



Opportunities to reduce losses in the Kenyan poultry sector through agroprocessing and agrologistics

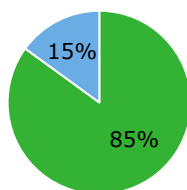
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Poultry production in Kenya

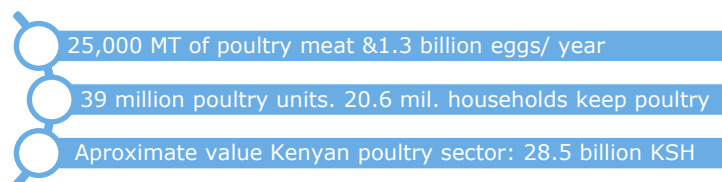
In Kenya, the poultry sector produces over 25,000 MT of poultry meat and 1.3 billion eggs per year, jointly valued at KES 28.5 billion. Per capita, Kenyans consume approximately 0.56 kg of poultry meat and 45 eggs per year. There are approximately 39 million poultry units in Kenya; 20.6 million Kenyans live in households that keep free-range poultry.

This document is a summary of [the full report](#): A food system analysis of Kenya's mango, avocado and poultry sectors.

Form in which poultry product is sold at market destination



■ Live at wet market ■ Slaughtered and processed



Approximately 85% of the Kenyan poultry flock are sold live at domestic markets (urban and rural). 10-15% of birds are sold slaughtered. A limited number of Kenyan companies are involved in commercial-scale poultry production. Those companies integrate poultry production with downstream processing and agro-logistics operations. There is a growing demand for high quality, safe and nutritious food products by urban middle-class consumers who are increasingly aware and conscious of their food choices.

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Post-harvest food losses

As can be seen in figure 1, Poultry losses predominantly occur during the transport of live animals. Major causes of loss are improper handling and transporting causing mortality of birds (stress, suffocation). For the slaughtered birds, the most common reason for food loss is contamination and lack of refrigeration after slaughtering.

There are numerous opportunities to effectively reduce losses in Kenya's poultry sector. Addressing the root causes of poultry losses requires taking on a food system approach whereby enabling policy conditions are combined with a series of complementary interventions addressing production practices, suitable technological interventions and supply chain integration including transportation services, value addition and market information systems.

Effective reduction of poultry losses requires a system approach bundling food system policies, improving collaboration within the sector and creating incentives to invest in loss reduction.

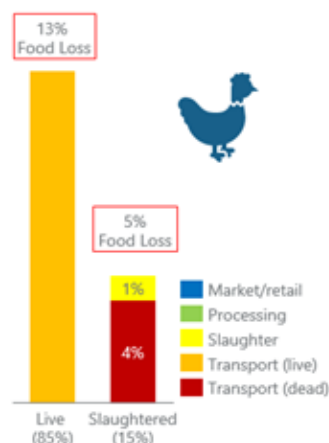


Figure 1 Profile of losses in the Kenyan poultry sector

Integrated sector transformation

A combination of supportive sector-wide policies, innovative financing and integrated sector transformation must accompany the specific opportunities in agro-logistics and agro-processing to reduce the post-harvest losses that have been identified.

Desired sector transformations include reducing food loss through rules and regulations for transport, improving food security through improved biosecurity, training of entrepreneurs in good poultry business practice, and in animal welfare; advanced local feed milling; sector coordination (market information, formalized contracts, market linkages); enabling policy environment, supportive incentives & regulations.

Business opportunities

The identified business opportunities are selected because they contribute to reducing food loss, generating a positive economic impact on the sector, and meeting the requirements of (Dutch) investors or product suppliers.

Industrial slaughtering of poultry

There is potential for increasing production of hygienically and industrially slaughtered poultry, especially for a high-class segment of large urban supermarkets, up-market hotels and international franchises (such as KFC). This can be achieved either through large-scale slaughtering and processing facilities or potentially through (mobile) small-scale slaughtering facilities. Aggregating the produce from several farmers could be an opportunity to introduce hygienic slaughtering to smaller-scale farmers.

Rendering poultry “waste” into high-quality proteins

A promising solution to use the “waste” of poultry is rendering the feathers, blood, and intestines into high-protein flours and oils. These are valuable products for animal feed, thereby increasing circularity and more sustainable livestock production. About 30% of the bird (blood, feathers, carcass) is not eaten by humans and can be used to make valuable products (flour, blood meal, oils), available to the regional East African animal feed market or export.

The proposed intervention does not contribute to a direct food loss reduction but over 30% of the live weight is used, contributing to increased circularity in the poultry sector.

Recommendations

1. Companies are recommended to explore investment and/or provide services in rendering facilities to process poultry slaughter waste into high-end animal feed supplements. These products can be sold on the national or regional East African animal feed market. A complete rendering plant, processing 100 MT of waste per day, requires an investment of EUR 8-10 million. Smaller-scale facilities (two containers for quantities of 5-15MT/day) require an investment of EUR 300-400,000.
2. For the domestic market, necessary developmental interventions are recommended to improve the transport of live birds and improve biosecurity through veterinary checks.
3. Effective and sustainable post-harvest loss reduction requires sector-wide, bundled approaches whereby private and public sector organizations collaborate to jointly advance and professionalize the sector.

Details of the analysis and the identified business opportunities for the poultry sector can be found in section 3.5 and chapter 5 of [the full report](#).

This report can be downloaded for free at <https://edepot.wur.nl/559108> or at www.wur.eu/cdi (under publications).



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