Live animals and meat value chain vision and strategy for Ethiopia

ETHIOPIA LIVESTOCK MASTER PLAN BACKGROUND PAPER

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Preface

In 2012, the Ministry of Agriculture commissioned ILRI to develop several background papers to inform the development of a livestock master plan and roadmap for Ethiopia. The papers were developed by teams of people brought together for this task.

The production of the background papers was supported by the Improving the Productivity and Market Success of Ethiopian farmers project (IPMS) funded by the Canadian International Development Agency (CIDA). The eight papers are listed below and are all available at https://cgspace.cgiar.org/handle/10568/51565.

- Animal health strategy and vision for Ethiopia.
- Animal production vision and strateghy for Ethiopia.
- Apiculture value chain vision and strategy for Ethiopia.
- Dairy value chain vision and strategy for Ethiopia
- Livestock extension vision and strategy for Ethiopia.
- Hides, skins and leather value chain vision and strategy for Ethiopia.
- Live animals and meat value chain vision and strategy for Ethiopia.
- Review of past policies and strategies for livestock in Ethiopia.

Background: Live animals and meat subsector

Ethiopia is endowed with huge livestock resources including cattle, sheep, goats, camels, and equines. Under Ethiopian context, livestock is source of food (milk, meat, and eggs), draught power, fertilizer and fuel, cash income and wealth accumulation (living bank) at producers' household levels. At the national level, livestock is the source of industrial raw materials (milk, meat, hides and skins) and high value protein to urban consumers. It also contributes about 45% to the agricultural GDP, 18.7% to the national GDP and 16–19% to the total foreign exchange earning of the country (MoA 2012).

The resource is owned mainly by smallholder highland mixed crop–livestock farming households and the pastoral communities. Available data indicate that the highland mixed crop–livestock production system account for 70% of the livestock resources and the pastoral areas is home to 30%. According to MoA (2012), of the 52 million head of cattle in the country about 13 million are used for draught power. Because of low productivity and poor management, the average live weight of cattle is estimated at 250 kg; 14% offtake rates and 110 kg carcass weight. Offtake rate for sheep is 40% and that of goats is 27%. National average carcass weight is not more than 9 kg for goats and 10 kg for sheep.

Current situation

Domestic and export end market analysis

Ethiopia is one of the few African countries that export animals on hooves and chilled small ruminant carcasses to the Gulf States and North African countries. According to unpublished data of MoA (2012), currently, the major live animals' importers from Ethiopia are Sudan (19.5%), Somalia (19.0%), Kingdom of Saudi Arabia (18.7%) and Djibouti (14.9%). In 2011/12, about 64% of the animals were destined to the neighbouring and north African countries. Egypt and Libya import for domestic consumption while Djibouti, Somalia and Sudan import for the purposes of domestic consumption and re-export. Export to Gulf States and other Middle Eastern countries accounts for about 36%.

The major chilled sheep and goats carcases importers from Ethiopia are the United Arab Emirates (51%) and the Kingdom of Saudi Arabia (28%) both countries account for 79% of the export. About 21% of meat is exported to Yemen, Oman, Kuwait, Egypt, Comoros Islands, Congo Democratic Republic and Angola in 2011/12.

Despite proximity to the markets and taste preferences, market shares of meat and live animals in the Middle Eastern and African markets is relatively as low as less than 1% (Hurrissa, various years).

The major domestic end/terminal market is Addis Ababa where not less than 30% of the country's urban population live. Slaughter animals are brought to the capital from major supply sources on hooves and trucks. Merchandizing between bigger traders, butchers and household consumers takes place mainly at the large cattle markets located on three different entry routes to the city and numerous medium and small shoats markets in different locations. Except during festivals, cattle are slaughtered at abattoirs and beef is sold at butcheries. As compared to any other town, meat price is relatively high ranging from birr 120 to 300 birr per kg depending on quality, uses and sales outlets which serve niche buyers.

Policy

Livestock development in general is guided by the broad policies of the government. These polices are: Agriculture Development Led Industrialization (ADLI); Poverty Reduction Strategy Paper (PRSP); Food Security Strategy (FSS); Rural Development Policy and Strategies (RDPS); Capacity Building Strategy and Program (CBSP); Agricultural Marketing Strategies (AMS); Foreign Affairs and Security Policy and Strategy; Export Strategy and Draft Livestock Breeding Policy. There is no overarching policy for livestock development on which plans, strategies and projects can be based. However, the export strategy of the government has given due attention and development priority to meat export industry as it engages a high portion of the farming community, particularly pastoralists, in producing and supplying slaughter animals to the export operators including live animal traders, feedlots and export abattoirs.

Marketing

The livestock production system of the country is basically traditional, archaic and non-market oriented. As a result, the market participation of the producers is limited. Some 50% of the smallholder households neither purchase nor sell cattle; 43 and 50% of them, respectively neither buy nor sell sheep and goats. Similarly, 47% of Borana pastoralists neither purchase nor sell cattle; about 72 and 66% of the pastoralists, respectively, neither buy nor sell sheep and goats (Jabbar and Negassa 2007). Based on Jabbar and Negassa's analysis, it could be concluded that the low level of market participation of large number of smallholder farmers and pastoralists and the small size transaction is attributable to the low commercial offtake rate which in return is affected by small herd and flock sizes accompanied by very low fertility and/or high mortality rates.

Unlike other agricultural products, marketing of livestock and livestock products involves risks and high maintenance and transport costs. Livestock requires special market facilities including market places, shades, water and feed supply, designated transport, health posts, loading and unloading ramps etc. In moving animals from place of origin along the value chain to different destinations; they will lose weight; could be exposed to or transmit diseases or pollute environments. Under strict movement controls, there is a need for movement permits, which incurs costs and time consuming in search for veterinary officers. Strict health certificate requirement for export is another burden on livestock marketing.

Several factors may influence the volume and direction of flow of live animals from the production areas to various destinations: relative costs of transport, geographic and regional differences in feed or forage availabilities, trekking routes, policies, institutions, infrastructure and prices. Livestock sales decisions by farming households, particularly by pastoralists is basically a function of their basic needs such as food grains, clothing, health care and a period of drought. In times of drought, market terms of trade for pastoralists sharply decline.

Different studies indicate that the domestic livestock marketing structure in the country follows four tiers, namely:

- Bush/village: These are collecting points where the primary producers sell less than 5 animals to collectors and other market participants for breeding purposes, consumption, draught (highland areas) and selling at the primary markets;

- Primary markets: These are local and transit markets/*woreda* towns where less than 500 animals are supplied weekly for different purposes by different market value chain actors for local consumption, breeding, draught purposes and selling in the next market tier;

- Secondary markets: These are big regional towns where 501–1000 animals are supplied weekly mainly for slaughtering and export purposes. The major actors are medium traders mainly as sellers; exporters, big traders, butchers and consumers as buyers;

- Tertiary/terminal markets. These are markets in large cities where more than 1000 animals are sold for the purpose of slaughtering at abattoirs or backyard slaughters. Value chain actors include medium and big traders and feedlot operators as sellers; butchers and urban household consumers and retailers as well as limited cattle exporters (new development) as buyers.

As indicated above, the tiers involve relatively large number of market participants that lead to increased marketing costs and lowering returns to the primary producers, particularly, the pastoralists.

Ethiopia has been exporting livestock and livestock products formally and informally to the Middle Eastern countries, north Africa (Egypt and Libya) and the neighbouring countries including Djibouti, Eritrea, Kenya, Somalia and Sudan. Despite huge livestock resources and being the leading country in Africa, Ethiopia is not surplus producer of live animals and meat to be net exporter. However, the export of live animals and meat has emanated from the poor economic and marketing linkages between the pastoral and the mixed crop–livestock production systems resulted

from poor market infrastructure development and inefficient market information delivery; less preferences and developed tastes for lowland shoats meat by highland consumers and the inability of the majority of the consumers to pay for the products (Hagreaves and Hurrissa 2003). These scenarios have encouraged the export of live animals from the pastoral areas mainly through the informal channels to the neighbouring countries.

Production and technology

Livestock husbandry is not market-oriented rather it is an archaic mode of production. Indigenous cattle breed are of dual types both for meat and milk. Livestock are kept for home consumption of milk and meat, and as a store of wealth and insurance against climatic risks.

Smallholder farmers feed their animals by grazing on natural pasture land and crop aftermath and crop residues such as teff, barley and wheat straws. Improving body conditions of cattle, sheep and to some extent goats by feeding post-harvest wastage of crop residues and other agro by-products is practised by smallholder farmers to get better prices.

The lowland pastoral production system is surplus in livestock but constrained by inadequate feed and water supply; recurrent droughts, high mortality, inadequate market infrastructure and poorly linked to highland production system. However, recent developments in East Shewa zone of Oromia region indicate that some small to medium feedlot operators buy young Boran breeds bulls from lowland areas, feed them agro-industrial by-products, hay/straw and concentrated feed to the levels of export grades and also for domestic market.

Livestock biological systems have the capacity to convert roughage that is not directly used by human beings into important products such as meat. The supply of meat to the market is a result of number of animals supplied to markets for slaughter; breed type, body condition, carcass yields, slaughtering and fabrication technology, cold chain management, marketing linkages between value chain actors etc. In Ethiopia, beef is the most consumed meat type, followed by mutton, goats, camel and poultry meat. Because of the religious taboos, pork has negligible demand in the country. The bulk of meat for domestic consumption comes from backyard slaughtering of animals; supply through butcheries and some import. However, all exported meat comes from standard export abattoirs.

Input supply and services

Commercial small to medium feedlots depend on purchased inputs such as feed, veterinary drugs, and limited animal health services through private veterinary practitioners. On the other hand, rural highland smallholder farmers and lowland pastoralists depend on their land plots and communal grazing fields for feeding their animals.

Extension

Dissemination of improved management packages of smallholder farmers for feedlot operations are generally provided through the national extension program which is the responsibility of MoA, Bureaus of Agriculture, Regional Livestock Development Agencies, and Pastoral Area Development commissions. Commercial feedlot operators and meat processors particularly exporters are taken care by EMDTI.

Research

Livestock research is a component of agricultural research set up. At the federal level, Ethiopian Institute of Agricultural Research and at regions, Regional Agricultural Research Institutes are responsible for conducting studies and generating technologies. Except on production aspects, studies on meat are negligible.

Vision and targets

Vision

In general, meat industry development vision is the component of the national agricultural development vision of the country. However, to be focused, it is envisaged that Ethiopia will become surplus producer and leading exporter of quality meat in Africa by 2025.

Targets

It is projected that by 2025, development interventions will impact on the growth of animals and meat exported, revenue earned and domestic meat consumption. GTP base year of 2010/11 is taken as base year for comparisons.

Export earnings from live animals and meat will increase from USD 215 million to USD 2 billion by 2025. The number of animals exported on hooves will increase from 470 thousand to 756.8 thousand head. Volume of exported meat will increase from 16.7 thousand tonnes to 131.2 thousand tonnes. Annual meat consumption will increase from 10 kg per person to 50 kg.

Challenges and strategies

The major technical and institutional challenges that hamper the development of meat industry in the country are identified and for each challenge, strategic intervention measures are recommended.

Challenge 1: Inability to penetrate export end markets and maintain substantial market shares

- Strategic interventions
    - Establishing and strengthening export coordination and promotion agency for supporting and leading export operation activities.
    - Developing a detailed export strategy tailored to leverage competencies and designed to achieve substantial market shares and profitability and goals of export operators.
    - Capacitating Ethiopian diplomatic missions to conduct market researches to assess consumers preferences; supply and demand; competitors in the markets and import regulations through regular market intelligence and transmit feedback to exporters and regulatory bodies.
    - Facilitating and supporting participation of export operators at strategic trade fares in end markets.
    - Organizing international trade meetings and livestock shows in Ethiopia to popularize export commodities and match making.
    - Encouraging and capacitating meat producer–exporters to fabricate beef and export by road and sea using cold chains.
    - Creating awareness among consumers to increase demand for Ethiopian products in the export markets through electronic media, participation at exhibitions and trade fairs.

Challenge 2: Inefficient and non-transparent livestock marketing system

- Strategic interventions
    - Establish well organized market centres at appropriate locations with all necessary facilities including water, feed, veterinary services, weigh scales, loading and unloading ramps and market information services.
    - Introduce and popularize daily livestock markets in major pastoral areas on top of the current weekly markets.
    - Encourage and popularize price setting on quality bases using weights and through auctions.
    - Establish efficient and transparent market information system which is accessible to all actors.
    - Develop stock routes, watering points and feed supplies in areas where animals are tracked.
    - Build holding areas for big traders and cooperatives at secondary markets in major supply shades.
    - Introduce cost effective service charges by avoiding various taxes and levies such as service charges; sport levies; transaction taxes and transit fees.
    - Regulate the illegal intervention of brokers who are distorting normal market functions.
    - Establish and support direct market linkages between producers cooperative/unions and export operators including feedlots and abattoirs.
    - Assess factors contributing to informal exports and address market forces that divert the outflow of animals.
    - Support establishment of cooperatives/unions, commercial enterprises such as private limited companies and share companies which can create sustainable livestock markets for pastoralists and supply essential goods.
    - Encourage beef fabricators and feedlot operators to incorporate inputs and services provisions such as veterinary drugs, feeds, mineral licks to organized/cooperatives and primary livestock producers.

Challenge 3: Lack of competitive air, road and sea livestock and meat transport services to target destinations

- Strategic interventions
    - Avail all necessary infrastructure and cold chain facilities at major centres like Bahir Dar, Mekelle, Jigjiga and Yabello and permit direct cargo flights to export destinations.
    - Encourage the private sector through incentive packages to render livestock transport services using designated trucks to reduce cost of transport; enhance quality and improve animal welfare.
    - Encourage the private sector through incentive mechanisms to invest in cold chain meat storage transport both for export and domestic markets.

Challenge 4: Lack of capacity for cattle slaughter, cold chain processing and packaging export quality beef products

- Strategic interventions
    - Sensitizing consumers through media and consumer societies against consuming meat supplied from uncertified facilities.
    - Empowering veterinary and public health inspectors to enforce backyard slaughtering regulation particularly in towns and cities.
    - Encouraging and capacitating cooperatives, organized community groups, village administrations, town municipalities and private entrepreneurs through incentive mechanisms to construct slaughter slabs, slaughterhouses.
    - Regulating butchers by introducing pre-license qualification certification measures for enforcing cold chain facilities.
    - Supporting and encouraging the private sector through incentive packages mechanisms to invest in export abattoirs particularly in beef fabrication in strategic pastoral areas.
    - Popularize vertical integrated large-scale beef industry development by incorporating commercial feed production, processing, ranching, transporting, beef fabrication and marketing operations.

Challenge 5: Shortage of consistent and competitive supply of slaughter animals which meet quality requirements for both export and domestic markets

- Strategic interventions
    - Encouraging federal and regional research institutions to select, multiply, prepare feeding and management practices of small ruminants such as Horro, Menz and Bonga sheep breeds and train farmers for adoption.
    - Popularizing and encouraging feedlot operators through incentive mechanisms for feeding dairy male calves for beef production.
    - Encouraging and supporting feedlot operation by availing adequate land for feed production and linking them to supply and end markets.
    - Popularizing feedlot operations close to feed resources, agro-industrial by-products such as adjacent to sugar estates.
    - Preparing feeding and management handbooks in regional languages for training highland small farmers in feeding and conditioning young bulls, culled oxen and cows and linking them to end markets particularly export industries.
    - Introducing appropriate land cultivation technologies to replace animal draught power.

Challenge 6: Feeds unavailability and poor feeding systems

- Strategic interventions
    - Preparing feed cultivation and crop residues harvest, preservation and management handbooks in regional languages and train extension agents and farmers.
    - Encouraging and incentivizing investors by availing land for commercial feed production.
    - Capacitating commercial feedlot operators through training on formulation of best cost total mixed rations (TMR) from available feed resources.
    - Set quality standards for processed feeds and regulate marketing of substandard products.

Challenge 7: Low veterinary services to meet the stringent SPS requirements of the importing countries

- Strategic interventions
    - Establishing efficient and transparent veterinary services for managing and regulating animal health services.
    - Setting and enforcing export standards and issuing SPS certificates.
    - Training and capacitating meat inspectors and public health inspectors.
    - Enacting and enforcing livestock movement and traceability.

Challenge 8: Lack of empowered institutions to support and guide the industry

- Strategic interventions:
    - Conducting detailed study for identifying the type of institution needed and its duties and responsibilities.
    - Defining the roles of the public and the government in administering the institution and rendering services.
    - Preparing code of conducts and sensitizing the stakeholders.

Challenge 9: Weak sectoral associations in supporting their members and the industry

- Strategic interventions
    - Capacitating the associations and their members through extending supports in availing revolving fund, training, observation and trade missions for adopting best practices and match making with trade partners.
    - Promoting and encouraging the associations to have cooperation among them to establish strong federation for rendering services to the industry.

Challenge 10: Weak and inadequate export support services

- Strategic interventions
    - Signing trade and animal health protocols with strategic importing countries' governments to facilitate trade between the private sector operators.
    - Making bilateral agreements with neighbouring countries, particularly Djibouti to have adequate live animals holding and export facilities with low and competitive service charges.
    - Building standard holding and quarantine centres at strategic exit points with efficient service deliveries.
    - Organizing and rendering 'one window' export documentation services at each exit point.

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The Improving the Productivity and Market Success of Ethiopian Farmers (IPMS) project, funded by the Canadian International Development Agency (CIDA), was a research for development project that worked with the Ethiopian Ministry of Agriculture (MoA) to transform the smallholder subsistence farming system to a more commercial-oriented agricultural system. To contribute to this transformation process, the project used a value chain systems approach, focusing on the MoA's extension system, value chain actors, service and input suppliers. https://ipmsethiopia.wordpress.com/

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