MARKET STUDY OF FRUIT AND VEGETABLES FROM SUB-SAHARAN AFRICA

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COLEACP

The Europe-Africa-Caribbean-Pacific Liaison Committee (COLEACP) is a private sector association of companies, associations and experts from African, Caribbean and Pacific (ACP) and European Union (EU) countries committed to sustainable agriculture. COLEACP's mission is to develop an inclusive and sustainable trade in agricultural and food products (particularly fruit and vegetables), primarily within the ACP States and between these countries and the EU. COLEACP has been a forerunner for 45 years of a new model of collective social responsibility, combining global reflection and local action for the benefit of the ACP-EU fruit and vegetable sector by focusing on the development of human capital. COLEACP is committed to combining economic, social and environmental transition in order to lay the foundations for new partnerships within agri-food value chains.

Since its creation, COLEACP has been managing development cooperation programmes in the ACP agriculture and food sector. COLEACP's two main programmes currently being implemented are Fit For Market and Fit For Market SPS, funded by the Agence Française de Développement (AFD) (Fit For Market) and the EU (both programmes) in agreement with the Organisation of African, Caribbean and Pacific States (OACPS). Fit For Market and Fit For Market SPS are part of the Intra-ACP Indicative Programme (2014-2020) for cooperation between the EU and the ACP Group of States (now the OACPS). They form part of EU support for medium- and long-term policies aimed at strengthening productive capacity, stimulating innovation, and improving the sustainability and competitiveness of the ACP private sector. The overall objective of the two programmes is to contribute to poverty reduction, improve food security and food safety, and achieve sustainable and inclusive growth by strengthening the ACP agri-food export sector. The specific objective is to enable smallholders, farmers' groups and organisations and micro, small and medium-sized enterprises (MSMEs) to access national and international horticultural markets by complying with sanitary and phytosanitary (SPS) standards and market requirements, in a sustainable framework.

Since the launch of Fit For Market (2016) and Fit For Market SPS (2019), COLEACP has received nearly 900 requests for support from companies and private/public actors representing the collective interests and diversity of challenges facing the agri-food industry in ACP countries. The volume and frequency of requests for support addressed to COLEACP demonstrate the growing needs, but also the dynamism of the sectors in these countries in domestic, regional and international markets. COLEACP individually or collectively supports all these actors in improving their managerial, technical and educational skills with the objective of improving their competitiveness through the adoption of sustainable practices.

In addition to its intra-ACP activities, COLEACP also manages national programmes (Cameroon, Guinea, Togo) in sub-Saharan Africa financed by the Standards and Trade Development Facility (STDF). The main objective of these programmes is the strengthening of SPS control systems in agricultural value chains. COLEACP started a new national programme in May 2020: NExT Kenya. It is funded by the European Union and is implemented in collaboration with the EU Delegation in Nairobi. It aims to increase the resilience, inclusiveness and sustainability of Kenya's horticultural value chains.

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EXECUTIVE SUMMARY

Sub-Saharan African agriculture and food: there are many challenges, but structural change is under way, particularly in the fruit and vegetable sector

Over the past 30 years Africa has been a net importer of agricultural products, and the continent still faces multiple threats and weaknesses. But Africa also has many assets to successfully transform its agriculture: its human resources and its youth in particular; 25% of the global landscape suitable for the cultivation of plants that can stimulate the continent's development and feed its population; current technologies that enable farmers to use water, plant protection products and fertilizers in a much more efficient and environmentally sustainable manner; a favourable macro-economic context with, in particular, the creation of an African Continental Free Trade Area that demonstrates Africa's political will to combine the continent's economic growth with the strengthening of inter- and intraregional trade. The growth in purchasing power, demographic vitality and consumer concerns in terms of health and nutritional quality also represents a great development opportunity for micro, small and medium-sized enterprises (MSMEs) in African countries active in the agricultural sector, particularly in the fruit and vegetable sectors. Moreover, the emergence of new distribution channels and marketing opportunities for higher value-added products processed locally are routes to sustainable development for these MSMEs.

It is against the backdrop of this structural change in sub-Saharan Africa, and with the desire to draw on evidence and "facts on the ground", that COLEACP's Market Intelligence department decided in 2017 to launch a study of the fruit and vegetable market in sub-Saharan Africa. The main objective is to gain a better understanding of trade dynamics and marketing trends at the national, regional and international levels, and specifically to identify the most promising value chains for the actors in agricultural processing in Africa and, in particular, for the millions of small entrepreneurs and family farms represented by fruit and vegetable producers in sub-Saharan Africa.

This market study of fruit and vegetables in Africa identifies the opportunities

In light of this economic context and the results of our work, this first market study of fruit and vegetable value chains in sub-Saharan Africa demonstrates the following key sectoral and market facts.

- Regardless of the geographical scope of the market considered, demand for fresh and processed fruit and vegetables is increasing everywhere, constituting a buoyant market for suppliers who know how to meet the demand and are able to seize the many opportunities.
- The historical export market for fruit and vegetables from sub-Saharan Africa – the European Union – has not been the primary or most dynamic market in terms of volume growth for several years now. East Asia and sub-Saharan Africa itself, with average annual growth rates of around 10% over the past 15 years, have become the leading and most promising markets.
- However, the European Union remains an attractive export market because of the good value of fruit and vegetables from sub-Saharan Africa.
- New fruit and vegetable export markets for sub-Saharan Africa have clearly emerged (Middle East, Russia, Switzerland, etc.).
- The marketing of fruit and vegetables from sub-Saharan Africa is diversified at both sectoral (value chains) and geographical levels. However, greater diversification in the number of actors and the number of products traded can mean better integration and greater resilience. Thus, alongside

the marketing of large volumes of bananas and cashew nuts to the EU and East Asia, respectively, avocado, mango, coconut, fresh and dried vegetables, roots and tubers, and melons and watermelons are all promising market segments for major exports. While Niger onions, processed tomatoes and fruit juices are experiencing strong market growth at the regional and local levels, the market for other fruits and vegetables is growing rapidly.

- The dynamism of fruit and vegetable exports from sub-Saharan Africa varies between regions and member countries. In particular, it still depends on the historical performance of traditionally large exporters, such as South Africa for the Southern African Development Community (SADC) or Kenya for the East African Community (EAC). This should not obscure less well-known or more recent "success stories", such as those of Senegal to the EU, Niger at the intraregional level, or East African countries to the Middle East.
- Trade in fruit and vegetables within sub-Saharan Africa (intracontinental or interregional) is increasing steadily and sharply. This reflects a dynamic supply-and-demand situation. Trade within sub-Saharan Africa is growing much more quickly than trade with and to the EU, with an average growth rate over the period 2002–2017 of 10.3% compared to 1.1% for the EU but 9.6% for Asia (by volume terms). The SADC, dominated in terms of trade by South Africa, is the largest exporter among the four Regional Economic Communities (RECs) studied.
- Intraregional trade in fruit and vegetables in SADC is currently by far the largest among the RECs examined in this report. However, the growth of intraregional trade within SADC is relatively slow (about 3% per year) compared to its trade with external regions (13% per year). Despite regional integration, as in the case of other RECs, intraregional trade is still constrained by, among other things, tariff and non-tariff barriers and lack of logistics infrastructure.
- In national markets, and for each of the 20 sub-Saharan African countries studied in detail at this stage, by aggregating the results of the country analyses we have been able to confirm that opportunities are many and varied. Each fruit or vegetable value chain is at a different stage of maturity. In particular, note the numerous potentialities for processed fruits and vegetables (fruit juices, cassava flour, canned vegetables, processed tomato, dried fruits, cashew nuts, etc.).

These are all opportunities for sustainable markets if the obstacles to their development continue to be removed or overcome. These are all challenges for COLEACP and its partners: developing skills, disseminating knowledge and know-how on a larger scale for all actors in the value chains, with the emphasis on added value (processing), while improving access to markets, particularly local markets. This is the purpose of this market study, which provides a springboard for future work which must, in a current context of uncertainties related to COVID-19 but also opportunities demonstrated by this research, continue to produce strategic information for stakeholders in the development of the fruit and vegetable sector, and more broadly the agri-food sector, in sub-Saharan Africa.

INTRODUCTION

The notion that Africa is destined to remain poor is still all too common, and seems to be based mostly on sentiment. But the facts speak for themselves. Over the past 60 years, sub-Saharan African countries have managed to reduce their child mortality rates faster than many European countries have ever done in their history. So why doesn't this appear to be a success story? Probably because while some things are getting better, too many things are still going wrong. Especially in terms of the extreme poverty that still exists on the African continent, and particularly in the agricultural sector, which still employs a large majority of the population. But in Europe, China and Korea, too, a few decades ago, extreme poverty was still very much present[1].

Sub-Saharan Africa's agriculture and food continues to face many challenges

Over the past 30 years, Africa has been a net importer of agricultural products and has been overly dependent on imports, due in particular to growing urban demand, weak infrastructure and inefficient agricultural practices. This exposes much of Africa to a significant risk of exposure to global economic shocks.

Sub-Saharan Africa has thus faced (and still faces) multiple threats and weaknesses: global challenges (conflicts, terrorism, climate change, access to water and land, urban and international migration); aggressive competition on international and African markets; continuously changing standards and requirements of buyers on these markets; poor local logistics infrastructure; electricity supply limiting the cold chain; very limited access to credit for small businesses; and limited capacities and skills of economic actors in relation to the requirements, needs and economics of the markets.

These challenges are all the more important in the context of the global COVID-19 pandemic, which has halted the international economy and will continue to disrupt it.

But a structural change is under way

Africa contains 25% of the world's landscape suitable for growing plants, which has the potential to stimulate the continent's economic development and feed its population. Innovation and technology adoption can also enable farmers to use water, plant protection products and fertilisers much more efficiently, significantly reducing operating costs while also being more environmentally sustainable.

1 Based on *Factfulness*, by Hans Rosling, Flammarion Publishing, February 2019.

The signing of the agreement to create an African Continental Free Trade Area on 21 March 2018 demonstrates Africa's political will to link the continent's economic growth to the strengthening of inter- and intraregional trade. At the same time, the new Africa–EU Alliance for Sustainable Investment and Employment, launched under the Juncker Presidency of the European Commission, defines, in a spirit of partnership, a series of key actions to stimulate strategic investments, strengthen the role of the European and African private sector, and invest in human resources through education and skills. In this context, the European Commission has created the Task Force for Rural Africa. The Task Force's recommendations on sharing African and European expertise, integrating intraregional trade, promoting sustainable models and improving access to finance for MSMEs fed into the third ministerial conference between the African Union and the European Union, which took place in Rome on 21 June 2019. This high point between the two Unions marked their commitment to strengthen their partnership in the agricultural sector, and in particular to support new trade opportunities on the continent through the promotion of sustainable agricultural models, facilitate access to the European market, and collaborate on SPS issues, in line with the statements made by the African Union's Commissioner for Agriculture, Josefa Sacko, at the Addis Ababa summit in February 2020.

The growth in purchasing power in sub-Saharan Africa in particular, the demographic vitality, and concerns about health and nutritional quality among both European and African consumers represent a great development opportunity for MSMEs in African countries (including small family farms) active in the fruit and vegetable sectors. Moreover, the emergence of new distribution channels and marketing opportunities for higher value-added products processed locally are routes to sustainable development for these MSMEs.

Especially in the fruit and vegetable sector, which is rich in opportunities that this study seeks to identify

It is against the backdrop of this structural change under way in sub-Saharan Africa, and with the desire to draw on evidence and "facts on the ground", that COLEACP's Market Intelligence department decided in 2017 to launch a study of the fruit and vegetable market in sub-Saharan Africa in parallel with a study of European market trends. The main objective is to gain a better understanding of trade dynamics and marketing trends at national, regional and international levels and, as a specific objective, to identify the most promising value chains for the actors in agricultural processing in Africa and, in particular, for the millions of small entrepreneurs and family farms represented by fruit and vegetable producers in sub-Saharan Africa.

A study report, the result of a collective and iterative work

The task was neither simple nor easy, in particular because of the inconsistent availability of statistics and the share of informal and therefore unrecorded trade. Our working method combined two approaches, quantitative and qualitative, and three levels of analysis: global, regional and national. For the record, the first PhD student recruited to work on data collection and analysis was a Malagasy agricultural engineer. We later learned that he had taken e-learning courses at COLEACP as part of his university course in Madagascar! We thank him for his work. And since then, also all those who contributed in one way or another to the study: COLEACP staff, local consultants based in sub-Saharan Africa, and students, as well as the International Food Policy Research Institute (IFPRI), which gave us access to its statistical data.

This report is the fruit of a collective work of processing, analysing and putting quantitative and qualitative data into

perspective. We will endeavour to take into account any constructive observations that may contribute to the continuous improvement of this work carried out in the service of stakeholders in the development of the fruit and vegetable sector in sub-Saharan Africa.

The study report is divided into two parts:

- Part 1 comprises this study of international, inter- and intraregional markets for fresh and processed fruit and vegetables from sub-Saharan Africa;
- Part 2 presents fruit and vegetable sector profiles for 20 sub-Saharan African countries.

Part 1 may also be published in hard copy, available on request to COLEACP members and partners. Part 2 is available in digital form via the COLEACP e-services website and the corresponding country websites.

In addition, following the example of COLEACP's "Overview and opportunities of the European market for fruit and vegetables of ACP origin", we plan to update Part 1 of this study every two years. At the same time, the data will be regularly updated and made available on COLEACP's e-platforms.

Today, the total volume of fruit and vegetables marketed on local and regional markets by ACP companies supported by COLEACP is greater than the volume exported to the EU by these same companies. This is an illustration of what is happening in the fresh and processed fruit and vegetable market, particularly in sub-Saharan Africa. In parallel with the relatively higher increase in exports of African horticultural products to export markets outside the European Union (Asia), the continental market is growing (including and excluding South Africa). This is what you will discover in more detail in this study report.

01

BACKGROUND, OBJECTIVES AND METHODOLOGY OF THE STUDY

01

1.1. Background and objectives of the study

This study of the fruit and vegetable market in sub-Saharan Africa (SSA) was carried out by COLEACP's Market Intelligence department. It is the result of a collective work involving COLEACP management and team members, COLEACP network consultants based in SSA, and African and European students. It was designed and implemented within the framework of the Fit For Market programme[2].

The study was produced with the aim of gaining a better understanding of the economic and marketing reality of the fruit and vegetable market in the SSA countries, and to adapt COLEACP's support strategies in this area in line with market trends.

This is a first edition, and this work will be the subject of a continuous improvement process. It is planned that the document will be updated every two years, while each country profile will be available and regularly updated via country websites with restricted access for COLEACP programme stakeholders.

This work aims to serve the economic actors in the development of the horticultural sector in sub-Saharan Africa, whether from the private or public sector.

Any constructive comments on the results of this study that will contribute to its continuous improvement are welcome and can be sent to market-intelligence@coleacp.org.

2 The Fit For Market programme is financed by the European Union at the request of the ACP Group of States and co-financed by the French Development Agency.

1.2. Methodology

Methodological approach

The methodology adopted is based on two complementary approaches, quantitative and qualitative, and on three levels of analysis: international (intercontinental or global), regional (by major economic region of SSA), and national (country or local).

The quantitative approach used international trade statistics provided by the International Food Policy Research Institute (IFPRI) research centre, which were reworked by the authors.

IFPRI was identified as a partner to enable us to access the most reliable quantitative macroeconomic data possible on the international trade of fresh and processed fruits and vegetables. Convinced of the interest of the study and its innovative character – fruit and vegetables (F&V) have been the subject of few publications compared to other agricultural commodity chains such as cereals or animal commodity chains – IFPRI provided us with this access. We would like to thank them again. We also hope that our own work on the detailed analysis and cleaning of their data up to 6 digits of the international nomenclature will be of value to them.

The quantitative data presented in graph and table form include all fresh, frozen, dried and processed (F&V) fruits and vegetables of classes 07, 08 and 20 of the Harmonized Commodity Description and Coding System (FAO and IFPRI/Comtrade[3] list). Nuts are included in class 08. However, this study does not include oils from F&V, cereals, herbs, spices, or cocoa, coffee and tea, which all belong to other classes of the Harmonized System.

The qualitative data on fresh and processed F&V correspond to the main existing and potential value chains in sub-Saharan African countries according to suppliers in local and international markets known to COLEACP and its network of partners (members and non-members of the association). The information covers both exported products and locally traded fruit and vegetables.

3 https://unstats.un.org/unsd/tradekb/Knowledgebase/50018/Harmonized-Commodity-Description-and-Coding-Systems-HS

Figure 1: *The 49 African states included in this report and referred to as SSA.*
Source: http://intra-acp-map.acp.int

Geographical coverage of the study

Sub-Saharan Africa for the purposes of this report includes the following African states and partners of the European Union:

Angola, Benin, Botswana, Burkina Faso, Burundi, Cape Verde, Cameroon, Central African Republic, Chad, Comoros, Republic of the Congo, Côte d'Ivoire, Democratic Republic of the Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Eswatini, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Democratic Republic of the Congo, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda, São Tomé and Príncipe, Senegal, Seychelles, Sierra Leone, Somalia, South Sudan, Sudan, Tanzania, Togo, Uganda, Zambia, Zimbabwe.

South Africa has been excluded from SSA in most of the analyses here because of its relatively very large trade flows in fruit and vegetables compared to other sub-Saharan African countries. Otherwise, it would hamper the analysis of trends and potential of other countries.

Moreover, historically South Africa has had different partnership agreements with the EU from other SSA countries. Furthermore, South Africa is not currently eligible for COLEACP action in SSA.

The report covers the following trade flows in fruit and vegetables:

- **International/global:** Trade flows of fruit, vegetables and processed F&V products between SSA and other continents or continental areas of the world.
- **At the regional level in SSA**
  - **interregional trade flows** of fruit, vegetables and processed F&V products between four main Regional Economic Communities (RECs) in sub-Saharan Africa or other major regional economic cooperation organisations: the East African Community (EAC); the Economic Community of West African States (ECOWAS); the Southern African Development Community (SADC); and the Economic and Monetary Community of Central Africa (CEMAC, which is not strictly speaking a REC).
  - **intraregional trade flows**: trade flows of fruit, vegetables and processed fruit and vegetable products in each of the four selected regions (CEMAC, EAC, ECOWAS, SADC)
- **At the national level**: trade flows of fruit and vegetables for a selection of 20 countries in sub-Saharan Africa.

At the international level, the major regions considered as trading partners of SSA are based on those defined by the United Nations Statistics Division[4].

The EU-28 designates the 28 Member States of the European Union in 2019: Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, United Kingdom.

4 https://unstats.un.org/unsd/methodology/m49/overview

East Asia refers to Afghanistan, Armenia, Azerbaijan, Bangladesh, Bhutan, Brunei Darussalam, Cambodia, China, Democratic People's Republic of Korea, Georgia, Hong Kong, India, Indonesia, Japan, Kazakhstan, Republic of Korea, Kyrgyzstan, Lao People's Democratic Republic, Macao, Malaysia, Maldives, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan, Tajikistan, Thailand, Timor-Leste, Turkmenistan, Uzbekistan and Viet Nam.

Western Asia (or Middle East) refers to Bahrain, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Oman, the State of Palestine, Qatar, Saudi Arabia, the Syrian Arab Republic, Turkey, the United Arab Emirates and Yemen.

Europe (outside EU28) means the Åland Islands, Albania, Andorra, Bosnia and Herzegovina, Faroe Islands, Gibraltar, Guernsey, Iceland, Isle of Man, Jersey, Liechtenstein, Monaco, Montenegro, Moldova (Republic of), Norway, Russia, San Marino, Serbia, Svalbard, Jan Mayen, Switzerland, Vatican and Ukraine. It should be noted that Belarus was excluded from the analysis for reasons of apparent statistical misrepresentation.

Latin America refers to all American countries from Mexico southward, including the Caribbean and other islands near the southern part of the American continent. **North America** refers to the United States of America and Canada. **North Africa** refers to Algeria, Egypt, Libya, Morocco, Tunisia, Western Sahara, North Africa and the Middle

East. **Oceania** refers to Australia, New Zealand, Papua New Guinea and all other neighbouring small island states.

Volumes and values of flows are presented in tonnes and current (non-constant) dollars, respectively. Values are expressed in current euros when based on Eurostat data. Trends are analysed on the basis of volumes traded.

At the SSA regional level, only four zones have been considered to avoid statistical duplication as some countries belong to more than one regional economic community (see map).

At the national level, the list of countries analysed in this study was restricted mainly for operational reasons. On the one hand, for reasons of timing and accessibility to quantitative data, and on the other hand, for strategic reasons related to the volume of existing or potential COLEACP activities in these 20 priority countries.

It should be noted that the list of the 20 countries selected in this first version of the study is not definitive and will be completed over time.

Study period

The year 2002 was chosen as the starting and reference year for the analysis. The Harmonized Commodity Description and Coding System was updated in that year. Harmonized System classes that were subdivided into new classes due to changes in 2006–07, 2011–12 and 2016–17 were grouped according to the 2002 nomenclature.

We have worked over long statistical periods to identify prospective trends. More specifically, the data analysed mostly cover the following periods, depending on the source:

- Trade with the EU: 17 years (2002–18) (Eurostat data).
- All other exchanges: 16 years (2002–17) (IFPRI data).

We sometimes reduced the study period to 10 years in order to better highlight more recent notable developments (2007/17 or 2008/18 depending on the data source).

The statistical data are regularly updated and are made available to COLEACP's partners online (e.g. via country websites). Thus 2019 data are already available online for trade between SSA and the EU. Comtrade 2019 data are currently being verified and processed by COLEACP for SSA trade with the rest of the world.

OFFICIAL REGIONAL ECONOMIC COMMUNITIES

CEN-SAD:	Community of Sahel-Saharan States
COMESA:	Common Market for Eastern and Southern Africa
EAC	East African Community
ECCAS:	Economic Community of Central African States
ECOWAS:	Economic Community of West African States
IGAD:	Intergovernmental Authority on Development
SADC:	Southern African Development Community
AMU:	Arab Maghreb Union

SUB-REGIONAL AGREEMENTS

CEMAC:	Central African Economic and Monetary Community
SACU:	Southern African Customs Union
UEMOA:	West African Economic and Monetary Union

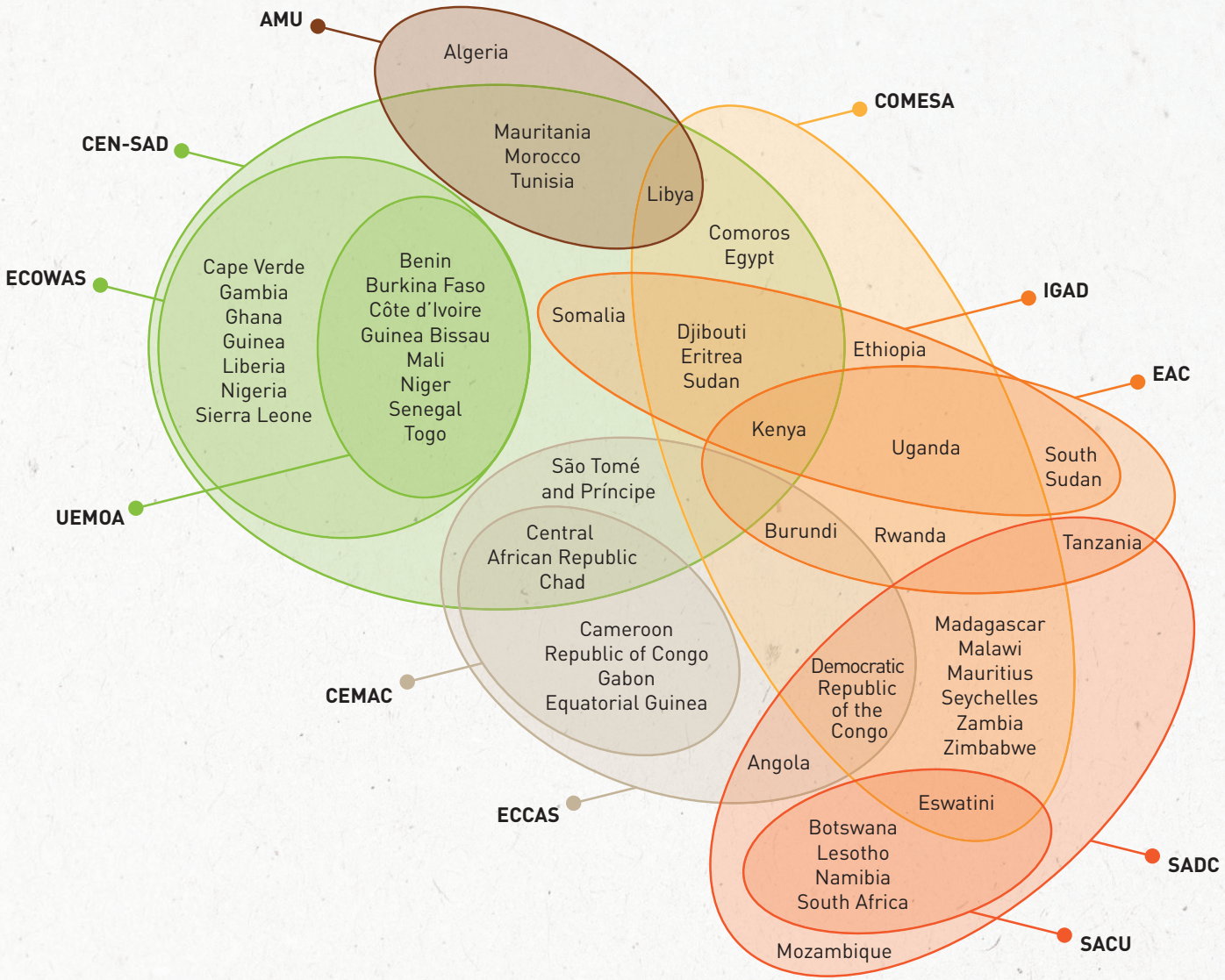


Figure 2: *The "spaghetti bowl" of RECs in Africa.*
Source: www.howwemadeitinafrica.com

02

SUB-SAHARAN AFRICA'S TRADE WITH THE WORLD IN FRUIT AND VEGETABLES

Sub-Saharan Africa's trade with the world in fruit and vegetables

Historically, the European Union (EU) has long been sub-Saharan Africa's main trading partner for fruit, vegetables, and processed fruit and vegetables.

On the *export* side, over 16 years, although the market to EU countries has continued to grow, its share in the total volume of SSA exports has decreased by 27 percentage points from 51% to 24% of export volumes (Figures 3 and 4). Sub-Saharan African exports to East Asia exceeded those to the EU from 2009 onwards (Figure 3).

On the *import* side, imports from sub-Saharan Africa now exceed those of the EU in volume terms (Figure 5).

Thus, while trade with Europe has continued to grow, SSA exports have shifted and accelerated to Asia; intracontinental trade has also grown rapidly.

More specifically, the growth rates of these fruit, vegetable, and processed fruit and vegetable markets over the period are as follows:

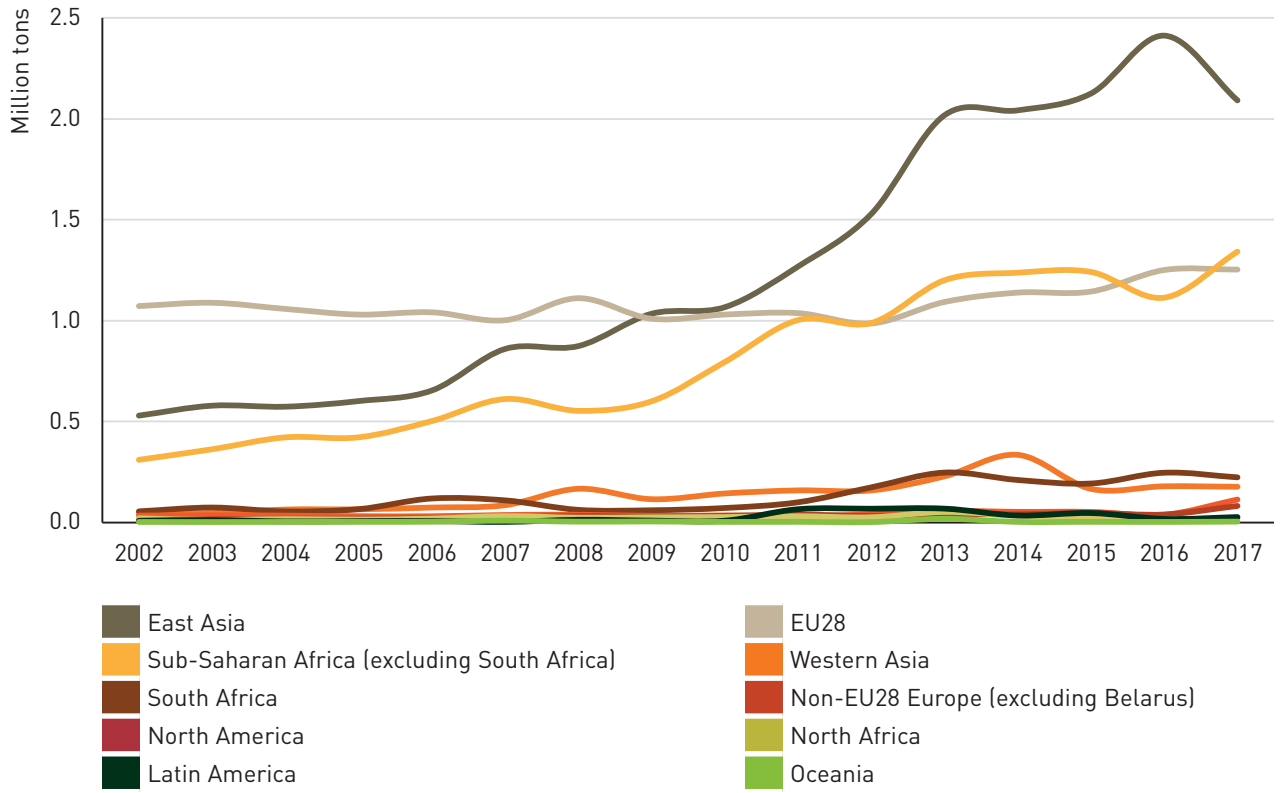
European Union: +1.1%/year

East Asia: +9.6%/year

Sub-Saharan Africa: +10.3%/year

Moreover, the share of intra-SSA imports is probably underestimated because a large part of domestic trade in SSA is still informal and therefore not included in the (national) statistics used.

Figure 3: *Change in exports of fruit, vegetables, and processed fruit and vegetables from SSA to the world between 2002 and 2017 (by volume). Source: COLEACP based on data from IFPRI, EUROSTAT and authors' calculations.*



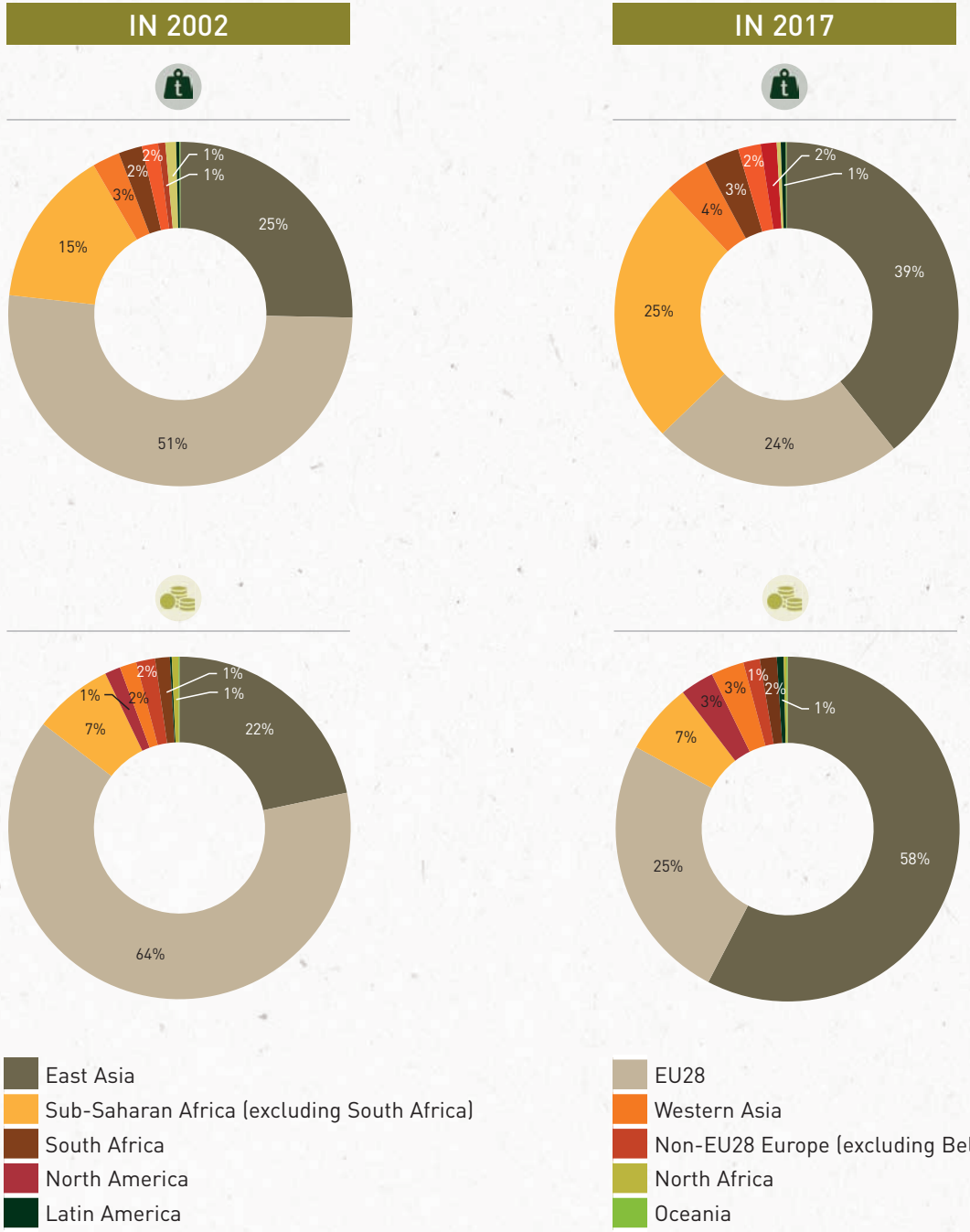


Figure 4: *Change in the shares of the destination markets for exports of fruit, vegetables, and processed fruit and vegetables from SSA between 2002 and 2017 (by volume).*
Source: COLEACP based on data from IFPRI, EUROSTAT and authors' calculations.

Figure 5: *Change in market shares of SSA fruit, vegetable, and processed fruit and vegetable supplier regions between 2002 and 2017 (by value).*
Source: COLEACP based on data from IFPRI, EUROSTAT and authors' calculations.

Even if we consider here current values (not adjusted for inflation), it should be noted that the change in the relative share of export markets for SSA is even more striking than for volumes, since the EU has gone from a dominant position (64%) to a market share of less than a third of SSA exports in value terms. This represents a loss of 39 market share points, while East Asia gained 36 points.

Prospective analysis of SSA trade with the world in fruit and vegetables

Until 2017, the total trade balance between sub-Saharan Africa and Western Asia has been negative, mainly due to the predominance of imports of processed fruit and vegetable products from Western Asia. A change is likely in the future. West Asian countries are mostly importers of fruit and vegetables because their own production is relatively limited. Their interest and investment in sub-Saharan Africa for trade in these products is growing, particularly in neighbouring East African countries such as Eritrea, Ethiopia and Kenya. In addition, local processing of F&V products in sub-Saharan Africa will lead to a reduction in imports from West Asia.

The flows of fresh and processed fruit and vegetables between sub-Saharan Africa and the Middle East indicate a double potential for sub-Saharan Africa: a sectoral potential with the possibility of developing vegetable processing in sub-Saharan Africa; and a geographically close market potential with the continued development of demand for fruit and vegetables in the Middle East.

The EU market (EU27 + UK) will remain attractive because it is growing (trend towards vegetarianism, ethnic foods, and the search for natural, healthy foods) and remunerative for fresh fruit and vegetables, which constitute value chains for SSA whose potential has not been fully expressed (e.g. mango, avocado, sweet potato, organic and ethnic products).

The development of export markets for fruit and vegetables from sub-Saharan Africa with Europe (outside the EU28) has an unrealised potential.
Fruit exports dominate SSA's trade with Europe (outside the EU28). The sharp decline in pineapple exports was offset by increased exports of mangoes and avocados. Mangoes are mainly imported by Switzerland.

Volumes traded are small compared to other export markets, but there is potential for growth. Due to continued EU trade sanctions, Russia could continue to source increasing quantities of fruit and vegetables from sub-Saharan Africa.

Sub-Saharan Africa's persistent negative trade balance with South Africa suggests new opportunities for market development.
Sub-Saharan Africa's exports to South Africa are low and are mainly limited to bananas from Madagascar and citrus fruits from Eswatini and Zimbabwe. The very positive development of South Africa's imports from sub-Saharan Africa, and the range of fruits and vegetables exported by South Africa to sub-Saharan Africa, point to an interesting prospect for the fruit and vegetable sector in sub-Saharan Africa: the possibility of developing local production, especially of vegetables.
Large firms in sub-Saharan African countries import fruit and vegetables from South Africa, whereas they would prefer to source locally but are constrained by the irregular quantity and quality of produce. This is particularly true for Nigeria, the other major economy in sub-Saharan Africa.

Sub-Saharan Africa's fruit and vegetable trade with other continents presents fewer opportunities in the short term.
The very limited logistical connections between Latin America and Africa hamper trade between these two global regions. The development of SSA exports to Latin America is mainly based on nuts. In terms of imports, there has been a strong development of SSA imports of fruits and vegetables from North Africa, mainly fresh produce. This, like trade with South Africa, shows that SSA's demand for fruit and vegetables is not being met by local production. This confirms the development potential of the fruit and vegetable sector in sub-Saharan Africa, provided that supply is competitive and logistically well organised.

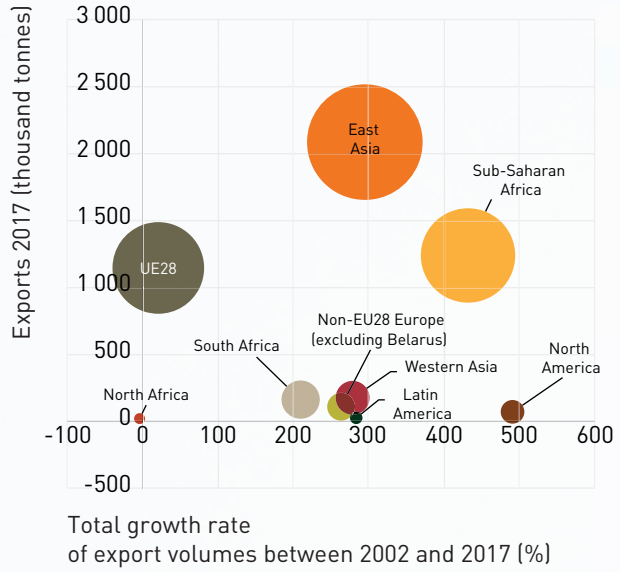


Figure 6: *Growth and relative total volumes of fresh fruit and vegetable exports from SSA (excl. South Africa), within SSA, and to other regions of the world. Bubble size represents the total volume of SSA fruit and vegetable exports for a global region in 2017. Source: COLEACP based on data from IFPRI, EUROSTAT and authors' calculations.*

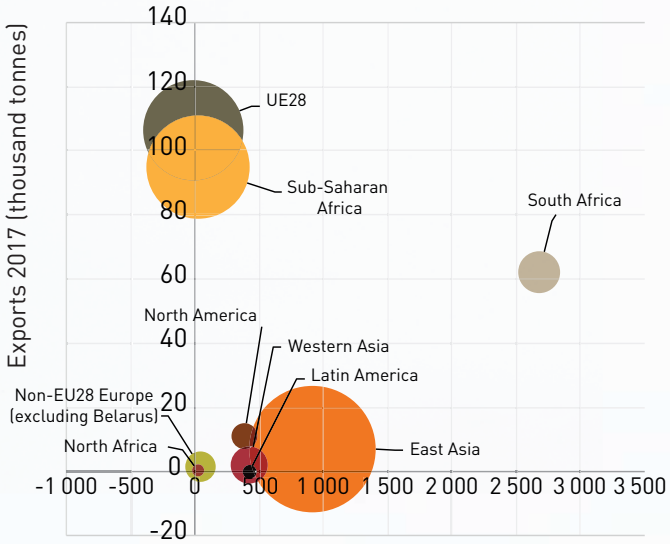


Figure 7: *Growth and relative total volumes of processed fruit and vegetable exports from SSA (excluding South Africa), within SSA, and to other regions of the world. Bubble size represents the total volume of processed fruit and vegetable exports from the region concerned in 2017. Oceania is not included due to the low volume of trade. Source: COLEACP based on data from IFPRI, EUROSTAT and authors' calculations.*

Note: The main fruits and vegetables processed here are peanuts, other nuts, jams, fruit purées and vegetables in brine.

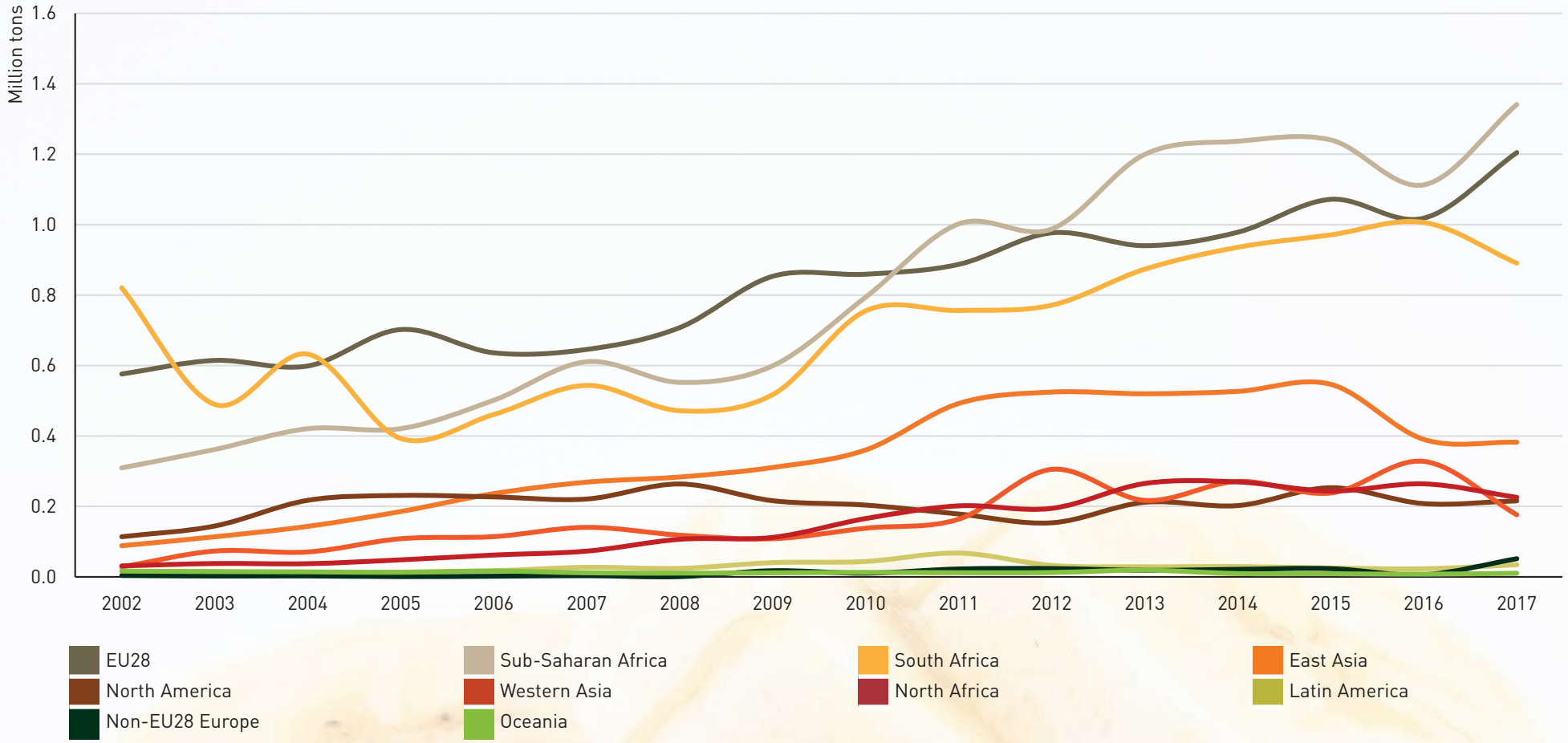
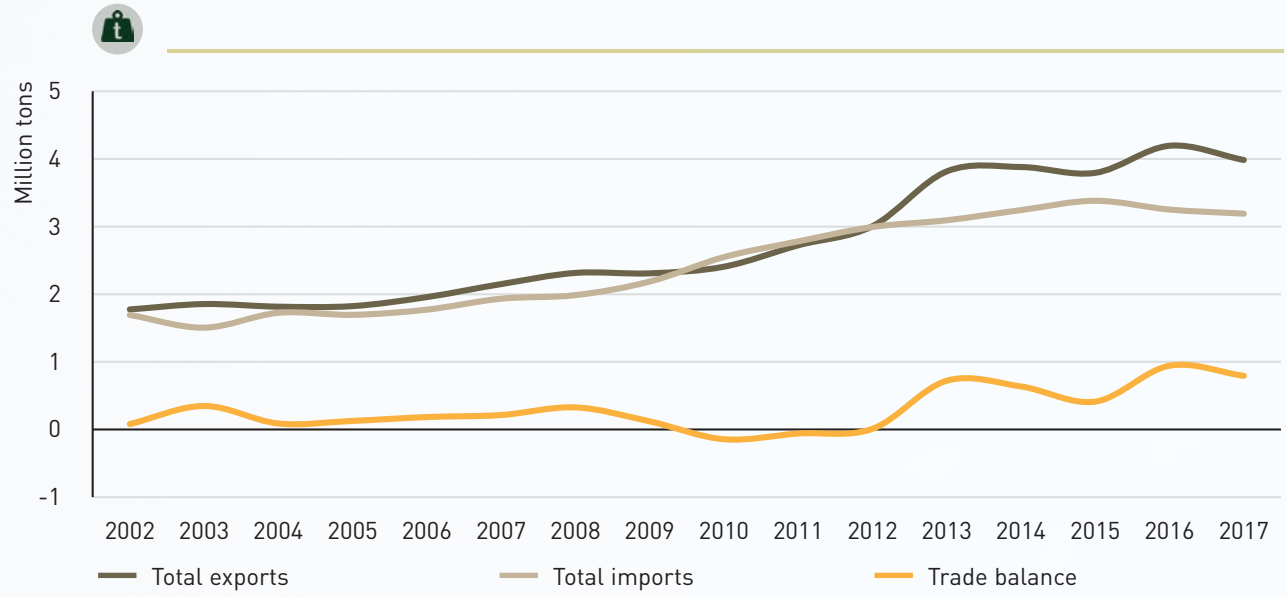


Figure 8: *Changes in SSA imports of fruits, vegetables, and processed fruits and vegetables from the rest of the world between 2002 and 2017 (by volume).*
Source: COLEACP based on data from IFPRI, EUROSTAT and authors' calculations.

Figure 9: *Change in market shares of world regions in SSA supply of fruits, vegetables, and processed fruits and vegetables between 2002 and 2017 (by volume and value).*
Source: COLEACP based on data from IFPRI, EUROSTAT and authors' calculations.



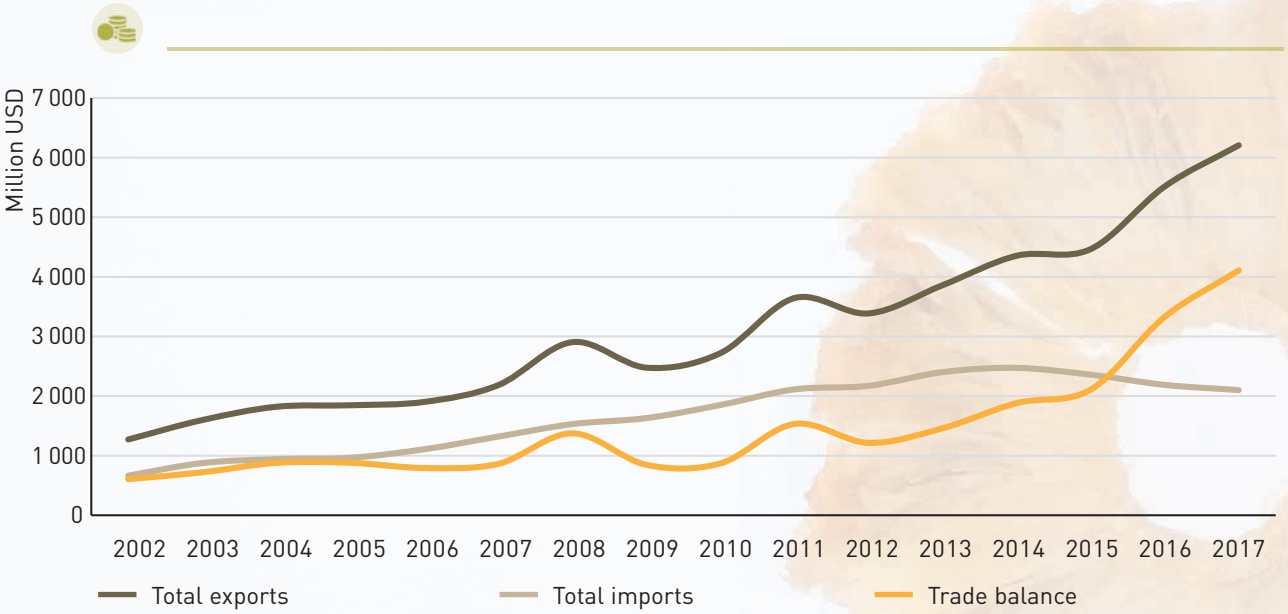


Figure 10: *Trends in trade in fruit and vegetables, and processed fruit and vegetables, between SSA and other regions of the world, 2002 to 2017 (volume and value).*
Source: COLEACP based on data from IFPRI, EUROSTAT and authors' calculations.

03

SUB-SAHARAN AFRICA'S TRADE WITH THE EUROPEAN UNION IN FRUIT AND VEGETABLES

03

Sub-Saharan Africa's trade with the European Union in fruit and vegetables

3.1. Evolution of SSA fruit and vegetable exports to the EU

The total quantity of fruit, vegetables, and processed fruit and vegetable products exported from SSA to the EU has increased by an average of 1% per year since 2002 (Figure 11). The total volume increased from 1 071 352 tonnes in 2002 to 1 270 995 tonnes in 2018, a total growth of 19% over 17 years, and a compound annual growth rate (CAGR[5]) of 1.1%.

Since 2002, there have been two major phases in the development of the European export market from SSA: a phase of stability or even decline until 2012, and a phase of steady market growth since then, particularly for fresh fruit and vegetables.

This recent trend can be explained by the growing European demand for fresh fruit and vegetables (healthy, sustainable, easy-to-eat products) and by an African supply that has been able to respond to the changing requirements and expectations of the EU market, even if these are becoming more complex from year to year in terms of both official sanitary and phytosanitary regulations and private standards.

The relatively slower growth rate of exports to the EU compared to other export markets such as East Asian countries is mainly due to:

- a more mature European market;
- a highly competitive European market, led particularly by the Latin American countries in the fruit and vegetable sector;
- less restrictive Asian markets in terms of access conditions.

5 CAGR: $CAGR(t_0,t_n) = \left(\frac{V(t_n)}{V(t_0)}\right)^{\frac{1}{t_n-t_0}} - 1$

$V(t_0)$ is the initial value, $V(t_n)$ is the final value and $t_n - t_0$ is the number of years.

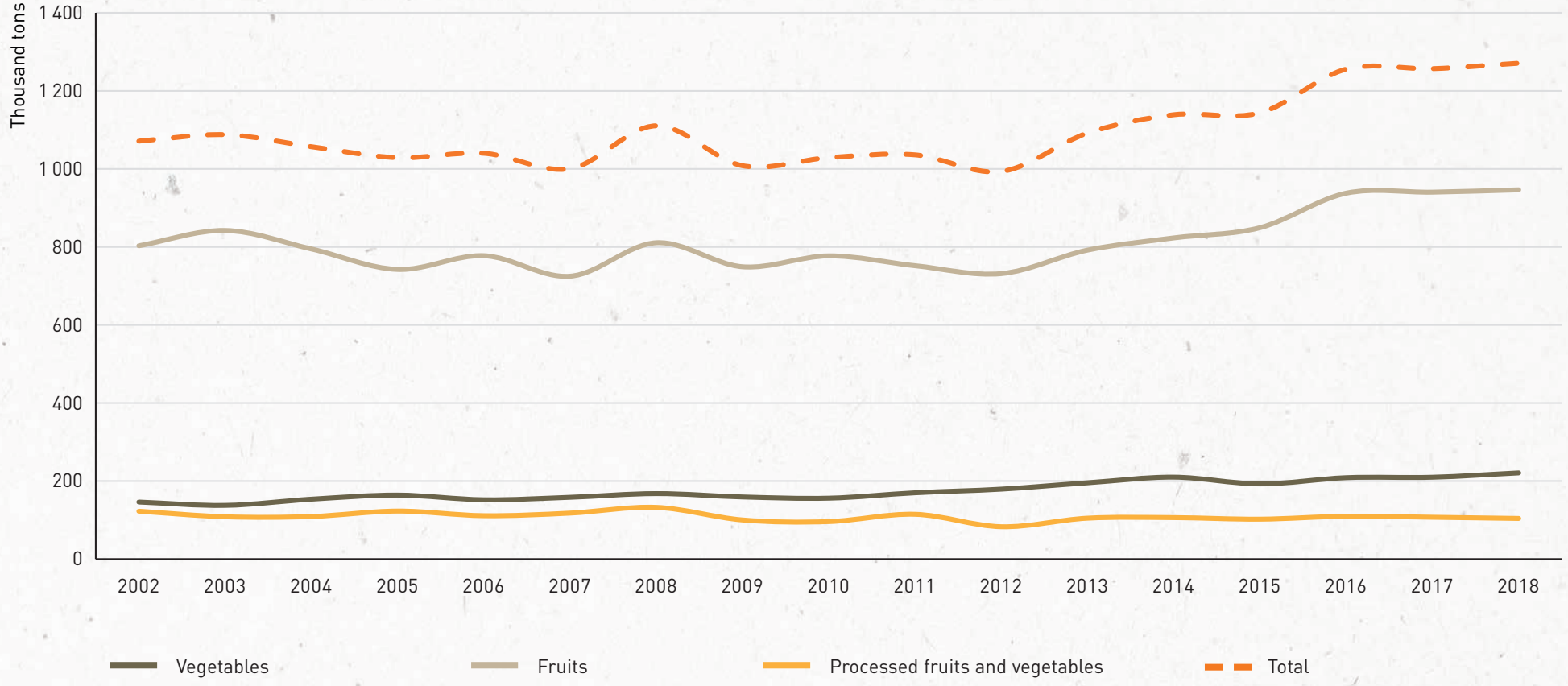


Figure 11: *Trends in exports of fruit, vegetables, and processed fruit and vegetables from SSA (excluding South Africa) to the EU between 2002 and 2018 (by volume).*
Source: COLEACP based on EUROSTAT data and authors' calculations.

Trends in exports of fruit and vegetables other than bananas

Over the period 2002–2018, export volumes of SSA bananas to the EU grew relatively faster than for other fruits and vegetables.

Looking back over the past 10 years, it is also notable that since 2008 non-banana fruit and vegetable exports to the EU have been growing steadily.

Recent developments in the trade of fresh fruit and vegetables to the EU reflect the dual positive effect of a growing demand, and an African supply that has been able to respond to market requirements.

Technical assistance such as that provided by COLEACP through its PIP, EDES and Fit For Market programmes, funded by the European Union and the French Development Agency, has contributed to this positive development.

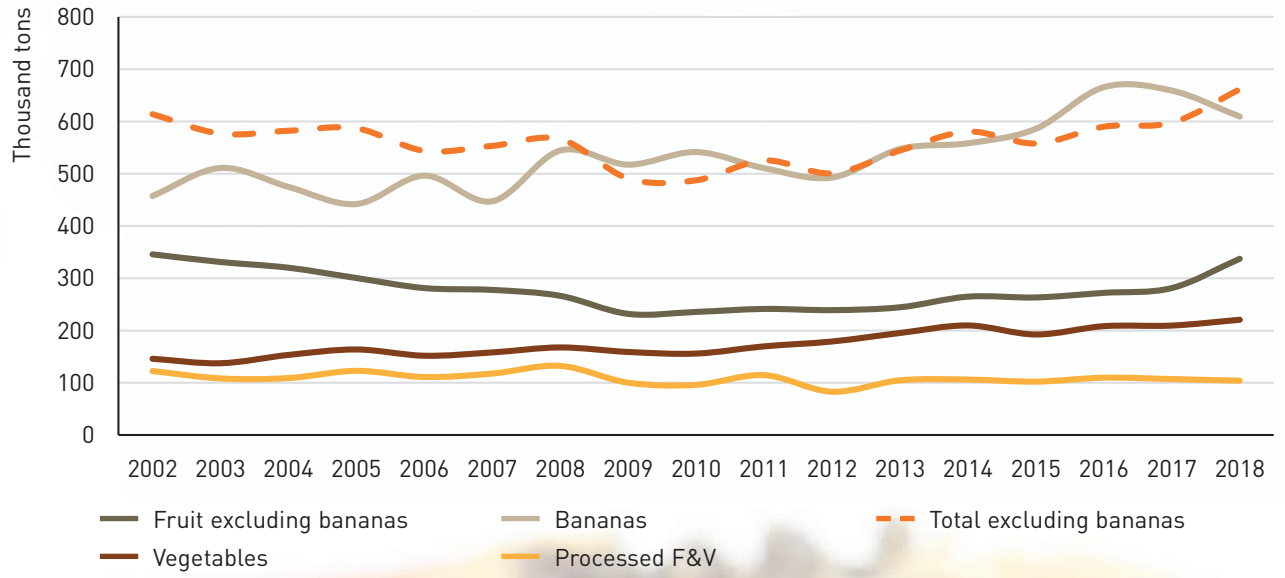


Figure 12: *Trends in exports of bananas, fruit (excluding bananas), vegetables, and processed fruit and vegetables from SSA (excluding South Africa) to the EU between 2002 and 2018 (by volume)*
Source: COLEACP based on EUROSTAT data and authors' calculations.

Evolution of SSA exports to the EU in value terms

As an indication, the total value of fruit, vegetables, and processed fruit and vegetable products exported from SSA to the EU has increased by an average of 3% per year since 2002 (Figure 13). The total value has increased from €927 million in 2002 to €1.5 billion in 2018, a total growth rate of 66% over 17 years, with a CAGR of 3%. However, these growth rates are only indicative, as comparisons between total values in current prices are not adjusted for inflation.

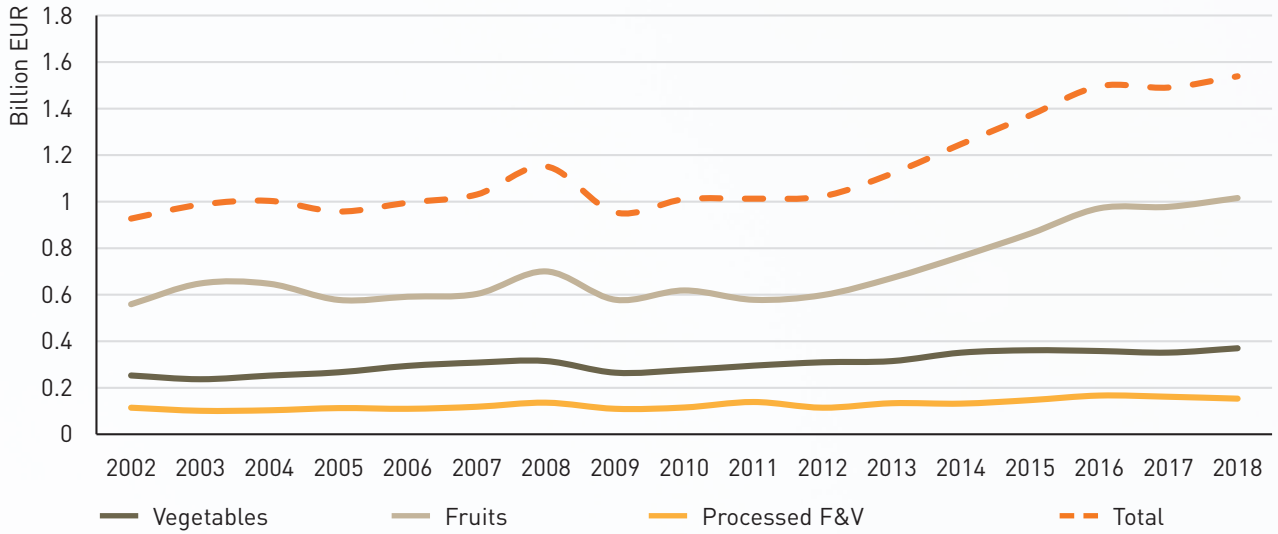


Figure 13: *Evolution of exports of fruit, vegetables, and processed fruit and vegetables from SSA (excluding South Africa) to the EU between 2002 and 2018 (value: current EUR, not adjusted for inflation). Source: COLEACP based on EUROSTAT data and authors' calculations.*

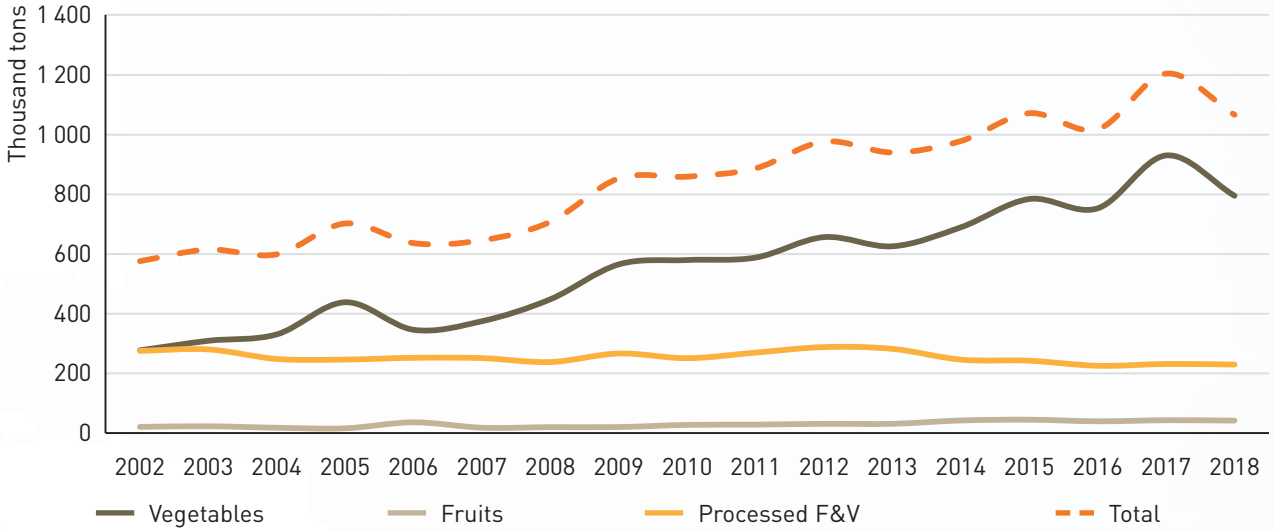


Figure 14: *Trends in imports of fruit, vegetables, and processed fruit and vegetables from SSA (excluding South Africa) from the EU between 2002 and 2018 (by volume). Source: COLEACP based on EUROSTAT data and authors' calculations.*

3.2. Evolution of SSA imports from the EU

The SSA import market for fruit and vegetables from the EU grew faster over the period than the SSA export market to the EU. The total quantity of fruit, vegetables, and processed fruit and vegetable products imported into SSA from the EU has thus increased by an average of 4% per year since 2002 (Figure 14). The total volume increased from 575 708 tonnes in 2002 to 1 066 538 tonnes in 2018, a total growth of 85% over 17 years and a CAGR of 4% per year.

The steady growth of sub-Saharan African vegetable imports from Europe raises the question of the competitiveness of local production compared to imported vegetables. We will see later that this is the case for vegetables, mainly onions and potatoes. There is probably a window of opportunity to develop these value chains locally, subject to sufficient returns and investment.

3.3. Evolution of the trade balance between SSA and the EU28

The following are seen very clearly:

- A negative SSA–EU trade balance in volume terms for vegetables, and positive for fruit (bananas). Corresponding deficit and surplus increase over the years.
- Structural deficits in processed fruit and vegetables as well as in vegetables, which illustrate the potential for developing higher value-added sectors in SSA.

In value terms, the economic trade balance of all fruit, vegetables, and processed fruit and vegetable products between SSA and the EU has increased positively for SSA by an average of 3% per year since 2002 (Figure 16). Even though comparisons between total values in current prices are not adjusted for inflation, while the SSA trade balance with the EU in volume terms appeared negative, it is positive in value terms.

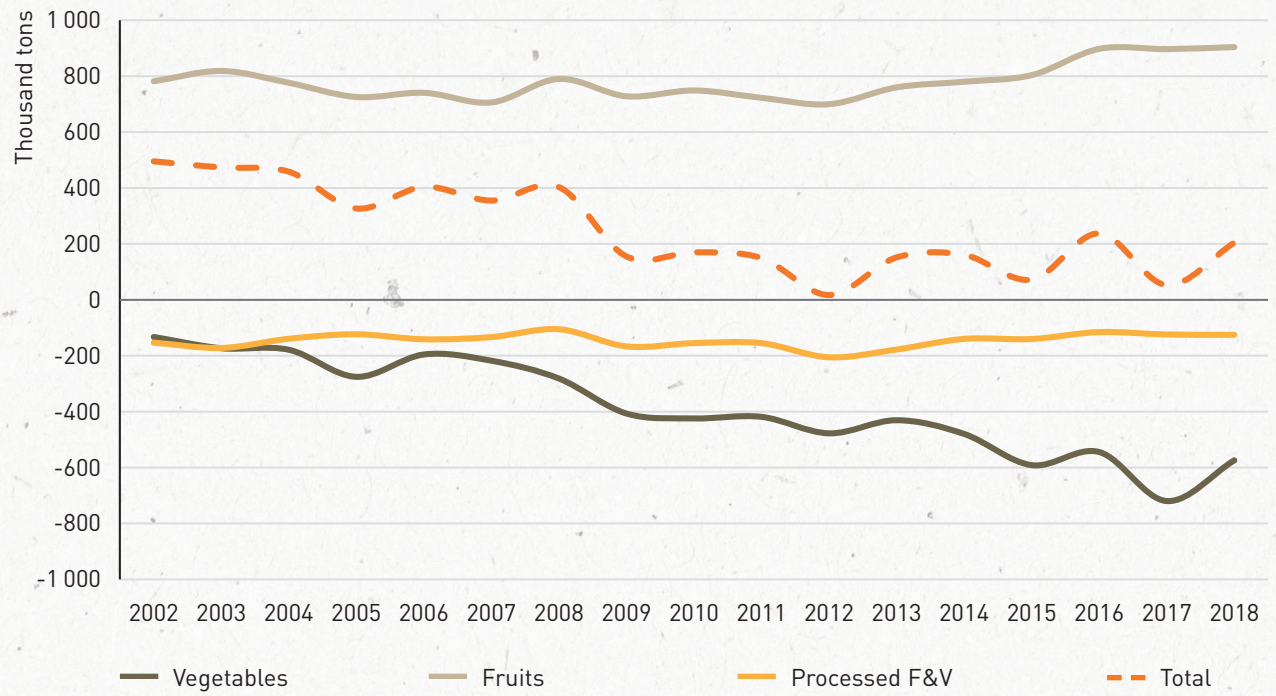


Figure 15: *Balance of trade in fruit, vegetables, and processed fruit and vegetables between SSA (excluding South Africa) and the EU, 2002 to 2018 (by volume).*
Source: COLEACP based on EUROSTAT data and authors' calculations.

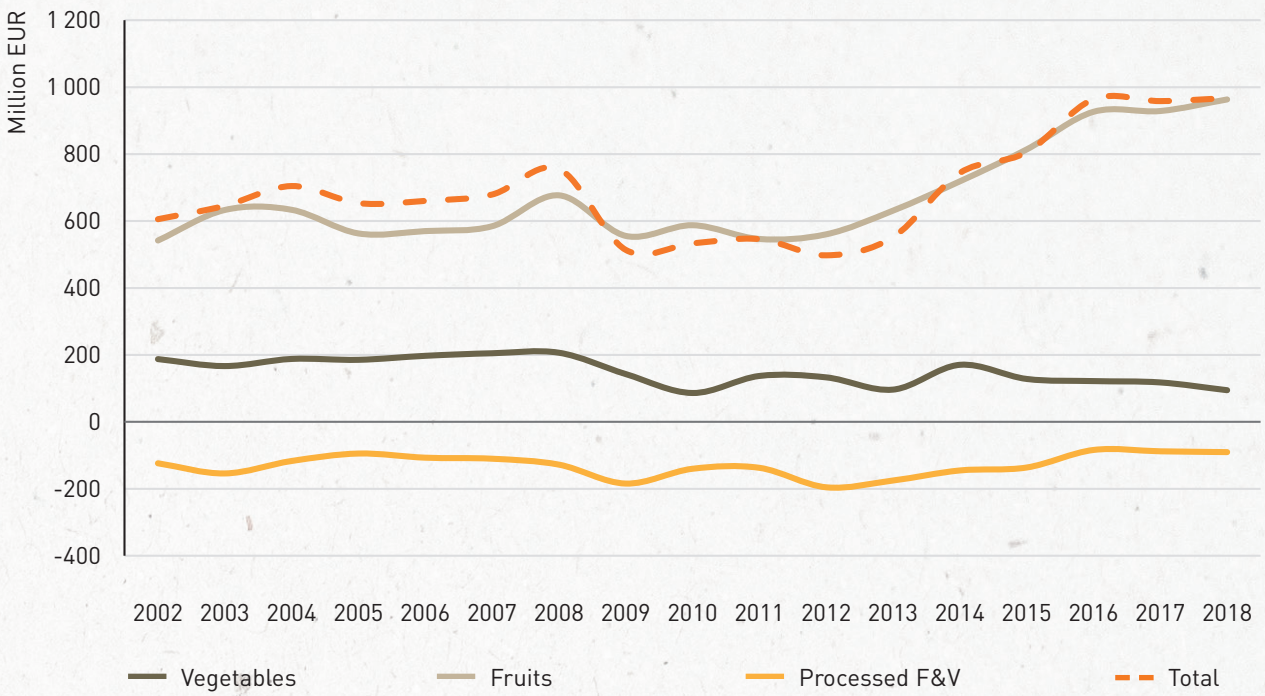


Figure 16: *Evolution of the trade balance in fruit, vegetables, and processed fruit and vegetables between SSA (excluding South Africa) and the EU, between 2002 and 2018 (value: current EUR, not adjusted for inflation).*

The interplay of market constraints and opportunities in the EU seems to have been more in favour of a steady growth of sub-Saharan African countries' exports to the EU, thus far.

In the future, SSA–EU trade in fruit and vegetables will be mainly influenced by the following.

Sub-Saharan African supply side:

- the level and intensity of investment in equipment and innovation in SSA countries, and hence access to finance for SSA SMEs, which are the lifeblood of sub-Saharan African horticulture;
- the continuous improvement of agricultural practices, allowing for the sustainable intensification expected to meet the growth in demand[6];
- the business environment and the capacity, in particular of the competent authorities, to provide a sanitary and phytosanitary framework for SSA export production to the EU market.

EU demand side:

- the evolution and level of import constraints in the EU (SPS regulations, private standards, impacts of Brexit, etc.);
- changes in consumer behaviour towards imported fruit and vegetables. Fruit and vegetables in general will continue to benefit from a growing demand among Europeans who want to include more of them in their diet. However, this structural trend could be slowed down by the pressure of "locavorism" among new generations of consumers.

6 This is what COLEACP's technical assistance programmes (e.g. Fit For Market, STDF) are all about.

The importance of rationalising communication in Europe on imports of agricultural products from sub-Saharan African countries

Although no longer the key sub-Saharan African trading partner it has historically been in the fruit and vegetable sector, the EU remains a major destination for the development of fruit exports (not only bananas), and thus for the millions of producers, employees and families that these value chains represent.

Since horticultural export chains have been a factor in the modernisation of the agricultural sector[7] in sub-Saharan Africa over the past 15 years, any curb on fruit and vegetable imports to Europe is likely to have a major impact on the development and economy of the corresponding supplier countries.

In a context of global media coverage of the negative impacts of global warming, food imported in and/or out of season is getting less and less attention – especially in Europe. Imported foods are becoming the subject of political and socio-behavioural policy trends that increasingly encourage localism and make importing "guilty".

Why are such trends unfair, and ultimately more dangerous for the balance of the planet – for Europe in particular – than importing food such as fruit and vegetables from developing countries into the EU?

1. Agriculture is recognised as the sector that will enable Africa to feed itself, to feed the world by 2050, and to lift its hundreds of millions of people out of extreme poverty. Between 50% and two-thirds of Africa's population still get their living from agriculture and are based in rural areas.

7 Based on evaluations and audits of COLEACP's PIP and EDES programmes.

3.4. Sub-Saharan Africa's main fruit and vegetable exporting countries to the EU

Historically, the main exporters from sub-Saharan Africa to Europe are Côte d'Ivoire and Cameroon, with bananas traditionally being the first fruit traded. They are followed by countries such as Kenya, Ghana and Senegal, which export a more diversified range of fresh and processed products (Figure 17).

If bananas are excluded, Kenya becomes the main exporter to the EU in terms of volume. Côte d'Ivoire is still in second place, but Cameroon is no longer in the top 10 (Figure 18).

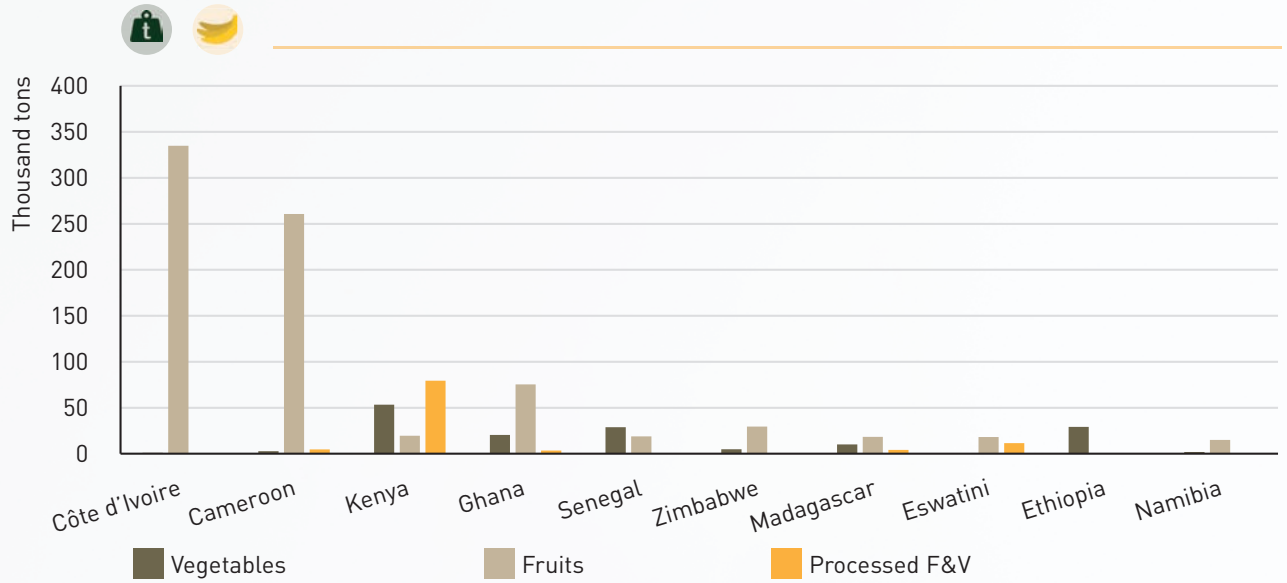


Figure 17: *Top 10 SSA countries (excluding South Africa) exporting fruit, vegetables, and processed fruit and vegetables to the EU (based on average annual export volumes between 2002 and 2018).*
Source: COLEACP based on EUROSTAT data and authors' calculations.

2. If agriculture continues to modernise and develop in a sustainable way, it will increasingly offer jobs and decent employment to its people, thus creating a virtuous circle of retention of young people in rural areas and curbing desperate migration to cities in Africa and the shores of other continents.
3. Agricultural export chains continue to be factors in the modernisation of local and regional chains and sources of better income for producers. Exports are a source of transfer of knowledge and know-how on good agricultural practices for crops destined for local markets.
4. Developing or emerging countries in sub-Saharan Africa are not the ones that have polluted, and are polluting, the planet the most with their environmental footprints. There is so much individual and collective behaviour to change, especially in Europe, before tackling import sectors such as fruit and vegetables, where countries, value chains and companies are beginning to emerge economically by adopting sustainable practices.

In terms of impact on the environment, the diversity of trends and policy recommendations does not allow us to assert that they systematically present a better environmental balance, particularly with regard to energy consumption and greenhouse gas emissions.

Hence the importance of supporting these sectors on the European market among consumers with a different and innovative discourse, so that they perceive the civic and sustainable dimension of buying fruit and vegetables imported from sub-Saharan Africa.

This is one of COLEACP's new objectives, alongside the technical support it has been providing for more than 15 years, at the request of fruit and vegetable chains in sub-Saharan Africa down to the smallest producers and in a sustainable framework.

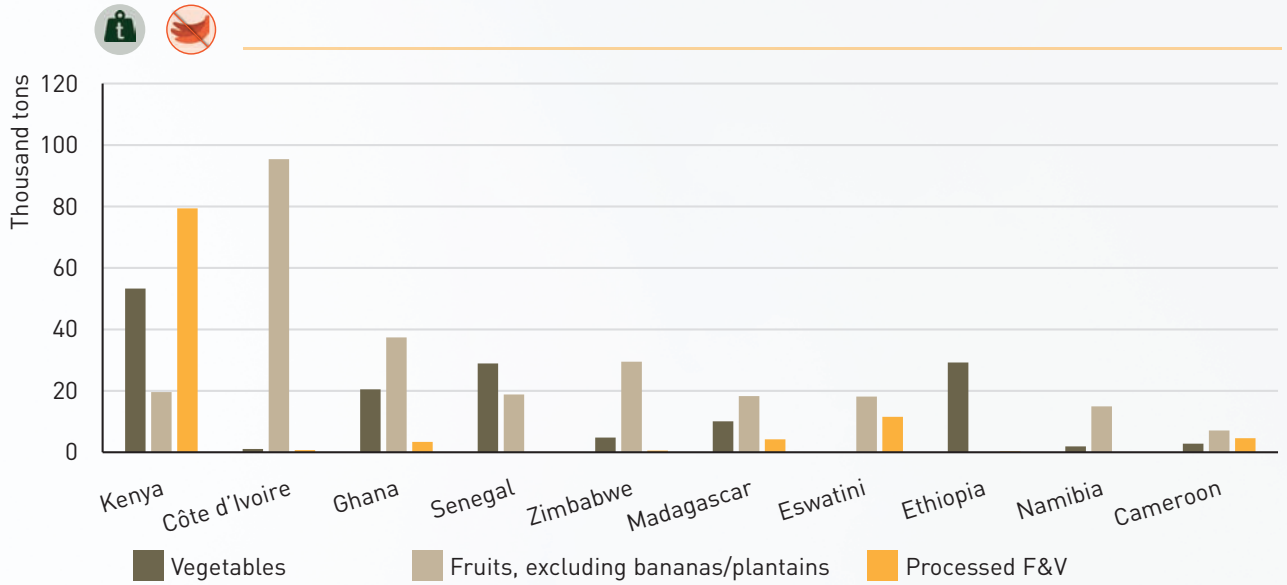


Figure 18: *Top 10 SSA countries (excluding South Africa) exporting fruit (excluding bananas), vegetables, and processed fruit and vegetables to the EU (based on average annual export volumes between 2002 and 2018).*
Source: COLEACP based on EUROSTAT data and authors' calculations.

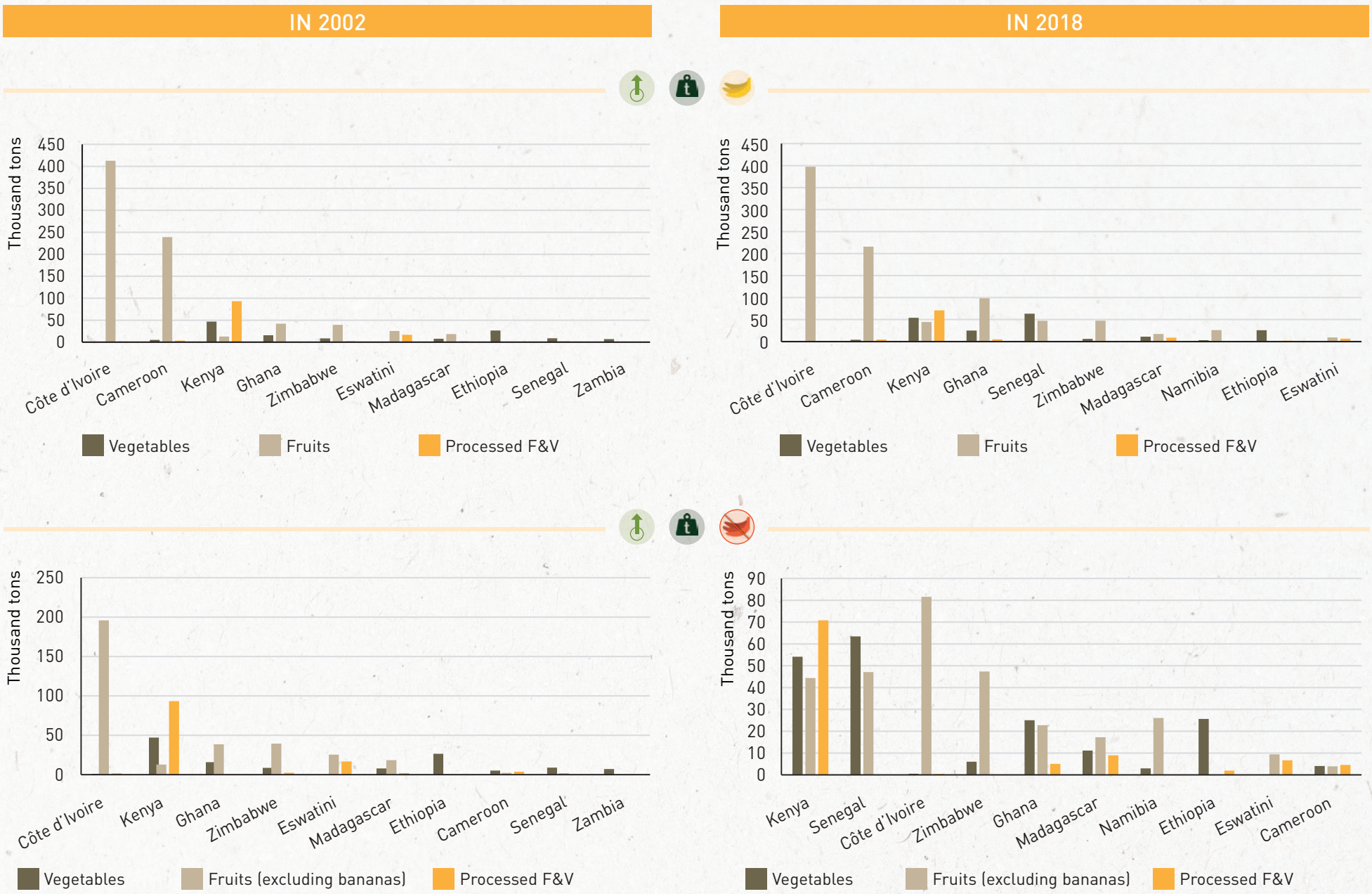


Figure 19: *Trends in the top 10 SSA countries (excluding South Africa) exporting fruit, vegetables, and processed fruit and vegetables to the EU between 2002 and 2018, with and without bananas (by volume). Source: COLEACP based on EUROSTAT data and authors' calculations.*

Over the period, the main highlights are as follows:

- The fruit and vegetable export landscape from SSA to the EU has remained broadly similar over the past 15 years;
- Senegal has emerged in the top five SSA supplier countries to the EU;
- Kenya and Senegal are emerging as efficient suppliers of non-banana fruit and vegetable exports.

3.5. Main product developments in the SSA–EU trade in fruit and vegetables

For fruit, downward trend in SSA exports to the EU seen in the 2000s turned into an increase around 2010 due to a steady growth in banana exports, the leading export fruit in volume terms, and a strong development of other exports such as mangoes, avocado, coconut, melon and watermelon (the main fruits exported in 2018), which compensated for the fall in pineapple exports due to the explosion of exports of the MD2 variety from Central America to the EU28.

The volumes of pineapple and orange still exported come mainly from Côte d'Ivoire/ Ghana and Zimbabwe/Eswatini, respectively.

Grapes exported from SSA to the EU come exclusively from Namibia.

MAIN FRUITS EXPORTED FROM SSA TO THE EU	VOLUME 2018 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2008 AND 2018
Banana	609 400	1.9%
Mango	66 700	8.2%
Avocado	53 000	10%
Grape	25 800	10.8%
Coconut	24 000	6.8%
Melon	18 000	20%
Watermelon	14 400	83.6%
Pineapple	45 500	-9%
Orange	43 700	-0.5%

Figure 20: *Main fresh fruits exported from SSA (excluding South Africa) to the EU in 2018 (volume and CAGR). Source: COLEACP based on EUROSTAT data and authors' calculations.*

In addition to the volume effects, other market developments in the recent evolution of SSA fruit exports to the EU are more niche, namely export development for:

- fruits from organic farming, in particular mangoes, papayas and limes, as well as exotic small fruits;
- dried fruits;
- pineapples exported by plane, and specific varieties such as the Victoria pineapple from Mauritius, Sugar Loaf from Benin and Togo, or the Baronne of Guinea.

Sub-Saharan African countries import mainly temperate fruits from the EU. Apples account for more than half of all fruit imported by SSA (21 600 tonnes in 2018). Despite some successful tests in local production, apple production is not managing to take off even though demand continues to increase. Oranges, grapes and pears are the other fruits imported by SSA from the EU.

For vegetables, the main notable trends in SSA exports to the EU are as follows:

- the fresh pea and green bean markets are mature in both volume and value;
- vegetables and ethnic roots are no longer niche markets, but volume and developing markets;
- new markets have taken off such as broccoli and cauliflower (Kenya), sweet corn (Senegal) and sweet potato.

The EU market continues to be attractive to vegetable exporters from SSA, not only for historical exporters such as Kenya, but also for others that have emerged in recent years such as Senegal (in volume terms) and more recently smaller exporters such as Rwanda.

Fresh "ethnic" vegetables (okra, bitter melon, African spinach, etc.) and fresh roots and tubers (yam, cocoyam, orchid tubers, Jerusalem artichokes, etc.) are also increasingly exported to the EU. This is linked both to demand from the African diaspora, and also the growing interest in ethnic foods in Europe.
Today, roots and tubers are no longer limited to ethnic shops and restaurants, with large supermarket chains including them in their product range. As with other fresh ethnic vegetables, export volumes of ethnic roots and tubers to the EU from sub-Saharan Africa have doubled in the past 10 years.

MAIN VEGETABLES EXPORTED FROM SSA TO THE EU	VOLUME 2018 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2008 AND 2018
Green beans	50 500	0.1%
Ethnic vegetables (other than roots and tubers)	38 100	9.5%
Other ethnic roots and tubers	30 200	6.7%
Sweet corn	26 500	19.1%
Tomatoes (cherry)	10 700	1.9%
Dry peas*	8 800	20%
Cauliflower, broccoli	6 500	51.8%
Onion, shallot	6 200	11.5%
Sweet potato	6 000	11.7%
Dry beans	34 800	–0.3%
Fresh peas	12 600	–2.6%
Peppers	4 500	–5.7%

** Pisum sativum plus cowpeas, chickpeas, pigeonpeas etc.*

Figure 21: *Main fresh vegetables exported from SSA (excluding South Africa) to the EU in 2018 (volume and CAGR). Source: COLEACP based on EUROSTAT data and authors' calculations.*

Sub-Saharan Africa's vegetable imports from the EU continue to grow and are dominated by two commodities: onions (over 500 000 tonnes) and potatoes (over 200 000 tonnes). Rapid population growth and urbanisation in sub-Saharan Africa are fuelling demand at a higher rate than local supply. Europe's large-scale and technologically advanced production makes imports competitive. It should be noted that this is sometimes due to dumping by some EU exporters because of difficulties in other third country markets, for example as a result of Russian trade sanctions or uncertainties over Brexit. West African countries are the leading destinations for European onions in SSA, with Senegal leading the way, followed by Côte d'Ivoire, Guinea and Mauritania. The technological gap between European and local producers leads to strong competition with imported onions such as those from the Netherlands.

Potatoes and onions thus constitute two investment avenues to be explored in the future development of local production and marketing chains in sub-Saharan Africa, in fresh and also in processed products. The potato value chain has undergone significant local development in Guinea, where COLEACP is currently developing a specific programme with STDF[8].

It should also be noted that imports of potato seed by SSA from the EU have exploded over the past 10 years to reach today a volume of 36 500 tonnes with a CAGR 2008–2018 of +12.3%.

Trade in processed fruit and vegetables between sub-Saharan Africa and the EU remains relatively very small compared to the considerable size of the global processed fruit market, and is generally in decline.

The main trends are:

- On the export side, SSA to the EU:
  - the steady decrease in volumes of processed pineapple exported to the EU, consistent with the fall in the marketing of fresh pineapple, although pineapple juice (in bulk) seems to be holding up or even growing;
  - the increase in exports of prepared beans, which reach more than 40 000 tonnes in 2018 (Kenya, 31 473.5 tonnes; Madagascar, 7384 tonnes).
- On the import side, SSA from the EU:
  - the gradual and steady decline of the first processed product traditionally imported by SSA from the EU, namely processed tomato (tomato concentrate);
  - increased imports of frozen potatoes;
  - an increase in fruit juices.

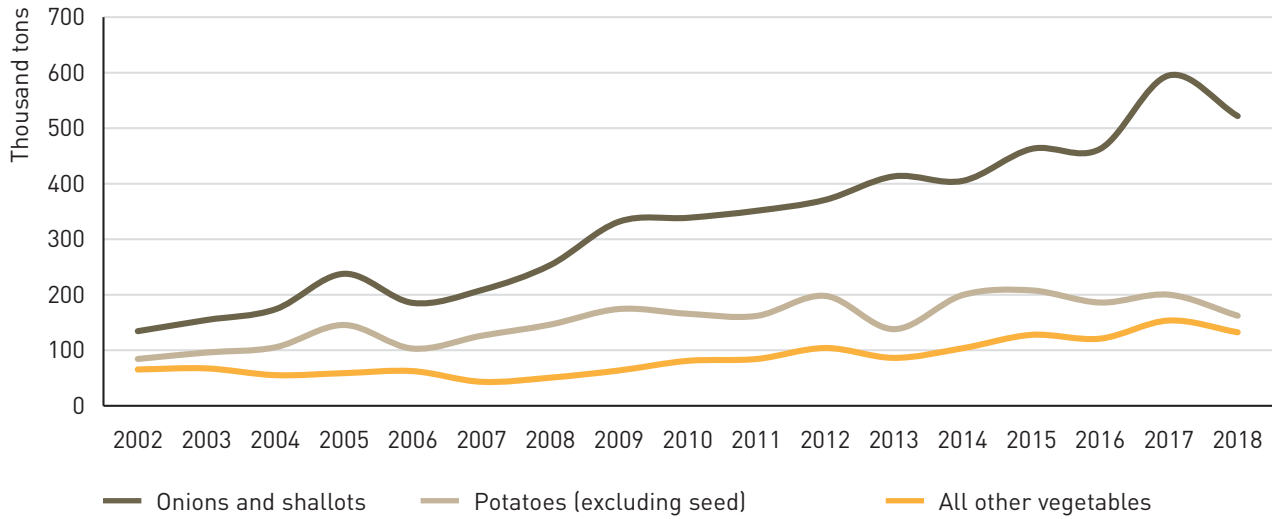


Figure 22: *Evolution of SSA (excluding South Africa) imports of fresh vegetables from the EU between 2002 and 2018 (by volume). Source: COLEACP based on EUROSTAT data and authors' calculations.*

The trend in trade between the SSA and the EU leads to the conclusions that:

- the main reserve for developing trade in processed fruit and vegetables is in other markets, particularly in sub-Saharan Africa;
- as with fresh potatoes, the evolution of frozen potato imports is a sign of the existing opportunities in SSA for investment in this value chain;
- similarly, the strong growth in imports of fruit juices reflects existing local and regional demand that could be served by local manufacturing units;

8 STDF: Standards and Trade Development Fund. Example of collaboration with COLEACP: https://www.coleacp.org/current-programmes/stdf-guinea/

MAIN PROCESSED FRUIT AND VEGETABLES IMPORTED BY SSA FROM THE EU	VOLUME 2008 (TONNES)	VOLUME 2018 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2008 AND 2018
Potatoes (frozen)	8 552	38 052	16.1%
Tomatoes	9 261	20 373	8.2%
Orange juice	4 456	6 936	4.5%
Simple citrus juice (not orange or grapefruit)	152	5 774	43.9%
Apple juice	3 245	5 642	5.7%

Figure 23: *Major processed fruits and vegetables imported by SSA (excluding South Africa) from the EU in 2008 and 2018 (by volume and CAGR).*
Source: COLEACP based on EUROSTAT data and authors' calculations.

- finally, in the case of processed tomatoes and fruit juices, a staple ingredient in many sub-Saharan African diets, local processing of tomatoes must also partly explain the drop in imports from the EU.

04

SUB-SAHARAN AFRICA'S TRADE WITH EAST ASIA IN FRUIT AND VEGETABLES

Sub-Saharan Africa's trade with East Asia in fruit and vegetables

Sub-Saharan Africa's fruit and vegetable trade with East Asia is growing and full of potential. SSA's trade balance with East Asia for fresh fruits and vegetables is very positive and is growing.

The total volume of exports to East Asia exceeded that of exports to the EU from 2009 onwards, making East Asia sub-Saharan Africa's main trading partner for fruit and vegetables. Ongoing investments in African export infrastructure by Asian countries such as China will continue to facilitate trade. Strong year-round demand for supplies from the growing middle class in East Asia makes it a lucrative market, especially in the off-season for sub-Saharan African countries south of the Equator.

The strong growth of fruit and vegetable exports to East Asia can also be linked to the increased presence of Asian countries in Africa. The recent Chinese "Belt and Road Initiative", for example, also involves the large-scale improvement of rail and road links in East and West Africa, which will undoubtedly lead to a facilitation and increase in F&V exports to Asia.

Exports of processed fruit and vegetables from sub-Saharan Africa to East Asia are negligible compared to exports of fresh fruit and vegetables. There is therefore to date very little local value addition in SSA for exported products. A good example is the cashew nut trade, which accounts for half of total trade and over 90% of all exported fruits and nuts. Cashew nuts are exported both raw and processed by importing countries, which means that there is enormous potential for local value addition by investing locally in SSA for this value chain.

Fruit exports to East Asia come mainly from West African countries, which represent the major cashew nut producing regions, while vegetable exports come mainly from East African countries such as Tanzania, Ethiopia, Mozambique and Malawi.

Vegetable exports to East Asia have increased rapidly in recent years to reach the same volumes as for fruit (including nuts).

SSA's main client countries in East Asia are India (70% of export flows) and Viet Nam (19% of export flows). India and Viet Nam are traditionally the largest importers of raw cashew nuts. Local production is increasing, but demand is still much higher. West Africa remains the world's leading production region (43% of the world's raw cashew nuts, of which 48% are produced in Côte d'Ivoire, 16% in Guinea-Bissau and 13% in Nigeria).

Although avocados do not yet appear in the main export volumes, they constitute a strong development potential, particularly for Kenya, which is investing in this sector and developing towards the Chinese market. In addition, the export of (frozen) avocados to China appears to be a very promising new market. According to Chinese customs data, China imported 43 859 tonnes of avocados in 2018, an increase of 36.5% compared to the import volume of 32 127 tonnes in 2017. As of 2019, frozen avocados from Kenya meet the agreed phytosanitary requirements of the General Administration of Customs of the People's Republic of China and can now be imported into China. Other SSA countries that may follow are Tanzania, Mozambique and Zimbabwe.

Given the very large East Asian market and the growing demand for fruit and vegetables, trade to this region should continue to grow in importance, until sub-Saharan Africa eventually becomes relatively more attractive in volume or value.

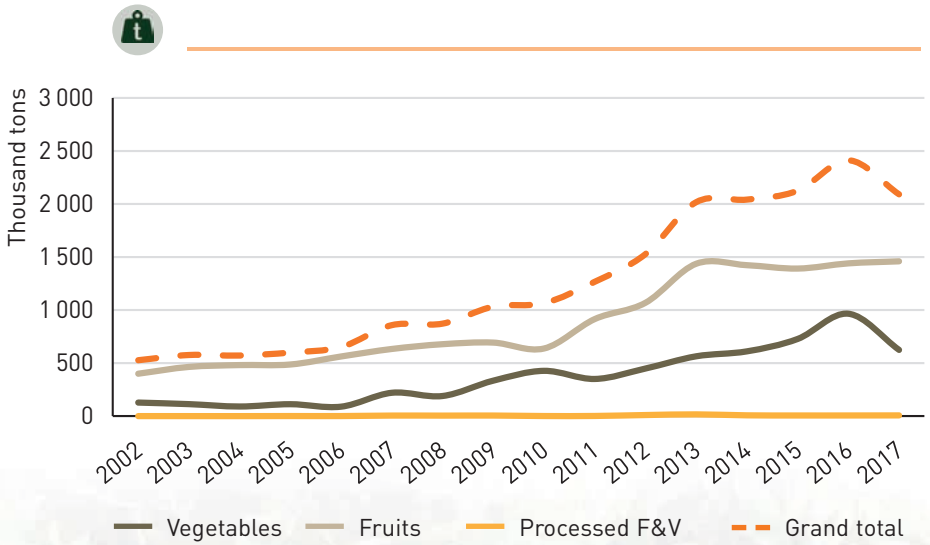


Figure 24: *Change in exports of fruits, vegetables and processed fruits and vegetables from SSA (excluding South Africa) to East Asia between 2002 and 2017 (by volume). Source: COLEACP based on IFPRI data and authors' calculations.*

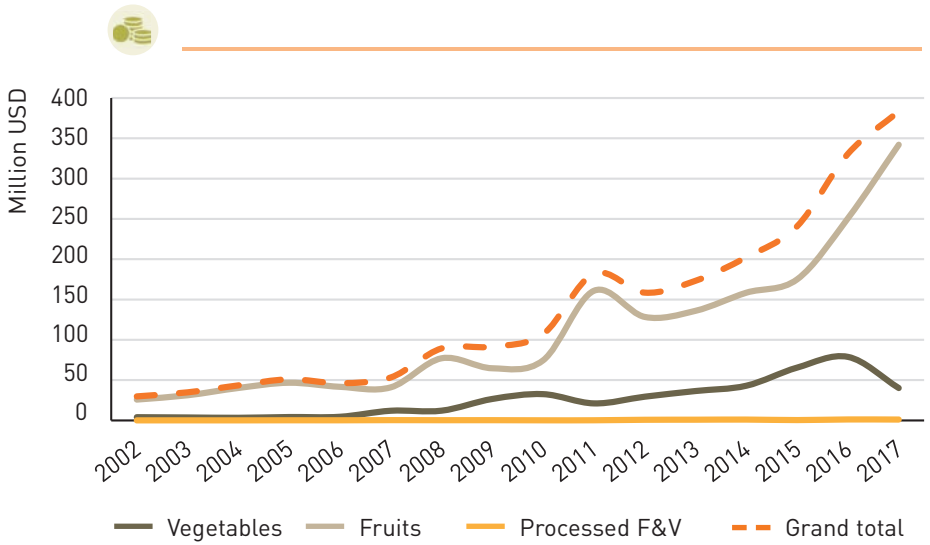


Figure 25: *Change in exports of fruit, vegetables, and processed fruit and vegetables from SSA (excluding South Africa) to East Asia between 2002 and 2017 (in value). Source: COLEACP based on IFPRI data and authors' calculations.*

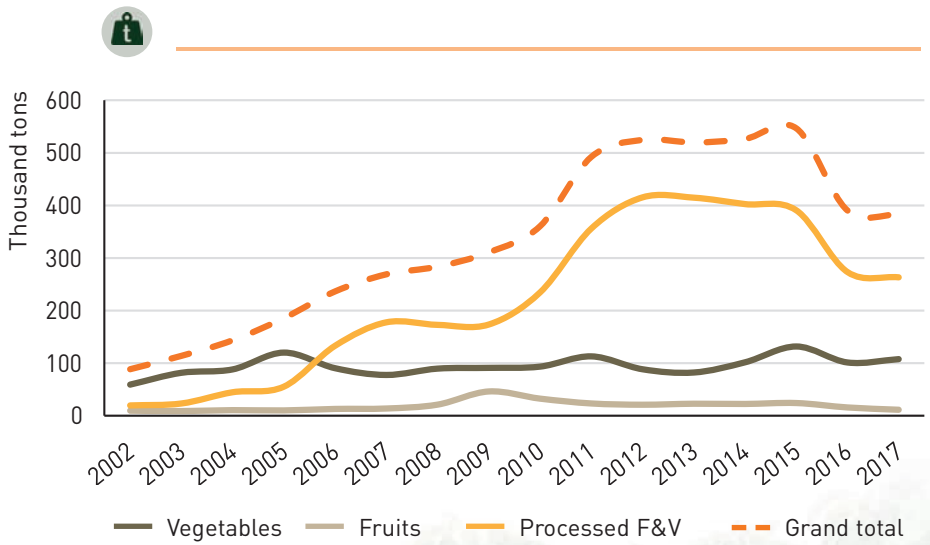


Figure 26: *Trends in imports of fruit, vegetables, and processed fruit and vegetables from SSA (excluding South Africa) from East Asia between 2002 and 2017 (by volume). Source: COLEACP based on IFPRI data and authors' calculations.*

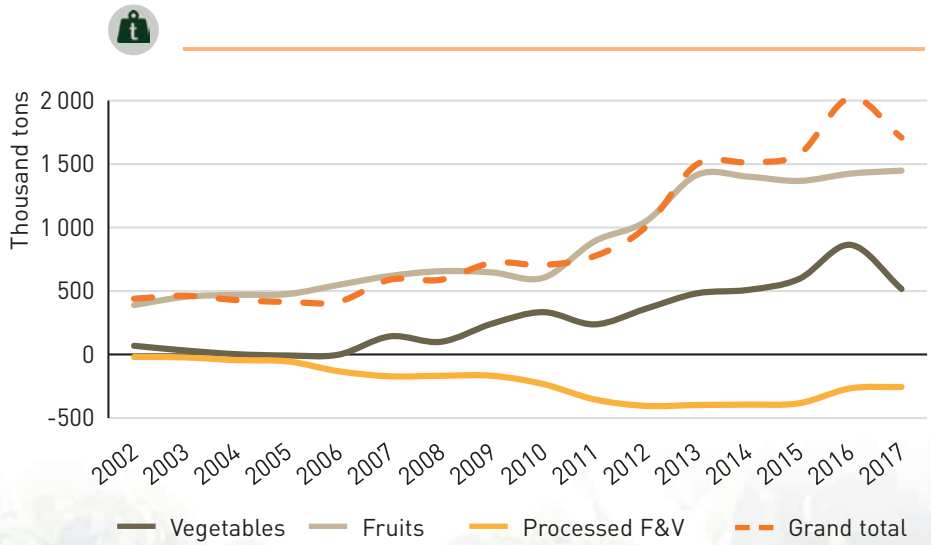


Figure 27: *Evolution of the trade balance of fruit, vegetables, and processed fruit and vegetables between SSA (excluding South Africa) and East Asia from 2002 to 2017 (by volume). Source: COLEACP based on IFPRI data and authors' calculations.*

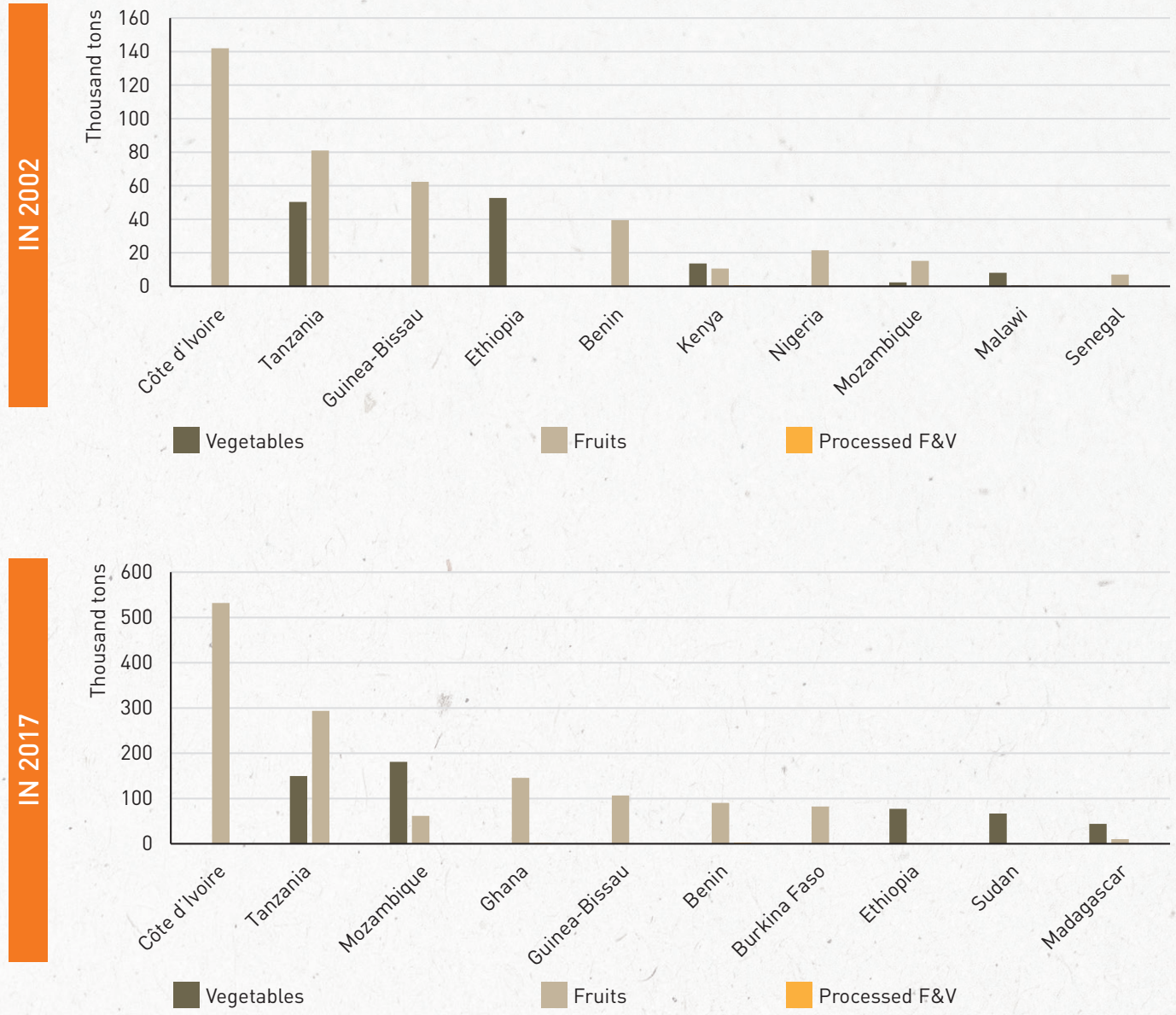


Figure 28: *Comparison of the top 10 SSA countries (excluding South Africa) exporting fruit, vegetables, and processed fruit and vegetables to East Asia between 2002 and 2017 (by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

At the same time, the SSA countries with the strongest export growth are as follows:

TOP 10 GROWTH	SSA EXPORT VOLUME TO EAST ASIA IN 2007 (TONNES)	SSA EXPORT VOLUME TO EAST ASIA IN 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Sudan	33	(pulses) 66 854	114%
Zambia	11	7 473	92%
Togo	146	(cashew nuts) 21 062	64%
Burkina Faso	1 813	(cashew nuts) 82 273	46%
Zimbabwe	26	935	43%
Madagascar	2 766	(pulses) 54 215	35%
Cameroon	27	428	32%
Uganda	1166	10 519	25%
Mozambique	37 312	(pulses, cashews) 243 125	21%
Niger	37	147	15%

For products, the most notable markets over the period were as follows:

MAIN VEGETABLES EXPORTED FROM SSA TO EAST ASIA	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Other pulses (dried)	74 923	265 095	13%
Beans *V. mungo/V. radiata* (dried)	16 150	93 640	19%
Chickpeas (dried)	55 905	75 887	3%
Red beans (dried)	14 427	64 040	16%
Beans (dried)	25 626	53 648	8%
Peas (dried)	11 561	27 572	9%
Peas	5 193	16 631	12%
Other vegetables (dried)	100	16 013	66%
Adzuki beans (dried)	1 655	1 121	–4%
Lentils (dried)	6 809	364	–25%

MAIN FRUITS EXPORTED FROM SSA TO EAST ASIA	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Cashew nuts	611 467	1 434 947	9%
Other nuts	7 470	10 216	3%
Other dried fruit	7	3 346	85%
Avocados	4	1 861	84%
Oranges	57	1 592	39%
Mangoes, guavas, mangosteens	16	43	10%
Grapefruit	4 283	2 229	–6%
Brazil nut	3 508	611	–16%
Grapes	882	368	–8%
Dried coconuts	1 916	1	–54%

MAJOR PROCESSED F&V EXPORTED FROM SSA TO EAST ASIA	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Tomato products	37	2038	49.47%
Nuts and other seeds (not peanuts)	118	1286	27%
Simple juices (other fruit/vegetables)	21	314	31%
Jams and purées (other fruits/nuts)	1	31	38%
Jams and purées (fruit/nut)	1	18	32%
Peanuts	3106	2863	–1%
Citrus	272	202	–3%
Beans	687	153	–14%
Other fruits and nuts	56	27	–7%
Pineapple	219	3	–36%

Figure 29: *Notable trends in exports of fruits, vegetables and processed fruits and vegetables from SSA (excluding South Africa) to East Asia, by country (first table) and product (other tables), volume and CAGR.*
Source: COLEACP based on IFPRI data and authors' calculations.

05

SUB-SAHARAN AFRICA'S TRADE WITH WESTERN ASIA IN FRUIT AND VEGETABLES

Sub-Saharan Africa's trade with Western Asia

Trade between sub-Saharan Africa and Western Asia (which largely overlaps with the Middle East) is increasing. The trend is expected to continue. The main reason is that the Gulf States depend heavily on imports for their food security due to population growth and declining water tables. Establishing economic links in Africa helps the Gulf States to take advantage of their geostrategic situation and strengthen their reputation.

With the relative slowdown of Western economies, rapidly growing African economies and expanding middle classes have become an increasingly attractive prospect. The constant evolution of sub-Saharan Africa and the improvement in the quality of exports have attracted the attention of Middle Eastern States with a view, in particular, to seizing opportunities in the agricultural markets neighbouring sub-Saharan Africa. The United Arab Emirates and Saudi Arabia are now among the largest investors in Africa after China. Many of these investments, for example in infrastructure, directly benefit agricultural trade.

Until 2016, the total trade balance with West Asia has often been negative, particularly for processed fruit and vegetable products. This should change in the future. A good indicator is the projection for development of the trade balance in processed fruit and vegetables since 2009. Most West Asian countries are importers of fruit and vegetables because their own production is very limited. In addition, the development of local processing of F&V products in sub-Saharan Africa is expected to lead to a reduction in imports from West Asia.

The fastest-growing SSA supplier countries in West Asia over the past decade are Uganda, Sudan, Mozambique, Madagascar, Malawi, Kenya and Ghana. Ethiopia remains the main exporting country in terms of volume.

SSA's main customers are the United Arab Emirates, Saudi Arabia and Yemen, with 51.9%, 14% and 10.3% of exports, respectively.

On the product side, avocados, bananas and mangoes are booming fruit export sectors. Mozambique and Sudan are the two main banana exporting countries to the Middle East, accounting for 52% and 46% of the volumes exported from SSA, respectively.

As far as vegetables are concerned, chickpeas and pulses are the fastest-growing value chains. Products processed from pineapples are emerging as a promising market segment.

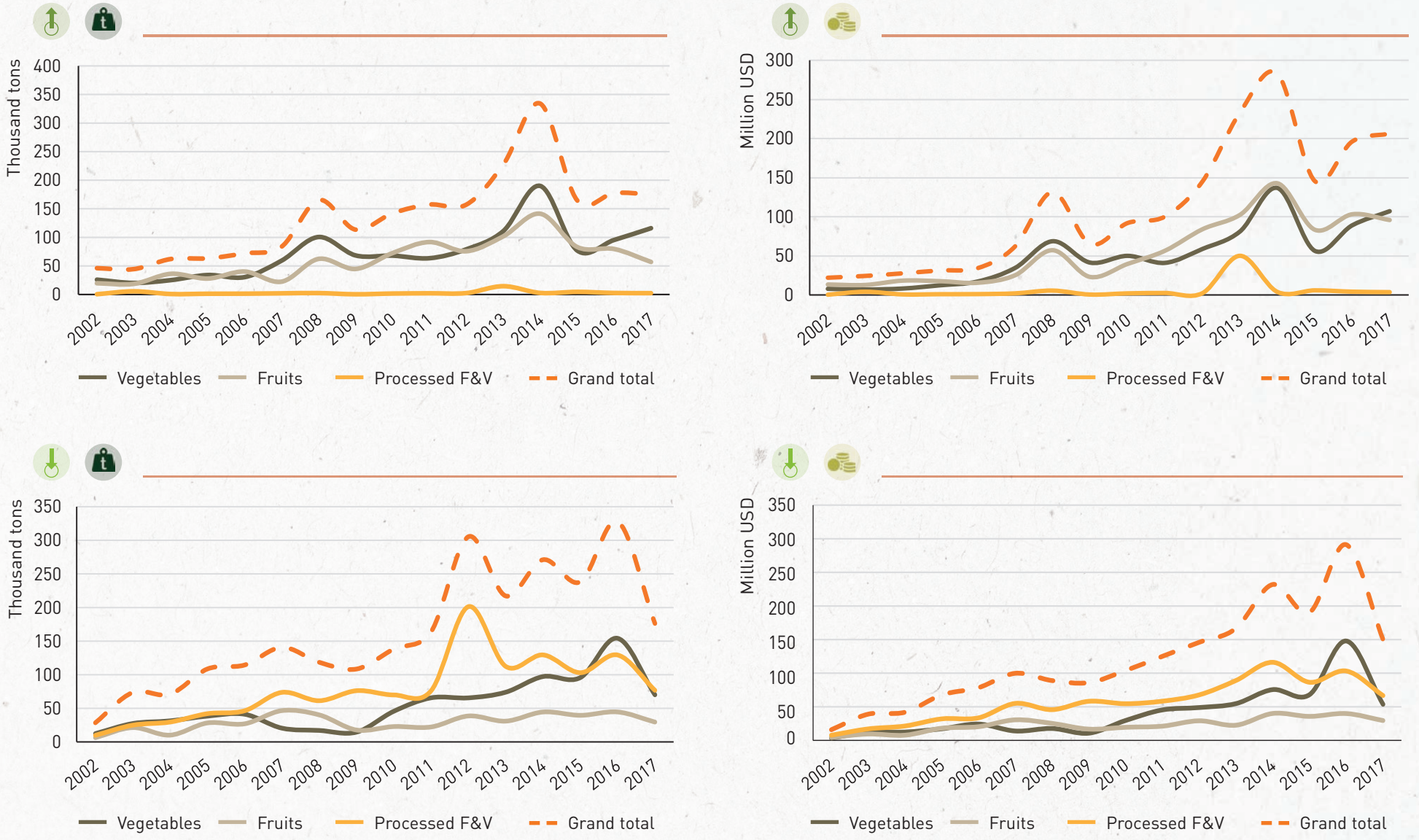


Figure 30: *Evolution of trade in fruit, vegetables, and processed fruit and vegetables between SSA (excluding South Africa) and West Asia between 2002 and 2017 (by volume and value). Top, exports; below, imports. Source: COLEACP based on IFPRI data and authors' calculations.*

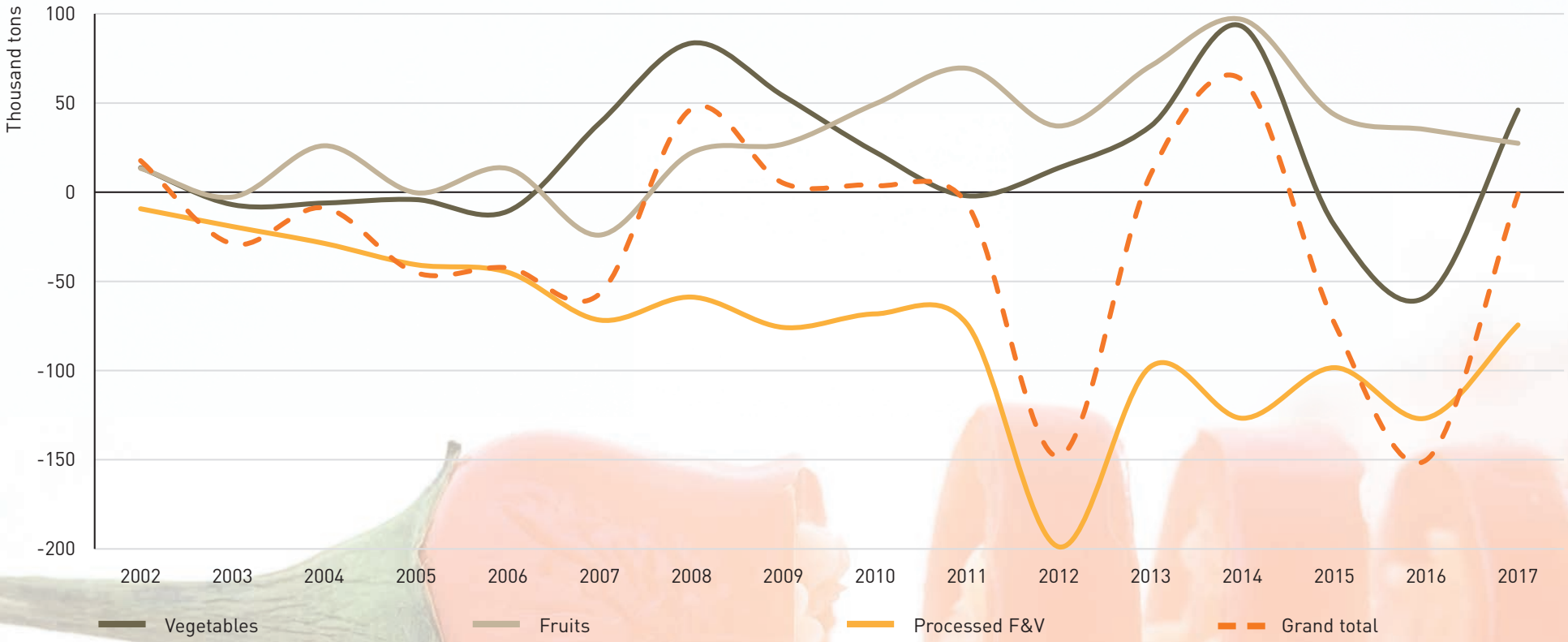


Figure 31: *Evolution of the balance of trade in fruit, vegetables, and processed fruit and vegetables between SSA (excluding South Africa) and West Asia from 2002 to 2017 (by volume). Source: COLEACP based on IFPRI data and authors' calculations.*

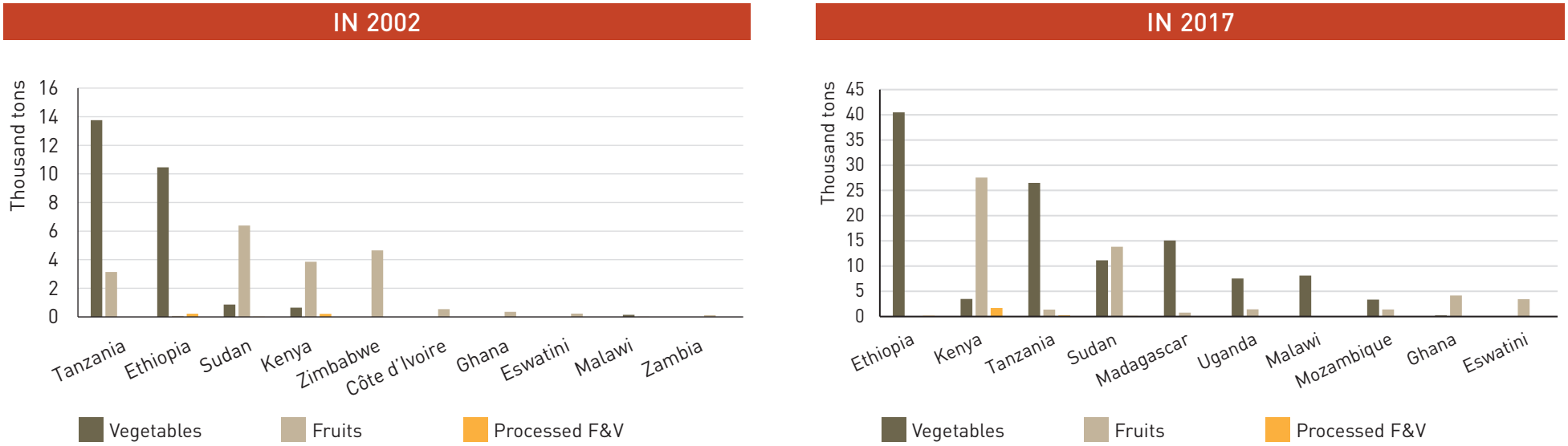


Figure 32: *Trends in the top 10 SSA countries (excluding South Africa) exporting fruit, vegetables, and processed fruit and vegetables to West Asia between 2002 and 2017 (by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

At the same time, the SSA countries with the strongest export growth are as follows:

TOP 10 GROWTH	SSA EXPORT VOLUME TO WEST ASIA IN 2007 (TONNES)	SSA EXPORT VOLUME TO WEST ASIA IN 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Uganda	175	9011	48%
Sudan	2079	25078	28%
Mozambique	675	4748	22%
Madagascar	2371	15863	21%
Malawi	1482	8159	19%
Eswatini	664	3441	18%
Ghana	1306	4419	13%
Kenya	10143	32734	12%
Côte d'Ivoire	508	1330	10%
Tanzania	13906	28106	7.3%

For products, the most notable markets over the period were as follows:

MAIN VEGETABLES EXPORTED FROM SSA TO WEST ASIA	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Chickpeas (dried)	13 929	62 890	16%
Beans (dried)	6 037	13 973	9%
Other pulses (dried)	4 496	10 891	9%
Peas (dried)	5 625	7 051	2%
Peas	151	2 071	30%
Red beans (dried)	8 896	6 423	-3%
Beans *V. mungo/V. radiata* (dried)	10 479	2 608	-13%
Adzuki beans (dried)	1 984	1 722	-1%
Ethnic vegetables	1 465	704	-7%
Lentils (dried)	2 056	95	-26%

MAIN FRUITS EXPORTED FROM SSA TO WEST ASIA	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Avocados	2 154	16 448	23%
Bananas, plantains	30	13 377	84%
Mangoes, guavas, mangosteens	4 969	10 212	7%
Cashew nuts	1 294	3 195	9%
Pineapple	1 117	2 740	9%
Lemons, limes	1 089	2 188	7%
Watermelon	84	1 267	31%
Coconut	479	941	7%
Oranges	7 269	3 340	-7%
Other fruits (passion fruit, lychees, tamarind etc.)	1 279	989	-3%

MAIN PROCESSED F&V EXPORTED FROM SSA TO WEST ASIA	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Pineapple	18	1 123	51%
Pineapple juice	251	548	8%
Other fruits and nuts	24	48	7%
Simple citrus juice (not orange/grapefruit)	10	11	1%
Peanuts	420	212	–7%
Nuts and other seeds (not peanuts)	745	156	–14%
Vegetables (acid preserved)	133	93	–3%
Jams and purées (other fruits/nuts)	18	6	–11%
Vegetables and mixes (frozen, not potatoes)	92	4	–27%
Beans	157	2	–37%

Figure 33: *Notable trends in exports of fruits, vegetables and processed fruits and vegetables from SSA (excluding South Africa) to West Asia, by country (first table) and product (other tables), volume and CAGR. Source: COLEACP based on IFPRI data and authors' calculations.*

06 SUB-SAHARAN AFRICA'S TRADE IN FRUIT AND VEGETABLES WITH THE REST OF EUROPE

Sub-Saharan Africa's trade with Europe (outside EU28)

Preliminary note: in order to circumvent the European embargo on exports to Russia, large quantities of fruit appear to have certificates of origin counterfeited via Belarus. Many countries in sub-Saharan Africa (excluding South Africa) are listed as exporters, even though the fruits concerned are apples, pears or nectarines. For this reason, Belarus' official trade statistics with developing countries from 2015 onwards should be treated with great caution and have been removed from this analysis. Similarly, if the Russian statistics are retained here, they should be treated with caution and reservation from 2015 onwards.

Overall, trade between the two regions is progressing without any particular boom, except specifically for avocado and mango. The trade balance, in volume terms, is favourable to SSA.

Among the non-EU European countries, Russia and Switzerland are the main importers of fruit and vegetables from sub-Saharan Africa.

Together, they accounted for about 94% of trade with non-EU European countries in 2017. Russia has historically been the main importer in terms of volume (up to 96 000 tonnes in 2017, i.e. 85% of SSA exports to the non-EU28 European area).

Tropical fruits such as pineapples, mangoes and avocados account for the bulk of Russia's imports; pulses, tomatoes, peppers, cauliflower/broccoli and aubergines, among others, are also traded.

Exports to Switzerland and Norway are growing steadily, but not at the same rate as trade with Russia.

Over the past decade, Russia's trade with sub-Saharan Africa has increased rapidly (mainly imports from SSA), especially since the Western countries sanctioned Russia for annexing the Crimea in 2014.

Vegetable exports from Russia to sub-Saharan Africa have been significantly reduced from 2015 onwards due to internal market deficits as a result of EU sanctions.

Surprisingly, imports from sub-Saharan Africa also decreased between 2014 and 2016, whereas one might expect large increases due to the loss of supply from the EU. This could be explained by the collapse of oil prices in 2014, which affected the Russian economy and may have led to a general decline in demand for imported (thus more expensive) products.

Despite these market fluctuations, Russia is increasingly investing in sub-Saharan Africa and trying to revive some of the relationships that ended after the collapse of the Soviet Union.

Trade is developing positively for sub-Saharan Africa and is likely to continue to do so in the future[9].

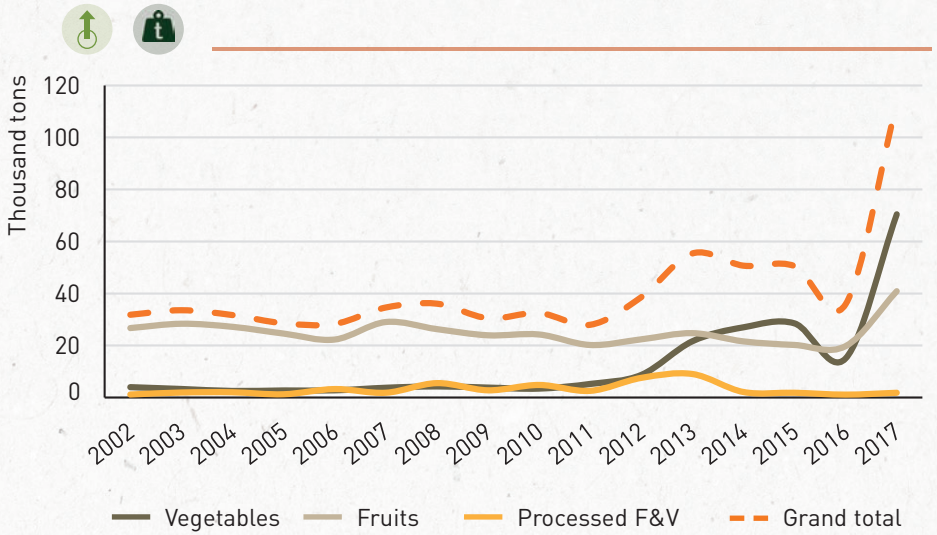
The main promising market segments are listed below:

- fruits: avocados, mangoes, coconut;
- vegetables: peppers, dried beans, eggplants, ethnic vegetables.

Fruit exports dominate SSA's trade with Europe (outside the EU). The sharp decline in pineapple exports was partly offset by an increase in mango and avocado exports. Mangoes are mainly imported by Switzerland, and avocados by the Russian Federation. Côte d'Ivoire is the main exporter of mangoes, and Kenya of avocados.

Volumes traded are small compared to other export markets, but there is potential for growth. As a result of continued EU trade sanctions, Russia could source increasing quantities of fruit and vegetables directly from sub-Saharan Africa.

9 See also: https://www.bbc.com/news/world-45035889



Note: There is relative statistical doubt about the explosion of exports since 2016. Pears, quinces and nectarines have been excluded here from the analysis of SSA trade to Europe (outside the EU).

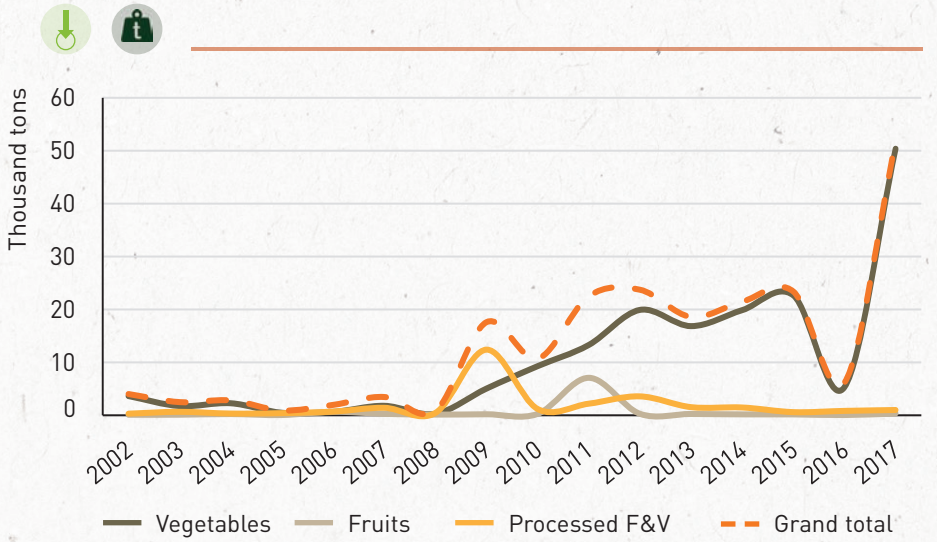


Figure 34: *Evolution of trade in fruit, vegetables, and processed fruit and vegetables between SSA (excluding South Africa) and Europe (excluding EU28 and Belarus) between 2002 and 2017 (by volume). Top: exports from SSA to Europe (non-EU28); below: imports by SSA from Europe (non-EU28). Source: COLEACP based on IFPRI data and authors' calculations.*

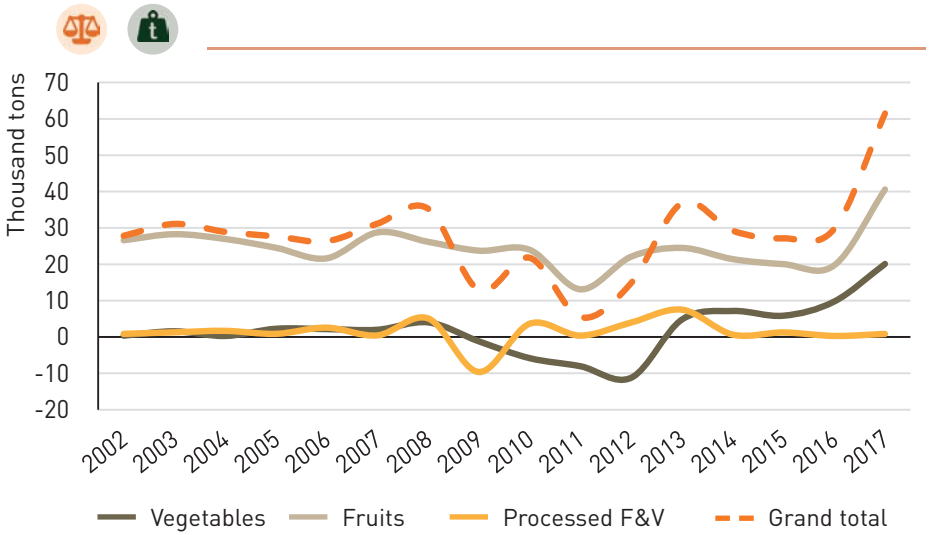


Figure 35: *Evolution of the balance of trade in fruit, vegetables, and processed fruit and vegetables between SSA (excluding South Africa) and Europe (excluding EU28 and Belarus) from 2002 to 2017 (by volume). Source: COLEACP based on IFPRI data and authors' calculations.*

For products, the most notable markets over the period were as follows:

MAIN VEGETABLES EXPORTED FROM SSA TO EUROPE (EXCLUDING EU28 AND BELARUS)	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Pepper and chilli	117	14415	62%
Tomatoes	512	13415	39%
Red beans (dried)	985	10278	26%
Aubergines	69	7894	61%
Ethnic vegetables	207	1856	25%
Edible roots (salsify, radish, etc.)	35	1101	41%
Beans	463	843	6%
Sweet potatoes	10	814	56%
Other brassicas	37	659	33%
Peas	747	580	–2%

MAIN FRUIT EXPORTED FROM SSA TO EUROPE (EXCLUDING EU28 AND BELARUS)	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Other fruits (passion fruit, lychees, tamarind etc.)	243	8 949	43%
Avocados	273	5 030	34%
Oranges	2 188	5 002	9%
Mangoes, guavas, mangosteens	1 359	3 683	10%
Mandarins and similar citrus fruits	7	3 185	85%
Coconut	1 814	2 970	5%
Lemons and limes	83	1 900	37%
Pineapple	16 928	3 182	–15%
Grapes	1 914	1 274	–4%
Grapefruit	1 583	317	–15%

MAIN PROCESSED F&V EXPORTED FROM SSA TO EUROPE (EXCLUDING EU28 AND BELARUS)	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Pineapple	1 317	1 458	1%
Other fruits and nuts	26	121	17%
Jams and purées (other fruits/nuts)	4	22	18%
Nuts and other seeds (not peanuts)	3	10	13%
Pineapple juice	62	29	–7%
Peanuts	229	7	–29%
Vegetables/mixtures (frozen, not potatoes)	34	5	–17%
Simple juices (other fruit/vegetables)	7	3	–7%
Vegetables (acid preserved)	113	1	–38%
Grapefruit juice	4	1	–12%

Figure 36: *Notable trends in exports of fruit, vegetables, and processed fruit and vegetables from SSA (excluding South Africa) to Europe (excluding EU28 and Belarus), by product (by volume and CAGR). Source: COLEACP based on IFPRI data and authors' calculations.*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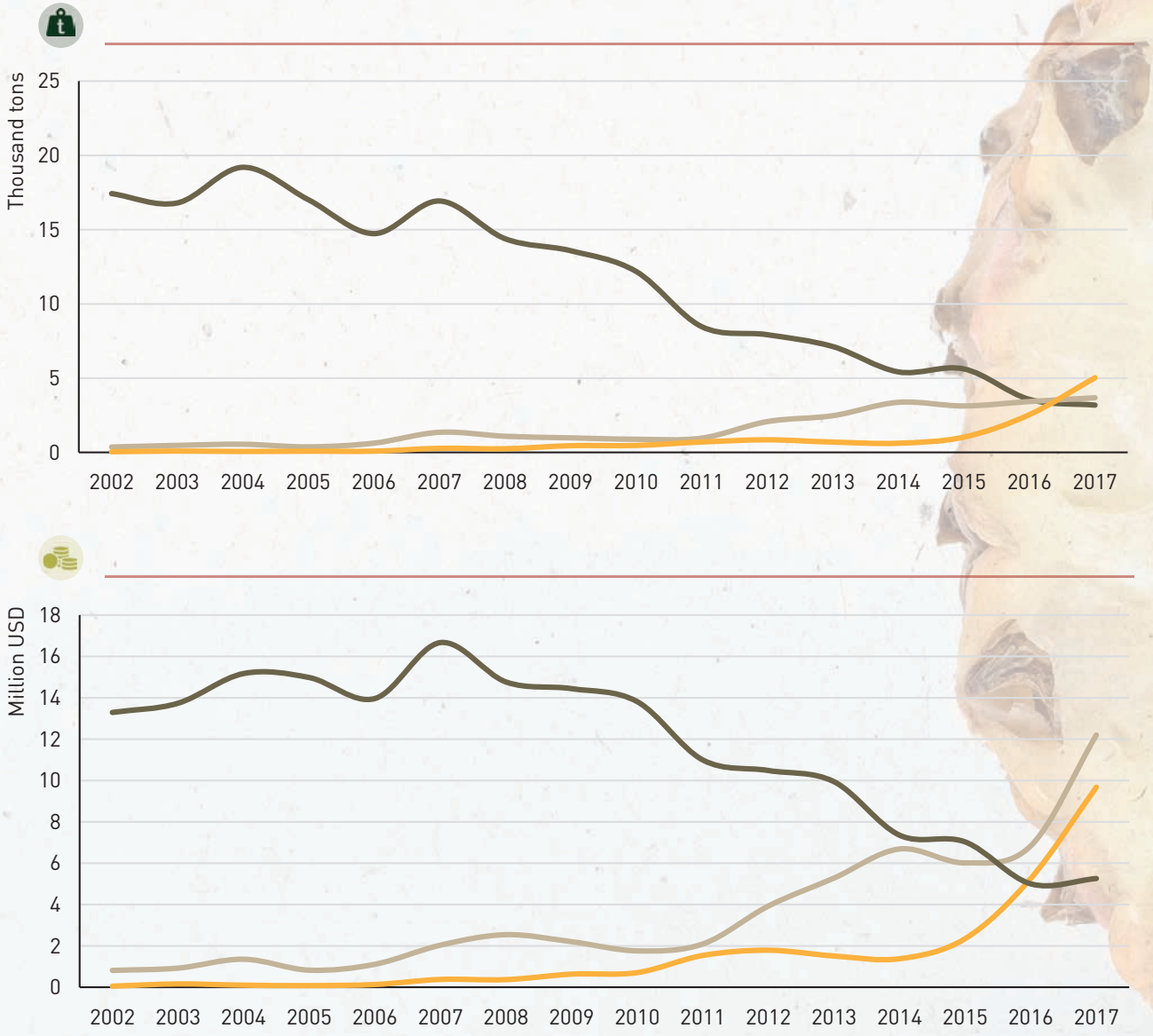


Figure 37: *Trends in exports of pineapple, avocados and mangoes from SSA (excluding South Africa) to Europe (excluding EU28 and Belarus) between 2002 and 2017 (by volume and value). Source: COLEACP based on IFPRI data and authors' calculations.*

Pineapple exports, mainly to Russia and Switzerland, have collapsed. On the other hand, exports of mangoes and avocados are increasing and have now surpassed pineapple exports in value. Mango exports are concentrated in Switzerland (65% of the volume in 2017), while the Russian Federation is the largest buyer of avocados (86% of the volume in 2017). Only a few exporters benefit from this trade. In 2017, Côte d'Ivoire exported 54% of mangoes to non-EU28 Europe, and Kenya up to 96% of avocados. Ghana dominates pineapple exports (74%).

AVOCADO IMPORTERS	SHARE OF IMPORTS 2017 (VOLUME)
Russian Federation	86%
Norway	5%
Ukraine	4%
Switzerland	3%
Iceland	1%
Moldova	0.4%
Serbia	0.1%

MANGO IMPORTERS	SHARE OF IMPORTS 2017 (VOLUME)
Switzerland	65%
Norway	28%
Russian Federation	3%
Iceland	2%
Serbia	1%
Ukraine	1%
Bosnia and Herzegovina	0.1%

PINEAPPLE IMPORTERS	SHARE OF IMPORTS 2017 (VOLUME)
Switzerland	89%
Russian Federation	6%
Ukraine	2%
Serbia	1%
Bosnia and Herzegovina	1%
Norway	1%
Moldova	0.3%

Figure 38: *Main European countries (excluding EU28 and Belarus) importing pineapple, avocado and mango from SSA (excluding South Africa) in 2017 (% of volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

AVOCADO EXPORTERS	SHARE OF EXPORTS 2017 (VOLUME)
Kenya	95.8%
Tanzania	2.6%
Zimbabwe	1.1%
Uganda	0.3%
Senegal	0.1%

MANGO EXPORTERS	SHARE OF EXPORTS 2017 (VOLUME)
Côte d'Ivoire	53.9%
Senegal	18.1%
Ghana	14.9%
Burkina Faso	6.1%
Mali	3.1%

PINEAPPLE EXPORTERS	SHARE OF EXPORTS 2017 (VOLUME)
Ghana	74.1%
Cameroon	8.4%
Mauritius	7.3%
Côte d'Ivoire	6.8%

Figure 39: *Main SSA countries (excluding South Africa) exporting pineapple, avocados and mangoes to Europe (excluding EU28 and Belarus) in 2017 (% of volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

07

SUB-SAHARAN AFRICA'S TRADE WITH SOUTH AFRICA IN FRUIT AND VEGETABLES

Sub-Saharan Africa's trade with South Africa

In terms of its trade with South Africa, the trade balances are all unfavourable to sub-Saharan Africa. This is not surprising given South Africa's historical position on the world fruit export scene.

Only a few SSA countries export significant quantities of fruit and vegetables to South Africa. These are mainly countries bordering or close to South Africa such as Mozambique, Eswatini, Zimbabwe, Botswana and Namibia. The fruit boom in Mozambique during the period under review is noteworthy.

The main fruit exported is bananas, a strongly developing market segment. The second is oranges.

Fruit juices and processed pineapple are the other market segments that have grown strongly over the period in terms of SSA exports to South Africa.

Considering the positive development of SSA exports to South Africa on the one hand, and the range of fruits and vegetables exported by South Africa to SSA on the other, we can conclude that there are interesting prospects for developing local production (of vegetables in particular) in SSA. Experience shows that many catering companies in SSA countries import fruit and vegetables from South Africa when they would prefer to source locally, but are not able to do so because local production is not yet sufficiently organised to ensure regular quantity and quality of supply. This is particularly true in Nigeria, the other major economy in sub-Saharan Africa.

Together with the EU, South Africa is a major source of supply of fruit, vegetables, and processed fruit and vegetables for sub-Saharan African countries. SSA's trade balance with South Africa is very negative in both volume and value terms, while for trade between Sub-Saharan Africa and the EU, imports of low-value products are balanced by exports of high-value commodities. All sub-Saharan African countries import fruit and vegetables from South Africa. Import volumes are roughly distributed according to the size of the importing countries and their distance from South Africa. Import volumes are more or less evenly distributed between vegetables, fruits and processed fruits.

While exports from SSA countries to South Africa are increasing rapidly, they remain relatively low compared to trade with other regions of the world, and compared to the level of SSA fruit and vegetable imports from South Africa.

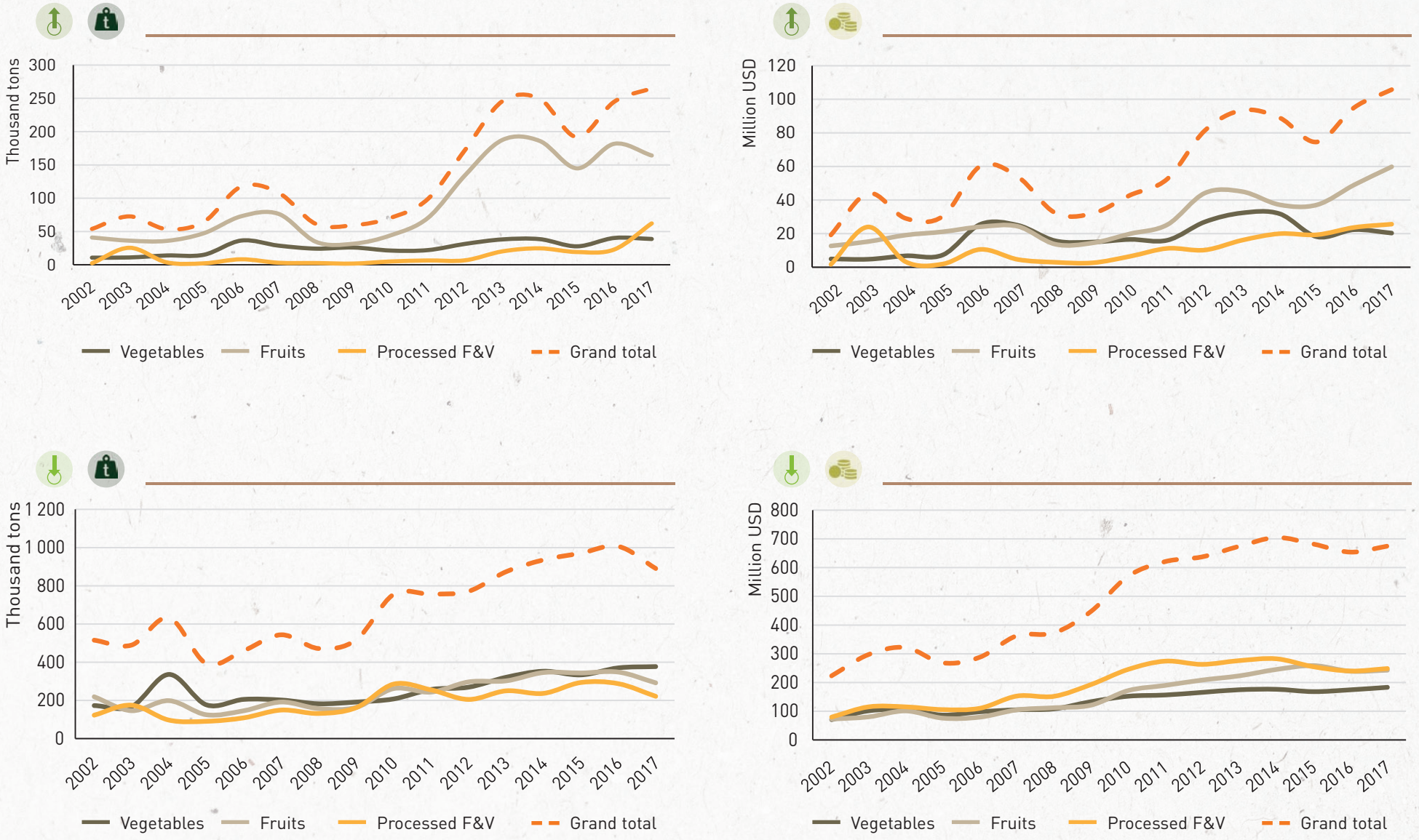


Figure 40: *Trends in trade in fruits, vegetables, and processed fruits and vegetables between SSA and South Africa between 2002 and 2017 (by volume and value). Top: exports from SSA to South Africa; below: imports by SSA from South Africa. Source: COLEACP based on IFPRI data and authors' calculations.*

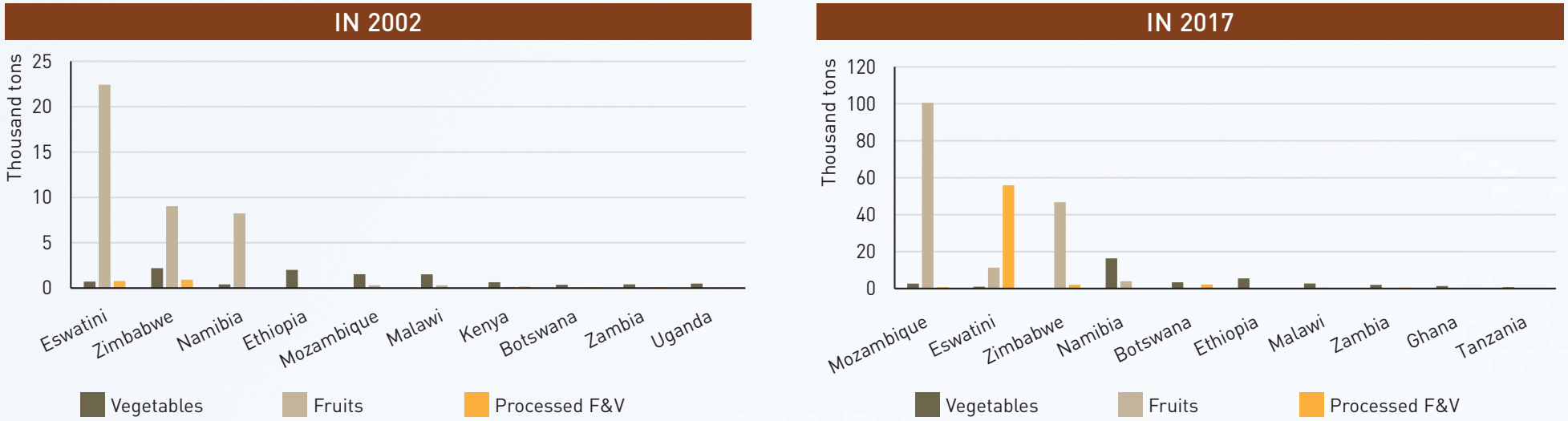
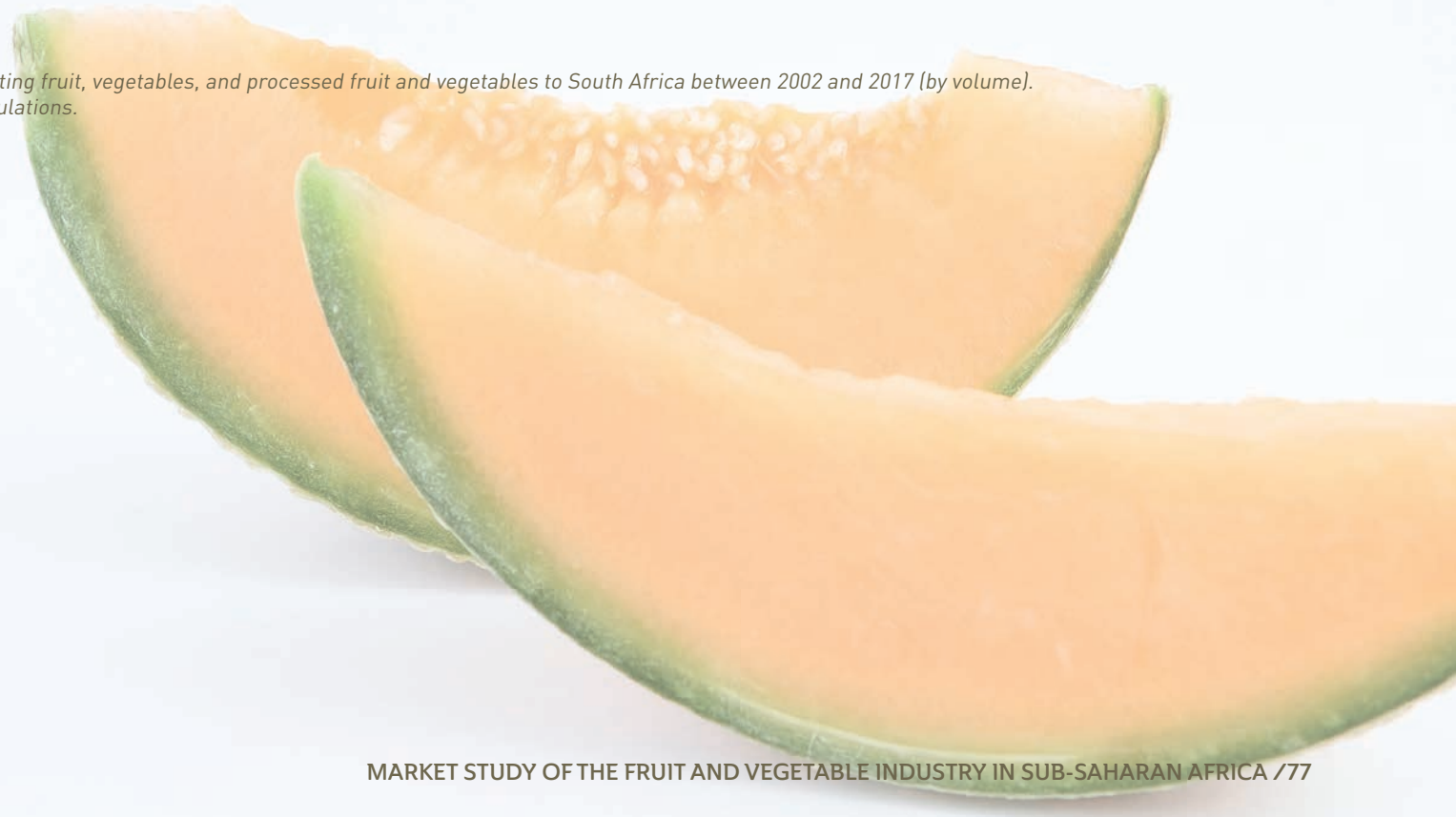
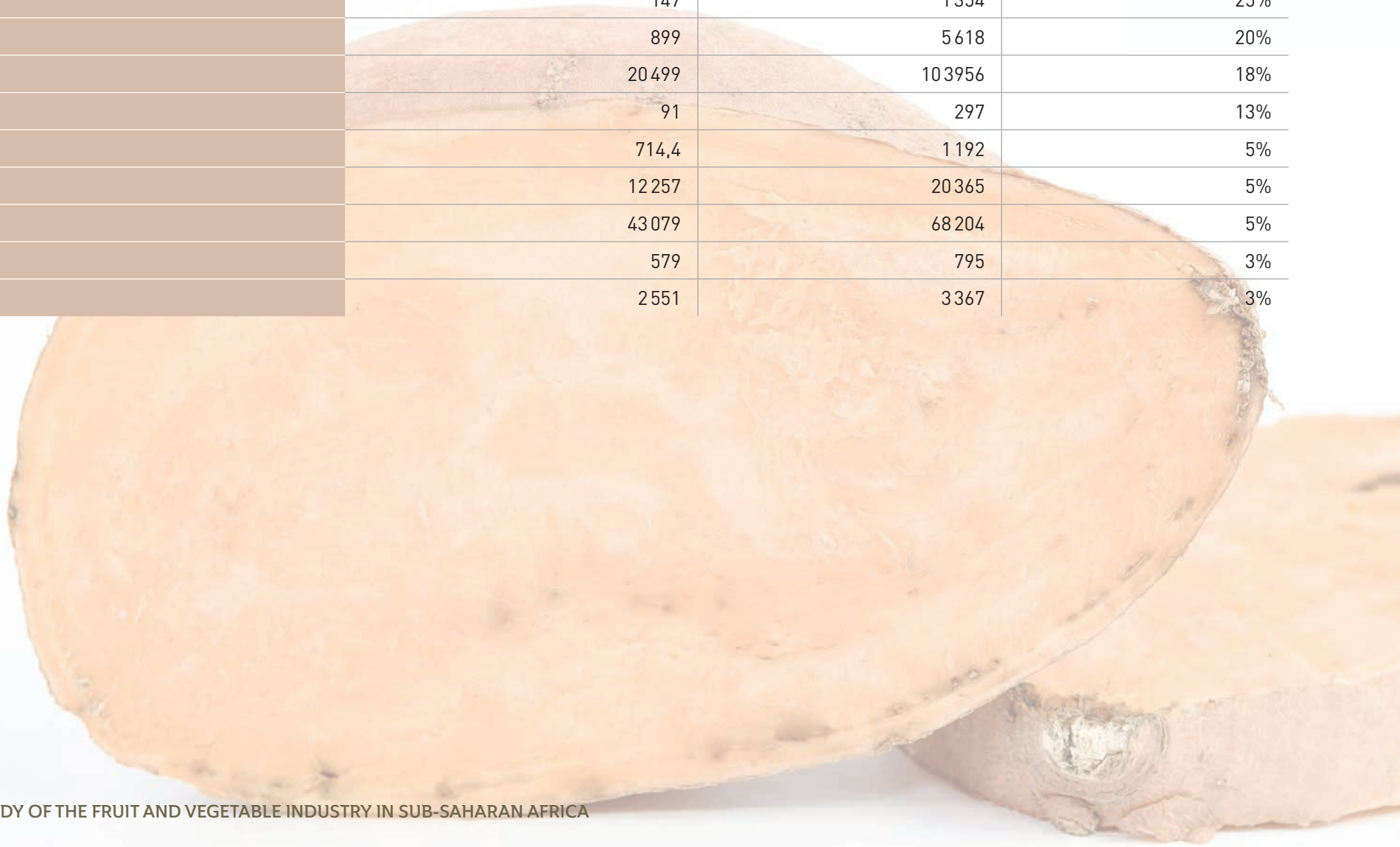


Figure 41: *Comparison of the top 10 SSA countries exporting fruit, vegetables, and processed fruit and vegetables to South Africa between 2002 and 2017 (by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.



At the same time, the SSA countries with the strongest export growth are as follows:

TOP 10 GROWTH	SSA EXPORT VOLUME TO SOUTH AFRICA IN 2007 (TONNES)	SSA EXPORT VOLUME TO SOUTH AFRICA IN 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Nigeria	89	986	27%
Ghana	147	1 354	25%
Botswana	899	5 618	20%
Mozambique	20 499	103 956	18%
Côte d'Ivoire	91	297	13%
Tanzania	714,4	1 192	5%
Namibia	12 257	20 365	5%
Eswatini	43 079	68 204	5%
Madagascar	579	795	3%
Malawi	2 551	3 367	3%



For products, the most notable markets over the period were as follows:

MAIN VEGETABLES EXPORTED FROM SSA TO SOUTH AFRICA	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Tomatoes	2087	7316	13%
Red beans (dried)	5519	7316	3%
Onions and shallots	4710	4831	0.3%
Beans *V. mungo/V. radiata* (dried)	256	4244	32%
Ethnic vegetables	2303	2727	2%
Ethnic roots and tubers	101	1847	34%
Other legumes	357	1327	14%
Adzuki beans (dried)	324	1030	12%
Other pulses (dried)	613	866	4%
Chickpeas (dried)	652	736	1%

MAIN FRUITS EXPORTED FROM SSA TO SOUTH AFRICA	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Bananas and plantains	29910	107902	14%
Oranges	19456	43714	8%
Papaya	106	3465	42%
Other nuts	1041	1613	4%
Cashew nuts	1168	1355	1%
Melons	1006	1164	1%
Grapes	1315	1106	–2%
Mangoes	990	940	–1%
Watermelons	1533	399	–13%
Grapefruit	16102	109	–39%

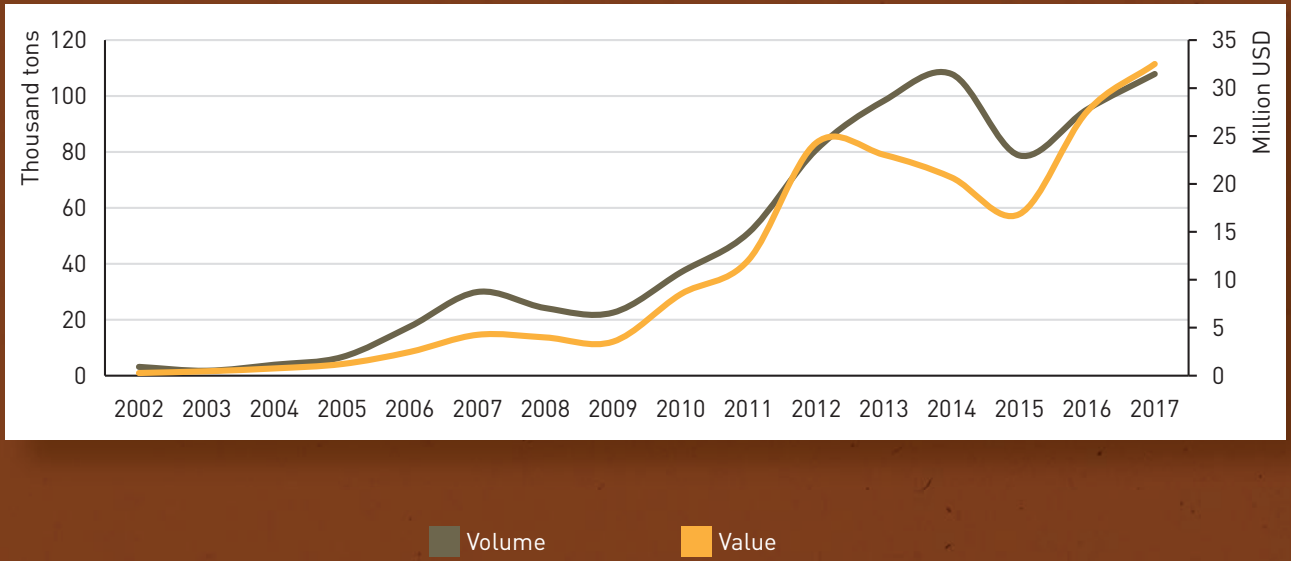
MAIN PROCESSED F&V EXPORTED FROM SSA TO SOUTH AFRICA	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Pineapple juice	176	44 264	74%
Jams and purées (other fruits/nuts)	208	6 017	40%
Pineapple	546	5 266	25%
Beans	35	1 561	46%
Vegetables (preserved in acid, not cucumbers/gherkins)	38	1 340	43%
Orange juice	320	950	11%
Mixed juices (fruit/vegetables)	308	885	11%
Simple juices (other fruits/vegetables)	62	455	22%
Simple citrus juice (not orange/grapefruit)	77	311	15%
Other fruits and nuts	389	206	–6%

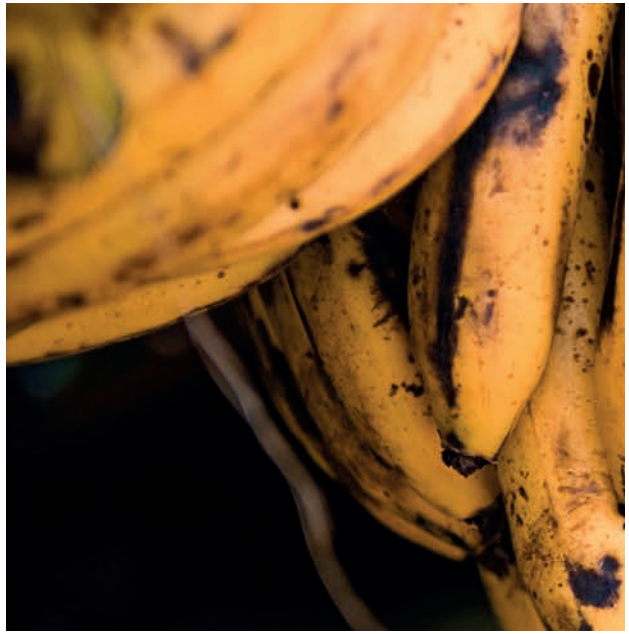
MAIN FRUITS, VEGETABLES AND PROCESSED FRUITS AND VEGETABLES EXPORTED FROM SSA TO SOUTH AFRICA IN 2017	EXPORT VOLUME (TONS)	SHARE OF OVERALL EXPORT VOLUME
Bananas and plantains	107 902	41%
Pineapple juice	44 264	17%
Oranges	43 714	16%
Tomatoes	7 352	3%
Red beans (dried)	7 316	3%
Jams and purées (other fruits/nuts)	6 017	2%
Other vegetables	24 103	9%
Other fruits	12 502	5%
Other processed F&V	11 890	4%

Figure 42: *Notable trends in exports of fruits, vegetables and processed fruits and vegetables from SSA to South Africa, by country (first table) and product (tables 2–4), volume and CAGR. The bottom table gives an overview (2017) of the export volumes for the top fruit, vegetable and processed fruit and vegetable products, and their share of the overall export volume. Source: COLEACP based on IFPRI data and authors' calculations.*

Mozambique exported 92% of sub-Saharan Africa's bananas to South Africa in 2017.

Figure 43: *Trends in SSA banana and plantain exports to South Africa (volume and value: current USD, not adjusted for inflation).*
Source: COLEACP based on IFPRI data and authors' calculations.





08

SUB-SAHARAN AFRICA'S TRADE WITH "OTHER REGIONS OF THE WORLD" IN FRUIT AND VEGETABLES

Sub-Saharan Africa's trade with "other regions of the world"

There are four main trends in SSA F&V trade with other regions of the world (Latin America, North America, North Africa and Oceania):

- steady development of SSA exports to North America;
- uneven development of SSA exports to Latin America (the 2011–2013 peak is due to cashew nut exports to Brazil;
- steady increase in SSA imports from North Africa;
- growth over the period of SSA imports from North America.

The main expanding export market segments from SSA to other regions of the world are for:

- fruits: cashews, mangoes, coconuts;
- vegetables: ethnic roots and tubers;
- processed fruits and vegetables: fruit juices (frozen, orange).

Exports to Latin America are dominated by cashew exports from Ghana and Côte d'Ivoire. Other important exports include pulses from Ethiopia, and ethnic roots and tubers or other types of nuts from various exporters. Processed fruit and vegetable exports include prepared or preserved pineapple.

Exports to North America consist mainly of "ethnic" roots and tubers and pulses from a group of countries including Ghana and Togo in West Africa, and Tanzania, Ethiopia, Madagascar and Kenya in East Africa. Fruits exported include cashew nuts and coconuts. The overall quantities exported remain very small and probably go to the large African diaspora community in the United States.

Exports to North Africa are dominated by fruits (mangoes and pineapples) from West Africa and pulses from Ethiopia. Trade with North Africa may increase in the future with the recent trend of Maghreb countries to revive their hitherto ignored trade policy towards the rest of the continent[10]. Although their interest is mainly motivated by the search for new export markets following the stagnation of trade with Europe, this could also bring new opportunities for SSA exports.

Fruit and vegetable exports to Oceania are very low. Burkina Faso appears at the top of the ranking due to exports of cashew nuts.

The steady development of imports of fresh fruit and vegetables from North Africa (mainly fresh vegetables, potatoes and onions), but also of fruits such as citrus fruits and dates, as in the case of trade with South Africa, illustrates the fact that sub-Saharan Africa's demand for fruit and vegetables is not met by local production. This is a further signal of the sector's development potential in SSA, provided that supply is competitive and logistically well organised.

Another similar market signal is imports from South or North America of high value-added products such as processed fruits and vegetables (including fruit juices, jams and tomato puree), along with fresh fruits such as apples and pears.

10 ECDPM (2018) "Starting afresh: The Maghreb's relations with sub-Saharan Africa".

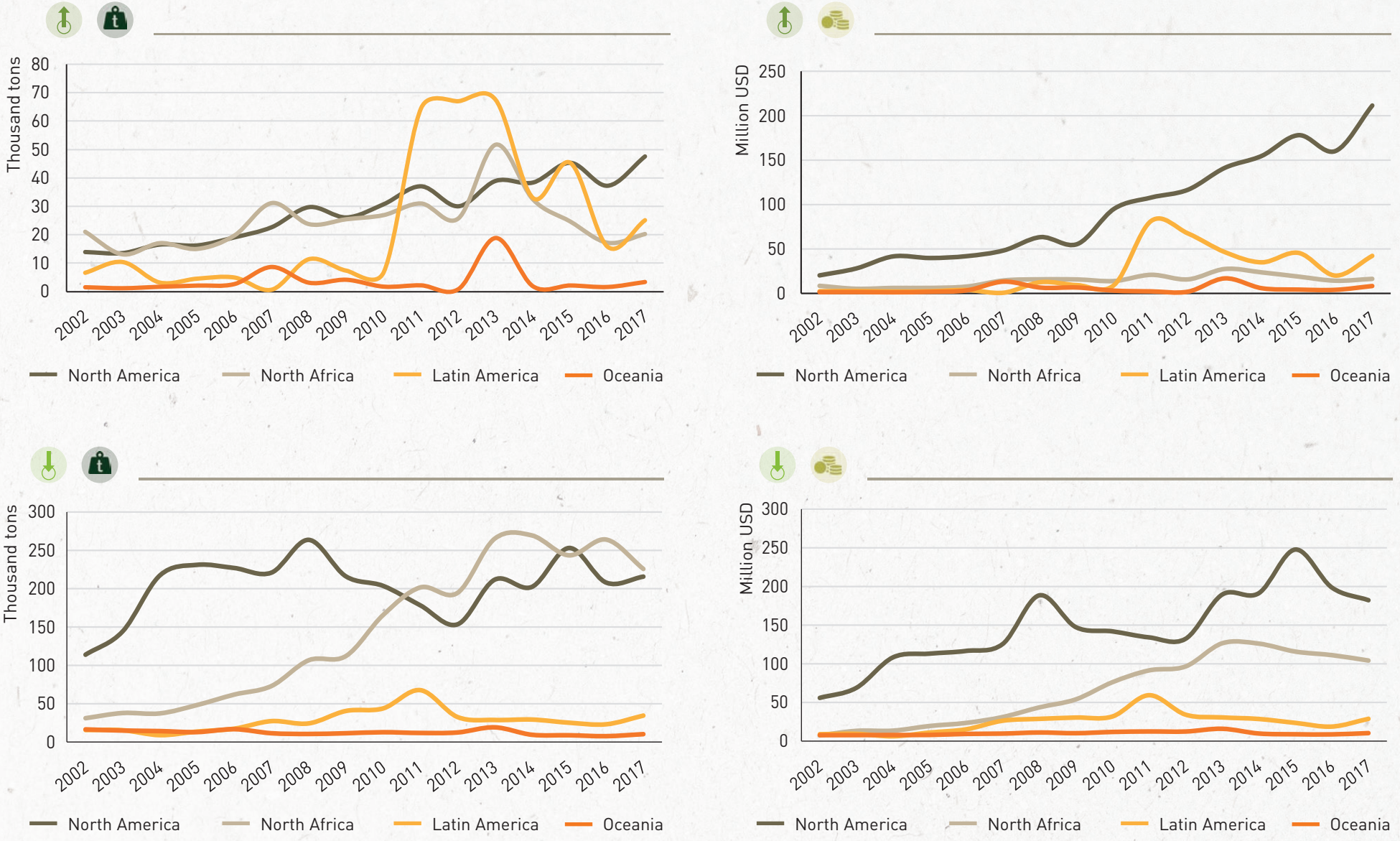


Figure 44: *Evolution of trade in fruit, vegetables, and processed fruit and vegetables between SSA (excluding South Africa) and other regions of the world (North America, Latin America, North Africa and Oceania) between 2002 and 2017 (by volume and value). Top: exports from SSA to other regions; below: imports by SSA from other regions. Source: COLEACP based on IFPRI data and authors' calculations.*

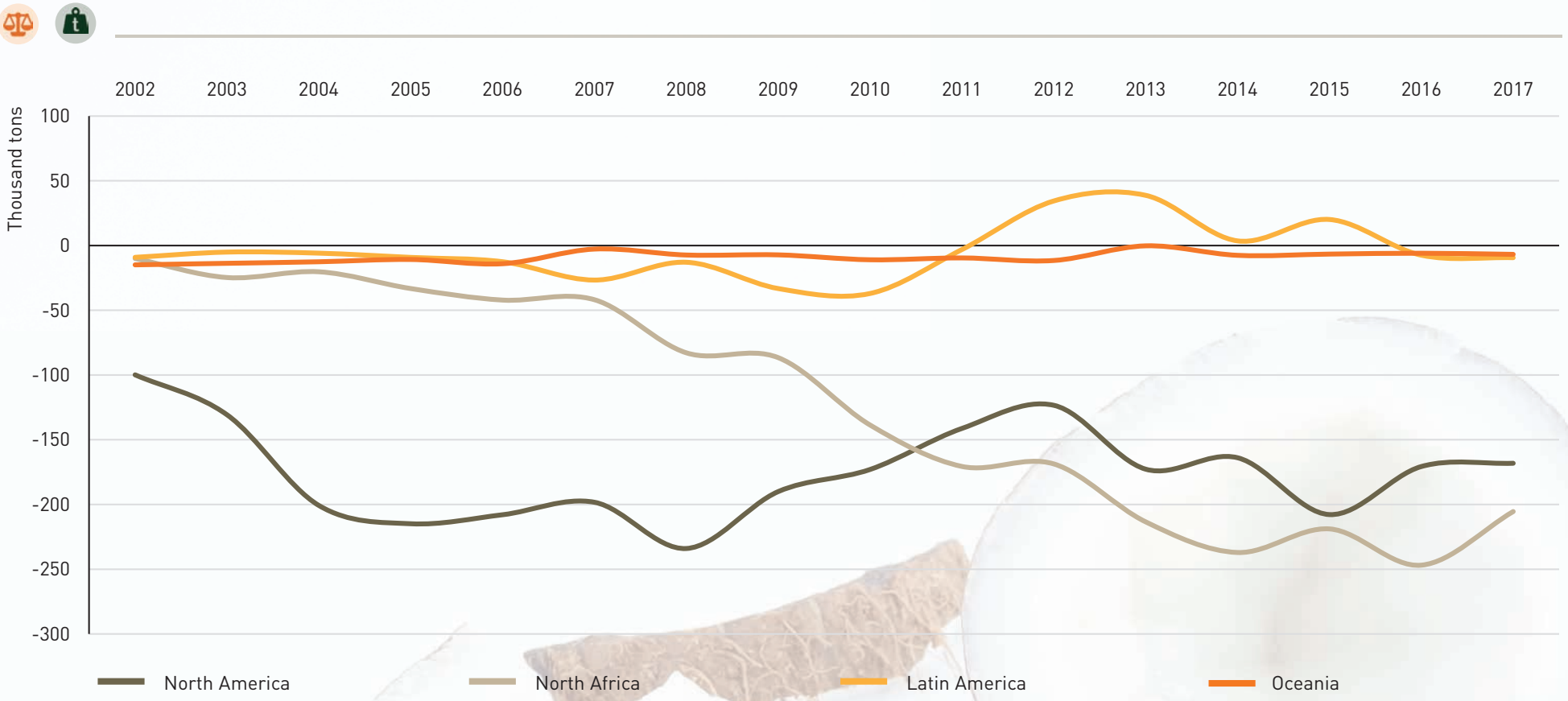


Figure 45: *Evolution of the balance of trade in fruits, vegetables and processed fruits and vegetables between SSA (excluding South Africa) and the other regions of the world (North America, Latin America, North Africa and Oceania) from 2002 to 2017 (by volume). Source: COLEACP based on IFPRI data and authors' calculations.*

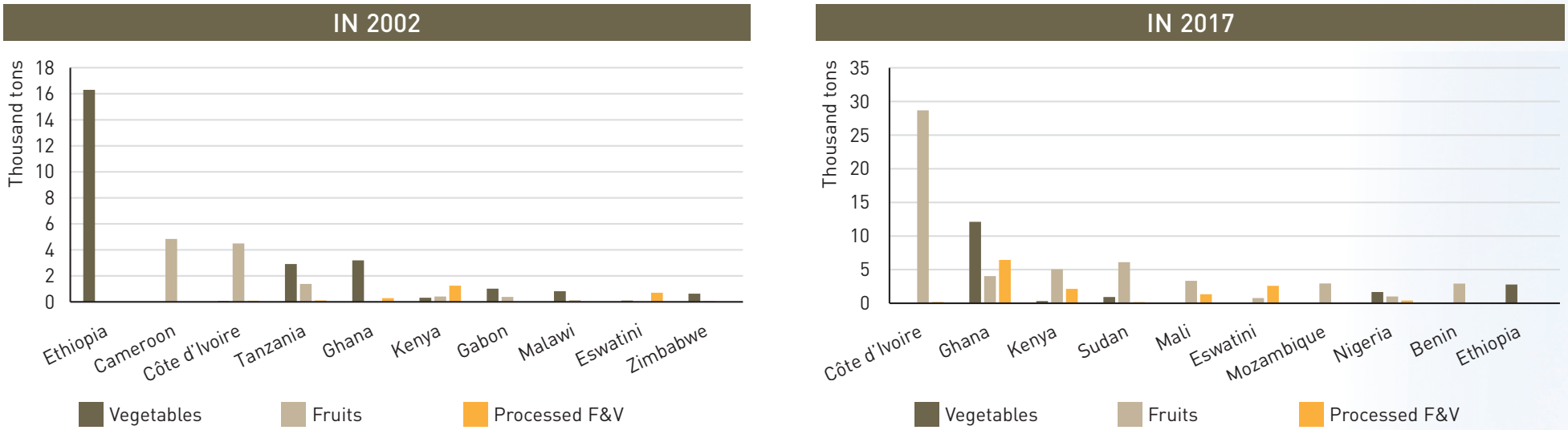


Figure 46: *Comparison of the top 10 SSA countries (excluding South Africa) exporting fruit, vegetables, and processed fruit and vegetables to other regions of the world (North America, Latin America, North Africa and Oceania) between 2002 and 2017 (by volume). Source: COLEACP based on IFPRI data and authors' calculations.*

At the same time, the SSA countries with the strongest export growth are as follows:

TOP 10 FASTEST-GROWING COMPANIES	SSA EXPORT VOLUME TO OTHER REGIONS OF THE WORLD IN 2007 (TONNES)	SSA EXPORT VOLUME TO OTHER REGIONS OF THE WORLD IN 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Sudan	21	7 217	79%
Mali	20	4 688	73%
Benin	36	2 969	55%
Guinea	14	153	27%
Mozambique	644	3 128	17%
Uganda	141.4	496	13%
Eritrea	93	318	13%
Ghana	7 217	22 591	12%
Togo	440	1 238	11%
Zambia	38	87	9%

For products, the most notable markets over the period were as follows:

MAIN VEGETABLES EXPORTED FROM SSA TO OTHER REGIONS OF THE WORLD	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Ethnic roots and tubers	3748	12051	12%
Beans (dried)	352	2484	22%
Other pulses (dried)	336	900	10%
Red beans (dried)	7334	2470	–10%
Peas (dried)	1233	443	–10%
Cassava	1058	405	–9%
Chickpeas (dried)	886	291	–11%
Ethnic vegetables	1870	228	–19%
Onions and shallots	676	201	–11%
Lentils (dried)	1363	75	–25%

MAIN FRUITS EXPORTED FROM SSA TO OTHER REGIONS OF THE WORLD	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Cashew nuts	5035	31924	20%
Other nuts	2328	5611	9%
Mangoes	391	5354	30%
Pineapple	1528	4877	12%
Coconut	431	1767	15%
Avocados	25	730	40%
Oranges	36	725	35%
Bananas and plantains	19914	6073	–11%
Coconut (dried)	679	295	–8%
Brazil nuts	3819	2	–53%

MAIN PROCESSED F&V EXPORTED FROM SSA TO OTHER REGIONS OF THE WORLD	VOLUME 2007 (TONNES)	VOLUME 2017 (TONNES)	COMPOUND ANNUAL GROWTH RATE (CAGR) BETWEEN 2007 AND 2017
Other fruits and nuts	365	2 302	17%
Pineapple	579	1 363	7%
Nuts and other seeds (not peanuts)	330	1 242	12%
Fruit mixtures	761	935	2%
Pineapple juice	549	713	2%
Orange juice	4	374	48%
Peanuts	29	253	20%
Vegetables (acid preserved)	307	283	–1%
Citrus	1 111	254	–12%
Tomato products	1 078	110	–17%

PARTNER REGION	FLUX	VOLUME 2002 (TONNES)	VOLUME 2017 (TONNES)	TOTAL GROWTH RATE (2002–2017)	CAGR
North America	Export	13 934	47 593	241.6%	8.5%
	Import	113 793	215 736	89.6%	4.4%
North Africa	Export	21 072	20 273	–3.8%	-0.3%
	Import	31 066	225 711	626.6%	14.1%
Latin America	Export	6 540	25 094	283.7%	9.4%
	Import	15 621	34 461	120.6%	5.4%
Oceania	Export	1 580	3 419	116.4%	5.3%
	Import	16 493	10 258	–37.8%	–3.1%

FRUIT, VEGETABLES, AND PROCESSED FRUIT AND VEGETABLES EXPORTED FROM SSA TO OTHER REGIONS OF THE WORLD	VOLUME 2017 (TONNES)	SHARE OF THE REGION'S EXPORTS
Latin America		
Cashew nuts	22 118	88%
North America		
Ethnic roots and tubers	11 991	25%
Cashew nuts	9 321	20%
Orange juice (frozen)	5 564	12%
Other nuts	4 954	10%
Beans (dried)	2 070	4%
Other fruits and nuts	1 748	4%
Pineapple	1 302	3%
Coconut	843	2%
North Africa		
Bananas/plantains	5 846	29%
Mangoes	4 676	23%
Pineapple	4 629	23%
Avocados	725	4%
Sweet corn (frozen)	601	3%
Oceania		
Fruit mixtures	930	27%
Nuts/other seeds (not peanuts)	930	27%
Other fruits and nuts	551	16%
Pineapple	252	7%
Other nuts	111	3%

FRUIT, VEGETABLES, AND PROCESSED FRUIT AND VEGETABLES IMPORTED BY THE SSA FROM OTHER REGIONS OF THE WORLD	VOLUME 2017 (TONNES)	SHARE OF SSA IMPORTS FROM THE REGION IN FRUIT AND VEGETABLES IN 2017
Latin America		
Red beans (dried)	9 273	27%
Peas (dried)	8 207	24%
Peanuts	3 304	10%
Onions and shallots	3 011	9%
Apples	1 875	5%
Grapes	1 007	3%
Chickpeas (dried)	894	3%
North America		
Peas (dried)	97 518	45%
Beans (dried)	50 928	24%
Lentils (dried)	36 877	17%

FRUIT, VEGETABLES, AND PROCESSED FRUIT AND VEGETABLES IMPORTED BY THE SSA FROM OTHER REGIONS OF THE WORLD	VOLUME 2017 (TONNES)	SHARE OF SSA IMPORTS FROM THE REGION IN FRUIT AND VEGETABLES IN 2017
North Africa		
Ethnic vegetables	77 188	34%
Potatoes	23 936	11%
Tomatoes	14 031	6%
Oranges	11 054	5%
Dates	10 753	5%
Peppers and chillis	9 775	4%
Mixed juices (fruit/vegetable)	9 680	4%
Onions and shallots	8 039	4%
Mandarins and similar citrus fruits	6 231	3%
Simple juices (other fruit/vegetables)	4 636	2%
Tomato products	3 801	2%
Garlic	3 226	1%
Oceania		
Peas (dried)	2 654	26%
Lentils (dried)	1 589	15%
Other pulses (dried)	1 296	13%
Potatoes (seed)	1 048	10%
Beans (dried)	830	8%
Chickpeas (dried)	601	6%
Mixed vegetables (frozen)	475	5%

Figure 47: *Notable trends in trade in fruits, vegetables, and processed fruits and vegetables from SSA (excluding South Africa) to other regions of the world (North America, Latin America, North Africa and Oceania), by country, region and product. Source: COLEACP based on IFPRI data and authors' calculations.*

09

REGIONAL TRADE IN FRUIT AND VEGETABLES IN SUB-SAHARAN AFRICA

Regional trade in sub-Saharan Africa

9.1. Intra-continental or interregional trade in SSA

The fruit and vegetable trade within sub-Saharan Africa is increasing steadily and sharply. This reflects a dynamic supply and demand situation. Trade within SSA is growing much more quickly than trade with and to the European Union, with an average growth rate over the period 2002–2017 of 10.3% compared to 1.1% for the EU, but 9.6% for Asia (CAGR, by volume).

According to official data, internal trade reached the size of trade with the EU in volume terms in 2012 and fluctuated around this level until 2017. However, the actual volume traded is probably already much higher because much of the internal trade is still informal.

With the entry into force of the African Continental Free Trade Area (AfCFTA) and the large scope for increasing supply in sub-Saharan Africa, trade can only increase in the coming years.

Trade between the Regional Economic Communities (RECs) is mainly determined by their geographical proximity, economic activity, and the food dependency of their Member States.

	2002-2017	2002-2017
VOLUME	TOTAL GROWTH	CAGR
East Asia	296.4%	9.6%
EU28	17.0%	1.1%
Sub-Saharan Africa	333.8%	10.3%

	2002-2017	2002-2017
VALUE	TOTAL GROWTH	CAGR
East Asia	1184.0%	18.6%
EU28	91.8%	4.4%
Sub-Saharan Africa	331.7%	10.2%

Figure 48: *Growth rates of intracontinental trade in fruit, vegetables, and processed fruit and vegetables in SSA (excluding South Africa) compared to growth rates of trade to the EU and East Asia between 2002 and 2017 (based on volume and value of trade).*
Source: COLEACP based on data from IFPRI, EUROSTAT and authors' calculations.

The Southern African Development Community (SADC), dominated in terms of trade by South Africa, is the largest exporter among the four RECs presented in this report. Other SADC Member States also have a high food surplus, making them net exporters of primary commodities such as fruits and vegetables.

SADC largely dominates the fruit and vegetable export trade in sub-Saharan Africa due to its supply performance, with South Africa historically being a key supplier to the world market in this sector.

The East African Community (EAC) is in an intermediate situation thanks to the performance of its vegetable exports. Kenya's imports from other RECs have increased exponentially. Imports from Uganda, Tanzania and Rwanda have increased, but in a linear fashion. Imports from Burundi and South Sudan remain very low.

For the Economic and Monetary Community of Central Africa (CEMAC), strong growth in interregional fruit and vegetable imports from other RECs was observed in Cameroon (tenfold increase over the period 2002–2017), Gabon (fivefold) and Congo (twofold).

For the Economic Community of West African States (ECOWAS), Nigeria's imports from other RECs increased exponentially from 2012 onwards.

ECOWAS and CEMAC members face high deficits and limited connectivity with the markets of other RECs, resulting in lower interregional trade.

The further interregional integration of these RECs offers considerable potential for reducing the vulnerability of their economies. Integration promotes trade within the African continent, which is an alternative to international markets in the event of global economic shocks on prices and thus on local production.

The main exporting countries in sub-Saharan Africa are South Africa and Tanzania for SADC (Tanzania's share is increasing); Kenya, Uganda and Tanzania for EAC (Tanzania has become the largest exporter in the region); and Nigeria, Ghana and Senegal for ECOWAS (Nigeria has become the largest exporter in the region).

Regarding the main market segments, apart from apples and oranges (the main products traditionally exported by South Africa), cassava, onions, beans, tomatoes, roots and tubers appear to be promising segments in terms of interregional trade in SSA.

Exports of processed fruit and vegetables to the intracontinental market are still minimal compared to the volumes of fresh fruit and vegetables (which include fresh, dried and provisionally preserved products).

Compared to other regions of the world, the share of domestic trade in fruit and vegetables (21%) in SSA is still relatively very limited. Within the EU, the export destinations for about 80% of fresh fruit and 86% of fresh vegetables are domestic[11]. However, the increase in internal trade in Europe and Asia is also the result of the increase in GDP and thus economic activity in their Member States compared to SSA.

It is important to stress that, on average, sub-Saharan African countries are better connected to the EU and Asia than other African countries.

Trade complementarity between partner countries is weak. Trade takes place mainly between neighbouring countries with similar growing seasons, resulting in a strong correspondence between the composition of exports and imports from partner countries in terms of products and time. This low complementarity ultimately reduces the potential effect

11 CBI Trade Statistics: *Fresh fruit and vegetables in Europe*, CBI Market Intelligence, 2015.

of trade policies on reducing trade barriers, which is a second major challenge. Non-tariff barriers, in particular, are an important cause of the low level of intraregional trade. Examples include the many small, fragmented and partially isolated markets; inconsistent trade policies; poor intra-African connectivity due to poor physical infrastructure; inefficient customs processes; and arbitrary breaks in the supply chain, among others. Increasingly frequent and severe weather shocks in the context of climate change are a further cause of impediments to trade development, which is likely to become increasingly important.

However, since their independence many countries in sub-Saharan Africa have made efforts to integrate regional markets to facilitate internal trade. The Regional Economic Communities (RECs) are one of their achievements; however, several RECs have overlapping membership and seem to complicate rather than facilitate trade relations among some SSA countries. The Framework Agreement of the African Continental Free Trade Area (AfCFTA)[12], now signed by 54 of the 55 members of the African Union, entered into force on 30 May 2019, with the ambitious long-term objective of addressing the challenges associated with the multiple overlapping

12 African Union (2018) Summary of key decisions and declarations of the 31st African Union Summit. African Union, 6 July, https://www.tralac.org/resources/our-resources/6730-continental-free-trade-area-cfta.html

trade agreements on the continent. Bringing together 1.3 billion people, it is the largest trade agreement in the world since the World Trade Organization in 1994. It is expected to unlock Africa's economic potential by boosting intracontinental trade, strengthening supply chains and disseminating expertise.

The potential for fruit and vegetable trade development in the African market in sub-Saharan Africa is therefore enormous, and the development of national and regional markets is expected to accelerate significantly in the coming years. The pace of acceleration will depend in particular on the evolution of market access conditions in terms of non-tariff barriers, and the capacity of supply to adapt and meet demand.

Not all regions start from the same situation in terms of export power, as the following sections show. Reserves for export growth are theoretically greater where exports are relatively lower. They can only be expressed if supply in these countries continues to improve in order to seize all existing and future opportunities. Otherwise, it is the already strong exporting regions, with South Africa in the lead, that will benefit.

Trade trends among the four major RECs in sub-Saharan Africa

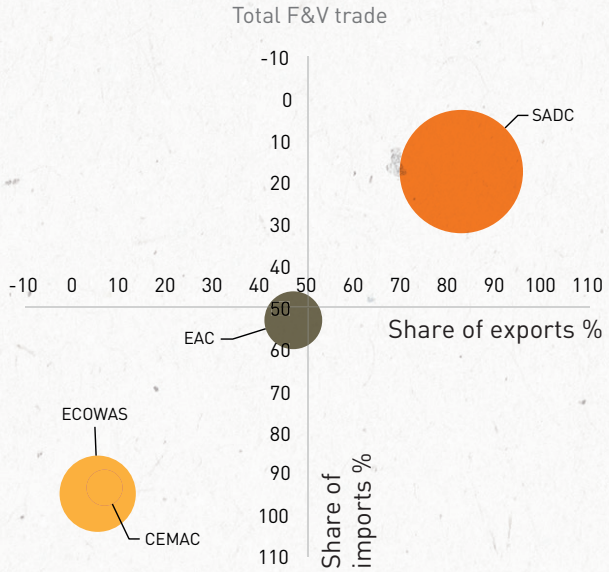


Figure 49: *Relative share of each REC's relative export volumes in total REC trade (on the horizontal axis) crossed with each REC's relative import share in REC trade (on the vertical axis) of fruits, vegetables, and processed fruits and vegetables (in 2017). Bubble sizes represent the total trade of each REC (volume in tonnes of imports + exports to other RECs) per REC in 2017. Source: COLEACP based on IFPRI data and authors' calculations.*

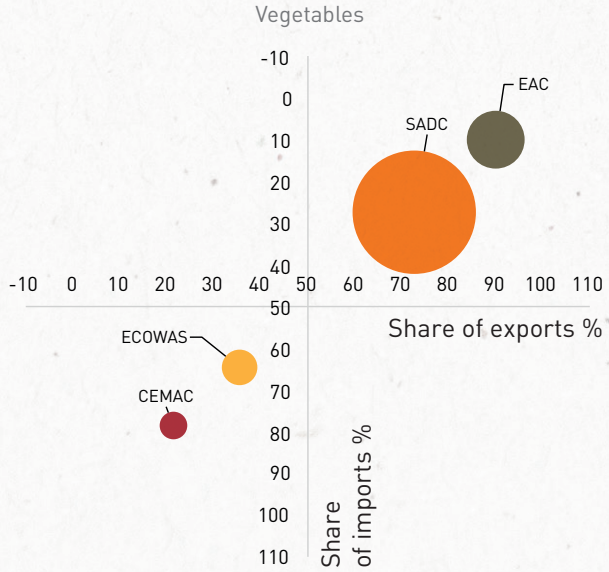


Figure 50: *Relative share of export volumes in the vegetable trade of the four RECs (on the horizontal axis) crossed with the relative share of imports of each REC in the vegetable trade of the four RECs (on the vertical axis). Bubble sizes represent the total vegetable trade of each REC (volume in tonnes of imports + exports to other RECs) per REC in 2017. Source: COLEACP based on IFPRI data and authors' calculations.*

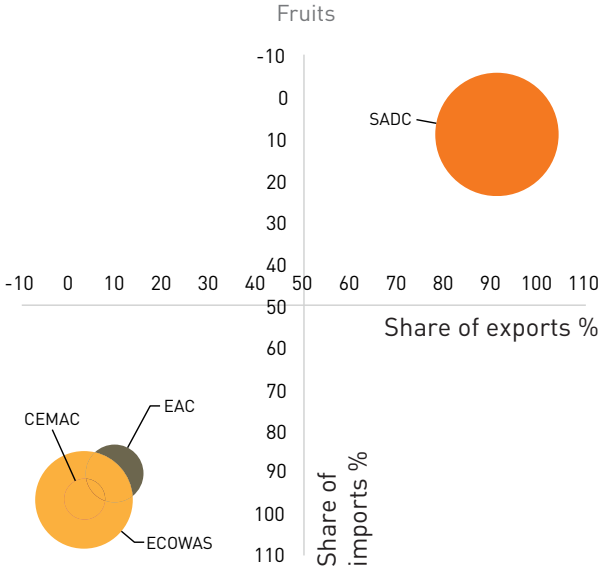


Figure 51: *Relative share of each REC's export volumes in the four RECs' fruit trade (on the horizontal axis) crossed with the relative share of each REC's imports in the four RECs' fruit trade (on the vertical axis) in 2017. Bubble sizes represent the total fruit trade (volume in tonnes of imports + exports to other RECs) per REC in 2017.*
Source: COLEACP based on IFPRI data and authors' calculations.

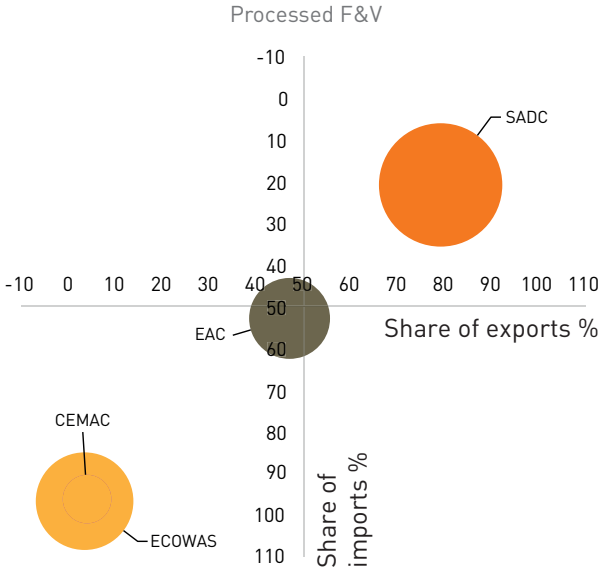
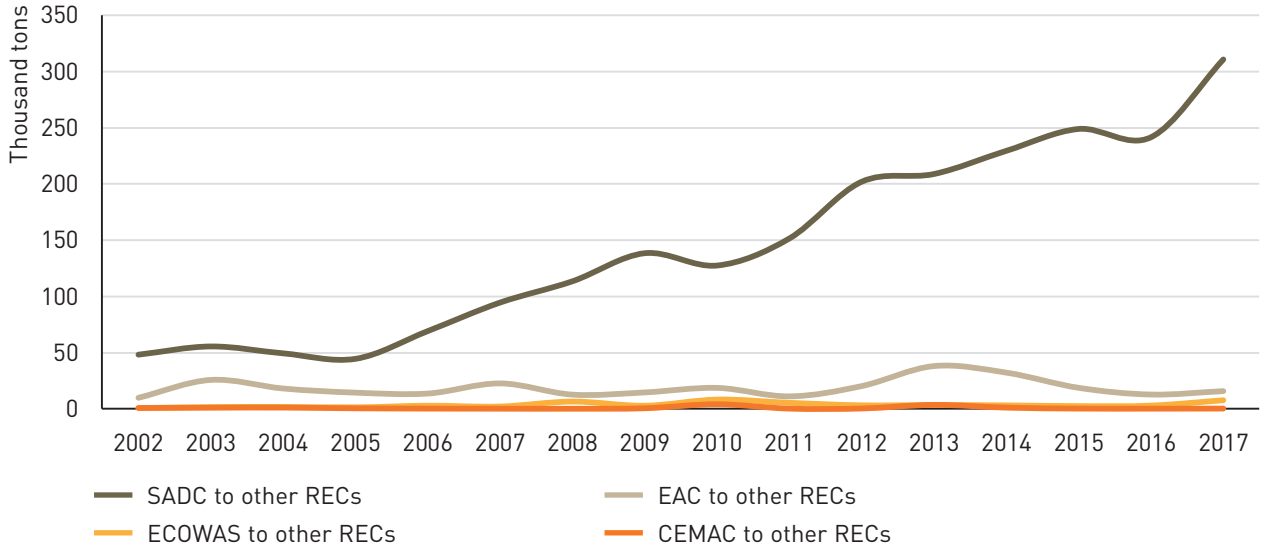


Figure 52: *Relative share of each REC's export volumes in the processed F&V trade of the four RECs (on the horizontal axis) crossed with the relative share of each REC's imports in the processed F&V trade of the four RECs (on the vertical axis) in 2017. Bubble sizes represent the total trade in processed F&V (volume in tonnes of imports + exports to other RECs) per REC in 2017.*
Source: COLEACP based on IFPRI data and authors' calculations.



EXPORT FLOWS	TOTAL GROWTH (2002–2017)	CAGR
SADC to other RECs	546%	13.2%
EAC to other RECs	59%	3.1%
ECOWAS to other RECs	1049%	17.7%
CEMAC to other RECs	–59%	–5.8%

Figure 53: *Top, export flows of fruits, vegetables, and processed fruits and vegetables from one REC to the other three between 2002 and 2017 (by volume). Below, export flows 2002–2017 by volume, total growth and CAGR. Source: COLEACP based on IFPRI data and authors' calculations.*

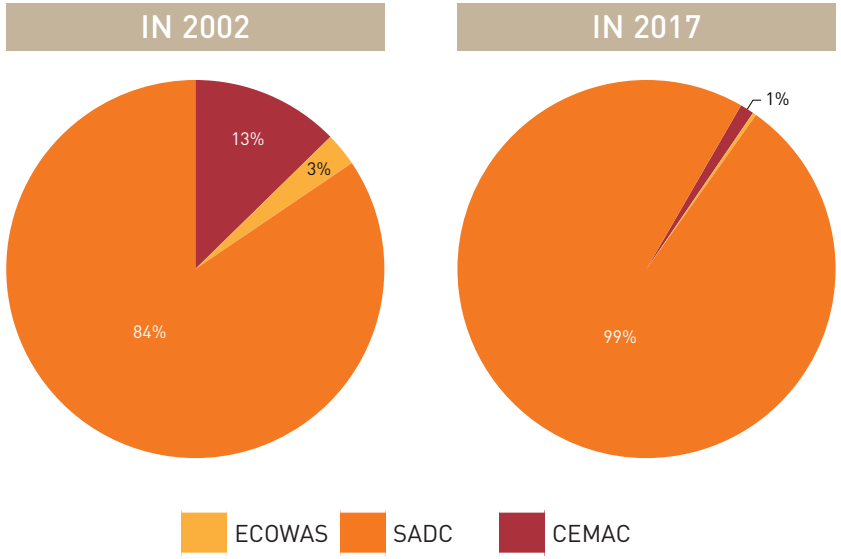


Figure 54: *Trends in the breakdown of EAC exports to other RECs in sub-Saharan Africa (2002–2017, by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

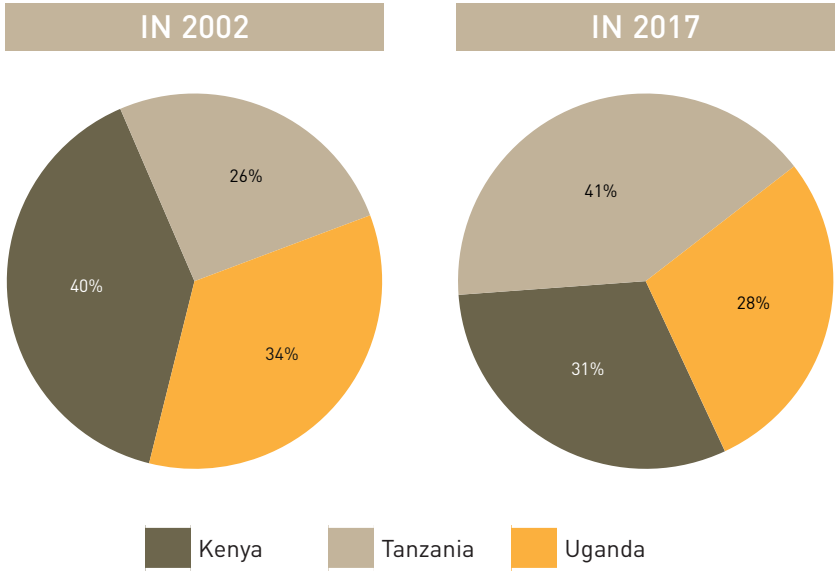


Figure 55: *Trends in the breakdown of EAC Member States' exports to other RECs in sub-Saharan Africa (2002–2017, by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

1	Simple juices (other fruit/vegetables)	3 188
2	Tomato products	1 877
3	Bananas/plantains	1 644
4	Beans *V. mungo/V. radiata* (dried)	1 626
5	Mixed juices (fruit/vegetables)	1 460
6	Apple juice	1 033
7	Peas (dried)	669
8	Beans (dried)	602
9	Simple citrus juice (not orange/grapefruit)	414
10	Other pulses (dried)	397

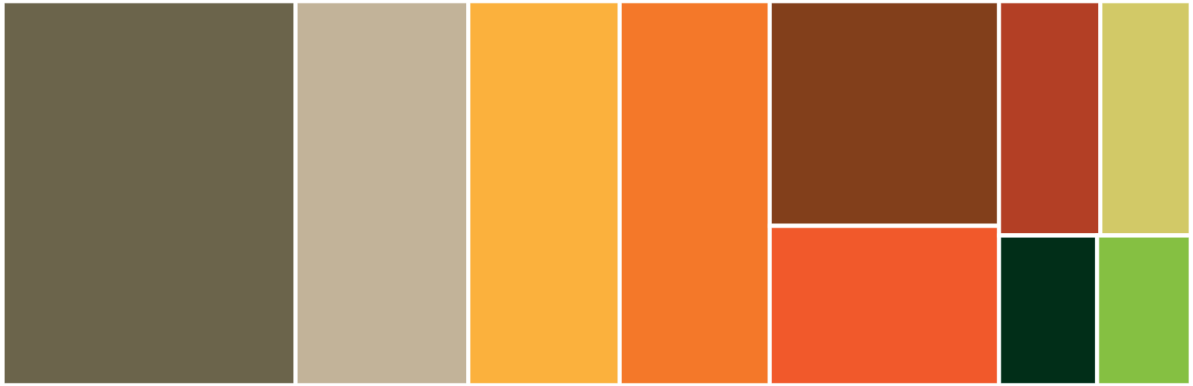


Figure 56: *Top 10 products exported from the EAC to other RECs in sub-Saharan Africa (2017, in tonnes).*
Source: COLEACP based on IFPRI data and authors' calculations.

1	Apples	21 362
2	Oranges	2 599
3	Grapes	1 506
4	Apple juice	1 251
5	Mixed juices (fruit/vegetables)	1 154
6	Other pulses (dried)	1 004
7	Peas (dried)	510
8	Simple juices (other fruit/vegetables)	506
9	Pears	479
10	Red beans	414

Figure 57: *Top 10 products imported by the EAC from other RECs in sub-Saharan Africa (2017, in tonnes).*
Source: COLEACP based on IFPRI data and authors' calculations.

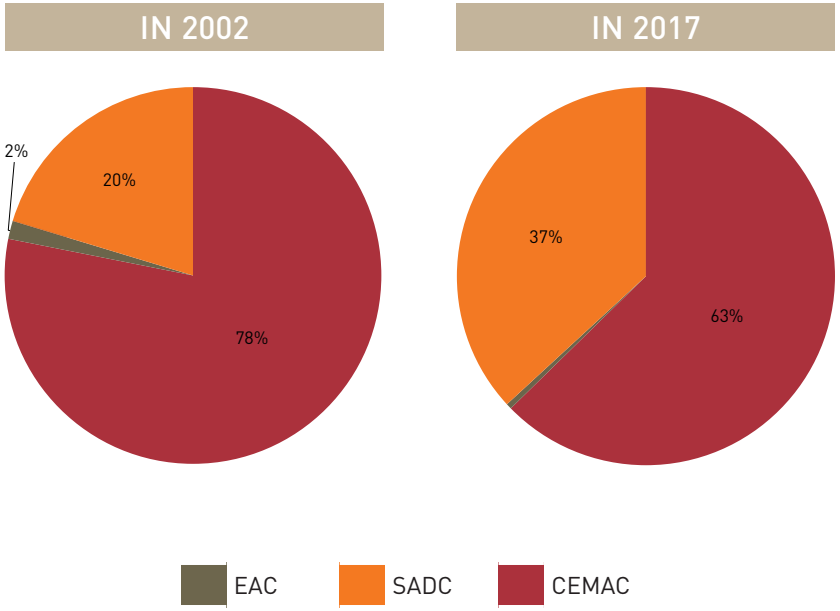


Figure 58: *Trends in the breakdown of ECOWAS exports to other RECs in sub-Saharan Africa (2002–2017, in volume). Source: COLEACP based on IFPRI data and authors' calculations.*

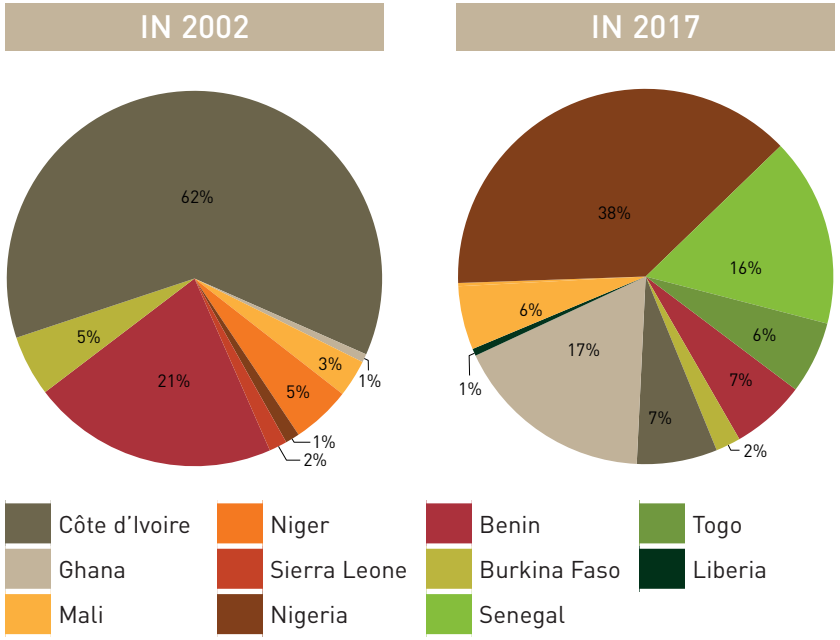


Figure 59: *Trends in the breakdown of exports from ECOWAS Member States to other RECs in sub-Saharan Africa (2002–2017, in volume). Source: COLEACP based on IFPRI data and authors' calculations.*

1	Ethnic roots and tubers	2 263
2	Garlic	1 376
3	Apples	1 022
4	Mangoes/guavas/mangosteen	442
5	Other nuts	324
6	Bananas/plantains	291
7	Simple juices (other fruit/vegetables)	203
8	Red beans	180
9	Other vegetables	176
10	Beans *V. mungo/V. radiata* (dried)	169

Figure 60: *Top 10 products exported from ECOWAS to other RECs in sub-Saharan Africa (2017, in tonnes).*
Source: COLEACP based on IFPRI data and authors' calculations.

1	Apples	70 992
2	Pears	4 048
3	Grape juice	3 139
4	Oranges	2 761
5	Mixed juices (fruit/vegetables)	2 568
6	Grapes	2 219
7	Mangoes/guavas/mangosteen	1 615
8	Simple juices (other fruit/vegetables)	1 527
9	Apple juice	1 413
10	Carrots/turnips	1 195

Figure 61: *Top 10 products imported by ECOWAS from other RECs in sub-Saharan Africa (2017, in tonnes).*
Source: COLEACP based on IFPRI data and authors' calculations.

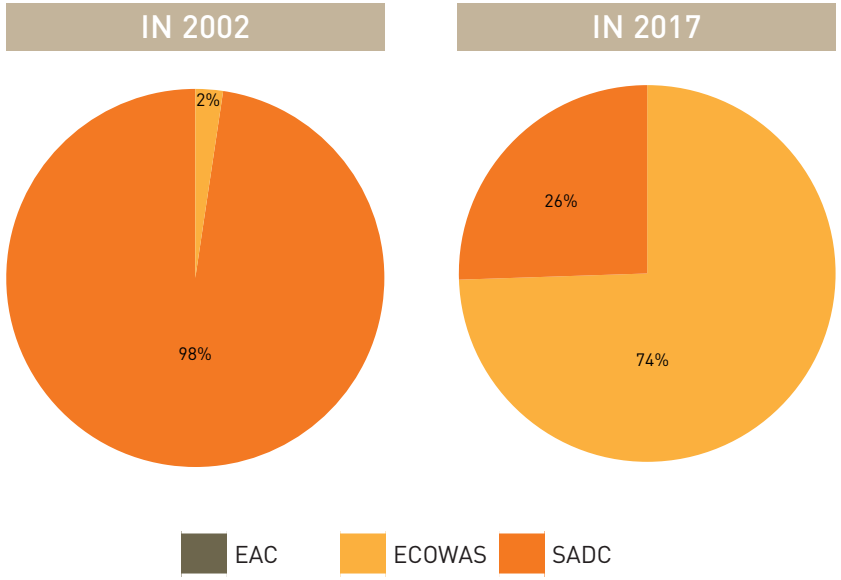


Figure 62: *Evolution of CEMAC exports to other RECs in sub-Saharan Africa (2002–2017, in volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

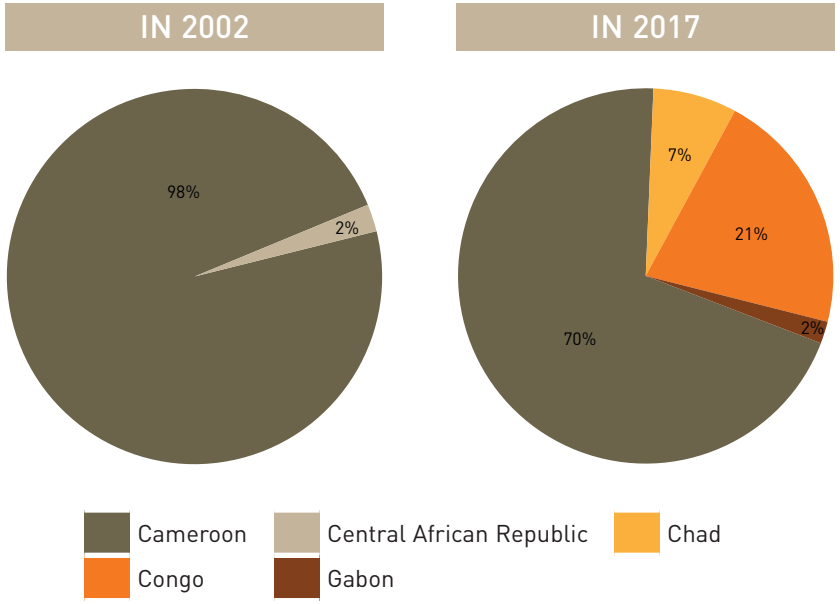


Figure 63: *Changes in the breakdown of exports from CEMAC Member States to other RECs in sub-Saharan Africa (2002–2017, in volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

1	Bananas/plantains	143
2	Peas	61
3	Beans (dried)	43
4	Other brassicas	27
5	Garlic	26
6	Carrots/turnips	17
7	Ethnic vegetables	14
8	Onions/shallots	6
9	Orange juice	5
10	Tomatoes	4

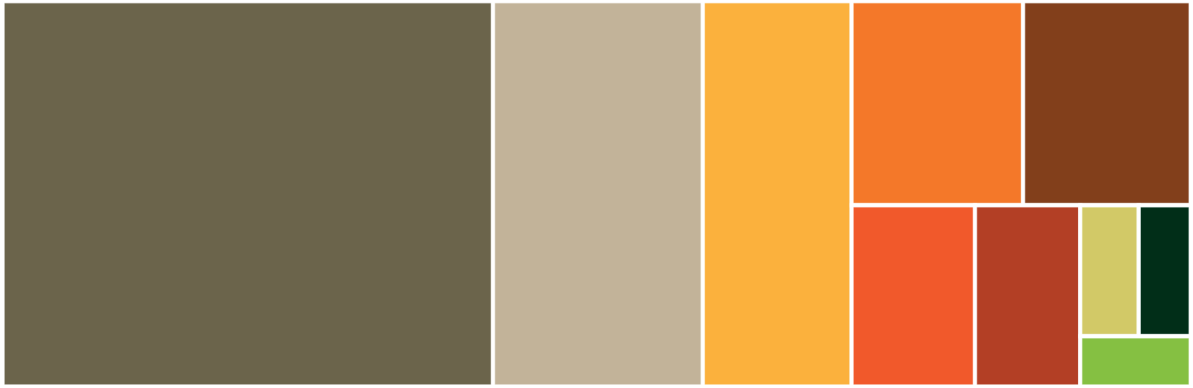


Figure 64: *Top 10 products exported from CEMAC to other RECs in sub-Saharan Africa (2017, in tonnes).*
Source: COLEACP based on IFPRI data and authors' calculations.

1	Apples	11 022
2	Mixed juices (fruit/vegetables)	2 346
3	Garlic	1 390
4	Oranges	1 310
5	Ethnic roots and tubers	903
6	Carrots/turnips	580
7	Pears	557
8	Mandarins/similar citrus fruits	503
9	Potatoes	467
10	Simple juices (other fruit/vegetables)	449

Figure 65: *Top 10 products imported by CEMAC from other RECs in sub-Saharan Africa (2017, in tonnes).*
Source: COLEACP based on IFPRI data and authors' calculations.

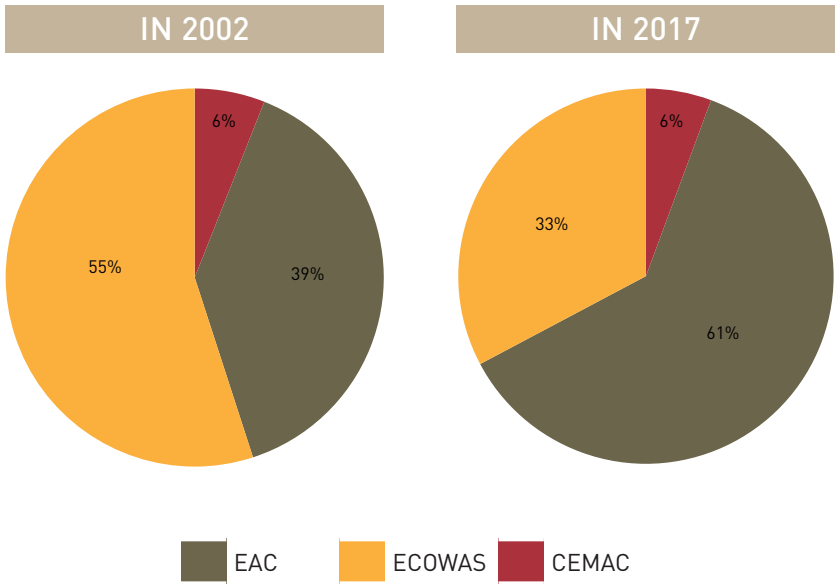


Figure 66: *Trends in the breakdown of SADC exports to other RECs in sub-Saharan Africa (2002–2017, by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

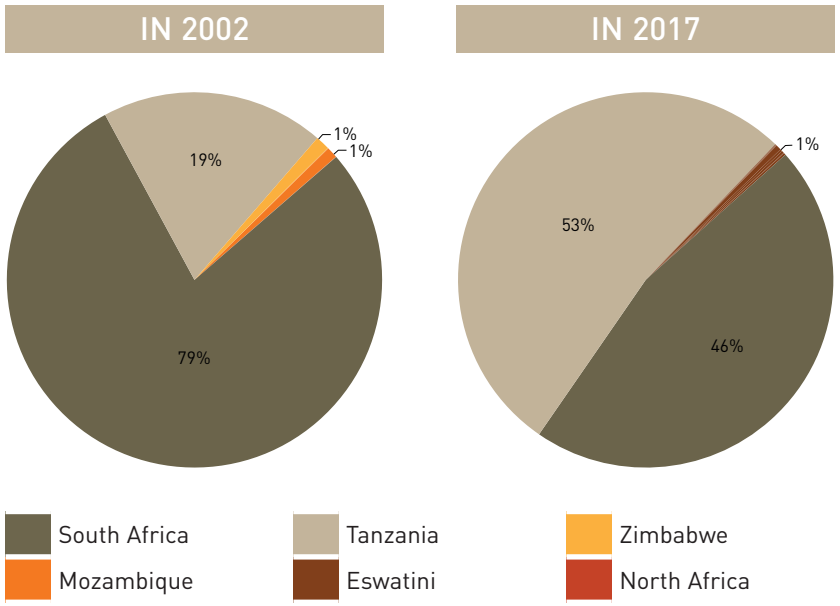


Figure 67: *Trends in the breakdown of exports from SADC Member States to other RECs in sub-Saharan Africa (2002–2017, by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

1	Apples	100 370
2	Onions/shallots	40 031
3	Oranges	34 663
4	Onions (dried)	27 195
5	Peas (dried)	17 900
6	Cassava	15 852
7	Mixed juices (fruit/vegetables)	5 611
8	Beans *V. mungo/V. radiata* (dried)	5 589
9	Peas	5 219
10	Pears	4 973

Figure 68: *Top 10 products exported from SADC to other RECs in sub-Saharan Africa (2017, in tonnes).*
Source: COLEACP based on IFPRI data and authors' calculations.

1	Peas (dried)	13 584
2	Beans *V. mungo/V. radiata* (dried)	2 988
3	Beans	2 684
4	Potatoes	2 549
5	Simple juices (other fruit/vegetables)	2 327
6	Tomato products	1 893
7	Ethnic roots and tubers	1 360
8	Mixed juices (fruit/vegetables)	1 161
9	Avocados	1 040
10	Beans (frozen)	938

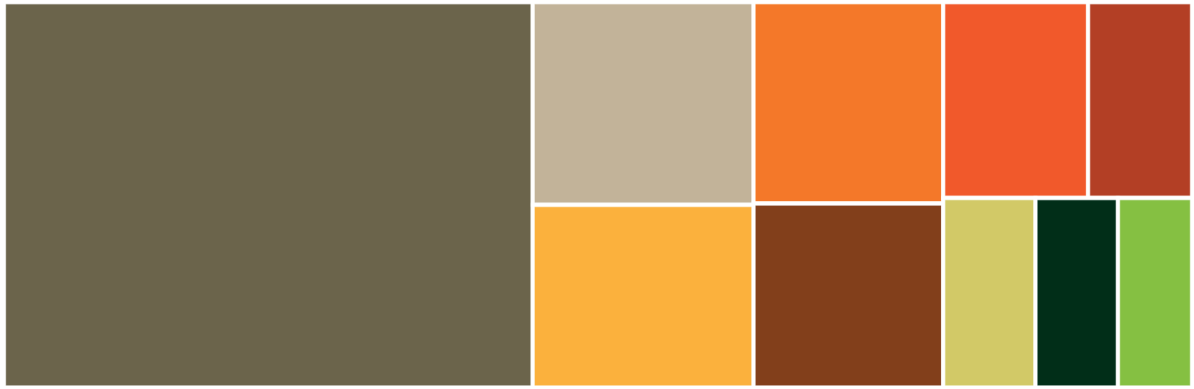


Figure 69: *Top 10 products imported by SADC from other RECs in sub-Saharan Africa (2017, in tonnes).*
Source: COLEACP based on IFPRI data and authors' calculations.

9.2. Intraregional trade in sub-Saharan Africa

ECOWAS – Economic Community of West African States

The 15 ECOWAS Member States are Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone and Togo.

Intraregional export growth is promising and continuous for processed fruits, vegetables, and F&V (10% per year). Another promising indicator is that supply is much more diversified than in the early 2000s in terms of the number of exporting countries and their relative importance. Niger and Côte d'Ivoire no longer have the same predominance. This reflects the progress and development of the F&V offers of the different countries in the region.

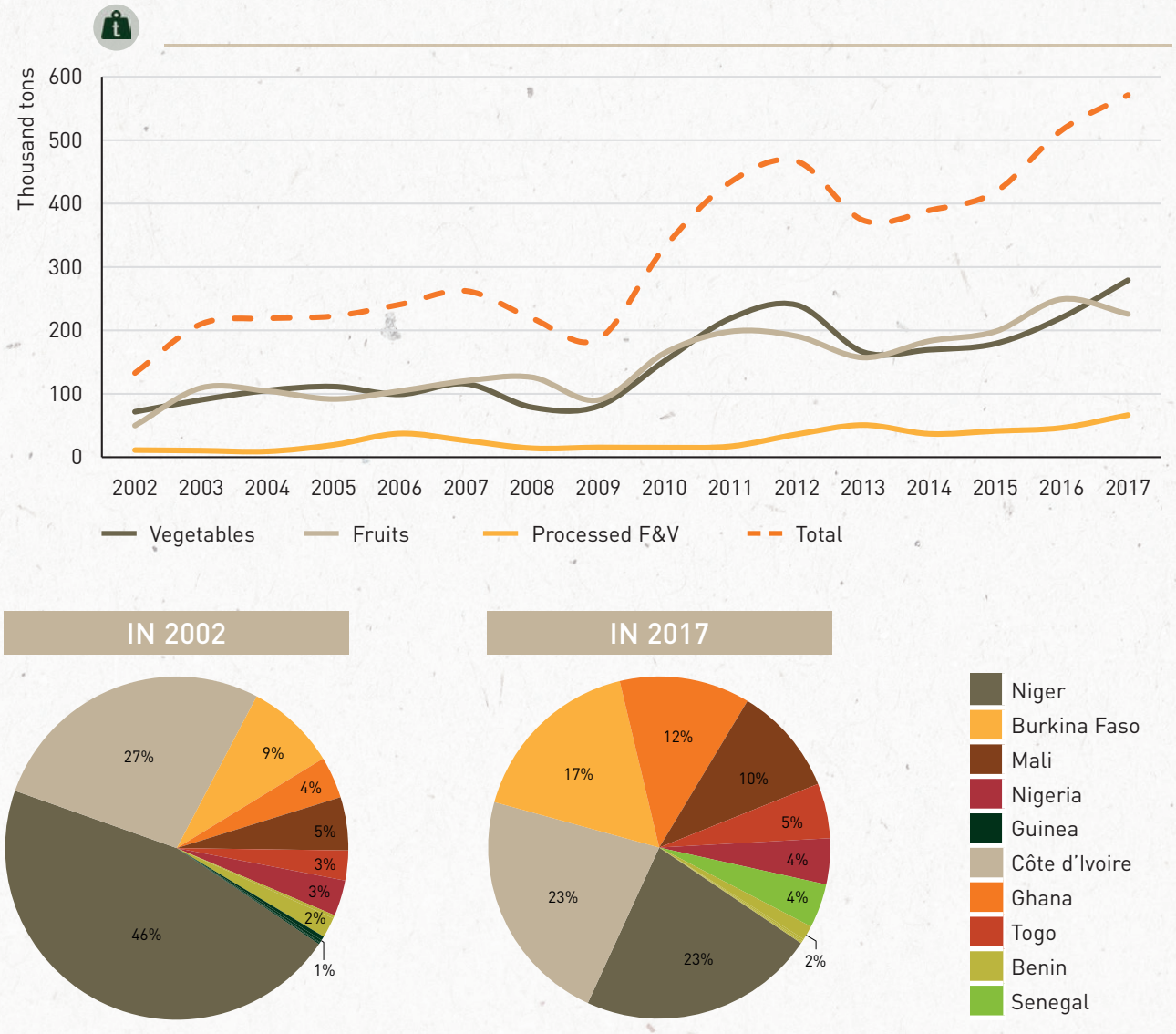


Figure 70: *Evolution of ECOWAS intraregional exports of fruits, vegetables and processed fruits and vegetables between 2002 and 2017 (by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

The main intraregional products traded are bananas, coconuts, roots and tubers from Côte d'Ivoire; onions and pulses from Niger; onions, pulses and tomatoes from Burkina Faso; coconuts, prepared tomatoes and bananas from Ghana; and mangoes, sweet potatoes and vegetables from Mali. The main trade is in fresh fruits and vegetables, with very little processed fruits and vegetables being traded in the region. The potential for growth is significant. Further integration of informal trade could boost the economies of ECOWAS Member States. The elimination of non-tariff barriers to trade is a prerequisite.

Approximately 75% of intraregional trade is not included in official statistics[13]. Considering the paradoxical situation where several ECOWAS Member States with exceptional agricultural production potential are increasingly net importers of horticultural products, it is clear that intraregional trade in ECOWAS still has much room for development. Urbanisation and the rapid growth of the middle class are increasing domestic demand, which is growing faster than domestic supply. This growing dependence on food imports should be a major concern for ECOWAS regional and national policymakers.

Côte d'Ivoire and Niger remain the leading intraregional exporters of horticultural products, each accounting for about 23% of intraregional exports of products. Fresh fruits and vegetables in this trade are mainly bananas, onions and coconuts, as well as roots and tubers. Other important exporters within ECOWAS are Burkina Faso (17%), mainly mangoes, sweet potatoes and vegetables; Ghana (12%), mainly onions, vegetables and tomatoes; and Mali (10%), mainly coconuts and prepared tomatoes.

In terms of destination, Côte d'Ivoire is the main importer of these commodities (20% of total intraregional agricultural trade), followed by Senegal (18%) and Ghana (16%).

Market access barriers faced by ECOWAS producers and processors further hamper their competitiveness, while some imported food products can move more easily through the corridors to reach major West African markets, distributed by powerful importers and trading companies.

These corridors constitute a major logistics route for West Africa (the trans-Sahelian west–east highway between Dakar and N'Djamena, the transcontinental highway between Dakar and Lagos and the interconnected north–south corridors) that facilitates extraregional, intraregional and national trade. The proper functioning of these corridors is therefore of great importance. A major task is to promote the free movement of goods by reducing the many unofficial barriers to trade that lead to loss of time and increased costs, making products more expensive than necessary for the final consumer. "Logistical harassment" is a recurrent problem in the ECOWAS region.

13 *Overview of trade and barriers to trade in West Africa*, European Centre for Development Policy Management (ECDPM), 2016.

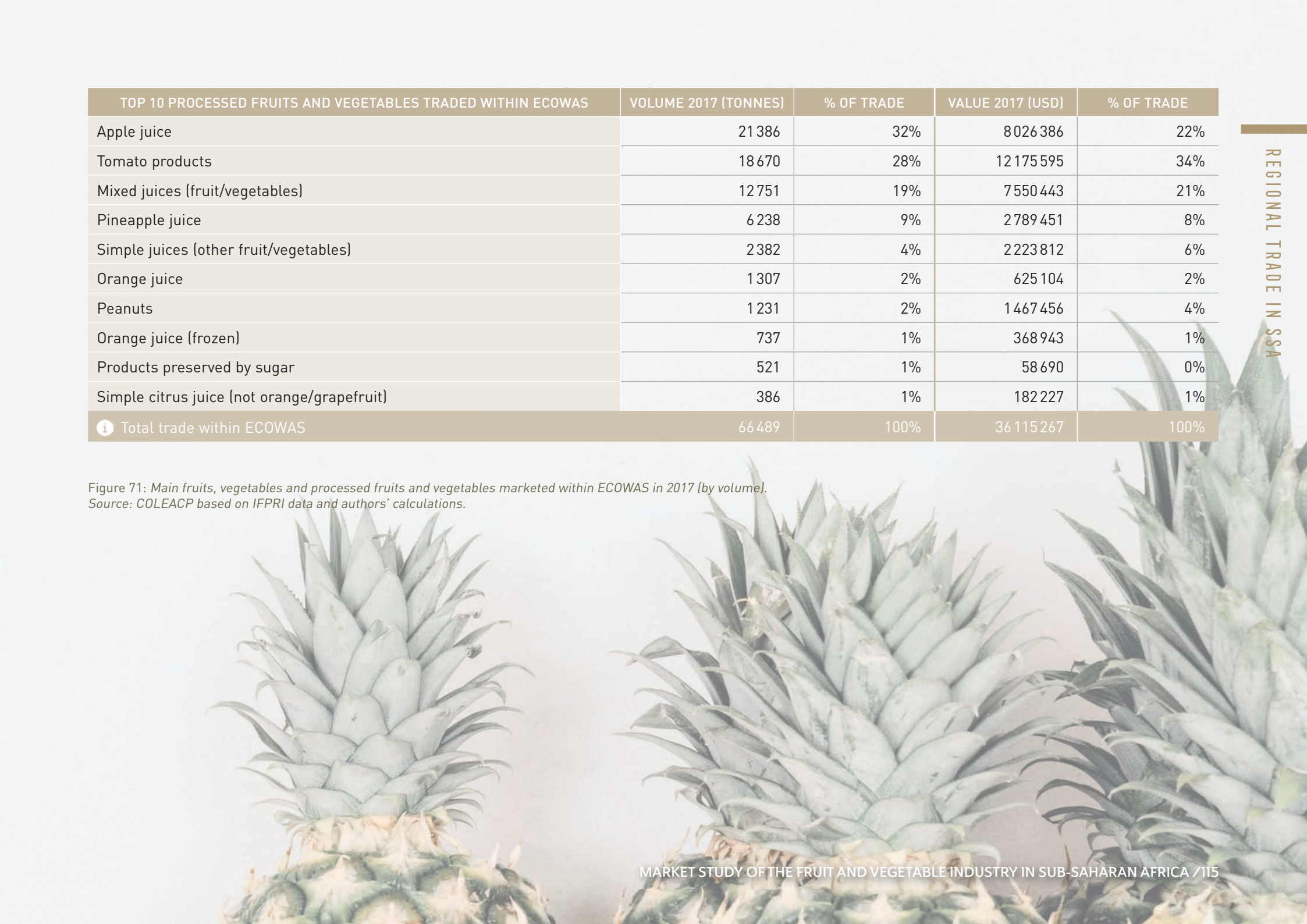
For products, the most notable markets over the period were as follows:

TOP 10 VEGETABLES TRADED WITHIN ECOWAS	VOLUME 2017 (TONS)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Onions and shallots	149 943	54%	16 399 831	58%
Sweet potatoes	24 621	9%	1 111 394	4%
Red beans (dried)	16 841	6%	2 052 044	7%
Onions (dried)	16 107	6%	303 273	1%
Other legumes	13 985	5%	888 180	3%
Tomatoes	12 834	5%	1 694 807	6%
Ethnic roots and tubers	12 589	5%	973 466	3%
Beans (dried)	10 586	4%	1 686 754	6%
Ethnic vegetables (frozen)	4 079	1%	309 636	1%
Ethnic vegetables	3 036	1%	168 181	1%
Total trade within ECOWAS	279 059	100%	28 414 071	100%

TOP 10 FRUITS TRADED WITHIN ECOWAS	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Bananas and plantains	80 069	35%	28 637 943	40%
Other nuts	32 665	14%	7 384 061	10%
Coconut	29 553	13%	996 120	1%
Coconut (dried)	28 378	13%	523 281	1%
Cashew nuts	23 838	11%	17 550 938	25%
Oranges	8 029	4%	267 515	0%
Mangoes, guavas and mangosteens	6 166	3%	3 299 606	5%
Other fruits (dried)	5 680	3%	420 251	1%
Dates	2 178	1%	1 391 939	2%
Papaya	1 210	1%	103 692	0%
Total trade within ECOWAS	225 711	100%	70 735 571	100%

TOP 10 PROCESSED FRUITS AND VEGETABLES TRADED WITHIN ECOWAS	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Apple juice	21 386	32%	8 026 386	22%
Tomato products	18 670	28%	12 175 595	34%
Mixed juices (fruit/vegetables)	12 751	19%	7 550 443	21%
Pineapple juice	6 238	9%	2 789 451	8%
Simple juices (other fruit/vegetables)	2 382	4%	2 223 812	6%
Orange juice	1 307	2%	625 104	2%
Peanuts	1 231	2%	1 467 456	4%
Orange juice (frozen)	737	1%	368 943	1%
Products preserved by sugar	521	1%	58 690	0%
Simple citrus juice (not orange/grapefruit)	386	1%	182 227	1%
Total trade within ECOWAS	66 489	100%	36 115 267	100%

Figure 71: *Main fruits, vegetables and processed fruits and vegetables marketed within ECOWAS in 2017 (by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.



EAC – East African Community

The six EAC Partner States are Burundi, Kenya, Rwanda, South Sudan, Tanzania and Uganda.

The agricultural sector is at the heart of the EAC economy, contributing between 24% and 44% of GDP in the partner countries, and representing the livelihood of about 80% of the region's population.

Important fruits and vegetables for the region's export market include avocado, mango, pineapple, banana and oranges, and vegetables including different types of fresh and dried beans, peas and other pulses, tomatoes, peppers and carrots. There is great export potential for passion fruit, bananas, raspberries, beans, asparagus, snow peas and chillies.

The main intraregional exports of fruit and vegetables are pulses, cassava, onions, potatoes and oranges. While trade in fruit and processed F&V products is growing steadily, intraregional trade in vegetables increased by 21.8% annually between 2002 and 2017.

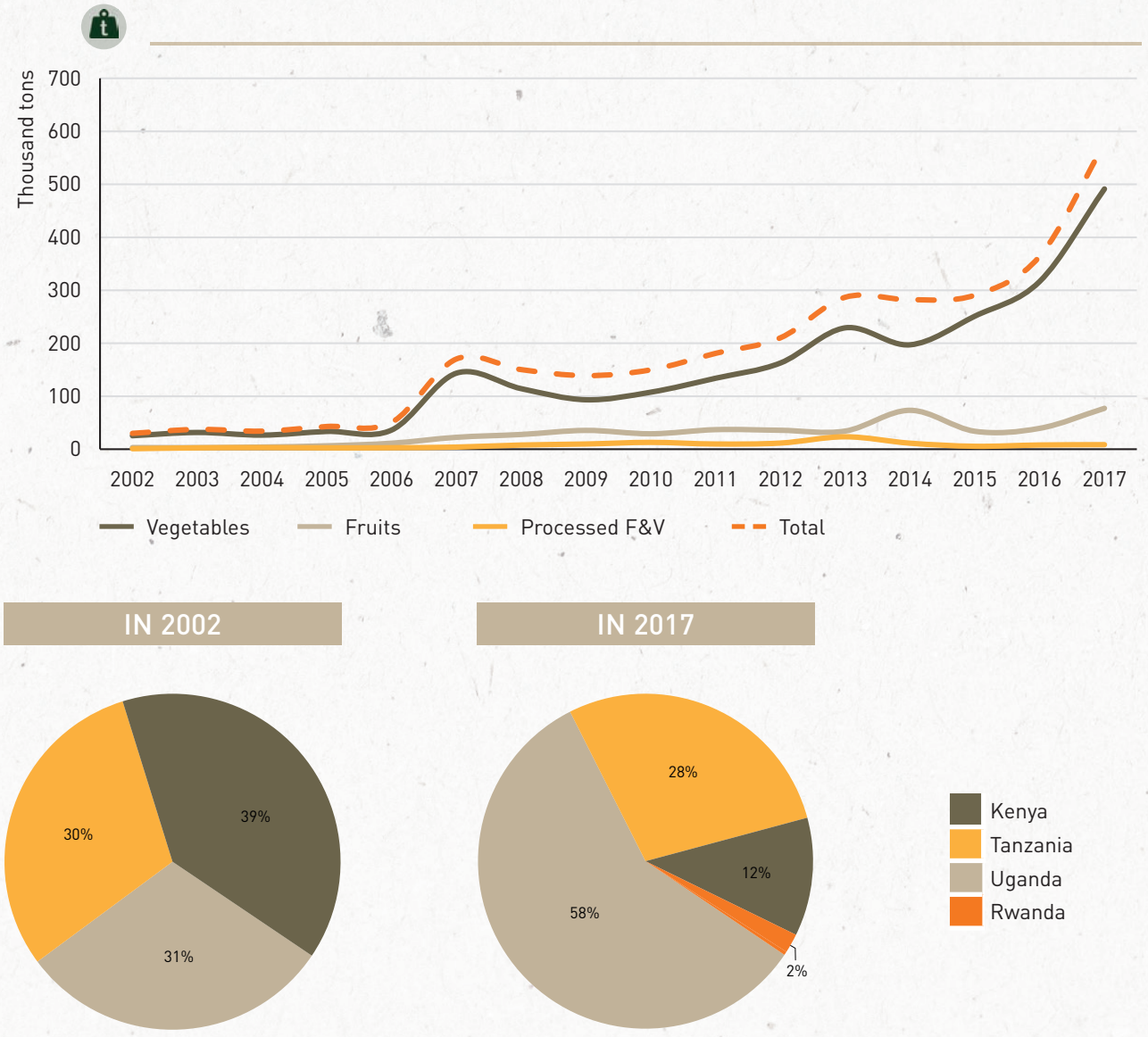


Figure 72: *Evolution of EAC intraregional exports of fruits, vegetables, and processed fruits and vegetables between 2002 and 2017 (by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

The EAC is a leader in intraregional integration. With the exception of Burundi, all EAC Member States have experienced high rates of economic growth over the past decade, and poverty has been significantly reduced. It is widely recognised that the EAC customs union and common market policies have been very beneficial in facilitating intraregional trade. Other strengths include the partly common culture and history of the region; the use of common languages (Kiswahili and English); political and economic stability; numerous improvements in infrastructure such as roads, railways, ports and airports; and the rise of financial services through mobile technology (e.g. M-Pesa).

All these improvements have led to strong growth in interregional and intraregional trade for the EAC. Nevertheless, there remain many barriers to trade. This encourages imports from Asia and thus currently hinders the growth of intraregional trade in the EAC. Factors that have contributed to this recent slowdown include political tensions (between Rwanda and Uganda over border crossings; between Rwanda and Burundi over security issues; and between Kenya, Uganda and Tanzania over trade protection measures), sometimes highly volatile inflation due mainly to international oil and food prices, and severe drought leading to a decline in agricultural performance (e.g. in Kenya, Uganda and Rwanda). The spread of the fall armyworm in East Africa in early 2017 affected about 200 000 ha of crops in Kenya and more than half of the country in Uganda, compounded by the locust invasion in 2020.

The total quantity of fruits, vegetables and processed F&V products exported within the EAC has increased by an average of 22% per year since 2002 (Figure 72). The total volume increased from 29 963 tonnes in 2002 to 577 251 tonnes in 2017, a total growth of 1827% over 16 years, or a CAGR of 22%.

For products, the most notable markets over the period were as follows:

TOP 10 VEGETABLES TRADED WITHIN THE EAC	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Beans (dried)	219 784	45%	70 258 390	35%
Onions and shallots	42 841	9%	7 717 304	4%
Potatoes	37 513	8%	10 925 452	5%
Peas (dried)	32 073	7%	12 413 504	6%
Cassava	29 908	6%	4 668 388	2%
Onions (dried)	27 227	6%	5 5022 642	27%
Beans *V. mungo/V. radiata* (dried)	19 460	4%	8 132 022	4%
Tomatoes	17 428	4%	4 954 907	2%
Beans	15 521	3%	3 933 765	2%
Carrots and turnips	11 032	2%	2 067 117	1%
Total trade within the EAC	491 342	100%	200 573 934	100%

TOP 10 FRUITS TRADED WITHIN THE EAC	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Oranges	37 691	49%	3 782 350	34%
Mangoes, guavas and mangosteens	15 668	20%	2 514 729	22%
Avocados	6 002	8%	457 661	4%
Watermelons	4 176	5%	433 141	4%
Lemons and limes	4 086	5%	502 181	4%
Bananas and plantains	3 063	4%	824 001	7%
Pineapple	2 504	3%	464 771	4%
Apples	810	1%	951 870	8%
Papayas	656	1%	99 088	1%
Mandarins and similar citrus fruits	527	1%	112 427	1%
Total trade within the EAC	77 238	100%	11 206 763	100%

TOP 10 PROCESSED FRUITS AND VEGETABLES TRADED IN THE EAC	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Mixed juices (fruit/vegetables)	2042	24%	1675884	21%
Simple juices (other fruit/vegetables)	1930	22%	1284571	16%
Jams and purées (other fruits/nuts)	1561	18%	1717484	22%
Other fruits and nuts	1388	16%	1272837	16%
Peanuts	631	7%	245305	3%
Products preserved by sugar	357	4%	691923	9%
Apple juice	200	2%	184822	2%
Tomato products	168	2%	211603	3%
Orange juice	150	2%	172390	2%
Potatoes	86	1%	361227	5%
Total trade within the EAC	8671	100%	7942696	100%

Figure 73: *Major fruits, vegetables, and processed fruits and vegetables marketed in the EAC in 2017 (by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

CEMAC – Economic and Monetary Community of Central Africa

CEMAC is composed of six states: Cameroon, Central African Republic, Chad, Equatorial Guinea, Gabon and Republic of Congo.

For CEMAC, intraregional integration still has a long way to go due to the relative weakness of institutions, the still too present insecurity, and too little political will for change. Cameroon almost entirely dominates intraregional trade in CEMAC. But according to some sources, most regional trade is informal or unrecorded. According to official data, in 2015 Cameroon exported $13 million worth of agricultural products within CEMAC, while a 2018 study on informal trade suggests a figure of $85 million. Processed products are mainly for local consumption or exported to West Africa; 81% of exports are land-based. There is potential for the development of higher value-added sectors, such as Cameroonian organic fruit juices and peppers, for national and regional markets.

Regional integration within CEMAC has slowed down considerably, for reasons similar to those described for ECOWAS, but also because of additional constraints: notably weak links between farmers and markets, weak market-related infrastructure, and high trade costs due in particular to "logistical harassment" along regional trade corridors. In addition, security problems sometimes make free movement very difficult, including theft by rebels and terrorists, and sometimes by security forces who are supposed to provide protection.

In addition to reduced trade, ongoing conflicts in the Central African Republic, and Boko Haram terrorism in Cameroon, have also reduced agricultural production in the affected areas[14].

The strong economic orientation of CEMAC Member States towards extractive industries based on natural resources such as oil, timber and minerals has hampered investment in intraregional trade facilitation and made the regional economy highly vulnerable to global oil price fluctuations.

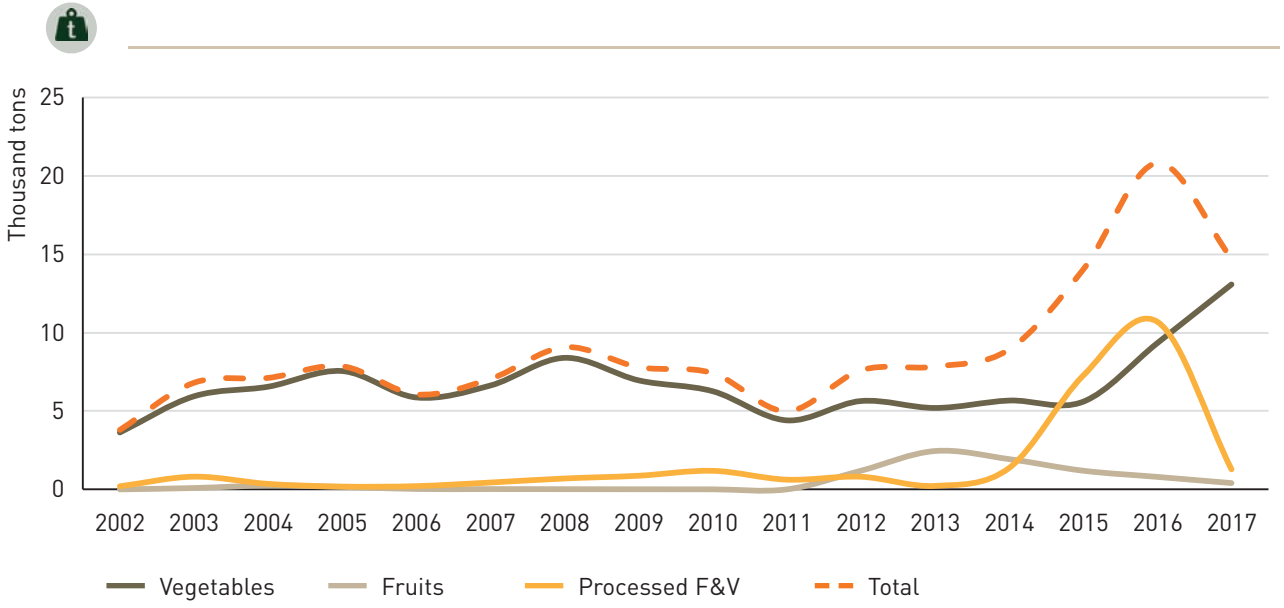
Cameroon is by far the largest producer and exporter of agricultural products in CEMAC at present. Other CEMAC countries hardly export any agricultural products on the intraregional market, but import significant quantities from Cameroon.

In general, the results presented for the CEMAC region should be interpreted with caution, as official statistics probably do not record regional trade in agricultural products. Due to the above-mentioned problems, intraregional trade in fruit, vegetables, and processed F&V is mainly conducted through informal channels and is not systematically recorded in national data systems. A recent World Bank report provides more information[15].

The total quantity of fruit, vegetables, and processed F&V products traded within CEMAC has increased by an average of 9% per year since 2002, a trend mainly due to the strong growth in recent years. The total volume traded thus rose from 3808 tonnes in 2002 to 14 740 tonnes in 2017, a total growth rate of 3808% over 16 years, for a CAGR of 9.4%.

14 *Breaking down the barriers to regional agricultural trade in Central Africa*, World Bank, 2018.

15 World Bank, 2018, Op. cit.



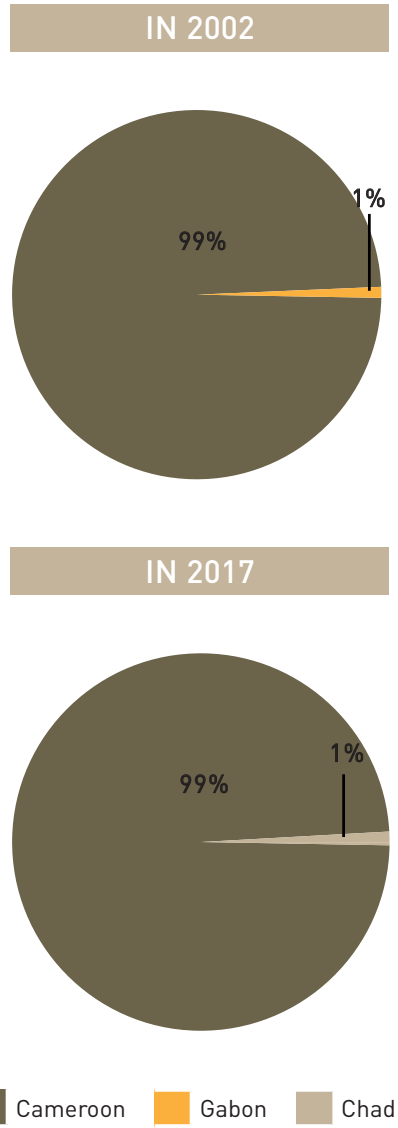


Figure 74: *Evolution of intraregional exports of fruits, vegetables, and processed fruits and vegetables from CEMAC between 2002 and 2017 (by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

For products, the most notable markets over the period were as follows:

TOP 10 VEGETABLES TRADED WITHIN CEMAC	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Onions and shallots	4 830	37%	483 600	13%
Beans (dried)	3 485	27%	863 235	22%
Red beans (dried)	3 256	25%	1 239 515	32%
Peas (dried)	622	5%	313 278	8%
Other vegetables (dried)	124	1%	26 605	1%
Other vegetables	109	1%	203 080	5%
Beans	100	1%	261 442	7%
Potatoes	81	1%	80 060	2%
Onions (dried)	62	0%	22 476	1%
Peas (frozen)	47	0%	53 045	1%
Total trade within CEMAC	13 070	100%	3 864 220	100%

TOP 10 FRUITS TRADED WITHIN CEMAC	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Oranges	186	45%	195 934	56%
Apples	113	27%	95 843	28%
Other nuts	37	9%	18 308	5%
Bananas and plantains	25	6%	6 689	2%
Prunes	22	5%	7 979	2%
Mangoes, guavas and mangosteens	12	3%	14 489	4%
Other fruits (dried)	8	2%	3 980	1%
Mixture of dried fruit and nuts	8	2%	3 980	1%
Total trade within CEMAC	412	100%	347 202	100%

TOP 10 PROCESSED FRUITS AND VEGETABLES TRADED WITHIN CEMAC	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Mixed juices (fruit/vegetables)	430	34%	344 235	25%
Tomato products	281	22%	433 729	32%
Simple citrus juice (not orange/grapefruit)	155	12%	99 545	7%
Grape juice	93	7%	131 598	10%
Pineapple juice	80	6%	63 868	5%
Potatoes (frozen)	67	5%	59 604	4%
Tomatoes	61	5%	103 245	8%
Apple juice	42	3%	52 230	4%
Pineapple	20	2%	34 559	3%
Jams/purées (other fruit / nuts)	16	1%	25 637	2%
Total trade within CEMAC	1 258	100%	1 352 664	100%

Figure 75: *Main fruits, vegetables, and processed fruits and vegetables marketed in CEMAC in 2017 (by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

SADC – Southern African Development Community

SADC has 16 Member States: Angola, Botswana, Comoros, Democratic Republic of Congo, Eswatini, Lesotho, Madagascar, Malawi, Mauritius, Mozambique, Namibia, Seychelles, South Africa, Tanzania, Zambia and Zimbabwe.

For SADC, intraregional trade is much more important than for the other three RECs analysed. This is mainly due to the fact that most SADC members depend on South Africa for a large share of their fruit and vegetable imports.

Intraregional trade is increasing, but growth is slow compared to the rest of the extraregional trade. The decline, even very relative, in South Africa's share of fruit and vegetable exports, and the emergence of other origins in intraregional trade, indicate a sustained development of other supplier countries in the region as a result of continued capacity building in fruit and vegetable production, notably in Mozambique and Zimbabwe. The main developing and potential products for this trade are oranges, nuts, juices (orange, grapefruit, citrus), bananas/plantains and potatoes.

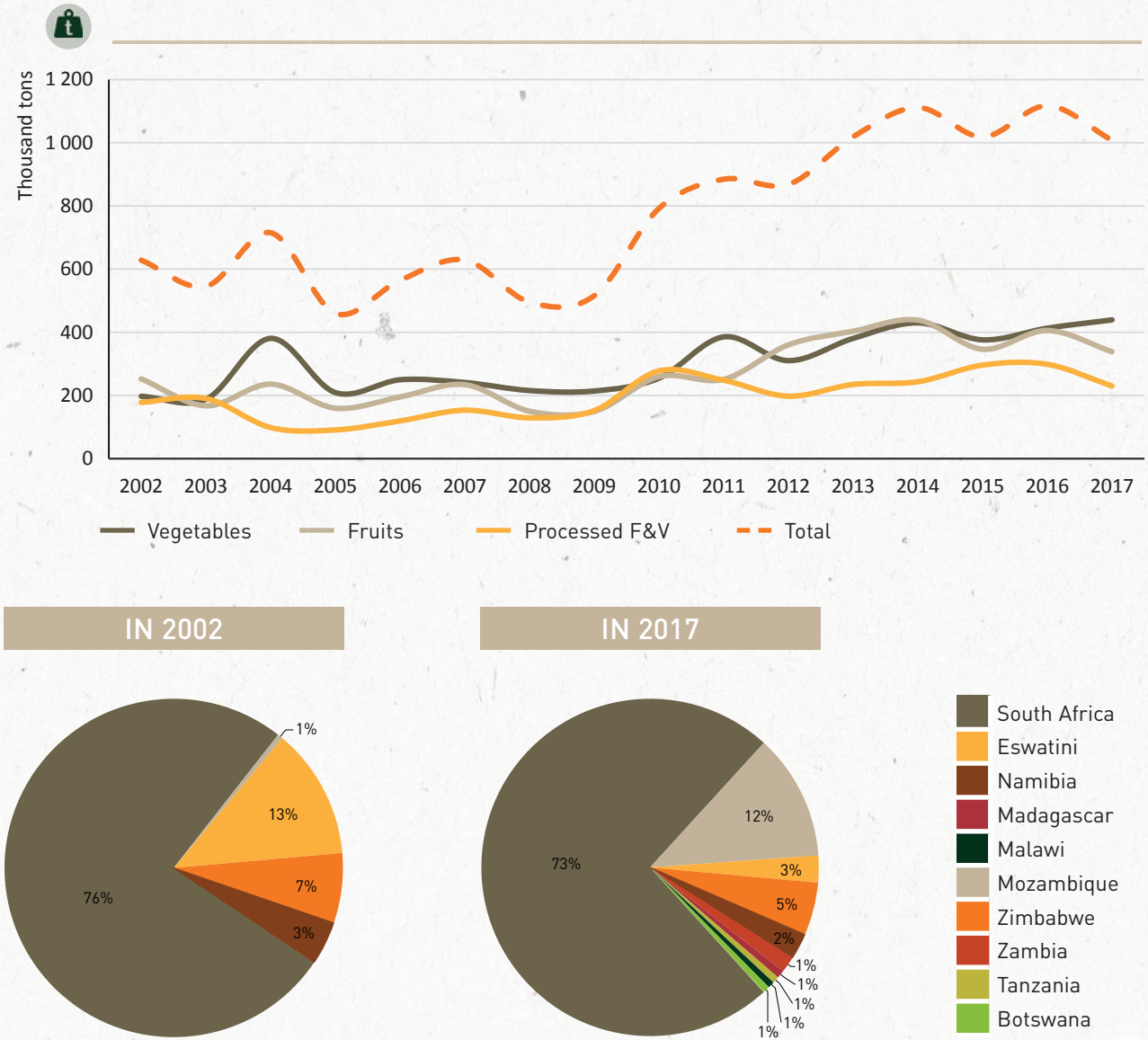


Figure 76: *Trends in SADC intraregional exports of fruit, vegetables, and processed fruit and vegetables between 2002 and 2017 (by volume). Source: COLEACP based on IFPRI data and authors' calculations.*

Intraregional trade in fruit and vegetables in SADC almost doubled between 2002 and 2017, and is currently by far the largest for the RECs examined in this report. However, the growth of intraregional trade within SADC is slow (about 3% per year) compared to its trade with external regions (13% per year). This is despite the strong political commitments to regional integration made by SADC Member States. As with other RECs, intraregional trade is constrained by tariff and non-tariff barriers, underdeveloped trade-related infrastructure, weak commodity processing capacity, and poor implementation of trade commitments. Nevertheless, the SADC region is fairly well integrated.

To overcome the remaining problems, SADC needs to strengthen its institutional frameworks and further eliminate non-tariff barriers that make trade costly and difficult. For example, by simplifying customs procedures, the costs of doing business in the region will be reduced, as will delays. This would facilitate the movement of goods across borders and encourage the participation of small businesses in cross-border trade.

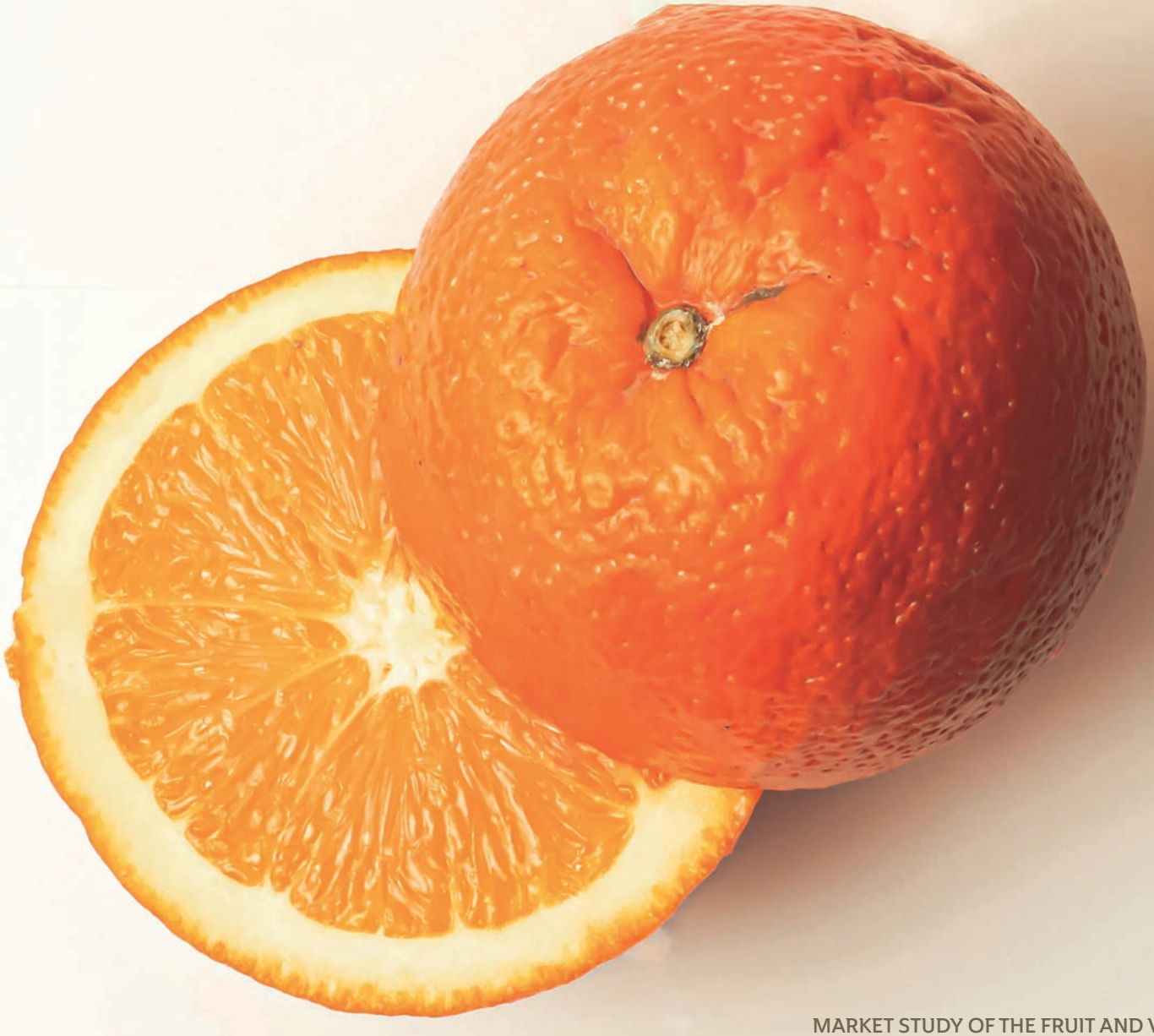
Intra-SADC trade is historically dominated by South Africa, which has a large trade surplus. The total quantity of fruits, vegetables, and processed F&V products traded within SADC has increased by an average of 3.2% per year since 2002.

The total volume increased from 628 127 tonnes in 2002 to 1 007 576 tonnes in 2017, a total growth of 60% over 16 years, with a CAGR of 3%.

For products, the most notable markets over the period were as follows:

TOP 10 VEGETABLES TRADED IN THE SADC REGION	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Potatoes	137 762	31%	47 644 374	22%
Onions and shallots	107 278	24%	30 721 222	14%
Tomatoes	37 616	9%	10 411 402	5%
Peas (dried)	16 342	4%	10 620 663	5%
Carrots and turnips	14 921	3%	6 196 908	3%
Potatoes (frozen)	14 528	3%	16 442 229	8%
Ethnic vegetables	14 419	3%	11 681 518	5%
Beans *V. mungo/V. radiata* (dried)	14 333	3%	10 830 240	5%
Beans (dried)	11 683	3%	10 694 488	5%
Potatoes (seed)	11 599	3%	7 918 994	4%
Total trade within SADC	439 224	100%	216 455 061	100%

TOP 10 FRUITS TRADED WITHIN SADC	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Bananas and plantains	127 332	38%	44 119 582	22%
Apples	72 422	21%	52 264 729	26%
Oranges	65 345	19%	13 980 387	7%
Grapes	9 834	3%	13 823 592	7%
Pears	9 746	3%	8 251 612	4%
Grapefruit	5 656	2%	1 451 319	1%
Papaya	4 474	1%	2 054 219	1%
Other fruits (passion fruit, lychees, tamarind, etc.)	3 538	1%	4 272 785	2%
Other citrus fruits	3 385	1%	1 731 422	1%
Lemons and limes	3 354	1%	3 694 331	2%
Total trade within SADC	338 540	100%	202 073 918	100%



Within the RECs in sub-Saharan Africa, intraregional trade in fruit and vegetables is still often informal but promising.

Within ECOWAS, there is a promising and continuous growth of 10% per year in the internal trade of fruits, vegetables, and processed F&V. Supply is much more diversified than in the early 2000s in terms of the number of exporting countries and relative importance, with Niger and Côte d'Ivoire much less predominant. This reflects the progress and development of F&V supply from different countries in the region (see the country websites developed by COLEACP).

The main intraregional products traded are bananas, coconuts, and roots and tubers from Côte d'Ivoire; onions and pulses from Niger; onions, pulses and tomatoes from Burkina Faso; coconuts, prepared tomatoes and bananas from Ghana; and mangoes, sweet potato and vegetables from Mali (note that Nigeria trades mainly with Cameroon and South Africa).

Within the EAC, intraregional integration has reached an advanced stage. With interregional and global trade, intraregional trade in the EAC is growing steadily. The main intraregional export products are pulses, cassava, onions, potatoes and oranges. While trade in fruits and processed F&V products is growing steadily, intraregional trade in vegetables has grown by an impressive 22% annually between 2002 and 2017. Uganda has experienced particularly rapid growth in terms of intraregional trade.

TOP 10 PROCESSED FRUITS AND VEGETABLES TRADED IN SADC	VOLUME 2017 (TONNES)	% OF TRADE	VALUE 2017 (USD)	% OF TRADE
Mixed juices (fruit/vegetables)	71 682	31%	64 181 982	24%
Simple juices (other fruit/vegetables)	37 726	16%	34 837 976	13%
Orange juice	18 026	8%	19 391 652	7%
Beans	12 734	6%	14 228 939	5%
Potatoes	10 617	5%	23 376 910	9%
Jams and purées (other fruits/nuts)	10 026	4%	18 696 039	7%
Potatoes (frozen)	7 358	3%	11 359 696	4%
Apple juice	7 218	3%	5 830 658	2%
Grape juice	6 547	3%	4 113 933	2%
Simple citrus juice (not orange/grapefruit)	6 330	3%	6 168 047	2%
Total trade within SADC	229 812	100%	262 486 427	100%

Figure 77: *Major fruits, vegetables, and processed fruits and vegetables marketed in the SADC region in 2017 (by volume).*
Source: COLEACP based on IFPRI data and authors' calculations.

Existing non-tariff barriers to trade with Asia, and in particular growing imports from that region, are currently moderating the growth of intraregional trade[16]. Other threats to the continued growth of intraregional trade include inflation, crop failures due to the effects of climate change or pest epidemics, and political disputes among EAC members.

Within CEMAC, intraregional integration still has a long way to go, due in particular to weak institutions, insecurity and a lack of political will. Intraregional trade is almost entirely dominated by Cameroon, where bananas are mainly grown in large plantations. Niches with high potential include many so-called ethnic products such as safou (*Dacryodes edulis*) which is in demand in Central Africa for food and cosmetics.

Informal trade in fruit and vegetables is particularly widespread and accounts for the bulk of trade. However, very few, if any, data are available.

Some companies and collectives are developing sectors with higher added value, such as Cameroonian fruit juices from organic farming for national and regional markets, or the Protected Geographic Indication (PGI) Penja pepper.

Within SADC, intraregional trade is relatively very important compared to the other three RECs analysed here. This is mainly due to the fact that most SADC members depend on South Africa for a large share of their fruit and vegetable imports.

Intraregional trade is increasing, but growth is slow compared to the rest of SADC trade. The main developing and potential products for this trade from SADC countries are oranges, nuts, juices (orange, grapefruit, citrus), bananas/plantains and potatoes.

16 World Bank, 2018, Op. cit.

10

DOMESTIC TRADE IN FRUIT AND VEGETABLES IN SUB-SAHARAN AFRICA

Domestic trade in fruit and vegetables in sub-Saharan Africa

All the market signals from the countries studied, both on the supply side (production trends, arable land reserves, import and export trends) and on the demand side (population growth rates in sub-Saharan African countries, import trends particularly in the European Union and East Asia), confirm the enormous potential for the development of the fruit and vegetable trade in sub-Saharan countries, provided that the remaining obstacles continue to be removed, within a sustainable framework.

The country analyses carried out for 20 African countries can be found on the corresponding country websites developed by COLEACP. They illustrate all the regional observations, namely:

- the historical export and import trade partnership with the European Union;
- the development of intra-African trade in fruit and vegetables;
- Southeast Asia as a new export trading partner.

Looking at all the parameters of the equation for the future of the fruit and vegetable trade by country (agricultural land reserve, changes in production and yields, imports, exports and local population), and given the wide range of issues at stake, it is difficult to identify a relevant typology in order to group the countries studied into categories. The situations are very diverse, with many net importing and many net exporting countries. However, two main groups of countries can be distinguished:

- countries with higher regional and local trade potential (net importing countries with increasing production and population and a reserve of cultivable land), such as Angola, Democratic Republic of the Congo, Mauritius, Nigeria, Senegal and Rwanda;
- countries with the highest export potential (countries that are already net exporters, whose production is increasing and/or that have a large reserve of cultivable land), such as Benin, Cameroon, Côte d'Ivoire, Ethiopia, Ghana and Madagascar.

The figures below show the top 10 countries in sub-Saharan Africa (excluding South Africa) in terms of population and fruit and vegetable production, as well as the CAGR for production.

Nigeria, the most populous country, is the largest producer, but has one of the lowest rates of output growth.

Cameroon, Côte d'Ivoire and Malawi are among the largest producers of fruit and vegetables, although their populations are not among the top 10. Cameroon, Mozambique, Angola and the Democratic Republic of Congo have the four highest growth rates for production, respectively.

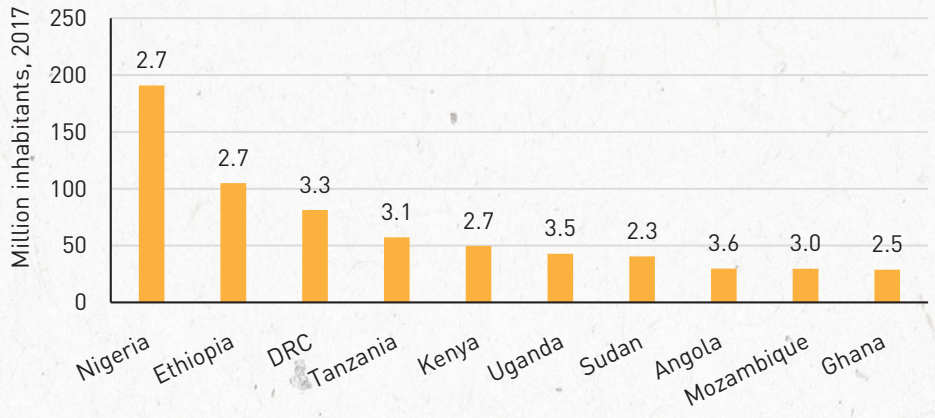


Figure 78: *The top 10 SSA countries (excluding South Africa) in terms of population size (2017) with indication of the compound annual population growth rate (2002–2017).*
Source: COLEACP based on World Bank data and authors' calculations.

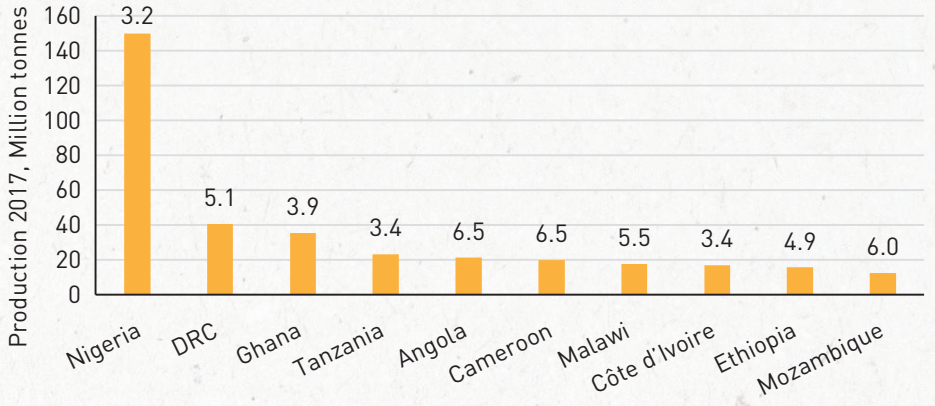


Figure 79: *Top 10 SSA countries (excluding South Africa) in terms of fresh fruit and vegetable production (2017) with indication of the compound annual growth rate of production (2002–2017).*
Source: COLEACP based on FAOSTAT data and authors' calculations.

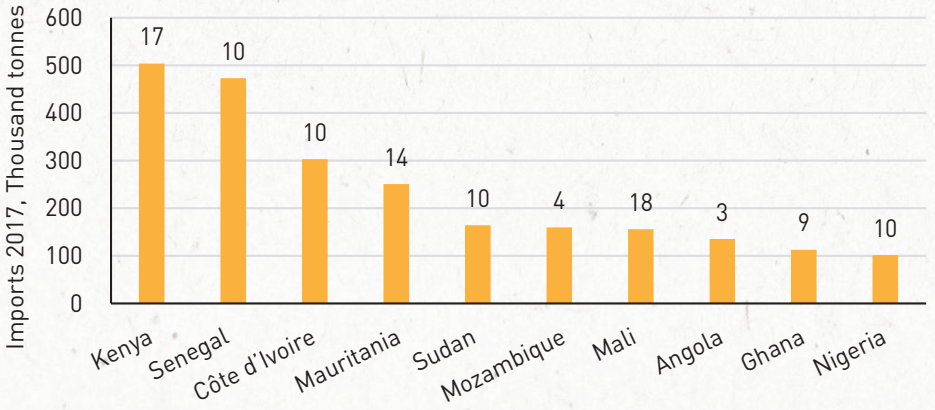


Figure 80: *Top 10 SSA countries (excluding South Africa) in terms of fresh fruit and vegetable import volumes (2017) with indication of the compound annual growth rate of imports (2002–2017).*
Source: COLEACP based on IFPRI data and authors' calculations.

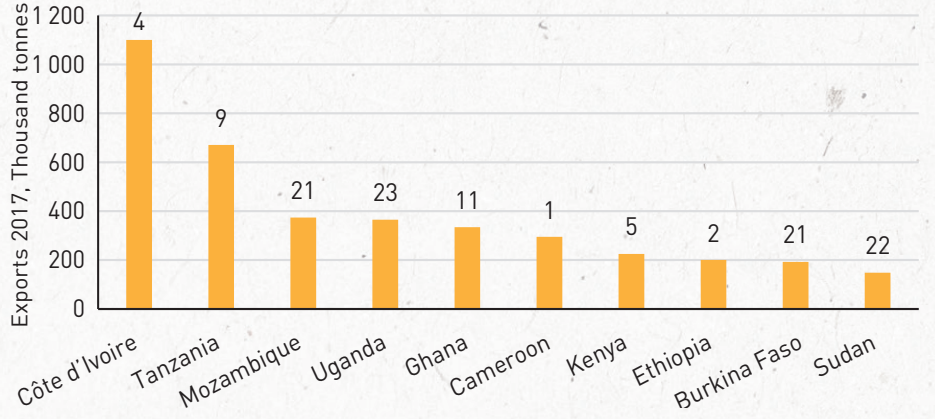


Figure 81: *Top 10 SSA countries (excluding South Africa) in terms of fresh fruit and vegetable export volumes (2017) with indication of the compound annual growth rate of exports (2002–2017).*
Source: COLEACP based on IFPRI data and authors' calculations.

Looking more specifically at the highest market opportunities and potential at the product level, an aggregate analysis of the 20 SSA countries under consideration shows the following.

PRODUCTS/VALUE CHAINS	MARKETS WITH GREATER OPPORTUNITIES
Pineapple	Local
Green pineapple and Victoria pineapple	EU
Processed peanuts, cashew nuts	EU, World
Avocado	All markets
Berries (strawberries, cranberries)	Local, EU
Banana	Local (regional and/or national)
Broccoli	EU, World
Cabbage, lettuce, cucurbits, brassica, carrots, aubergines etc.	National
Lemons and limes	EU
Jams	Local
Canned vegetables	Local, EU
Plantain chips	Local
Turmeric	World
Passion fruit	EU
Organic fruit	EU
Green beans, snow peas	Local

PRODUCTS/VALUE CHAINS	MARKETS WITH GREATER OPPORTUNITIES
Herbs	EU, World
Juice (pineapple, apple, orange, passion fruit, exotic fruits, mixed or simple)	All
Mango	EU, Local
Processed cassava	Local
Melon and watermelon	EU
Processed coconuts (dried, fried)	EU
Onion, shallot	Local
Grapefruit	Local
Papaya	EU, World
Sweet potato	Local, EU
Pastes	EU, World
Pepper	EU
Penja pepper	EU, World
Potato	Local
Roots (yam, cassava, taro)	EU, local
Processed tomato	Local

The 20 countries in sub-Saharan Africa that have been the subject of more detailed sector and market analyses are as follows:

- Angola
- Benin
- Burkina Faso
- Cameroon
- Côte d'Ivoire
- Democratic Republic of Congo
- Ethiopia
- The Gambia
- Ghana
- Guinea
- Kenya
- Madagascar
- Mali
- Mauritius
- Nigeria
- Rwanda
- Senegal
- Togo
- Uganda
- Zimbabwe

These country profiles of fruit and vegetable sectors are included in Part 2 of this study report, and also on the corresponding country websites developed by COLEACP.

Part 2 of this report can be downloaded from the information platform of COLEACP's Market Intelligence department at https://market-intelligence.coleacp.org/

The complete list of country websites is available on the COLEACP website: www.coleacp.org

This information is reserved for COLEACP members and partners working for the development of sustainable agriculture in ACP countries, and particularly in sub-Saharan Africa.

If you have any questions please contact network@coleacp.org

CONCLUSION

In a global context, whereas nationalism and protectionism are returning to the landscape of some World Trade Organization agreements (United States, United Kingdom, Brazil, some European Union Member States), the African continent is increasingly freeing up its trade through its various regional economic integrations, and through the free trade agreements of the African Union. From a macroeconomic point of view, this should constitute a favourable framework – if it is sustainable – for the development of:

- agriculture, a key sector of African society and economy;
- all the value chains and millions of family farms that this sector represents, and which are potential sources of decent jobs and better life expectancy.

Whether overseas or African, the interest of public and private investors in the continent's land and markets has for many years now been a major indicator of the potential and future of agriculture and agribusiness in sub-Saharan Africa, which should become a driver for feeding the continent and its potential 10 billion people in a sustainable manner. Another encouraging forward-looking indicator for the development of African agriculture is its share in world gross domestic product (GDP), which increased during the period 2005–2017.

What we have learned from studying the fruit and vegetable market in sub-Saharan Africa

In light of this economic context, this first market study of fruit and vegetable value chains in sub-Saharan Africa provides the following information about the sector and the market.

i. Whatever the geographical perimeter of the market under consideration (global, Europe, sub-Saharan Africa, member countries of the RECs), everywhere the demand for fresh and processed fruit and vegetables is increasing, and therefore constitutes a buoyant market for suppliers who can respond to the demand and are able to seize the many opportunities.

ii. Both exports and imports from sub-Saharan Africa are on an upward trend. The still sharp increase in imports reflects the demographic dynamism and economic growth of an increasingly important domestic market in sub-Saharan Africa. The increase in exports illustrates the dynamism of a supply that has been able to seize opportunities in the various destination markets.

iii. The historical export market for fruit and vegetables from sub-Saharan Africa, the European Union, has not been the first and most dynamic export market in terms of volume growth for some years now. East Asia and sub-Saharan Africa itself, with an average growth rate of around 10% per year over the past 15 years, have become the leading and most promising markets.

iv. However, the European Union remains an attractive export market for fruit and vegetables from sub-Saharan Africa because (i) it has been growing steadily for several years; (ii) it is profitable; (iii) it is diversified and thus absorbs a wide range of African fruit and vegetables from conventional and organic farming.

v. New fruit and vegetable export markets for sub-Saharan Africa have clearly emerged (Middle East, Russia, Switzerland, etc.).

vi. The dynamism of fruit and vegetable exports from sub-Saharan Africa varies between regions and member countries. In particular, it still depends on the historical performance of traditionally large exporters, such as South Africa for SADC, or Kenya for the EAC. This should not obscure other less well-known or more recent success stories, such as those of Senegal to the EU, Niger at the intraregional level, or East African countries to the Middle East.

vii. If we compare the different regions of sub-Saharan Africa in terms of fruit and vegetable trade dynamism, CEMAC still appears to suffer from too many constraints to take off, whereas the other three regions studied, even if they also face many well-known constraints (logistics, customs, etc.), have been and are experiencing success in developing fruit or vegetable value chains.

viii. Fruit and vegetable exports from sub-Saharan Africa are diversified both sectorally (value chains) and geographically. However, greater diversification in the number of actors and the number of products traded can mean greater integration and resilience. Conversely, the concentration of a country's exports on one product is generally associated with a risk of export revenue volatility. Thus, alongside the export of large volumes of bananas and cashew nuts to the EU and East Asia, respectively, avocado, mango, coconut, fresh and dried vegetables, roots and tubers, and melons and watermelons are all promising market segments for large exports. Niger onions, processed tomatoes and fruit juices are experiencing strong regional and local market growth.

ix. Trends in international, interregional and intraregional imports of processed fruits and vegetables from sub-Saharan Africa demonstrate, if proof were needed, the potential for developing production of higher value-added fruits and vegetables such as fruit juices for local markets, ready-to-eat fruits and vegetables for major export, or processed potatoes and tomatoes for regional and local markets. Subject, of course, to investment – and access to this investment – for African entrepreneurs.

x. The fruit and vegetable trade within sub-Saharan Africa (intracontinental or interregional) is increasing sharply and steadily. This reflects a dynamic supply-and-demand situation. Trade within SSA is growing much faster than trade with and to the EU, with an average growth rate over the period 2002–2017 of 10.3% compared to 1.1% for the EU, but 9.6% for Asia (in volume terms). The Southern African Development Community (SADC), dominated in trade terms by South Africa, is the largest exporter among the four RECs studied.

xi. Intraregional trade in fruit and vegetables in SADC is currently by far the largest among the RECs examined in this report. However, the growth of intraregional trade within SADC is relatively slow (about 3% per year) compared to its trade with external regions (13% per year).

Despite regional integration, as in the case of other RECs, intraregional trade is still constrained by tariff and non-tariff barriers and lack of logistics infrastructure, among other things.

xii. In the domestic markets, and for each of the 20 sub-Saharan African countries studied in this report to date, by aggregating the results of the country analyses we can confirm that the opportunities are many and diverse, with each fruit or vegetable value chain at a different stage of maturity.

The market signals for fresh and processed fruit and vegetables from sub-Saharan Africa are thus generally positive at the international, continental, regional and national levels, although they should be differentiated according to the countries and regions under consideration.

Finally, although total ACP exports of fruit and vegetables (volume and value) to the EU have increased over the past 10 years in a generally favourable context of growing fruit and vegetable consumption, their relative market share on the EU market is tending to decrease slightly. This trend can be explained by a combination of three parameters: international competition; the emergence of access to more dynamic domestic, regional and international markets; and the strengthening of requirements for entering the European market, particularly with regard to SPS issues.

These are all opportunities for sustainable markets if the obstacles to their development continue to be removed or overcome

The obstacles to the full expression of this potential in favour of as many entrepreneurs as possible, whatever their size, are well-known. For example, non-tariff barriers still too often cost businesses time and money. In comparison, tariff barriers are relatively low. Another example of a market constraint faced by sub-Saharan African exporters is the constantly changing requirements of certain destination markets, led by the European Union, which – commendably – advocates a model that is increasingly protective of the environment and consumers, and which wants to maintain, or even improve, the intrinsic nutritional and organoleptic quality of food. These aims are informing the EU's Farm to Fork strategy and the objectives of its Green Deal, which involves regulatory and non-regulatory measures to create more efficient systems that are adapted to climate change and provide healthy food.

On the supply side, despite efforts over the past 20 years by the public and private sectors in the fruit and vegetable value chains in terms of product quality and supply chains, horticulture in sub-Saharan Africa still suffers from an image that is too often negative, and a reality where technical capacity still needs to be strengthened. Alongside investment in public infrastructure and equipment, access to training, local financial services adapted to needs, and the continuous organisation of production will remain key factors in the necessary improvement of fruit and vegetable supply in sub-Saharan Africa so that everyone can seize the market opportunities confirmed by this study. This will enable us to reduce rural poverty, and continue to ensure the protection and reproduction of biodiversity while promoting trade.

In particular, the capacity of business and the public sector to obtain strategic commercial and economic information will be critical to the success of sub-Saharan Africa in seizing future market opportunities in the fruit and vegetable sector.

These are all challenges for COLEACP and its partners: developing skills, disseminating knowledge and know-how on a larger scale, for all actors in the value chain, with a focus on added value (processing), while improving access to national, international and in particular EU markets through regulatory and trade compliance (SPS, organic, etc.).

What are the post-2020 horizons for fruit and vegetable markets in sub-Saharan Africa?

The exit of the United Kingdom from the EU and, above all, the confinement of half the world's population and the halt in international trade in 2020 due to the COVID-19 pandemic will continue to create disruptions in the behaviour of the global and European markets.

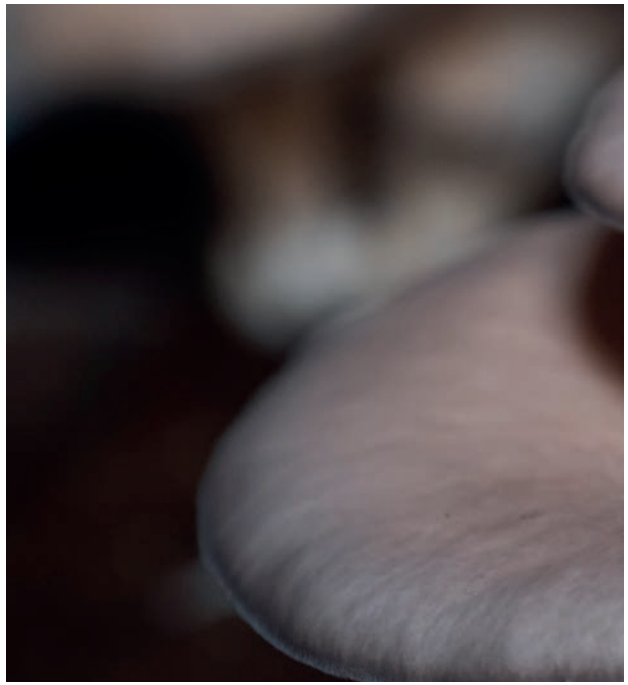
The public and private sectors are struggling to respond to a global recession that will severely disrupt food supply chains. In addition, disruptions in air and sea freight operations have had an impact on exports and imports to and from ACP countries. The negative economic consequences of the COVID-19 pandemic are thus spreading from the internationally oriented export sectors to also affect the functioning of national and regional markets. Lock-ins, movement restrictions and social distancing requirements are also having an impact on ACP agricultural production, input supply, packaging and processing operations, as internal logistics services and the functioning of wholesale and retail markets have been disrupted.

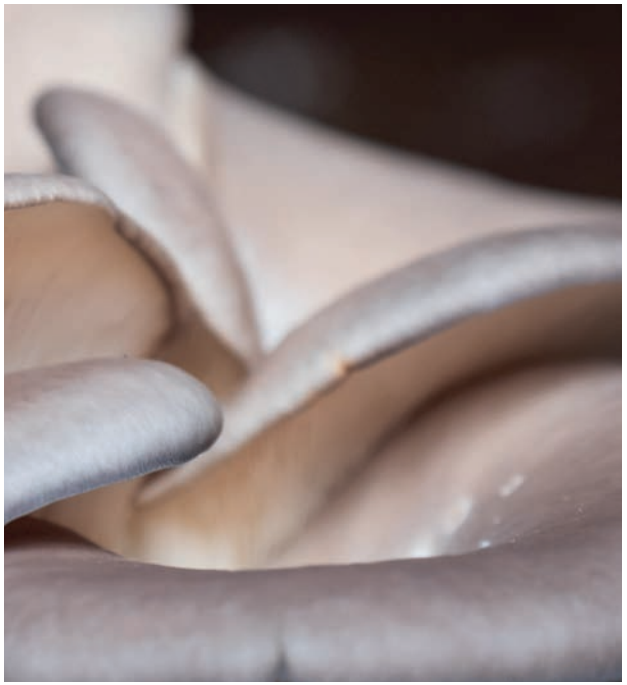
A recent statement to the United Nations[17] warned of a famine of "biblical proportions", with 265 million people facing chronic food shortages due to a "perfect storm" of conflict, drought, climate change and coronavirus. According to the report, one in nine people in the world is hungry, and one in three is overweight or obese. Many countries, particularly in Africa, Asia and Latin America, suffer from the double burden of a population both overweight and underweight. We now have the opportunity to take action to ensure that healthy food produced in a sustainable manner is affordable, available and desirable[18].

The COVID-19 pandemic also represents an opportunity for a paradigm shift in the way people produce and consume food.

17 David Beasley, UN World Food Programme, address to UN Security Council, 21 April 2020.

18 According to one of the authors of the UN World Nutrition Report, Renata Micha (May 2020), "The World Nutrition Report 2020 stresses the absolute urgency of combating malnutrition in all its forms by addressing the inequities in food and health systems."





Health and safety concerns, transparency in the value chain, and closer relationships with producers have become important elements in many markets.

The fruit and vegetable sector was experiencing continued growth before the pandemic; this is expected to continue in a context where the global food system must change and adapt to become healthier and more sustainable.

Healthy fruits and vegetables in the global diet should counterbalance the threats on the horizon

Those who can be resilient and meet the requirements of different markets will be able to seize the potential business opportunities.

To this end, national, regional and global alliances and networks for transparent partnerships between the public and private sectors, academia, research and civil society will be all the more important for working with confidence in a sustainable framework. For the end consumer, it will be increasingly essential to defend the interests and value of African productions on an equal footing with all other links in supply chains.

In the medium and long term, governments, the private sector, producer organisations and community institutions will need to support a sustained recovery and resilience to cope with future risks. The private sector will need to strengthen key value chain operations, provide new services and develop new products without compromising food safety standards. Regional markets will provide new opportunities for diversification of production and marketing. Accelerating the adoption of information and communication tools will also be necessary to support business opportunities.

In this sense, COLEACP has strengthened its activities to help mitigate the negative impacts of COVID-19 on the agricultural and food economy of ACP countries. The evolution of this support has taken the form of an action plan articulated around different axes including information/communication and market access, which aims to ensure that stakeholders in COLEACP's programmes in ACP and EU countries are continuously informed of the rapidly changing market access conditions and trade dynamics in national, regional and international markets, in the horticultural sector and also in other key agri-food value chains.

This is the purpose of the market study, of which this first report is both a culmination and a launch point for future work. In a context full of uncertainties, but also opportunities, this ongoing work will continue to contribute to strategic information for stakeholders in the development of the fruit and vegetable sector, and agri-food more broadly, in sub-Saharan Africa.

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