infected country with disease.

Exportation of live ruminants from an RVF free country stipulates that the animal should have lived in the country for more than 30 days or since birth and should not transit through an infected zone and must be protected from mosquito attack at all times. Live ruminants from an RVF infected country without disease should have no clinical signs and should not transit through infected zone with disease. The animals should have lived in the disease free country for more than six months and not subjected to climatic events that predispose the animals to outbreaks of RVF for more than six months. Exportation of live ruminants from an RVF infected country with disease should have no clinical signs of disease, be vaccinated against RVF at least 21 days prior to shipment with a modified live virus vaccine, must be in a mosquito-proof quarantine station for more than 30 days prior to shipment and be protected from mosquitoes between quarantine and the place of shipment.

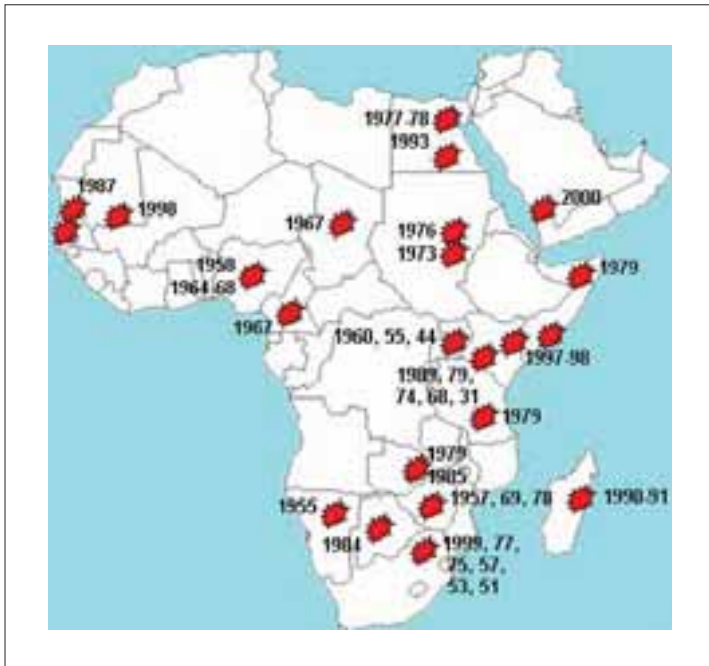
Meat and meat products from an RVF free country for export should be derived from animals that remained in the RVF infection free country since birth or more than 30 days. Export of meat and meat products from an RVF infected country without disease requires that the animal should have resided in the country since birth or for more than 30 days, be slaughtered in an approved abattoir, undergo ante-mortem and post-mortem inspections for RVF with favourable results, and carcasses were submitted to maturation at a temperature of +2°C

for more than 24 hours following slaughter. Meat and meat products from RVF infected country with disease require that the animal must be slaughtered in an approved abattoir, undergo ante-mortem and post-mortem inspections for RVF with favourable results, have been fully eviscerated and submitted to maturation at a temperature of +2°C for more than 24 hours following slaughter.

## **VIII. LOCATION OF RVF EPIDERMICS**

Rift Valley Fever has been in Africa since the beginning of the 20th century (Figure 6). The first cases were in 1931 in Tanzania, followed by outbreaks in Uganda in 1944 and Swaziland in 1951, 1953 and 1957 as well as in Namibia in 1955. The first cases in (Nigeria) West Africa occurred in 1968. The Horn of Africa had the first cases in 1973 in Sudan and 1979 in Somalia. Egypt had the first cases in 1977 – 78 and the Middle East experienced the disease in 2000. The highest concentration of the disease is in Eastern and Southern African countries.

Comparison of the epidemic suitability map with the map of known RVF epidemics in Africa (Figure above) showed that many of the areas with high estimated suitability, such as the Senegal River basin, areas adjacent the Nile in Egypt and Sudan, and parts of Southern Africa, including South Africa, Namibia and Zimbabwe, had experienced epidemics of the disease. A number of areas in Sub Saharan Africa (SSA), such as areas adjacent the Niger River and Lake Chad, had high estimated suitability but had not experienced major epidemics. Additionally, parts of the Maghreb had high estimated suitability but had not experienced epidemics. One important example of an area that did experience a major epidemic was north-eastern Kenya. However, the neighbouring area around Lake Turkana is estimated to be highly suitable for RVF epidemics.

**Figure 6:** Map of Africa and Middle East Showing Location of RVF Epidemics

RVF Virus (RVFV) is recorded to occur from South Africa to Saudi Arabia including Madagascar, in varied bioclimatic ecotypes ranging from the wet tropical countries such as the Gambia, irrigated regions such as the Senegal River Valley or the Nile Delta, to hot and arid areas such as Yemen or Chad. The occurrence of RVF can be endemic or epidemic depending on the climatic and vegetation characteristics of different geographic regions. In the heavy rainfall forest zone in coastal and Central African areas, it is reported to occur in endemic cycles which are poorly understood. Currently available evidence suggests that this may happen annually after heavy rainfall, but at least every two to three years. In contrast in the epidemic areas in East Africa, RVF epidemics appear in five to 15 years cycles. These areas are relatively high rainfall plateau grasslands, which may be natural or cleared from forests. In the much drier bushed Savannah Grasslands and semi arid zones, which are characteristic to the Horn of Africa, endemic RVF has manifested only a few times in the past 40 years, in 1961 – 1962, 1982 – 1983, 1989 and in 1997 – 1998.

In addition the possibility exists that RVF may spread outside traditionally endemic areas, or even out of the continent of Africa, mostly due to the large range of vectors capable of transmitting the virus and requires a level of Virae-



mia in ruminants and humans that is sufficiently high to infest mosquitoes. Such a situation occurred following the usual floods of 1997 – 1998 in the Horn of Africa countries, and subsequently the disease spread to the Arabian Peninsula in 2000.

The tools include:

- calculation of vegetation index;
- rainfall anomalies;
- vegetation index data derived AVHRR and SPOT by NASA Goddard Space Flight Centre;
- an anomalous increase in the sea surface temperature (oscillation index).

The situation in 2006 and 2007 resulted in the following casualties: Sudan 698 animals cases with 222 deaths; Somalia 114 human cases with 51 deaths; Kenya 38 outbreaks with 4 445 animal cases with 235 deaths and 684 human cases with 155 deaths; and Tanzania which had 19 outbreaks with 32 138 animal cases and 4 138 deaths.

Since 2006, re-occurrence of Rift Valley Fever has been seen in East and South Africa. The casualty situation in 2008 was: South Africa had 13 outbreaks with 349 animal cases and 103 deaths; Swaziland had two outbreaks with 31 animal cases and 10 deaths; Madagascar had 18 outbreaks resulting in 24 animal cases and 18 deaths and also 418 human cases with 17 deaths. Mayotte, from its illegal, imports had two outbreaks with 16 animal cases.

## **A. RVF in the Middle East**

RVF was restricted to the Sub-Saharan African countries until it was detected in Egypt in 1977. Since then, there have been several recurrences in Egypt causing explosive epidemics in 1977 – 1978, 1986 – 1987 resulting in hundreds of human deaths and heavy losses in the animal industry. The introduction of RVF into Yemen and Saudi Arabia in 2000, which was its first appearance outside the African continent, was of particular concern related to its impacts on public health, causing human suffering and mortalities.

RVF has the potential to quickly spread in the Horn of Africa (Somalia, Djibouti and Ethiopia). As an important traditional livestock trade exists between countries in the Horn of Africa and those of the Middle East, a major challenge is

to manage the risk of spreading RVF with such livestock shipments. Importing countries must be given adequate safety assurances with respect to RVF, while the livestock trade, vital to the livelihood of agro-pastoralists in both regions should be permanently maintained on a safe basis.

**(1) The threat of RVF can be minimized at national level by:**

- good governance of veterinary services by maintaining good legislation, policies, and resources in compliance with OIE international standards on quality of national animal health systems democratically adopted by the 176 member countries;
- surveillance mechanism of the entire national territory under government supervision in compliance with OIE standards;
- relevant contingency plans such as vaccination strategy;
- early detection which should involve awareness and high quality of public and private component of veterinary services;
- rapid and transparent notification with appropriate national chain of command respecting OIE obligation (WAHIS);
- rapid response involving
  - rapid confirmation of suspected cases, confinement and humane stamping out of infected cases,
  - use of vaccination if appropriate,
  - compensation mechanism;
- respecting OIE standards for RVF;
- adopting the model of health certificate developed by the OIE Regional Representative for the Middle East for the safe trade of small ruminants
  - to secure the trade from the Horn of Africa,
  - to be in compliance with the OIE Terrestrial Code
- establishing health certificate in both English and Arabic Languages to make it understandable by all importing and exporting countries.

**(2) The threat of RVF can be minimized on the regional and national levels by:**

- developing regional and international strategies for prevention and control;
- coordination between all actors such as international organisations, national veterinary services, NGO etc;

- establishing regional predicting model with scientific support;
- increasing the number of Reference Laboratories, OIE Twinning;
- enhancing knowledge of professionals and their capability to respond to a RVF crisis.

## **IX. INTERNATIONAL TRADE**

International trade in animals and animal products depends on a combination of factors which should be taken into account to ensure unimpeded trade, without incurring unacceptable risk to human and animal health (article 1.2.1 Animal Terrestrial Code).

### **A. Obligation of Importing and Exporting Countries**

Various options are offered by the Terrestrial Code. The animal health situation in the exporting country, in the transit country or countries and in the importing country should be considered before determining the requirements which have to be met for trade.

To maximise harmonisation of the sanitary aspects of international trade, Veterinary Administrations of Member Countries should base their import requirements on the OIE standards, guidelines and recommendations.

Certification requirements should be exact and concise, and should clearly convey the wishes of the importing country. For this purpose, prior consultation between Veterinary Administrations of importing and exporting countries is useful and necessary.

### **B. Obligation of Importing Countries**

The import requirements included in the international veterinary certificate should assure that commodities introduced into the importing country comply with the national level of protection that it has chosen for animal and human health. Importing countries should restrict their requirements to those justified for such level of protection.

## C. Obligation of Exporting Countries

An exporting country should provide information on the animal health situation and national animal health information systems to determine whether that country is free or has free zones of listed diseases, details of the country's ability to apply measures to control and prevent the relevant listed diseases. It should also provide information on the structure of the Veterinary Services and the authority which they exercise. Technical information, particularly on biological tests and vaccines applied in all or part of the national territory are also additional requirements.

## D. The Rationale for Certification

The need for certification is justified by the interest to secure the trade of animals and animal products between the Horn of Africa and Middle Eastern Countries which comprised 13.2 million of live sheep, goats and cattle imported in 2005 to the region. 80 percent of the animals were imported by the Gulf States (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and UAE). Accordingly, certification would help increase transparency in livestock trade and enhance trust between importing and exporting trade partners.

It was finally published in Arabic and English to make it understandable to all importing or exporting countries.

This Certification was developed taking in to consideration the current zoonitary situation in the Horn of Africa and Middle East based on the following.

- enzootic diseases: Foot and Mouth Disease, Contagious Bovine; pleuroneumonia and Peste de Petits Ruminants;
- epizootic events: Rift Valley Fever;
- eradication towards completion: Rinderpest;
- in compliance with international standards (OIE);
- and according to the recommendations of OIE Regional commissions for Africa and ME ( meeting in Cairo 2004).

*OIE/AU-IBAR Seminar  
Implementation of Animal Health Standards: the Quest for Solutions  
Cairo (Egypt), 11-13 October 2004*

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### **Recommendation International standards for trade in animals and animal products and their impact on inter-regional trade**

- The certification system proposed by the OIE Regional Representation for the Middle East should be endorsed and adopted for inter-regional trade between Africa and the Middle East in animals and animal products.
- The AU and OIE Member Countries of the Regional Commissions for Africa and the Middle East evaluate and establish export systems that would conform to regionally agreed sanitary certificates to further facilitate the trade in animals and animal products.

#### **(1) This certification is a model:**

- to be adapted to any specific requirements of the importing country;
- each country should perform its own risk analysis;
- OIE RR for ME translated into Arabic the "Handbook on risk analysis for Animals and Animal products".

#### **(2) The Certificate models in process cater for the following:**

- Cattle for slaughter
- Cattle for breeding
- Sheep and Goats for slaughter
- Sheep and Goats for breeding
- Poultry, other birds, day old chicks, hatching eggs
- Live fish and gametes for aquaculture
- Dogs and cats
- Wild and game animals
- Bovine semen
- Horses
- Meat and meat products of cattle
- Meat and meat products of sheep and goats
- Poultry meat and meat products
- Milk and milk products
- Wool, hair, bristles, raw hides and skins
- Bird feathers
- Iced fresh fish / frozen fish / canned fish / sea products
- Egg products for human consumption
- Fish meals
- Casings

**(3) Presentation as example for:**

- model certificate for export of live sheep and goats for slaughter;
- model certificate for cattle meat and meat products.

**X. CONCLUSION**

These model certificates must be regularly updated according to the evolution of the sanitary situation and the new recommendations of the OIE Terrestrial Animal Health Code. The certificates should also be approved.

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