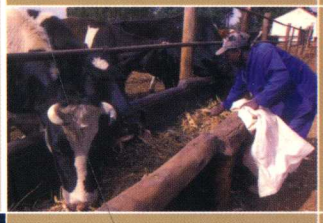
WHY HAS AFRICA BECOME A NET FOOD IMPORTER?

Explaining Africa agricultural and food trade deficits



WHY HAS AFRICA BECOME A NET FOOD IMPORTER?

Explaining Africa agricultural and food trade deficits

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ABSTRACT

That Africa has become a net importer of food and of agricultural products, despite its vast agricultural potential, is puzzling. Using data mainly for the period 1960-2007, this report seeks to explain Africa's food-trade deficit since the mid-1970s. The core finding is that population growth, low and stagnating agricultural productivity, policy distortions, weak institutions and poor infrastructure are the main reasons. A typology of African countries based on data between 2000 and 2005 reveals that the state of food import dependency is different across the continent and varies according to countries' levels of income. Although the few and relatively rich countries in Africa had the highest net food imports per capita (USD 185 per year in real terms), they had ample means to pay for their food import bills using revenue from non-agricultural sources. Conversely, the majority of the Africa's low-income countries (mostly in Sub-Saharan Africa), where two-third of its population lives, had been net food importers; they imported far less food per capita (USD 17 per year) but had difficulty covering their food imports bills, as their export revenues were limited. Overall, between 1980 and 2007, Africa's total net food imports in real term grew at 3.4 percent per year, but this growth was mostly fuelled by population growth (2.6 percent per year); the increase in per capita food import was only about 0.8 percent per year. Food consumption on per capita basis grew only at about 1 percent per year, while food production grew at an even smaller rate of less than 0.1 percent per year. The slow growth of food consumption and imports per capita is consistent with the weak economic growth and unchanged dietary pattern in the continent. Food import share, regardless of income levels, is relatively small and represents less than 5 percent of per capita income (GDP per capita). Because the share of food expense in household income is generally high in Africa, especially in Sub-Saharan Africa, that the share of food imports over GDP is small implies that domestic production has largely contributed to feeding Africa's population. Still, domestic food production has remained relatively low and increased only by 2.7 percent per year, just barely above population growth rate. This implies that any increase in per capita consumption had to be met by an increase in imports. The weak growth in food production arises from various constraints including those linked directly to agricultural productivity. Data and evidence from literature highlight that technical, infrastructural and institutional constraints share the blame. Likewise, distortions arising from both internal and external economic and agricultural policies (especially the protection and subsidies from developed countries and taxation on food production within Africa) have affected food productivity, production and trade in Africa. However, the examples of a few successful practices in African agriculture and the fact that the domestic food production has managed to keep up with population growth inspire optimism that the future is not all dark. There is a lot of room for improvement for agricultural productivity in these low-income countries to the point at which production growth outpaces the growth of population and per capita consumption.

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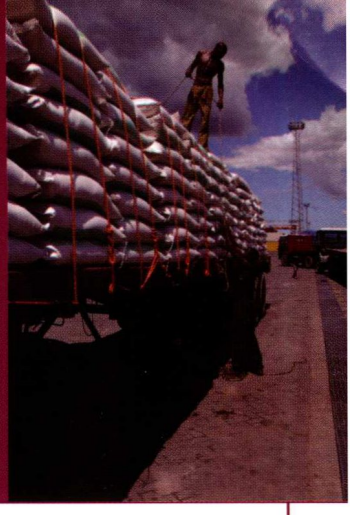
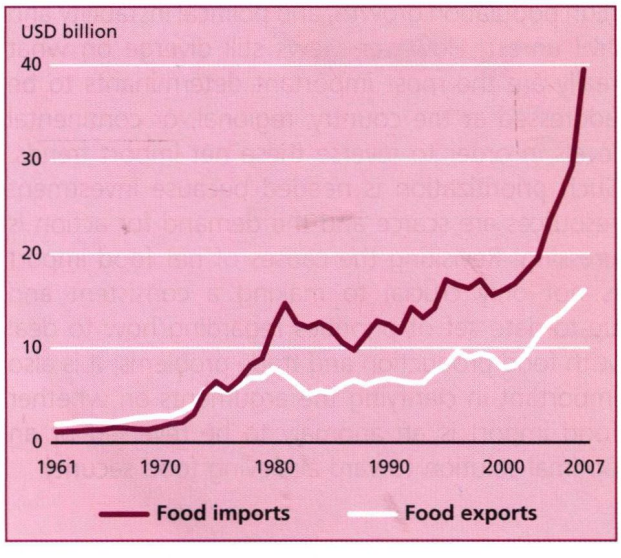
1 Introduction



Despite its vast agricultural potential, Africa as a continent has remained a net importer of agricultural products in the last three decades. In 1980, Africa had an almost balanced agricultural trade when both agricultural exports and imports were at about USD 14 billion, but by 2007 its agricultural imports exceeded agricultural exports by about USD 22 billion (FAOSTAT, 2011). For food trade in particular, Africa food trade deficit had started at an earlier time (mid-1970's) and ever since it has grown fast and exceeded USD 13 billion in 2005 (Figure 1). The increase in food imports since the mid-1970s has been particularly striking for basic foodstuffs such as dairy products, edible oils and fats, meat and meat products, sugar and especially cereals, implying that food import has been increasingly important in ensuring food security (Figure 2).

FIGURE 1. AFRICA'S FOOD IMPORT AND EXPORT TRENDS (CURRENT VALUES)

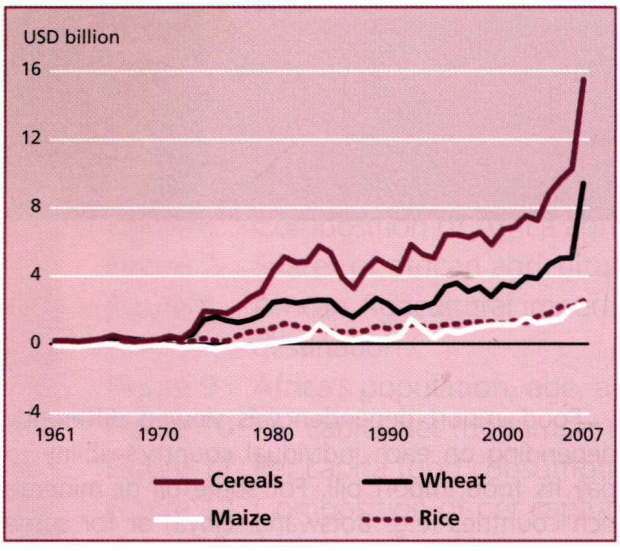


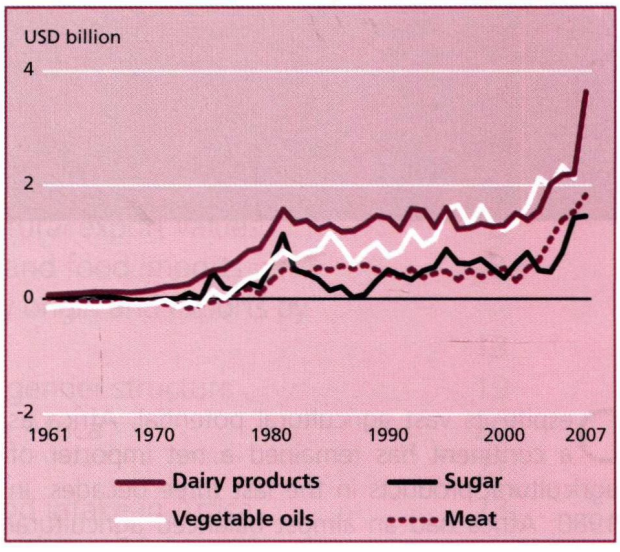
Source: FAOSTAT, 2011

Food import dependency is viewed differently depending on each individual country's ability to pay its food import bill. For some oil or mineral-rich countries (e.g. Botswana, Libya) or for some of the relatively more industrialized countries (e.g. Mauritius), importing some types of food products (like fruits and vegetables) seems more beneficial than producing these products at home, especially since they have enough foreign currency reserves to pay for the food import bills. But for cash-strapped countries (e.g. Burundi, Central African Republic, Eritrea), persistent food import becomes a problem when the high and rising food import bills take money away from other important development agendas without resolving food insecurity. The problem is even bigger for countries where exports rely mainly on agriculture but the revenues from traditional exports such as cocoa, coffee and spices are less certain and at the mercy of volatile international market prices. FAO data show that in 2007, only about one-third (19 out of 53) of African countries had enough agricultural export revenue to pay for their food import bills, and the rest had to draw money from other resources or wait for food donations to ensure a stable food supply. In countries like Burundi, Cap Verde, Comoros, Djibouti, Eritrea, Gambia, Sao Tome and Principe and Somalia, the total export revenues of total merchandise (agriculture and non-agriculture) were far short of agricultural (including food) import bills. Detailed investigation of the issue of food insecurity in Africa has already been the object of other FAO reports and is not the focus of the present.[1] However, the specific concern over the ability of some African countries to afford increasingly costly food imports to improve food security has motivated the search for answers on why Africa has become a net food importer.

[1] See the latest State of Food Insecurity, FAO, 2010

FIGURE 2. AFRICA'S NET IMPORTS OF SELECTED FOOD GROUPS (CURRENT VALUES)





Source: FAOSTAT, 2011

Countries aiming to tackle the high and rising food import bills and to solve food insecurity face two different pathways. One pathway is to reduce directly the agricultural (including food) trade deficit by finding ways to reduce agricultural imports and boost agricultural production and agricultural exports. (Methods such as import substitution, export diversification, and protection policies belong to this solution.) The other pathway is to temporarily ignore the agricultural trade imbalance and to find ways to increase exports in non-food or non-agriculture sectors (services, tourism, oil and mining, etc.) to finance food bills. Debates rage on which one of the two pathways is optimal and sustainable for each country, but the two are not mutually exclusive. For instance, building trade infrastructure (such as roads, ports, and laboratories) can benefit both agricultural and non-agricultural exports whether or not targeting a balanced agricultural trade is the priority. Similarly, development of tourism, an effort to boost non-agricultural activities, does not preclude but may even enhance efforts to improve productivity and efficiency of local agricultural production to supply hotels and restaurants; it may in the end contribute to reducing the agricultural trade deficit. Hence, for countries where high food import bills are a real burden, the problem is less a matter of choosing a single pathway but more of determining broadly the types of actions that will reduce the burden of persistent and high import bills, given available resources. Determining which actions can reduce food import bills and ensure food security requires a full investigation of the causes of the persistent and rising net agricultural and food imports.

Various studies (e.g. Omamo *et al.* 2006; Diao *et al.* 2008) have documented the causes of the persistent growth in net agricultural and food imports in Africa and have cited a host of explanations such as low productivity, poor agricultural and trade infrastructure, low internal and external trade capacity, low investment in agricultural resources (human, natural, financial, equipment), domestic and foreign policy distortions, high population growth, and political instability and civil unrest. However, views still diverge on what really are the most important determinants to be addressed at the country, regional, or continental levels in order to reverse these net import trends. Such prioritization is needed because investment resources are scarce and the demand for action is pressing. Revisiting the causes of net food import is not only crucial to making a consistent and up-to-date set of priorities regarding how to deal with food production and trade problems; it is also important in clarifying the arguments on whether food import is an anomaly to be reversed or an optimal solution toward achieving food security.

2 Objectives and definitions

The objective of the investigation documented in this report is to review the state of African food and agricultural trade and to explore some of the main causes of Africa food import dependency and slow growth of agricultural and food exports. Specifically, the aim is to:

1. update the information on past and recent trends in Africa's food and agricultural production, consumption, and trade;
2. review and explore some of the various explanations of African food import and export trends and especially the persistence of rising food imports;
3. discuss what, if necessary, can be done to reverse the African food deficit trend or to solve the problems caused by it.

The focus is on the 53 African countries (see Figure 3): Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cameroon, Cape Verde, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Congo, Cote d'Ivoire, Djibouti, Egypt, Equatorial Guinea, Eritrea, Ethiopia, Gabon,

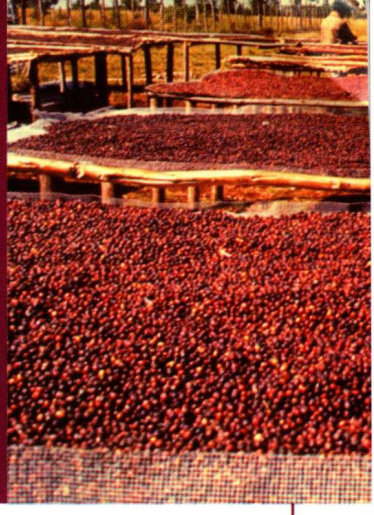
FIGURE 3. A MAP OF THE AFRICAN CONTINENT

Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Libya, Madagascar, Malawi, Mali, Mauritania, Mauritius, Morocco, Mozambique, Namibia, Niger, Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia, South Africa, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia and Zimbabwe.

In this publication, agriculture is regarded as the production of food and goods through farming. Unless otherwise stated, agricultural products in this report exclude forestry, fishing, and fibres or wool. Food products in this report include semi-processed and processed food (cheeses, butter, frozen vegetables, flour, juices, etc). More details are found in Annex 1.

Chapter 3 lays out the main challenges for Africa on agricultural trade. It dissects the pattern, composition, and flow of African food and agricultural trade and highlights the seriousness of food insecurity in the continent. A typology of African countries based on how the extent of food-trade deficits depends on countries' levels of income is presented. Chapter 4 explores the reasons on the demand side of the increase in food import and investigates whether the increase in imports is due to the increase in population size or a significant hike in imports per capita. Chapter 5 seeks technical explanations for why domestic supply has not been able to respond fully to the increase in demand and addresses productivity issues. Chapter 6 discusses the roles of both domestic and foreign agricultural production and trade policies in making Africa food-import dependent. This chapter revisits the evolution of economic and agricultural policies constraining the continent's productivity growth and welfare. Chapter 7 concludes the report.

3 Overview of Africa's food trade challenges

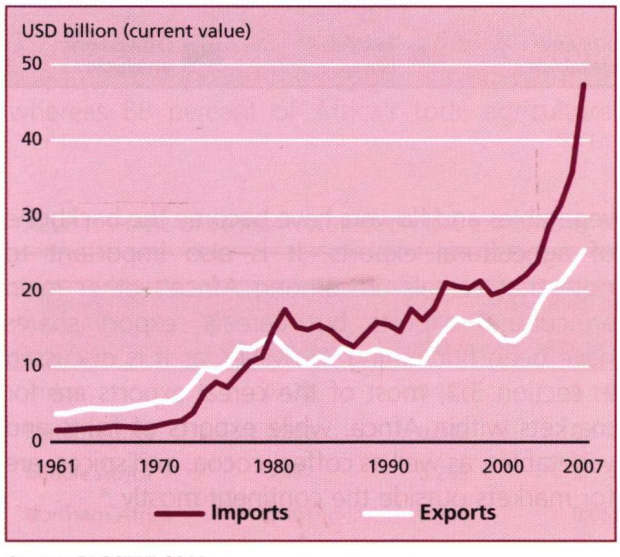


3.1 FOOD IMPORTS RISING FASTER THAN AGRICULTURAL AND FOOD EXPORTS

Africa lost its status as a net exporter of agricultural products (food included) during the early 1980s when prices of raw commodities (mainly coffee, cocoa and spices), which constituted the bulk of its agricultural export revenues, tumbled and local food production grew sluggishly. Since 1980, agricultural imports have grown consistently faster than agricultural exports and in 2007 reached a record high of USD 47 billion (FAOSTAT, 2011, COMTRADE, 2010), yielding a deficit of about USD 22 billion[1] (see Figure 4).

Although for Africa as a continent, agricultural export revenue alone can no longer pay for agricultural imports, agricultural and food-trade balances vary across countries. This disparity in agricultural trade balance will be explored further in later chapters. The following are key characteristics of Africa's food and agricultural trade.

FIGURE 4. AFRICAN IMPORTS AND EXPORTS OF AGRICULTURAL PRODUCTS



Source: FAOSTAT, 2011

[1] Both COMTRADE and FAO sources agree on the same figure with slight discrepancies.

African food imports composed mainly of cereals and livestock products

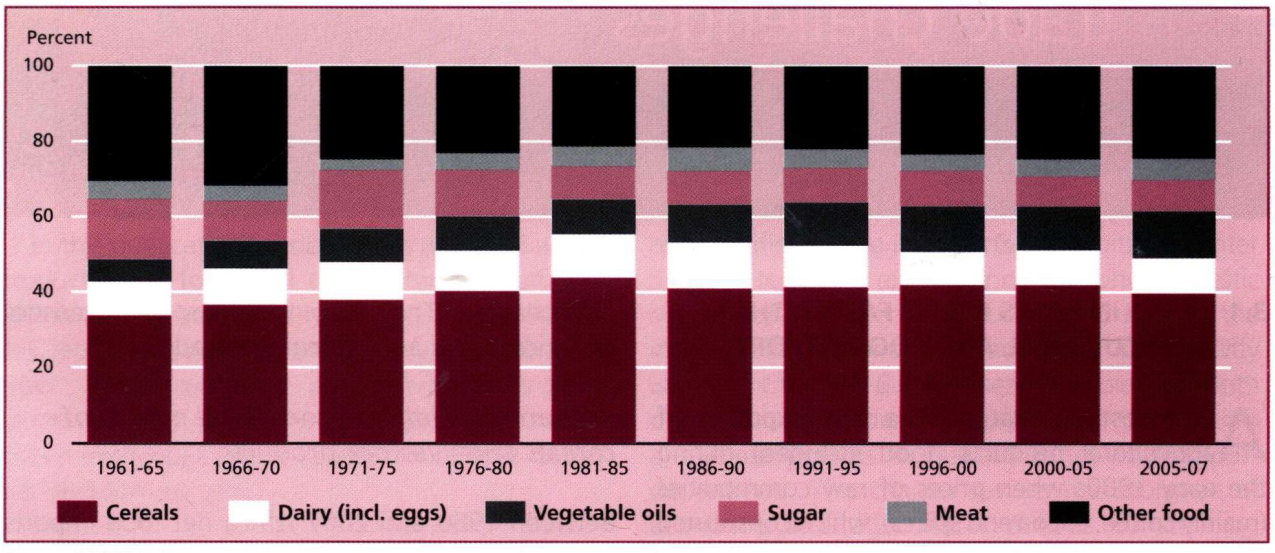
Between 1980 and 2007 Africa net food imports in real terms grew at an average 3.4 percent per year (FAOSTAT 2011), and it may be asked 'what fuelled this rise in agricultural and especially food imports?' Data show (as presented earlier in Figure 2) that carbohydrate, the primary staple, is the main driver of this growth and also constitutes the bulk of African food imports. This is confirmed in the Figure 5 showing that cereals alone are the largest commodity imports. Although the composition of food imports varied slightly from period to period, cereals (including rice, maize, and wheat), and livestock products (dairy and meat) represented at least 50 percent of Africa total food imports. Imports of cereals and livestock products peaked at nearly 60 percent of total food imports in the early 1980s but have slightly declined thereafter. The value of sugar and vegetable oil imports has remained at about 20 percent of total imports.[2]

Sluggish and concentrated agricultural exports

Compared with the fast growing food imports, Africa's agricultural exports have not increased much (as shown in Figure 4). Moreover, Africa as a continent has not managed to diversify much its agricultural and food exports since the 1960s. The composition of Africa's agricultural exports between 1961 and 2007 described in Figure 6 shows that despite the efforts in recent years to include 'non-traditional' export products (such as flowers, semi-processed fruits and vegetables and textile products), the traditional exports (coffee, cocoa, tea, and spices) along with beverages and

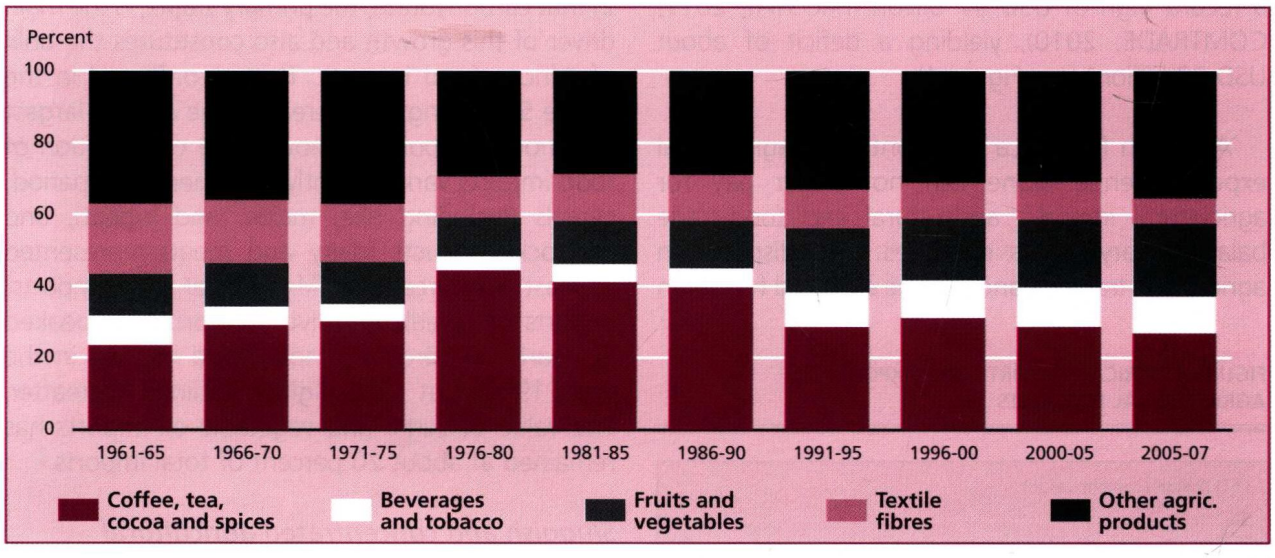
[2] See Annex 2 for cereal import values in real terms.

FIGURE 5. COMPOSITION OF AFRICA FOOD IMPORT VALUES



Source: FAOSTAT, 2011

FIGURE 6. COMPOSITION OF AFRICA AGRICULTURAL EXPORT VALUES



Source: FAOSTAT, 2011

tobacco still cover an important share (35 percent in 2006-07) of agricultural exports and remain the largest components of food exports (tobacco aside).[3] Since 2000, the shares of these traditional export products have slightly fallen, slowly giving way to fruits and vegetable exports. These are average figures for the continent, so the actual export composition varies across countries. There are countries (e.g. Kenya) where the 'non-traditional' export commodities such as fruits and vegetables and flowers have become the backbone of agricultural exports. It is also important to note that cereals are among Africa's other main agricultural exports but cereals' export shares have been fluctuating. However, as it is discussed in section 3.2, most of the cereal exports are for markets within Africa, while exports of fruits and vegetables, as well as coffee, cocoa, and spices, are for markets outside the continent mostly.[4]

[3] Annex 2 shows the relative net export shares of some agricultural commodities.

[4] Also, most of the processed food produced in Africa remained in the continent and was not traded with the rest of the world.

Agricultural exports no longer the main source of foreign currencies

African agricultural exports as a fraction of total merchandise exported have fallen sharply over the years indicating that the revenues from other export categories (e.g. apparel and textile, fisheries, mining, oil) have risen steadily (Table 1). Between 1960 and 2007, the share of agricultural exports out of total merchandise exports fell from 42 percent to less than 6 percent. The falling share has been mostly pronounced in West Africa. This is perhaps due to the rise in export of fossil oil and minerals as well as the rise in textile export under free export processing zones in that region.

3.2 LOW LEVELS OF AGRICULTURAL TRADE BOTH WITHIN AFRICA (INTRA-TRADE) AND BETWEEN AFRICA AND THE REST OF THE WORLD (EXTERNAL TRADE)

In general, the values of agricultural imports to and exports from Africa are only small portions of the world's total agricultural trade. For instance, between 2005-2007, African agricultural imports and exports each represented less than 5 percent of the world's agricultural imports and exports (Figure 7). The dismal performance of African agricultural trade reflects the high levels of internal and external trade barriers despite the continent's vast agricultural potential.

The level of African intra-trade in agriculture and food products is low in comparison with its total trade volume. According to COMTRADE (2010) data (Table 2), between 2004-2007 only one-fifth of African food exports stayed in Africa, whereas 88 percent of Africa's total agricultural imports originated from outside the continent. However, the share of intra-trade of food over the total food trade varied greatly among commodities and was high in some cases. Cereals, live animals, meat, and dairy products were the most intra-exported food products, representing 67, 61, 58 and 55 percent respectively out of Africa's total export of these products. Conversely, 92 percent of the exports of fruits and vegetables, 90 percent of coffee, cocoa, and tea, and 89 percent of spice went outside the continent. Likewise, the most intra-imported products were coffee, cocoa, and tea (41 percent in total), and spices (29 percent). While some African countries have been importing their cereals, oils and fats, and dairy products from other African countries, such intra-imports have remained less that 10 percent of Africa's total imports for these products; the rest, about 90 percent, has to be imported from outside the continent, especially from North America and from Europe. Africa's main agricultural import origins and export destinations have been the European Union and Asia (see chart in Figure 8), especially China, India, and Japan.

It is noted that official trade statistics may not include some cross-border trade, especially on live animals and some basic foodstuff. These figures should be interpreted cautiously.

3.3 PAYMENT OF FOOD IMPORT BILLS

Food insecurity challenges

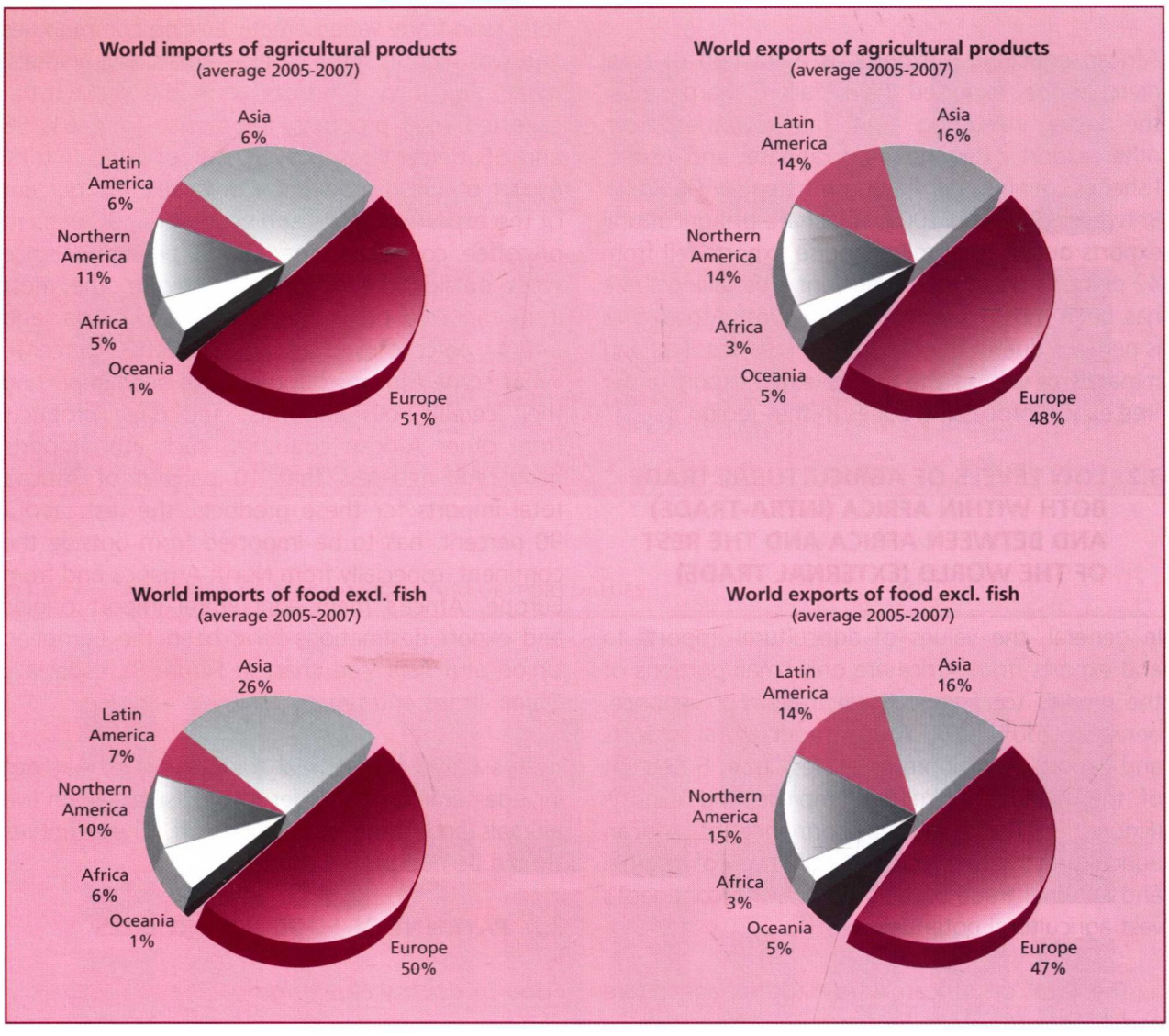
Food insecurity issues in Africa are treated in other reports (e.g. State of Food Insecurity, FAO 2010) but the present report highlights only how food import dependency is linked to food security for

TABLE 1. SHARE OF AFRICAN AGRICULTURAL EXPORTS IN TOTAL EXPORTS

Region	Share of agricultural exports in total merchandise exports						
	1961-70 Avg	1971-80 Avg	1981-90 Avg	1991-00 Avg	2001-05 Avg	2006	2007
Africa	0.423	0.222	0.140	0.124	0.091	0.065	0.058
Eastern Africa	0.500	0.542	0.542	0.464	0.366	0.361	0.300
Middle Africa	0.437	0.265	0.138	0.066	0.031	0.014	0.015
Northern Africa	0.401	0.133	0.062	0.062	0.042	0.029	0.029
Southern Africa	0.266	0.189	0.088	0.087	0.078	0.063	0.058
Western Africa	0.614	0.234	0.199	0.171	0.147	0.110	0.083

Source: FAOSTAT, 2011

FIGURE 7. SHARES OF AFRICAN AGRICULTURAL AND FOOD IMPORTS



Source: FAOSTAT, 2010

Africa. The yearly average figures on the world's undernourished population in Table 3 show that, between 2005-2007, while Africa's population represented only about a seventh of the world's population it hosted about one-fourth of the world's undernourished. During the same period, Africa's undernourished made up about one-fourth of its total population, and they lived mostly in Sub-Saharan Africa. These alarming food insecurity figures have remained almost unchanged (though the proportion of the undernourished declined slightly since 1990-92) and highlight the severity of the food security challenge that Africa is still facing.

Similarly, the figures on cereal and meat consumption in Tables 4(A), 4(B) and 5, offer a glimpse of how some African regions' basic food consumption is far behind that of the rest of the world. The lowest apparent consumption (or utilization) per capita is in Central Africa for cereals (with just less than one-fourth of the world's average)[5] and in Central, Eastern and Western Africa consumption of meat is the lowest (less than one-third of the world's average).

However, it is noted that actual cereal for human consumption for Africa is just slightly below the world's average and is particularly high in North Africa (Table 4(B)).

[5] These numbers are called 'apparent' consumption (or utilization) since they are estimated as the difference between supply (production and import) and export, assuming that there is no change in the stock. They may include other items such as feed for animals.