



Investing in African Livestock: business opportunities in 2030-2050

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EXECUTIVE SUMMARY

This paper depicts the medium to long term development prospects for the African livestock sector by reviewing data on the estimated consumption of animal-sourced foods and anticipated responses by producers for 2005/07, 2030 and 2050. Data and projections are elaborated by the FAO Global Perspective Studies Unit.

Increases in the demand for animal-sourced food are estimated extraordinarily high in Africa over the coming decades. By 2050, the meat market is projected at 34.8 million tonnes and that of milk about 82.6 million tonnes, an increase of 145 and 155 percent respectively over 2005/07 levels. More notably, over this period, Africa's increase in volume of meat consumed will be on a par with that of the developed world and that of Latin America, with only South Asia and Southeast Asia anticipated to register higher growth. For milk, only South Asia will register stronger gains in market size than Africa. Furthermore, annual growth rates in both meat and milk consumption are projected to be higher in Africa than in other regions, with the exception of meat in South Asia (from a very low base). Within Africa, beef, milk and poultry are anticipated to provide favourable business opportunities for livestock producers, in both volume and value terms. However, market dynamics differ amongst the geographic hubs, including Western and Southern Africa; Northern and Southern Africa; and Central Africa.

Production will not keep pace with consumption. Africa is anticipated to increasingly become a net importer of animal-sourced foods. This represents a missed development opportunity, given the widespread societal benefits that inclusive growth of livestock can generate, particularly in a continent where the majority of rural dwellers depend fully or partly on livestock for their livelihoods. Consequently, investments, and policy and institutional reforms that target African livestock markets are required to ensure that the business opportunities generated by the growing demand for animal-sourced foods translate into widespread benefits for the population.

Formulating effective livestock sector policies and institutional changes require a flow of information on market conditions and on the constraints to market entry. These are rarely readily available and investments in data collection and in data collection systems should be given appropriate priority, as the basis for supportive policies and investment.

INTRODUCTION

Medium and long-term development perspectives of any productive sector are driven by prospects for demand growth which, dependent on the policy and economic environment, can translate into associated producer responses. For the livestock sector, trends in the consumption of animal-sourced foods and livestock by-products are the first key indicator of opportunities for investment. If consumption of meat, milk, eggs and other livestock by-products are increasing, opportunities and incentives for investments will be forthcoming, including business opportunities for producers. If, however, consumption growth is negative or low, there will be few investment incentives for producers.

This paper portrays the medium to long term development prospects for the African livestock sector by presenting data on the actual and projected consumption of animal-sourced foods and anticipated responses by producers for 2005-07, 2030 and 2050. Data and projections are derived from analysis undertaken by the FAO Global Perspective Studies Unit (see Alexandratos and Bruinsma, 2012). This analysis shows that increases in the demand for animal-sourced food are projected to be extraordinarily high in Africa in the coming decades, but that production will not keep the pace of consumption: indeed, the continent is anticipated to increasingly become a net importer of animal-sourced foods. This is a missed development opportunity, given the widespread societal benefits that inclusive growth of livestock can generate, particularly in a continent where the majority of rural dwellers partly or fully depend on livestock for their livelihoods (FAO, 2012). Policy and institutional reforms should be devised, building on solid data and evidence based analysis, to ensure that the business opportunities generated by the growing market for animal-sourced foods translate into widespread benefits for the populace, including livestock producers, and for other actors along the value chains as well as consumers.

The following section reviews African trends in the consumption of livestock products compared to other major world's regions, as well as positioning these trends within the evolving trade position of the African continent. Sections three and four compare animal protein trends in consumption and trade of the different animal products for the continent as a whole, and among the continent's major geographic regions. Section five discusses the opportunities presented by investments in livestock, while focusing on the required enabling underlining policies and supportive data and information.

AFRICAN LIVESTOCK MARKETS IN THE GLOBAL CONTEXT

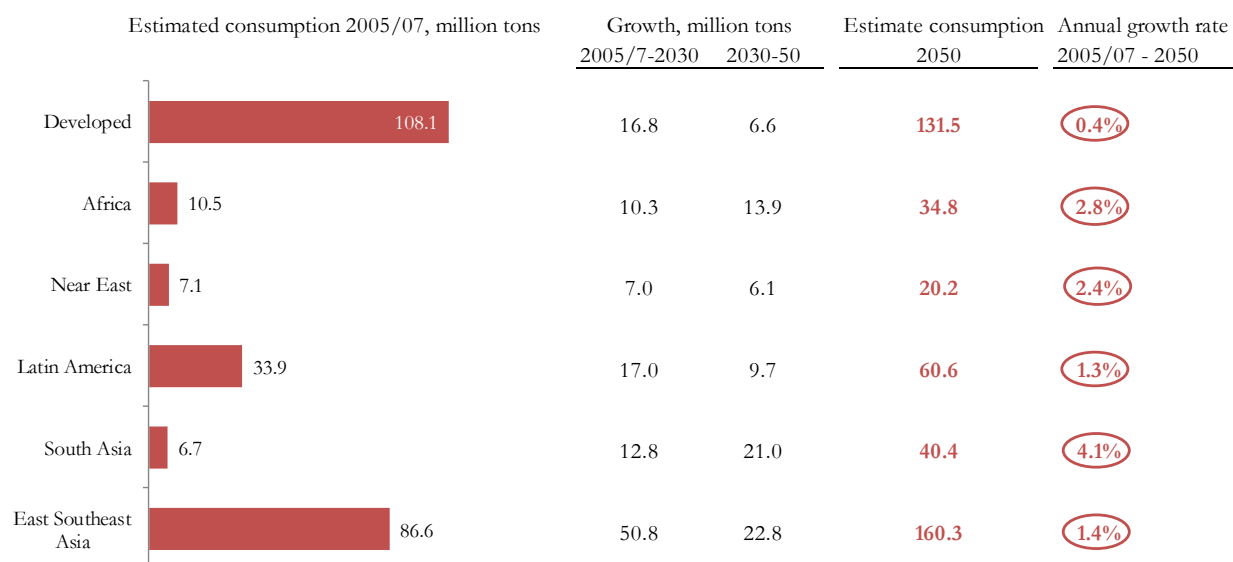
In the developing world, gains in real per capita income, rapid population growth and urbanization have been sustaining major increases in the consumption of livestock products, a phenomenon dubbed the 'Livestock Revolution' (Delgado *et al.*, 1999). In recent decades, consumption of animal-sourced foods has primarily increased in Latin America, South Asia and Southeast Asia, with Africa lagging behind (Pica-Ciamarra and Otte, 2010). But Africa is gradually catching up. In 2010 and 2011 the continent recorded GDP growth rates of 4.6 and 2.7 percent respectively and, according to the Economic Report on Africa 2012 – a joint publication of the African Union and the United Nations Commission for Africa – growth rates are projected to rebound to over 5 percent in the coming

years. By 2030, African GDP will be four times its 2010 level (UNECA and AU, 2012). Similarly, by 2030 Africa’s population will be over 1.5 billion, up from about 1 billion in 2010, with almost 48 percent of people in the continent living in urban areas vis-à-vis 39 percent in 2010 (UN 2011 and 2012). These conditions seem to be conducive to a ‘Livestock Revolution’ unfolding in Africa in the coming years.

Figures 1 and 2 present three basic measurements of African meat and milk markets compared to those of other major regions for 2005/07, 2030 and 2050¹. These indicators are:

- Market size, as measured by the volume of current (2005/07) and projected consumption of livestock products in 2030 and 2050.
- Market growth, as measured by the additional volume of animal sourced-foods consumed from 2005/07 to 2030 and to 2050.
- Market growth, as measured by the annual growth rate in consumption of livestock products over the reference period.

Fig. 1. Estimated and projected size of meat markets in world’s regions, 2005-07, 2030 and 2050

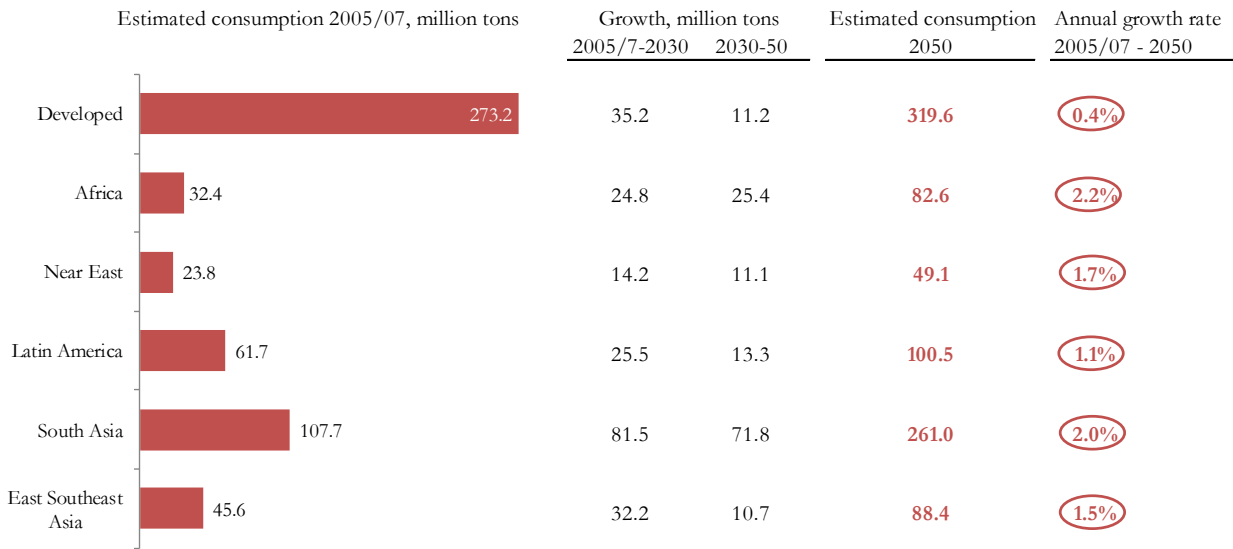


By 2050, meat and milk markets in Africa will not be particularly large with respect to other regions. The African meat market is projected at 34.8 million tonnes and that of milk about 82.6 million tonnes, with only the Near East being a smaller market. South Asia is also lower due to its customary low meat consumption. Projected market size, however, says little about business opportunities: these are better measured by the total increase in consumption and its growth rate over a reference period. African market growth, as measured by the additional volume of livestock products consumed from 2005/07 to 2050, is estimated at 24.3 million tonnes for meat and at 50.2 million tonnes for milk. Over this period, Africa’s increase in volume of meat consumed will be at par with that of the developed world and that of Latin America, with only South Asia and Southeast Asia projected to record larger gains. As for milk, only South Asia will register a larger growth in

¹ All data and projections in this paper have been elaborated by the FAO Global Perspective Studies Unit

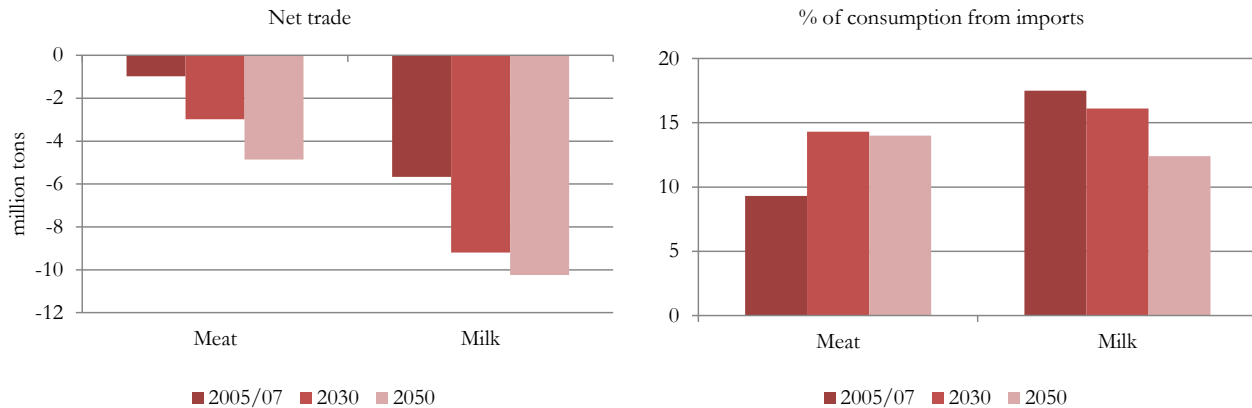
market size than Africa. Finally, annual growth rates in both meat and milk consumption are projected to be higher in Africa than in other regions, with the exception of meat in South Asia.

Fig. 2. Estimated and projected size of milk markets in world's regions, 2005-07, 2030 and 2050



Overall, in the coming decades African livestock markets hold the potential to generate major business opportunities for livestock producers, in many cases larger than those of other world's regions. However, the data also reveals that local producers will find it increasingly difficult to satisfy the growing demand for animal-sourced food. Fig 3 (left-side panel) shows that Africa is anticipated to increasingly become a net importer of livestock products over the reference period: meat imports are estimated to increase from 0.9 to almost 5 million tonnes between 2005/07 and 2050, and those of milk from 5.7 to 10.2 million tonnes. It is estimated that in 2030 and 2050 between 12 and 15 percent of African consumption will be supplied by foreign producers, as shown in the right-side panel of Figure 3, in which each bar represents the proportion of the meat and milk consumed which is imported.

Fig. 3. Africa's meat and milk trade position: 2005/07, 2030 and 2050



AFRICA LIVESTOCK MARKETS: COMMODITY PERSPECTIVES

Consumers' preferences for animal-sourced foods depend on a variety of factors, including market availability and affordability. In Africa, consumption of milk – in most circumstances the cheapest and most widely available animal protein – is significantly higher than that of meat products and eggs. Africans are estimated to have consumed about 32.4 million tonnes of milk in 2005/07 and are expected to be consuming an additional 50.2 million tonnes by 2050, when the total volume of the milk market will hit almost 83 million tonnes. Beef and poultry were Africa's most consumed meats in 2005/07, at about 4.7 and 2.9 million tonnes respectively, followed by mutton and pork. By 2050 consumption of both meats is estimated to increase by an additional 8.9 million tonnes, with the total market size for beef reaching 13.5 million tonnes and that of poultry 11.8 million tonnes. In 2050, the egg, pork and mutton (i.e. sheep and goat meat) markets will be about 6.1, 3.5 and 5.9 million tonnes respectively. Consumption of all livestock products is anticipated to grow rapidly in the coming decades, with annual growth rates estimated at 2.2 percent per year in the case of milk to 3.3 percent for poultry and pork.

In terms of value, the market for animal-sourced foods, in 2005/07 is estimated at US\$ 51 billion, using FAOSTAT farm-gate prices, a value anticipated to almost triple by 2050 when African citizens are projected to consume livestock products valued at more than US\$ 151 billion in 2005/07 prices. Beef and milk are, and will continue to be, the largest markets by value for animal proteins (US\$ billion 16.1 and 17.1 billion in 2005/07 respectively; and US\$ billion 46.6 and 43.5 by 2050). For both 2005/07 and in 2050, mutton and poultry follow, with a market value about half of those for beef and milk.

Fig. 4. Estimated market size of livestock products in Africa, 2005-07, 2030 and 2050

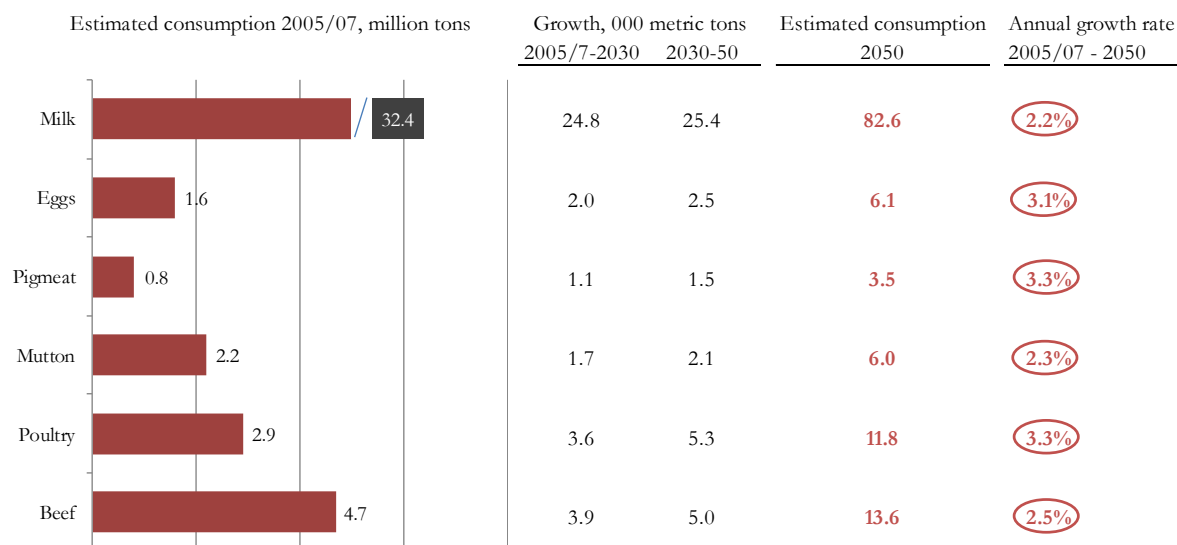
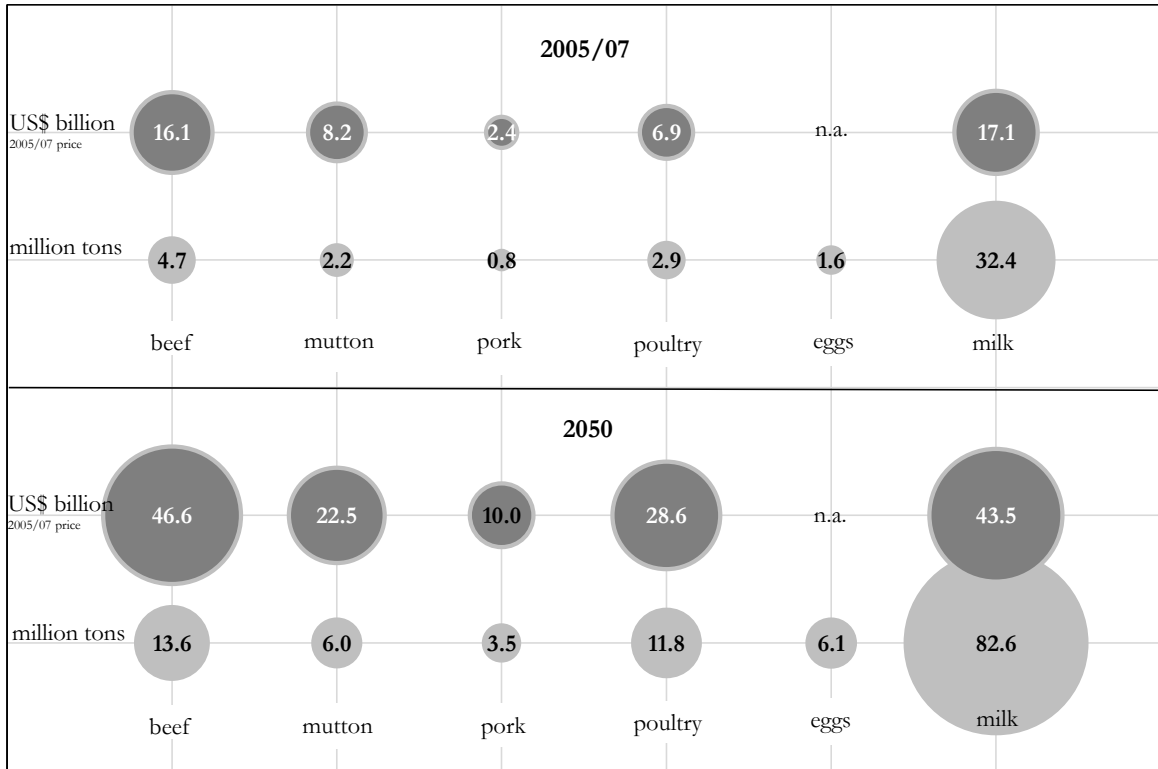
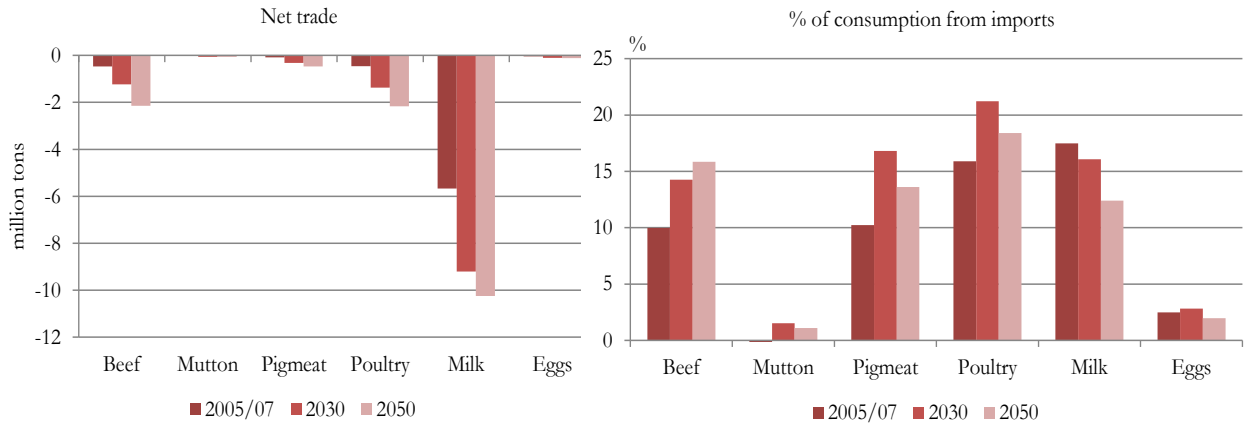


Fig. 5. Estimated volume and value of livestock markets in Africa, 2005-07 and 2050



At the continental level, however, African producers are projected to be unable to satisfy the growing demand for livestock products. Imports are expected to grow far faster than exports, with the net trade for all livestock products becoming increasingly negative. In 2030 and 2050, between one tenth to one fifth of the beef, pigmeat, poultry and milk consumed in the continent will be coming from outside Africa, reaching about 16 percent for beef, pigmeat and milk, and 21 percent for poultry. Eggs and mutton are projected to witness slower growth, most likely because eggs are not widely traded internationally and consumption of mutton is typically localized.

Fig. 6. Africa' trade position for selected livestock products: 2005/07, 2030 and 2050



AFRICA LIVESTOCK MARKETS: A REGIONAL PERSPECTIVE

Prospects for livestock sector development will differ across agro-ecological zones, countries and in geographic areas within countries. Below, data are presented on consumption trends for animal-sourced foods in five major geographic hubs, including Western and Eastern Africa, Northern and Southern Africa, and Central Africa (Fig. 7). These hubs correspond, to a large extent, to five of the eight Regional Economic Communities officially recognized by the Africa Union.²

Fig. 7. Africa geographical hubs

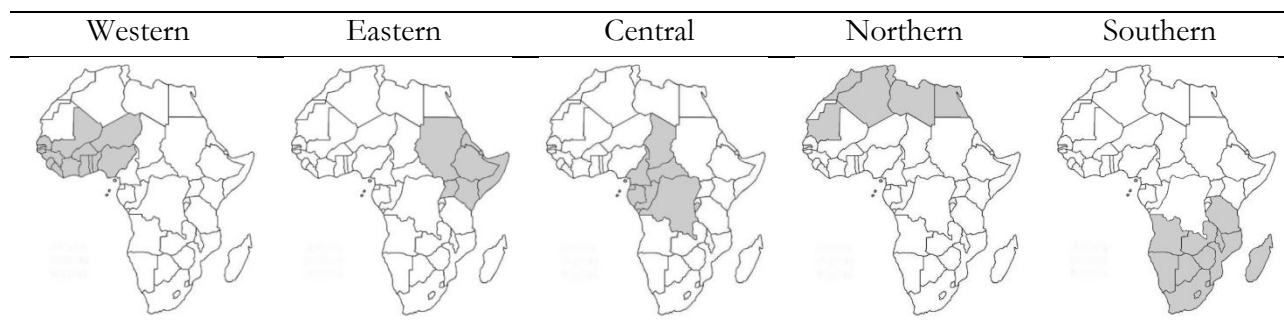


Fig. 9 to Fig. 13 present the respective market shares, market size, market growth and contribution to market growth for milk, beef, pork, poultry, eggs and mutton in the various geographical hubs for the period 2005/07 to 2050. The data indicate the following:

- No major shift in the distribution of consumption of animal sourced foods across African regions is anticipated between 2005/07 and 2050. For instance, Eastern Africa (IGAD) is and will remain the largest milk market in Africa; and Southern Africa (SADC) the largest market for poultry.
- Annual growth rates in consumption of livestock products are estimated to be relatively high in all the communities, ranging from 1.4 percent gains for pork (coming from a very low base) in Northern Africa (UMA & Egypt) to 5.8 percent in poultry in Eastern Africa. Central Africa, which is currently the smallest market for livestock products, is anticipated to record the fastest growth rates in the demand for most animal sourced foods.
- African milk markets are largely dominated by Eastern (IGAD) and, to some extent, Northern Africa (UMA and Egypt), which jointly consume over 70 percent of all milk in Africa. Market opportunities, in terms of volume, will be the highest in those regions, even though increases in milk consumption will be also significant in Western Africa (ECOWAS).

² Western Africa corresponds to the Economic Community of West African States (ECOWAS); Eastern Africa to the Inter-Governmental Authority on Development (IGAD); Southern Africa to the Southern African Development Community (SADC) minus Congo; Northern Africa represents the Arab Maghreb Union (UMA) plus Egypt; Central Africa corresponds to the Economic Community of Central African States (ECCAS).

Fig.8. Milk market in African regions, 2005/07 to 2050

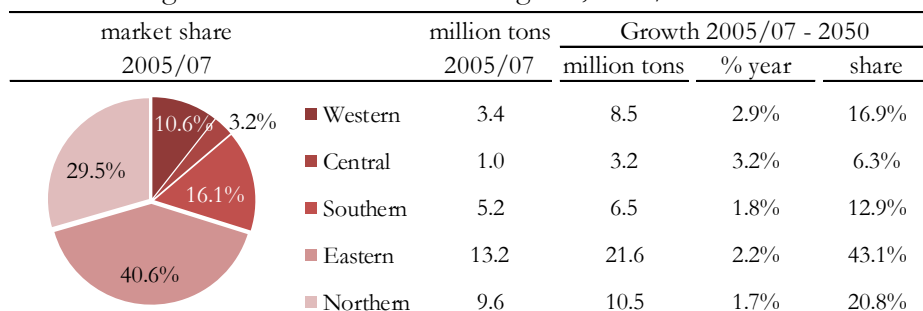


Fig.9. Beef market in African RECs, 2005/07 to 2050

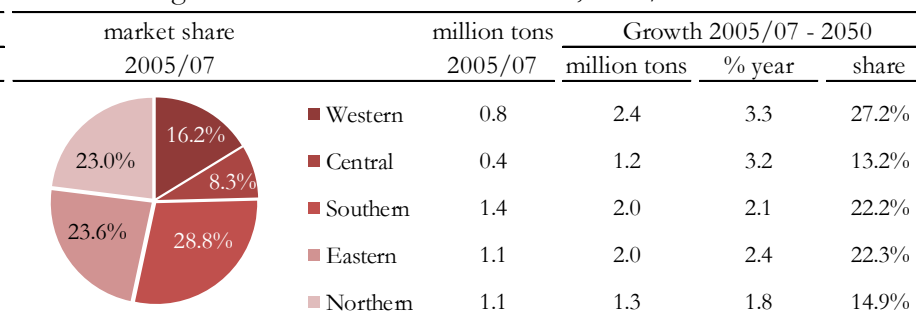


Fig.10. Mutton market in African RECs, 2005/07 to 2050

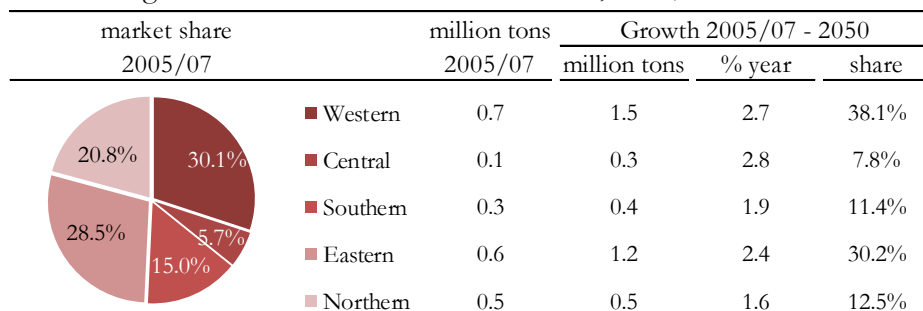


Fig.11. Pork market in African RECs, 2005/07 to 2050

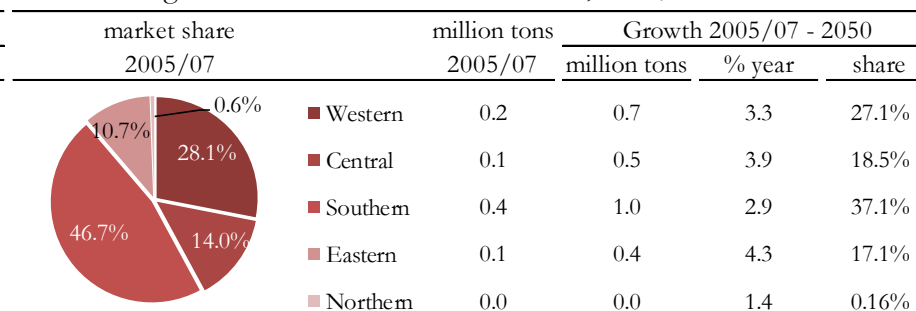


Fig.12. Poultry market in African RECs, 2005/07 to 2050

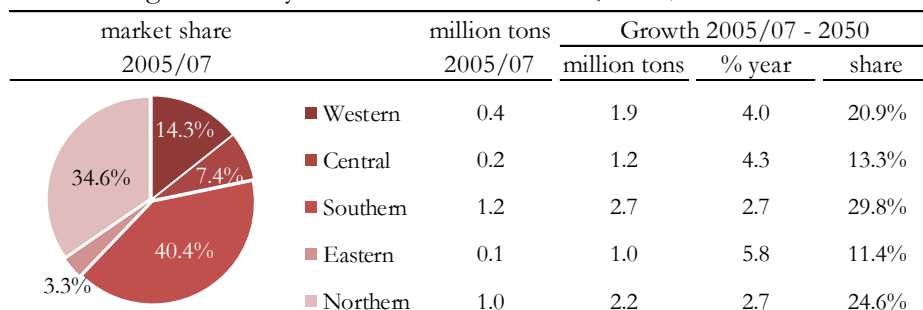
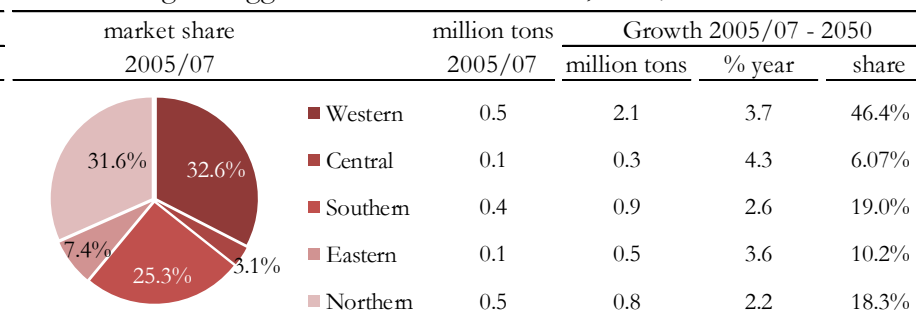


Fig.13. Eggs market in African RECs, 2005/07 to 2050

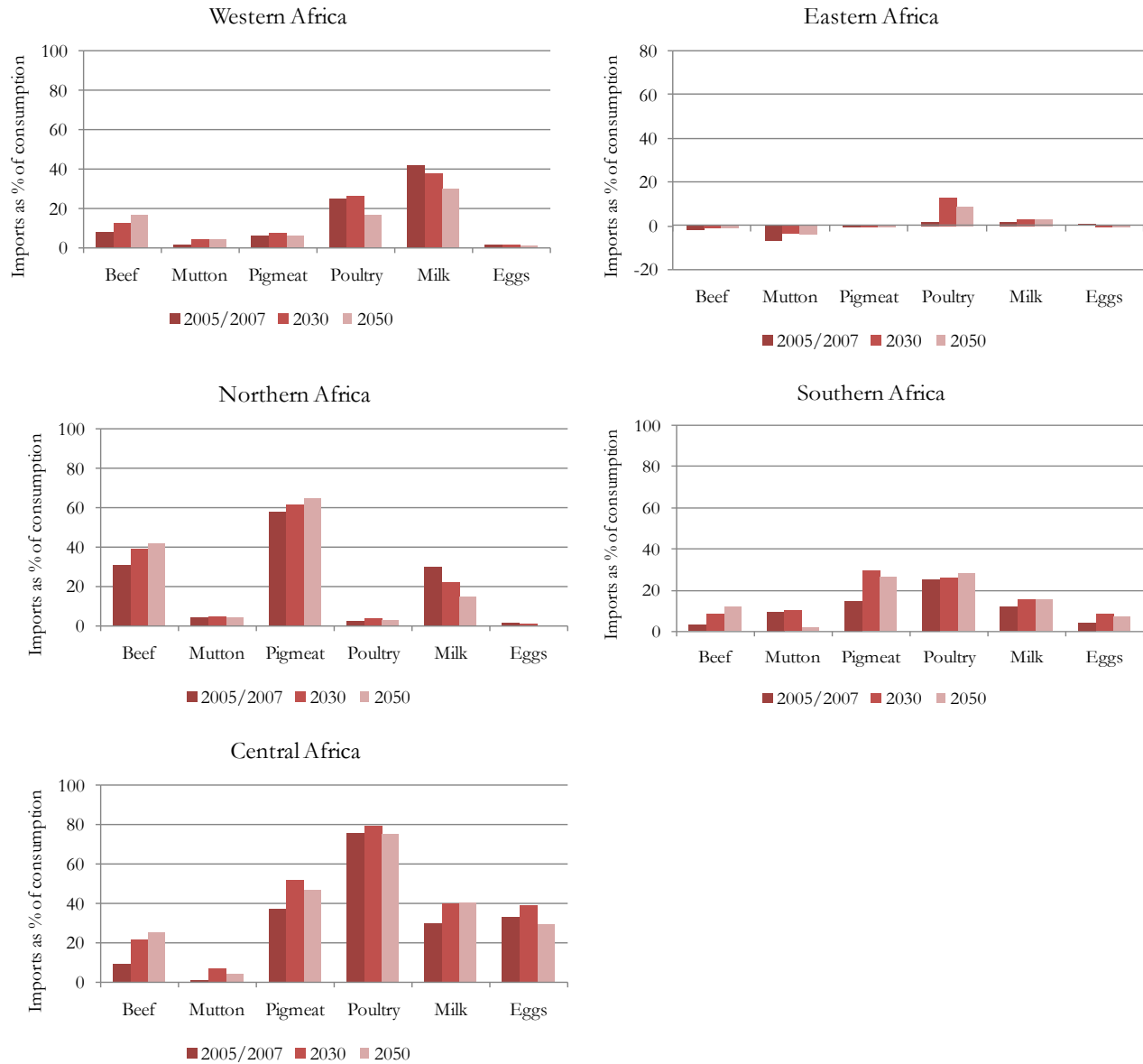


- Southern, Northern and Eastern Africa account each for about one quarter of the African beef market and in the coming decades these regions hold the potential to provide major business opportunities for beef producers. The beef market is possibly the most uniform in terms of its importance in the various African regions, with no geographical hubs dominating beef consumption.
- Central and Eastern Africa (ECOWAS and IGAD), followed by the Northern hub (UMA and Egypt), are projected to be the largest mutton markets in Africa and will contribute almost 70 percent of the additional demand for mutton, lamb, and goats between 2005/07 and 2050. This is possibly a reflection of ethnic preferences, i.e. arid and semi-arid Muslim countries in which a large share of the population seasonally sacrifice animals – and small ruminants in particular.
- Almost half (46.7%) of African pork consumption is currently concentrated in Southern Africa (SADC), followed by Western Africa (28.1%). Southern Africa is anticipated to further increase its share in the pork market in the coming decades.
- Poultry consumption is and will largely remain concentrated in Southern Africa (40.4% in 2005/07) and the Northern hub (34.6%). Increases in consumption over the coming decades will be also high in the Western region (ECOWAS), which should become a major target market for poultry producers.
- Northern and Western Africa (UMA & Egypt and ECOWAS) jointly account for almost 65 percent of the African market for eggs. Major market opportunities for egg producers are also expected in the Southern hub (SADC), which is anticipated to contribute 19 percent to the increase consumption of eggs in Africa from 2005/07 to 2050.

Although there are ample business opportunities for livestock producers in Africa across all products in the coming decades, FAO's projections indicate that African producers will be increasingly challenged to respond to growing demand. Most regions are anticipated to increase imports to meet the rapidly growing demand for livestock products. In particular, with the notable exception of Eastern Africa, all geographic hubs are expected to be growing net importers of livestock products in the coming decades, with the volume of imports steadily increasing for all major livestock products.

Fig. 14 displays the percentage of consumption which is met by imports, by livestock product and region. It highlights that Central Africa depends and will depend more on imports than all other regions, followed by Northern Africa. It reveals that imports of milk are and will remain critical for Western, Southern and Northern Africa to satisfy the growing demand for dairy products, and that beef imports are and will be increasingly pervasive in Western, Northern and Central Africa. Eastern Africa is the only region that, as a whole, will maintain a positive trade balance for some livestock products, including beef, mutton, pigmeat and eggs.

Fig.14. Proportion of consumption from imports for selected livestock products
African regions, 2005/07, 2030 and 2050



SUMMARY AND CHALLENGES AHEAD

African meat and milk markets represent a major business opportunity for livestock producers, not so much for the volume of animal-sourced foods consumed in the continent as for the projected market growth, in terms of both volume and value. From this perspective, opportunities for investment in African markets for animal-sourced foods will likely be more attractive than those of world's other regions.

Business opportunities for livestock producers will vary by product and geographic region. Over the period 2005/07-2050, milk, beef and poultry will be the dominant livestock growth markets in

Africa, with beef and milk presenting by far the largest business opportunities in value terms, followed by poultry and mutton. As revealed earlier, Eastern and, to some extent, Northern Africa dominate the milk market; Western, Eastern and Southern Africa constitute the largest share of the beef market; Southern and Northern Africa are major markets for poultry products. Central Africa, which is and will remain the smallest livestock market in Africa over the reference period, is anticipated to record the highest consumption growth rates for most livestock products, albeit starting from a very low base. Differences in the paths of market growth for regions and countries, for which some projections are offered here, offer significant opportunities for inter- and intra-regional trade within Africa.

African producers in all regions, with some exceptions in Eastern Africa, will find it difficult to satisfy the growing demand for animal-sourced foods, with imports in volume anticipated to steadily increase in the coming decades throughout the continent. This represents a missed development opportunity, given the widespread societal benefits that an inclusive growth of livestock can generate, particularly in a continent where between 40 and 80 percent of rural dwellers are estimated to depend partly or fully on livestock for their livelihoods (FAO, 2012).

Exploitation of this opportunity requires investments, and policy and institutional reforms, that target African livestock markets. This requires an understanding of ‘typologies’ of producers able to tap into those market opportunities as well as of farm-to-table business models that are sustainable and create employment, which represent a major livestock’s pathway out of poverty.

As suggested by Ly *et al.* (2010) and Nouala *et al.* (2011), decision makers need to pursue a dual-track approach to livestock development. On the one hand, market-oriented or potentially market-oriented producers should be supported, as increasing livestock production and productivity of emerging farmers will generate spillover benefits to employment and consumption. On the other hand, poor or relatively poor livestock keepers should be supported to make full use of their livestock assets, which is an effective way to sustain their livelihoods in the short to medium term while utilising resources with few alternative uses.

Formulating effective livestock sector policies and institutional changes, however, requires a flow of information on market conditions and on the constraints to productivity and market entry, which are rarely readily available. Investments in data collection, data collection systems, and analytical capacities in the region are a critical foundation to sector development and should be given adequate priority when formulating livestock sector policy and institutional reforms.

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