



The importance of non-tariff measures for African agricultural and food trade to the EU

Evidence from selected countries

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Abbreviations and Acronyms

ACP	African, Caribbean and Pacific countries
BRIC	British Retailer Consortium
CIF	Cost, insurance and freight
Codex	Codex Alimentarius guidelines and codes of practice recommended under the Joint FAO/WHO Food Standards Programme
DG AGRI	Directorate-General “Agriculture and Rural Development”
DG TRADE	Directorate-General “Trade”
EBA	Everything but Arms
EU	European Union
EU-27	27 EU Member States after the 2007 enlargement
EPAs	Economic Partnership Agreements between the EU and developing countries
Eurostat	European Statistical Office located in Luxembourg
FAO	Food and Agriculture Organization of the United Nations
FOB	Free on board
GE	General equilibrium
GMOs	Genetically Modified Organisms
HACCP	Hazard Analysis Critical Control Point
HS	Harmonised system of trade data
IPFSAPH	International Portal on Food Safety, Animal and Plant Health
IPTS	Institute for Prospective Technological Studies
ISO	International Standardisation Organisation
INRA	Institut Scientifique de Recherche Agronomique, France
FP7	7 th Framework Programme of the European Commission
JRC	Joint Research Centre of the European Commission
LDCs	Least developed countries
LEI	Agricultural Economics Research Institute, part of Wageningen University
MAST	Multi-Agency Support Team
MED	Mediterranean countries
MRLs	Maximum residue levels
NTMs	Non-tariff measures
NTBs	Non-tariff barriers
OECD	Organisation for Economic Co-operation and Development
PE	Partial equilibrium
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organisation
US	United States of America
SPI	Sociedade Portuguesa de Inovação
SPS	Sanitary and phytosanitary
TDCA	Trade, Development and Cooperation Agreement
TE	Tariff equivalent
TRAINS	Trade Analysis and Information System (database)
TBT	Technical barriers to trade
TRQ	Tariff rate quota
WHO	World Health Organisation
WTO	World Trade Organisation

Executive Summary

This report presents the outcome of a survey-supported study and its statistical analysis, exploring the impact that non-tariff measures (NTMs) have on European-African agriculture and food trade by gaining feedback from relevant stakeholders directly involved in commercial trade.

In this study NTMs are considered to be all policy trade measures that affect trade flows, other than ordinary customs tariffs, and that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices or both. Some of these measures may constitute non-tariff barriers.

The main NTMs identified in the literature on African trade performance are the high costs of trade, i.e. the cost of transporting goods and getting them across borders (Portugal-Perez and Wilson, 2008). Trade costs have been recognized as major obstacles with a negative impact on African exports. High trade costs, such as considerable trade and border-related costs, increase the price of African exports and thus reduce the competitiveness of African producers because the final goods they produce are relatively expensive. As an effect, the higher costs of African products negatively affect demand for African products from importing regions such as the EU.

Alongside the trade analysis, a survey of African agricultural exporters was commissioned in 2009 in five countries: Ivory Coast, Kenya, Morocco, South Africa and Uganda. These countries were selected based on their agricultural trade profile and their relatively high share of agricultural trade being imported into the EU. In total, 95 exporters answered the questionnaires, with 15 exporters participating in Ivory Coast and 20 exporters participating in each of the other countries.

In the questionnaire, five categories of obstacles to trade were highlighted. Each respondent was asked to grade the influence that a list of obstacles to trade had on his/her trade volume. The survey does not indicate direct linkages between perceptions of measures and products and/or countries. Some measures appear to be country-specific, while others appear to be product-specific.

Different perception trends towards NTMs have been observed in different countries with apparently similar export promotion policies. Thus, the magnitude of the perceptions appears

to be also closely related to the effectiveness of policies implemented by the government in each exporting country at supporting their exporters to overcome NTMs.

Therefore, further research steps in this project include the econometric estimation of the interdependencies between policies implemented, existing NTMs and exporters' perceptions towards NTMs.

The results presented in this report provide valuable information through the collection of primary information on the effects that NTMs have on exports flows from African agricultural products to the EU.

1 Introduction

NTMs consist of factors, other than tariffs, which generate restrictions and diminish trade flows. They include technical and sanitary standards, as well as several supply and demand side constraints such as telecommunications and infrastructure limitations, productivity and competitiveness shortcomings, bureaucratic barriers and bottlenecks, and governmental intervention.

In the particular case of agro-food goods, NTMs are believed to be one of the main causes behind a generalised decreasing trend in growth of exports to the EU. This is despite African countries enjoying considerable preferential market treatment. Within the program "Everything But Arms" (EBA) the main exports of the least developed countries (LDCs) have been able to enter the EU market without any duties since 2001. The ACP countries' trade agreements, favouring ACP access to the EU market, started in 1964 with the Yaoundé Convention, followed by four Lomé Conventions. In 2002 the EU started negotiating Economic Partnership Agreements (EPAs) with other single countries from the ACP group. There is a specific agreement between the EU and South Africa, the Trade, Development and Cooperation Agreement (TDCA), which provisionally entered into force in 2000 and was fully implemented in 2004. This agreement foresees a progressive tariff reduction both in the EU and in South Africa. With the Mediterranean (MED) countries the EU has been establishing association agreements entering progressively into force (for example the EU Association Agreement with Tunisia in 1998 or with Morocco in 2000).

Despite all these trade agreements, trade between Africa and the EU has not increased significantly (for further information refer to Chapter 4). It should be highlighted that even though tariffs are still important, there may be other factors limiting trade: NTMs, production capacities, supply constraints, infrastructure, etc.

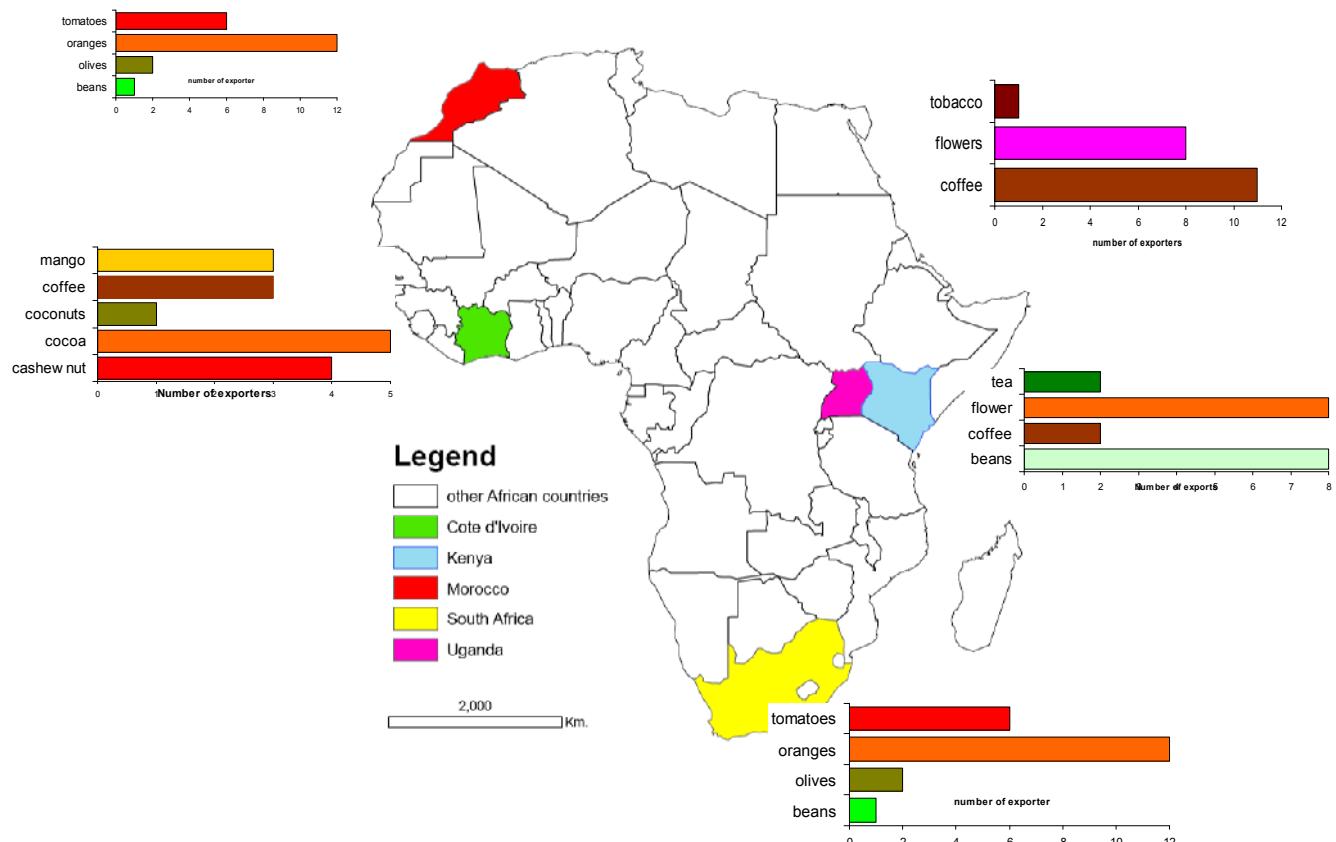
This report, based on a study initiated in November 2008, has three essential goals:

- To present the most recent definition and categorization of NTM according to the United Nations Conference for Trade and Development (UNCTAD);
- To describe the current and recent agro-food trade situation between specific African countries and the EU through the analysis of historic trade data and relevant regional and bilateral trade agreements for these cases;

- To identify and evaluate the impact of NTMs on current and potential agricultural exports from African countries towards the EU, by means of trader interviews; and
- To shed some light on potential relationships between NTMs and specific countries and products from the sample.

A survey was carried out, by means of specifically designed questionnaires which were collected by the Sociedade Portuguesa de Inovação (SPI), in close collaboration with the Institute for Prospective Technological Studies (IPTS). The questionnaires underwent an iterative process of development that involved input from the SPI, the IPTS and the Directorate General for Agriculture and Rural Development of the EC. Prior to its final approval, the exporters' questionnaire was tested in a mock survey that comprised 20 African agro-food exporters in four of the five selected African countries where the survey was implemented (Kenya, Morocco, Uganda and South Africa; the fifth country was Ivory Coast). Figure 1 gives an overview of the countries included, as well as the products addressed in the survey.

Figure 1: Included countries and products



Source: Own graph

This report presents the main findings and conclusions and is organised as follows:

- Chapter 2 is a brief literature review of previous studies and papers on the NTMs affecting agro-food trade in developing countries to contextualise this study.
- Chapter 3 describes the methodology adopted for conducting the survey questionnaire, focusing on the survey design, sampling process and implementation.
- Chapter 4 presents an analysis of the agricultural production and trade in the selected countries.
- Chapter 5 reports the exporter survey's results from a technical standpoint, i.e. the section involves the treatment of data collected directly from the interviews with African exporters and is a description of the exporter survey results.
- Chapter 6 draws conclusions on the survey's findings and summarizes its most important results.
- Annex A presents the NTMs addressed for each product.

2 Literature Review

2.1 Definitions

As a successful outcome of bilateral and multilateral trade agreements, worldwide tariffs have gradually declined, while non-tariff measures (NTMs) have been deemed to be a major obstacle for international trade and market access. The EU pursues additional market access, leading to a convergence of market access conditions among World Trade Organization (WTO) members around the lowest possible levels of protection, and effectively dealing with obstacles to trade (CEC, 2005).

The EU's approach to obstacles to trade, and specifically to non-tariff barriers, is to identify them and seek their removal (CEC, 2005). In order to cover these priorities, this study contains information on the identification of NTMs as well as other measures affecting trade and exports.

Several definitions have been developed for NTMs (national governments, WTO, Organisation for Economic Cooperation and Development (OECD), Codex Alimentarius). This study adopts the definitions and NTM taxonomy provided in 2008 by The Multi Agency Support Team (MAST)¹. The MAST defines an NTM as any policy intervention other than customs tariffs that can potentially distort the international trade of goods, services and factors of production by modifying quantities traded, commodity prices, or both (MAST, 2008). NTMs in trade have varied objectives'. In some cases, these measures arise as a result of increased consumer demand for safety and environmentally friendly attributes (Beghin, 2006). Another group of NTMs has the intended purpose of standardising the technical characteristics of goods or services within one economic region. In order to reduce the obstacles stemming from these standards, the WTO has reached an Agreement on Technical Barriers to Trade which tries to ensure that regulations, standards, testing and certification procedures do not create unnecessary trade obstacles (Agreement on TBT WTO, 2008). Differences in diets and preferences amongst countries, income levels and climatic conditions

¹ The MAST is an organism created by different international institutions such as the Food and Agriculture Organisation (FAO), the International Monetary Fund (IMF), the Organisation for Economic Cooperation and Development (OECD), United Nations Conference on Trade and Development (UNCTAD), World Trade Organization (WTO) International Trade Centre UNCTAD/WTO (ITC), United Nations Industrial Development Organization (UNIDO), World Bank (WB). Observers: European Commission (EC). United States International Trade Commission (USITC), United States Department of Agriculture (USDA). The MAST is jointly coordinated by UNCTAD and World Bank.

all have an effect on the population's perception of these technical regulations (Jaffee and Spencer, 2004) and therefore on their perception of NTMs.

NTMs have to be distinguished from non-tariff barriers (NTBs). NTMs are measures designed to meet certain policy objectives, being of a broader character and mostly represented by technical standards requirements. In contrast, NTBs are selected measures that discriminate between foreign products and adversely affect the trade and development performance of other countries as a result. In this case, these measures become barriers to trade and are considered NTBs (UNCTAD, 2007). It should be noted that NTMs can become NTBs. As this study covers domestic and international measures, NTMs and NTBs have been evaluated.

Another definition of an NTM is based on the difference between core and non-core NTM. Core or border NTMs are those measures directly related to changes in trade figures, such as prices and quantity controls, and therefore affecting foreign producers. Non-core or internal NTMs are implemented in domestic economies with the aim of protecting local consumers, and therefore affect local consumption. Examples of non-core NTMs are human health protection, animal health and life protection, plant health protection, environmental protection, etc. This definition is applied to measures reported in the TRAINS database developed by UNCTAD.

2.2 NTM Classifications

The term NTM embodies a broad number of restrictions, which have to be grouped to have a consistent scope. Regulations and standards regarded as NTMs have been used to address information problems and externalities that are related to societal and economical concerns. There are several NTM classifications which have been developed according to the objectives of the collecting institution. The Trade Analysis and Information System (TRAINs) has been compiled by UNCTAD. TRAINs contains information on measures related to price control, finance, automatic licensing, quantity control, monopolistic, and technical measures. This database is the most comprehensive available in terms of country and product coverage. However, as the identification of new NTMs increases, TRAINs' classification no longer covers every NTM and their specific feature/purpose. Furthermore, given the reduced number of countries and products included, as well as the underlying typology of measures, the current complex NTM situation is only partially captured (World Bank, 2002). The asynchrony in the social responses amongst different countries towards NTMs, together with

the importance of NTMs as major factors in international trade and market access, created the need for a more homogeneous classification of NTM.

To compile the new NTM classification, the UNCTAD established a group of eminent persons on NTMs (GNTM). Additionally, the MAST provided technical support to the GNTM for the definition of the new NTM classification. The main objective of the new NTM classification was to address broader issues that concern importers, exporters and consumers (UNCTAD, 2007). Such issues, not considered in the past and included in the new classification, embrace (a) the clear distinction between sanitary and phytosanitary measures (SPS), (b) technical barriers to trade (TBT) measures, and (c) Government Procurement, export measures and Intellectual Property rights. The new classification also introduced the concept of “Procedural Obstacles” which does not refer to the measures themselves, but to the fact that their implementation poses an effect similar to a barrier to trade (UNCTAD, 2007). Accordingly, NTMs are considered to be all measures that affect trade flows, other than custom duties, in order to protect the safety and sanitation of plants, animals and humans (MAST, 2008). One group of measures included in this NTM classification are Non-tariff barriers (NTB) whose main objective is to protect domestic producers. NTBs are selected measures that discriminate against foreign products, directly or indirectly (UNCTAD, 2007).

The NTM classification can be described as being divided into three main areas: SPS category (A), TBT category (B), and other technical specifications categories (C-P).

The classification divides NTMs into 17 main categories (MAST, 2008; van Tongeren, et. al., 2009):

A. Sanitary and phytosanitary (SPS) measures: include laws, decrees, regulations, requirements, standards and procedures to protect human, animal and/or plant life or health. These measures are classified in category (A) and refer to asymmetric information between producers and consumers to ensure that market agents possess the same information as them related to health and welfare. SPS measures also address potential externalities in production due to invasive species or infectious diseases. Most of the SPS policies under category (A) imply a shift in the marginal cost of production because additional costs are incurred to meet the requirements. In addition, some SPS measures may also increase and enhance demand by providing information to consumers (van Tongeren, et. al., 2009).

B. Technical barriers to trade (TBT) measures: are regulations and standards referring to technical specification of products and conformity assessment systems thereof. These are regulations and standards targeting the technical characteristics of products. As in the case of SPS, there are voluntary standards for both process and product attributes. Unlike SPS measures, TBT measures do not include explicit bans on imports from specific countries or regions. Technical regulations focus on international standards such as international production standards, but also on national standards such as on packaging, labelling, and marking requirements. They also cover other measures concerned with environmental protection such as the presence of genetically modified organisms (GMO) (van Tongeren, et. al., 2009).

C. Other technical measures: include the physical inspection of goods in the country of export prior to shipping, which establishes the exact nature of the goods. Formalities to be completed at Customs, which are not related to the administration of SPS/TBT measures, require exporters to produce the necessary documents used to declare shipments to Customs in the country of import. This third category of NTM covers policies and requirements which somehow do not fall under the two previous ones but are similar to them for analytical purposes. This category includes pre-shipment inspections to check the conformity of the products, potentially addressing the abovementioned failure to comply with Customs procedures; Customs formalities not included in (A) and (B) (van Tongeren, et. al., 2009).

D. Price control measures: are implemented to control the prices of imported articles in order to support the domestic price of certain products when the import price of these goods is lower. These measures are also intended to stabilize the domestic price of certain products because of price fluctuation in domestic markets, or price instability in a foreign market.

E. Quantity control measures: Quantity control measures are aimed at limiting the quantity of goods that can be imported, regardless of whether they come from different sources or one specific supplier. These measures can take the form of restrictive licensing, the fixing of a predetermined quota, or through prohibitions. Most quantity control measures are formally prohibited by the GATT 1994 but can be applied under specifically determined circumstances (Article XI, WTO).

F. Para-tariff measures: Other measures that increase the cost of imports in a manner similar to tariff measures, i.e. by a fixed percentage or by a fixed amount, calculated respectively on the basis of the value and the quantity, are known as para-tariff measures. Four groups are distinguished: customs surcharges; additional taxes and charges; internal taxes and charges levied on imports; and decreed custom valuation.

G. Finance measures: Financial measures are intended to regulate the access to and cost of foreign exchange for imports and define the terms of payment. They may increase import costs in the same manner as tariff measures.

H. Anti-competitive measures: Measures to grant exclusive or special preferences or privileges to one or more limited groups of economic operators, for social, fiscal, economic or political reasons.

I. Export-related measures: Export-related measures are measures applied by the government of the exporting country to exported goods.

J. Trade-related investment measures: These take the form of a requirement to use certain minimum levels of a locally made component, which restrict the level of imported components or measures. This limits an enterprise's purchase or use of imported products to an amount related to the volume or value of local products that it exports.

K. Distribution restrictions: A restriction to limit and rule the way the products are distributed. This may be controlled through additional license or certification requirements.

L. Restrictions on post-sales services: Measures restricting producers of exported goods in exporting countries from providing post-sales services in the importing country.

M. Subsidies: These refer to a financial contribution by a government or government body to a production structure, whether a particular industry or company, such as a direct transfer of funds or potential transfer of funds (e.g. grants, loans, equity infusions), payments to a funding mechanism and income or price support.

N. Government procurement restrictions: These are measures controlling the purchase of goods by government agencies, generally by favouring national providers.

O. Intellectual property: This category covers patents, trademarks, industrial designs, lay-out designs of integrated circuits, copyright, geographical indications and trade secrets.

P. Rules of origin: These cover laws, regulations and administrative determinations applied by governments of importing countries to determine the country of origin of the goods. Rules of origin can restrict trade when it is difficult to determine the origin of the final product if raw materials and parts come from different countries. Rules of origin are important in implementing such trade policy instruments as antidumping and countervailing duties, origin marking, and safeguard measures.

Other NTMs considered in the NTM database developed by the United States International Trade Commission (USITC) are: Corruption, Export-related Measures, Government Procurement, Investment-Related Measures and Services. The compilation of NTMs by the USITC for goods and services covers 107 countries for a total of 14 NTM aggregated categories. The main caveat is that this database does not necessarily cover products at as high a disaggregated level as the MAST classification does. It includes the US trading partners of the Asia Pacific Economic Cooperation forum (APEC) and the proposed Free Trade Area of the Americas (FTAA) (Martinez et al., 2009).

2.3 Worldwide inventory of NTMs

Several international institutions have invested resources over recent years to develop consistent and accurate databases for detecting the presence of NTMs. The most extensive effort has been made by the UNCTAD to create the Trade Analysis and Information System (TRAINS) database, which is accessible online and contains indicators of Trade Control Measures (including NTMs). The data are displayed at the Harmonised System 6-digit (HS-6) level for over 150 countries. Another database compiled as time series from the TRAINS is the World Integrated Trade Solution (WITS). WITS has been extended in collaboration with the World Bank. TRAINS and WITS contain incidences of NTMs in the form of trade coverage and frequency ratios.

Given the vast variety of existing NTMs, there is no single analytical procedure or methodology capable of dealing with the entire spectrum of NTMs and their diverse manifestations on trade (Deardorff and Stern, 1998). Thus, there are different approaches for identifying, measuring or quantifying NTMs. These methods can be classified according to the nature of the identification. A first classification - known as *frequency or coverage type* - contains all those NTMs which could be identified. This classification consists of a listing of observed NTMs for specific countries and products or categories of trade at a HS6 disaggregated level. The second approach calculates NTM effects by determining the effects that these NTMs might have on diverse economic agents (Deardorff and Stern, 1998).

Incidence of Non-Tariff Measures

Coverage ratio

The percentage of trade subject to NTMs for an exporting country j at a desired level of product aggregation is given by the trade coverage ratio C :

$$C_{jt} = \left[\frac{\sum_{i=1}^k (D_{ijt} V_{ijt})}{(\sum_{i=1}^k V_{ijt})} \right] * 100 \quad (1)$$

In Equation (1), C denotes the existence of an NTM to a tariff line item i , from the importing country j , and the dummy variable D_{ijt} takes the value of one if a NTM exists and zero if there is no NTM; V_{ijt} is the value of imports in item i , and t is the year in which the information has been collected.

The frequency index F accounts for the presence or absence of NTMs in the percentage of import transactions covering a specific group of NTMs for an exporting country. It is calculated as (Bora et al, 2002):

$$F_{jt} = \left[\frac{\sum_{i=1}^k D_{ijt} M_{ijt}}{(\sum_{i=1}^k M_{ijt})} \right] * 100 \quad (2)$$

In Equation (2), D_{ijt} is a dummy variable (1=NTM or 0=non NTM), which reflects the presence of an NTM on the tariff line item. M_{ijt} indicates whether there are imports from the exporting country j of good i (also a dummy variable: 1=imports or 0=no imports) and t is the

year of measurement of the NTM. The frequency ratio, unlike the coverage ratio, does not reflect the relative value of the affected products and thus cannot give any indication of the overall importance of the NTM to an exporter, or, relatively, among export items (Bora et al, 2002).

The availability of coverage and frequency ratios is rather limited and not always continuous over the years. The last updated information dates from 2001. TRAINS-WITS data have information for 165 countries, however not all agricultural products and not all years are covered. The use of coverage and frequency ratios is applied to detect the presence of an NTM but not the effects. Some information from the database can be used in econometric studies as explanatory variables when analysing factor trends in bilateral trade flows. Some studies have integrated these ratios into gravity models, to quantify their impacts, with promising results (Kee et al, (2008); Andriamananjara et al, (2004) etc). However, a major drawback emerges from the uneven or incomplete reporting by countries, as well as the heterogeneous coverage of measures across countries and commodity classification, e.g. some countries report at HS4 level and others at HS6 level.

Price comparison as measurement of NTM impact

This approach, also known as *the price wedge method*, is based on the estimation of the difference between import and domestic prices caused by the NTM. From this difference an import tariff equivalent is deducted. The price wedge between domestic and import prices is considered as the NTM. This procedure thus interprets the effects caused by NTMs as being similar to those created by import tariffs. This method is quite easy to perform when domestic and import prices for exactly the same commodity are available. However, this method has several limitations. Firstly, with this approach, one quantifies the effect of several NTMs affecting a particular product, but nothing can be said of the effect of each NTM or the identification of those NTMs acting on that product. Secondly, as many imported products and domestic goods do not retain their separate labels, their market price is the same. In order to overcome this limitation of the approach, some researchers, such as Griliches (1970), apply hedonic prices for either domestic or import prices. One of the important limitations of this approach is its ability to be operational for large scale industries, as the data are too aggregated to identify specific differences (Deardorff, 1997).

Survey-based Methods

A survey is conducted among exporters of certain products and regions. This method has several advantages, such as the identification of particular NTMs that would be difficult to identify through other methods, i.e. administrative entry procedures, pre-shipment inspections, customs classifications, etc.).

Surveys also allow the possibility of prioritizing different types of mechanisms. Surveys help to determine which specific NTMs are important to exporters, importers and consumers (Mattson, et al., 2004). The main disadvantage is the high cost required to conduct export surveys. Additionally, given the specificity of commodity trade across countries, it is difficult to reach a certain comparability level between surveys from different products (countries) (Carrère and de Melo, 2009). Depending on the survey structure, the responses can be used to run different econometric studies (Kubar D., 2006).

An example study is the World Bank study (2008a) based on a survey interviewing governmental officials and exporter associations in thirteen countries (Cambodia, Chile, China, Indonesia, Korea, Laos, Mexico, Peru, Philippines, Singapore, Thailand, Taiwan, and Vietnam). The main goal was to obtain information on the potential export expansion of these countries by diminishing restrictive NTMs in their main export markets. The final results of the survey contained 23 interviews from Cambodia, two with exporter associations, the rest with government officials. In Mexico data were taken from a database in Mexico's Bank of International Trade. In Korea the interviews were administered to 1000 respondents including firms and embassies.

A similar study also was performed for East African Countries (EAC) by the World Bank (2008b). The survey was done on a country-by-country basis. The interviewees were government officials, companies (producers/exporters/importers/transporters). This cross-country survey focused mainly on NTMs constraining intra-regional trade between EAC members.

A contribution from Mimouni et al. (2009) describes the main outcomes from a survey that assesses the business sector's experiences with obstacles to trade. The survey methodology captured information related to the analysis of barriers, including the existence of possible patterns across products, destination countries and regions, as well as potential bottlenecks at the national level. Mimouni et al. (2009) examine data collected from five selected countries from those covered in the survey: namely, Chile, the Philippines, Thailand, Tunisia and Uganda.

The analysis of the survey data suggests that trade barriers vary considerably across countries, sectors, and trading partners. Many obstacles to trade are concentrated on specific sectors and are more prevalent in intra-regional trade. Moreover, most of the goods affected are often under a preferential tariff treatment by the destination country. At the same time, obstacles to trade can be associated with a lack of infrastructure and efficient procedures in the country of origin, as illustrated by the case of Uganda (Mimouni et al., 2009).

The current report follows this approach to determine which NTMs affect trade flows going into the EU.

2.4 Quantifying the Impacts of NTMs

Econometric Methods

Gravity models are often used to relate trade flows to country characteristics and coverage or frequency ratios. This approach includes the distance between trading partners as a representation of transport costs. A basic gravity model representing trade flows is written as:

$$\log(\text{trade_flow}_{ij}) = \alpha_0 + \sum \beta_n \log(C_i) + \sum \chi_n \log(C_j) + \text{distance}_{ij} + \sum \delta_{ij} \log(NTM_{ij}) + \varepsilon_{ij} \quad (3)$$

where:

trade_flow_{ij} represents the absolute value of the trade flow between countries i and j; C_i , C_j and NTM_{ij} are the characteristics considered in the study for countries i and j, as well as the NTMs faced in the trade of commodities between i and j respectively; α_0 is the specific intercept; β_n , χ_n and δ_{ij} are the parameters specific to characteristics of countries i and j, and NTMs respectively; distance_{ij} represents the distance between countries i and j; finally ε_{ij} is the error term in the econometric regression. Gravity-based techniques address the influence of single variables on trade flows rather than their welfare impact, and may therefore neglect the effect that regulations currently have on correcting market failures with restrictive trade flows (Beghin and Bureau, 2001).

A study to identify the impacts of measures notified by importing countries under the SPS and TBT agreements on bilateral trade flows was presented by Disdier et al. (2008). They focused on the importance and the structure of NTMs in agricultural trade by taking into account trade between OECD countries and developing (DCs) and least developed (LDCs) countries. Didier

et al. (2008) explained the impacts of SPS and TBT regulations expressed as ad-valorem equivalents on international trade. Their results first suggested that on the whole SPS and TBT measures have a negative impact on trade in agricultural products, especially on OECD import products. This negative effect was notably higher in exports to the EU market. Furthermore, EU imports appeared to be more negatively influenced by SPS and TBT measures than imports of other OECD countries.

Anderson and Neary (2003) developed three indices of trade policy restrictiveness to link trade policies with a tariff equivalent. The first index called the Market Access Trade Restrictiveness Index (MA-TRI) is employed to average tariffs at different levels of aggregation with a domestic welfare constant. The second index measures the tariff level needed to keep the level of trade flows constant and is called the Overall Trade Restrictiveness Index (OTRI). The so-called volume equivalent index is related to the Trade Restrictiveness Index (TRI) to measure a welfare equivalent (Anderson and Neary, 2003).

A representative application of Anderson and Neary's approach was developed by Kee et al. (2009) and focused on the impacts of trade policies and NTMs. They analysed trade data for 91 developing and developed countries to estimate trade restrictiveness indices (TRI). Kee et al. (2009) estimated TRI for manufacture and agricultural commodities to capture the extent to which trade policies affect domestic welfare. Their results suggested that on average nearly 70 percent of world trade protection is created by NTMs (Kee et al., 2009).

Partial and General Equilibrium Simulation Models

There are different approaches which can be applied to analyse NTMs in a simulation model depending on the specific research questions raised by the researcher. Partial equilibrium (PE) models are more appropriate for the study of single markets. These models focus on a specific market or product, neglecting interactions with other markets. PE models are well suited for the analysis of sectoral policies, or when interactions with other markets are expected to be few and insignificant. An important characteristic of these models is the inclusion of more market relevant details than in GE models.

One of the advantages of general equilibrium (GE) over PE models is the possibility to link different agents of an economy such as households, firms, governments and the rest of the world. GE models have the facility to assess the effects of policy changes on aggregated and sectoral variables, including: income, production, employment, relative factor and product prices, etc. These models are more appropriate for cross-country or cross-market studies.

However, it is not feasible to include the highly detailed structure of markets given the broader economic coverage.

Both types of simulation models offer the possibility to break down the impacts of NTMs into welfare changes of different economic agents.

The representation of the economic conditions or scenario might be focused on one particular market (partial equilibrium models) or the entire economy in one country or worldwide (general equilibrium models). The simulated scenario is compared with a calibrated baseline which represents supply and demand structures, price as function of quantities, and tariff linked to products. NTMs are represented in most cases as tariff equivalents with their respective linkage to the commodity prices under particular values of macroeconomic variables (GDP, exchange rate, etc). Thus, a simulation modifying the level of NTM tariff equivalents will modify changes in prices and subsequently in quantities.

An economic simulation model has several components:

- Behavioural equations defining the economic behaviour
- Economic parameters which are used to introduce historical patterns for the behaviour
- A platform used to define the scenarios which will be simulated

The behavioural equations describe:

- The relations between quantities and prices, through different demand functions according to the specifications applied in each particular model.
- Economic structures which modify prices and quantities in the addressed market(s). They might include cost functions, firms' profits, private consumption, exports, imports, etc.
- Government policies defining price intervention, import quotas, etc., taxes, subsidies.
- A clear structure of how NTMs are linked to prices and/or quantities of commodities studied.

A comprehensive overview of the techniques applied for the identification and measurement of NTM impacts is presented by Schlueter et al. (2009) and is displayed in Table 1.

Table 1 Overview of measurement issues in different NTM modelling approaches

Quantification technique of NTM size	of measurement	Author	Quantity effect	Price/ welfare effect	Focus of NTM impact
Gravity models					
Count measure: frequency and coverage ratios	Log-linear least squares with fixed or random effects	Disdier et al. 2008; de Frahan and Vancauteren 2006; Fontagné et al. 2005; Moenius 2004	x		Market access and competitiveness; developing country issues
Stringency measure: direct approach	Log-linear least squares with fixed or random effects	Wilson and Otsuki 2001; Otsuki et al. 2001	x		Market access and competitiveness; developing country issues
Stringency measure: policy heterogeneity approach	Log-linear least squares with fixed or random effects	Kox and Lejour 2005; Kox and Nordås 2007	x		Market access and competitiveness; differentiation between variable and fixed compliance costs
-	Two-stage estimation based on Heckman (1979)	Helpman et al. 2008; Silva and Tenreyro 2006	x		Zero trade flows; sample selection bias
-	Two-stage estimation based on Heckman (1979)	Helpman et al. 2008; Silva and Tenreyro 2008	x		Unobserved firm level heterogeneity - extensive and intensive margin; sample selection bias
-	Multilateral resistance variables; fixed effects and random effects models	Anderson and van Wincoop 2003; Egger 2005	x		Unobserved country-pair heterogeneity - relative trade barriers (multilateral resistance)
-	Pseudo-maximum likelihood; Tobit; Heckman maximum likelihood	Silva and Tenreyro 2006; Martin and Pham 2008	x		Heteroscedasticity in trade data

Simulation models					
Tariff equivalents: price effect via quantity effect	Partial equilibrium model	Kee et al. 2006	x	x	Market access and competitiveness
Tariff equivalents: Kuhn-Tucker approach to corner solutions	Partial equilibrium model	Yue and Beghin 2009	x	x	Zero trade flows caused by prohibitive regulations
Costs and risk of pest outbreak	Partial equilibrium model	Peterson and Orden 2008; Wilson and Antón 2006; Yue et al. 2006		x	Risk-based analysis
Compliance costs	Partial equilibrium model	Rau and van Tongeren 2007 and forthcoming		x	Firm heterogeneity; differentiation between variable/fixed compliance costs
Compliance costs; consumer valuation of failures	Partial equilibrium model	Beghin et al. 2009		x	Welfare-enhancing solution of NTM

Source: Schlueter et al., (2009)

2.5 *African Products Facing NTMs*

The most important markets for African products are the EU, the US and Japan, and, increasingly, India, China and Russia.

Most imports which enter the US from African countries are either duty free or subject to low tariffs. The highest tariffs apply mainly to imports of agro-food and tobacco products which are the most important export products from African countries. There are different tariff preference patterns extended by the US to Andean, African and Caribbean countries, as well as under the framework of Generalised System of Preferences.

As the second largest importer of goods worldwide, the EU is a leading importer of African goods, therefore its trade policies are decisive for the continent. However, it should be borne in mind that private standards play a crucial role too. The EU has signed different trade agreements with African countries and under its current preferential tariff scheme the EU market is largely open to African countries. The benefits derived from preferential systems are sizeable and require compliance with technical and administrative conditions.

Regarding sanitary and phytosanitary measures, Jaffee and Henson (2004) show the increase in number of restrictions for African products in the EU and the US.

Table 2 presents the percentage of NTM incidence in the UNCTAD – TRAINS database of each Agricultural Product Group (chapter) for the main trading partners of African countries (the US, Canada, the EU, Japan, China and India).

Of the countries addressed, China is the most open market with only two chapters being reported as being subject to NTMs. The EU and Japan have imposed NTMs in three chapters of agricultural commodities of the 23 commodity chapters. Reports on the incidence of NTMs in imports to Canada and the US are revealed in 11 and 14 chapters respectively, whereas India is the most restricted market.

Table 2 Incidence percentage of NTMs faced by African products in different importing countries²

Agricultural Product Group	EU	Canada	Japan	US	China	India
Live Animals	-	-	-	-	-	-
Meat and Edible Meat	100	100	0	100	100	100
Ornamental Fish	50	100	100	50	0	100
Dairy Products	0	100	0	100	0	100
Leeks and other alliaceous vegetables	0	100	0	100	0	100
Vegetable Seeds	0	100	0	100	0	0
Edible Fruits and Nuts	0	100	0	100	0	100
Coffee, Tea	0	0	0	100	0	100
Cereal	0	100	0	100	0	0
Beer from Malt	0	0	0	100	0	100
Full Grains, Unsplit; Grain Splits	0	0	0	0	n.a.	n.a.
Gum Arabic	0	100	0	0	0	0
Brooms and Brushes with Twigs or Other Vegetable Materials	0	0	0	0	0	100
Animal Fats and Oils and their Fractions	50	0	0	50	0	100
Preparation based on Sausages and Similar Products, Meat, Meat Offal/Blood	0	25	100	100	0	100
Sugar Beet	0	100	0	0	0	100
Cocoa Beans	0	0	0	0	100	0
Preparation of Tapioca and Substitutes from Starch	0	0	0	100	0	100
Machinery for the Preparation of Animal or Fixed or Vegetable Fats or Oils	0	0	0	0	0	0
Ice Cream and Other Edible Ice	0	3	0	100	0	0
Fermented Beverages; Mixtures of fermented Beverages and Non-alcoholic Beverage	0	0	0	100	0	0
Residues of Starch Manufactures and Similar Residues	0	0	0	0	0	0
Tobacco not Stemmed or Stripped	0	0	0	0	100	0

Source: TRAINS database (UNCTAD)

² Data collected up to 2008, reported by the WITS (The World Integrated Trade Solution).

Empirical evidence

The World Bank has conducted several surveys to identify existing NTMs in African imports worldwide. The Technical Barriers to Trade database (Wilson J. and Tsunehiro O., 2004) is based on a survey of 689 firms in 17 developing countries. This survey focuses on information collection related to TBT for all industries, including agricultural and non-agricultural firms. This survey covers 6 countries on the African continent - Kenya (20 firms), Mozambique (10 firms), Nigeria (50 firms), Senegal (13 firms), South Africa (70 firms) and Uganda (20 firms) - of which the main export commodities are agricultural raw materials and mining products. The TBT database covers 84 firms exporting agricultural commodities out of these countries, and 42 firms represent African companies specifically exporting agricultural products (Wilson J. and Tsunehiro O., 2004). Information related to single specific agricultural commodities by country cannot be accessed as the data report agricultural commodities in a single classification: agricultural raw materials.

Other surveys have been conducted in African countries covering more categories of obstacles to trade. As part of the efforts to achieve an effective economic integration, the East African Community (EAC)³ has committed itself to promoting projects and strategies that would lead to the identification and elimination of obstacles to trade within Member States. More extensive surveys have been conducted for the quantification of restrictions on imports of intra-African commodities.

The EAC study is mainly based on individual surveys performed in the five countries to determine the NTBs existing in trade within these countries. The EAC's survey on NTBs comprises a total of 240 companies: Uganda (25%), Tanzania (20%), Kenya (21%), Rwanda (18%) and Burundi (15%) (Hanig M., 2009). In the EAC's survey, most of the products considered are of importance in the context of intra-African trade, such as Kenyan exports of meat and poultry to Uganda.

Other specific surveys have been developed for case studies of specific African agricultural imports entering into the EU. Vegetable and fruits are the most widely exported products from Africa to the EU, therefore several research studies (Emlinger, et al, 2010; Chemnitz C., and Grethe H.; Cioffa A. and dell'Aquila C., 2004) investigate horticultural products entering into the EU.

The IPTS survey aims to reduce the lack of information about the obstacles to trade for specific African agricultural imports when entering the EU market. In spite of the modest size of the sample (95 exporters), it still represents the largest survey containing cross-country

³The EAC comprises Burundi, Kenya, Rwanda, Tanzania and Uganda

information on the conditions of agricultural firms in the selected five countries. A comprehensive review of other studies with a focus on the identification and quantification of NTMs in trade between Africa and the EU is presented by Gonzalez Mellado et al. (2010).

3 Methodology

3.1 *Selection of countries*

In order to select the countries to be included in our analysis, their trade relations were analysed. The analysis focused on export volumes from different African regions to the EU, some very competitive and others with low trade flows with the EU. The short-listed African countries were Cameroon, Ivory Coast, Ghana, Senegal, Ethiopia, Kenya, Malawi, Uganda and South Africa. After conducting a preliminary analysis, Ivory Coast, Kenya, Uganda, South Africa and Morocco were selected as the target countries. Uganda, representing the smallest country in the sample, is also the only landlocked country and beneficiary of the EBA agreement. Morocco is the only North African country in this sample and is also included in the Neighbourhood policy of the EU. Ivory Coast and Kenya are important regional players in West and East Africa respectively. South Africa has a specific bilateral trade agreement with the EU and is the most important single economy in Africa.

The selected countries' diverse geographies, stages of economic development and institutional, political and economic relations with the EU permit a reasonable degree of variation within the African continent. Regarding the export of agricultural and food products they are diverse, some are concentrated on a few main products; others supply a wide range of products to the EU. Table 3 presents a brief summary of the agreements that apply to each of the selected countries. Generally, these countries are the most important African exporters of agricultural and food products, with the exception of Uganda.

In all five countries selected for this study, the main agro-food commodities produced are: staple grains like wheat, barley and maize, products of animal origin like milk, and products that are an integral part of local diets such as yams, cassavas and bananas.

Regarding trade, each of the selected countries was assessed depending on their main exported commodities and trade agreements with the EU. For a comprehensive description of the agricultural production and trade profile of the selected countries, please refer to Section 4.

Table 3 Trade Agreements between the EU and the selected countries

Type of Agreement	Agreement Name	Ivory Coast	Morocco	Kenya	South Africa	Uganda
Bilateral	EU – Morocco Association		✓			
	The Trade, Development and Cooperation Agreement (TDCA)				✓	
	Economic Partnership Agreement *	✓				
Multilateral non-reciprocal	Generalised System of Preferences	✓	✓	✓	✓	✓
	Everything but Arms Initiative					✓
	Lomé Convention (Cotonou Agreement)	✓		✓	✓	✓
Multilateral reciprocal	WTO Agreement (MFN)	✓	✓	✓	✓	✓

Source: Own design

* Not enforced during the time period analysed in the study.

3.2 Survey Design

The survey questionnaires were designed to be completed electronically and returned to the project team by e-mail, or by means of a webpage developed specifically for the purpose. Respondents were also given the option to fill in a paper version of the questionnaire and send it back by post or fax. Completing the questionnaire electronically presented two clear advantages:

- Data collection was faster, information was better organised and more easily manageable; and
- The cost of conducting the survey in this fashion was lower compared to other options, and allowed the surveys to be completed within the project budget.

One main objective when designing the survey and developing the questionnaires was to ensure that they were accessible and clearly understood by people of diverse nationalities, gender, age, professional status and education level. This issue is of great importance for the analysis of results as it ensures that the questionnaires have been accurately answered by the survey population.

Three of the five selected target countries (Kenya, South Africa and Uganda) have English as an official and widely spoken language, therefore no translation was required. In Ivory Coast

and Morocco, however, French is an official language, which led the team to produce a French version of the questionnaire.

3.3 *Sampling*

The exporter survey contains a total of 95 completed questionnaires (20 each from Kenya, Uganda, Morocco, and South Africa and 15 from Ivory Coast). The original intention was to collect responses from 100 individuals, evenly distributed among the five participating countries, but this was not possible due to the lack of response from some exporters in Ivory Coast. The exporters were carefully selected by the team's local experts taking into account two conditions: (i) the questionnaires had to be completed by the respondent, in due time, and with enough detail to allow for a high quality analysis; and (ii) the group of exporters selected had to represent the largest possible array of main commodities exported by the respective country. Sample bias may exist because the survey does not accurately represent the population.

Large volume exporters in Africa do not normally export only one product, but are usually involved in several commodities at the same time. Many of the selected respondents currently export a wide variety of agro-food products to the EU. However, they were selected based on their importance as an exporter of one or two particular products, which represent a main export of a given country (e.g. coffee in Kenya and Uganda, citrus fruits in Morocco or wine in South Africa).

4 Analysis of agricultural production and trade: selected countries

4.1 Ivory Coast

Introduction

Ivory Coast is essentially an agricultural country. Most of the population is engaged in agriculture, forestry, and livestock rearing. The market-based economy relies heavily on agriculture, with smallholder cash crop production being dominant. Ivory Coast is the world's largest producer and exporter of cocoa beans and a significant producer and exporter of coffee. Cash crop products in Ivory Coast (including timber and palm oil) have formed the core of a development strategy that was later reinforced by secondary agricultural export crops such as bananas, pineapples and others - since the post-1965 diversification policy. Despite government attempts to diversify the economy, it is still heavily dependent on agriculture and related activities which engage roughly 68% of the population.

Table 4 Average production and trade figures for Ivory Coast (1999-2009)⁴

Product	Exports as % of production	Exports to the EU-27 (Mio €)	Exports as % of total agri-food exports (Mio €)	Exports / Total EU-27 imports (Mio €)	Exports (Mio €) % change	Exports to the EU-27 (Mio tonnes)	Exports as % of total agri-food exports (Mio tonnes)	Exports / Total EU-27 imports (Mio tonnes)
Cocoa beans, whole or broken, raw or roasted	46.5	10360	49	43	28	6.7	41.8	43
Cocoa paste (excl. defatted)	n/a	2175	10	75	206	1.0	6.5	75
Cocoa butter, fat and oil	n/a	1843	9	37	120	0.6	3.4	36
Bananas, incl. plantains, fresh or dried	69.8	1611	8	5	50	2.6	15.9	5
Fresh or dried pineapples	59.4	865	4	22	-74	1.4	8.4	25

Source: EUROSTAT (2011) and FAOSTAT (2011)

Production

The main agro-food commodities produced in Ivory Coast are yams, cassavas, plantains, sugar cane and cocoa beans. Table 4 reports the average production and trade figures for Ivory Coast between 1999 and 2009.

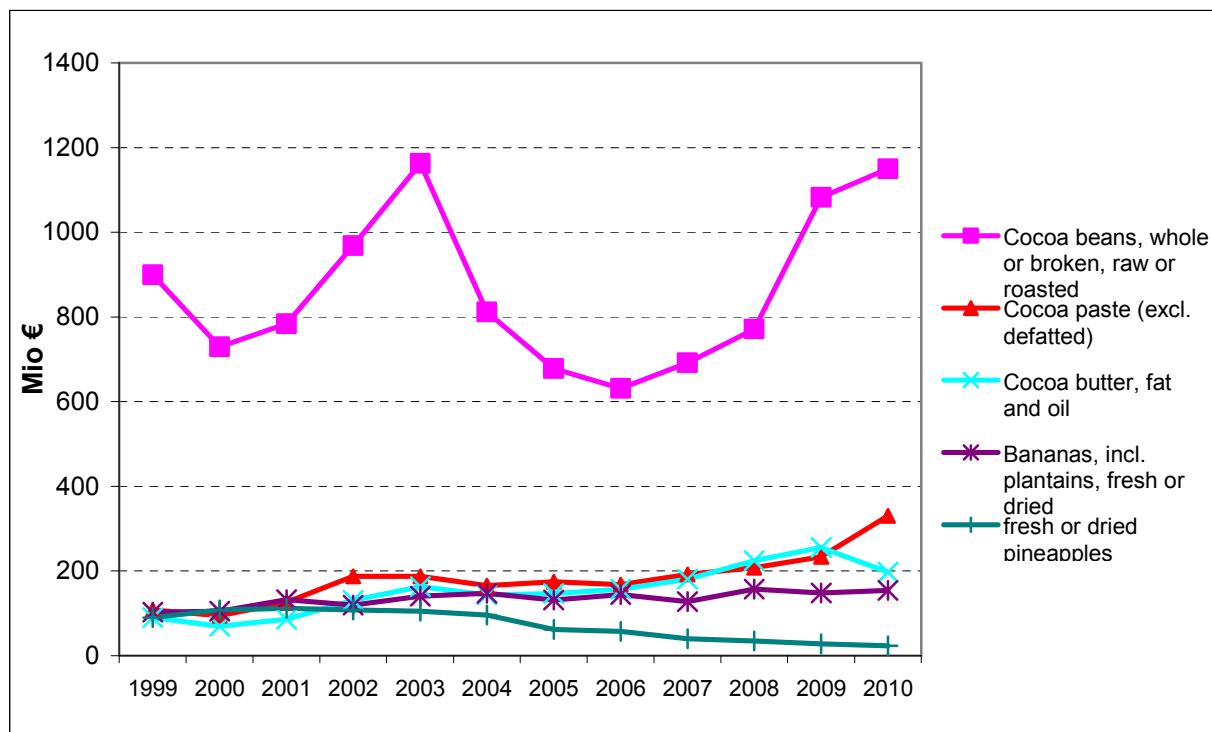
⁴ Figures pertaining to trade are reported between 1999 and 2009. Production figures are reported between 1999 and 2010. Where trade and production figures are combined the analysed period is 1999-2009.

With regard to the top exported products, all main Ivorian commodities exported to the EU, as illustrated in Table 4, are subject to duty free imports and/or preferential GSP tariffs. Due to the project's focus on non-fish agro-foods, prepared or preserved tunas as a product originating from fisheries was left out of the assessment. Three of the remaining main commodities are cocoa products owing to Ivory Coast's dominant position in the global cocoa market.

Historic Production and Trade Levels

Figure 2 illustrates how the levels of Ivory Coast's main agro-food commodities exported to Europe varied between 1999 and 2010.

Figure 2 Historic levels of Ivory Coast's main exports to the EU



Source: EUROSTAT (2011)

Up until 1999, cocoa prices were controlled through the Ivorian Marketing Board financing system to pace sales throughout the year and allow for the forward selling of up to two-thirds of the crop. When this system was abandoned, all the producers sold their harvest at the same time and flooded the market, leading prices and consequently revenue to decline.

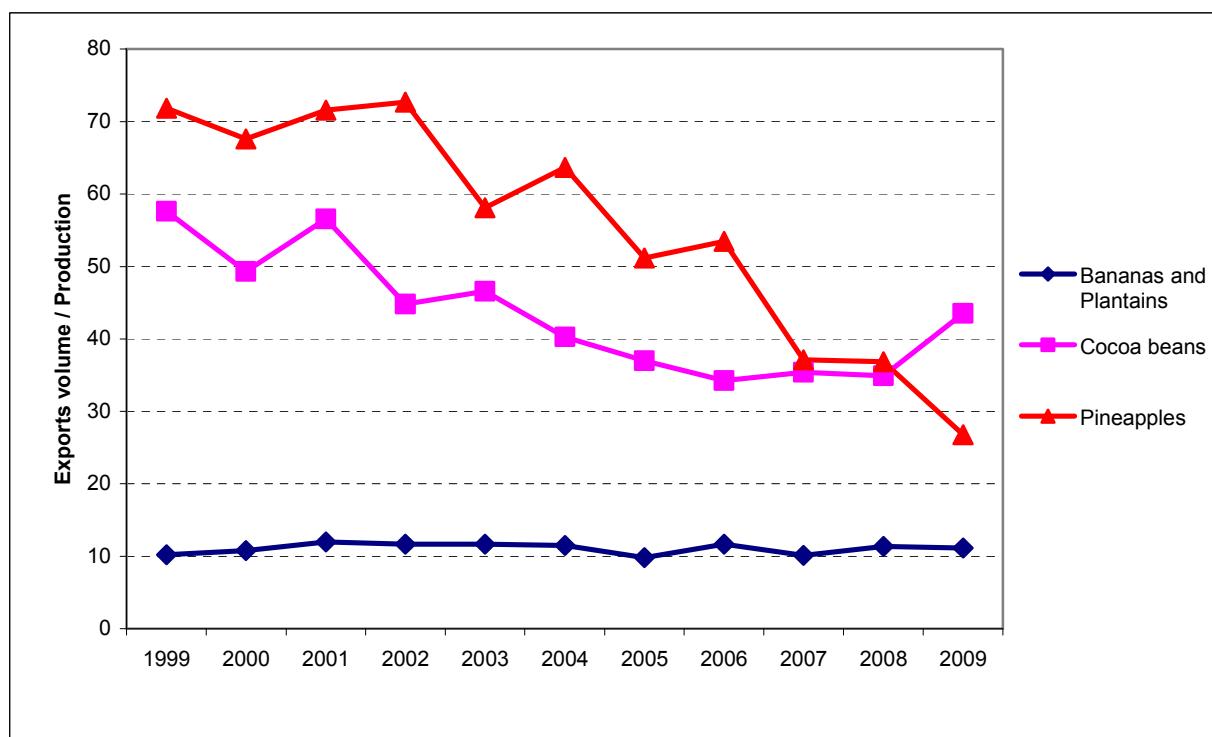
After the period of decline, export values increased significantly to an historic peak of €1,200 million in 2003. This period of growth resulted from an increase in the export price of cocoa beans that immediately followed the period of market flooding. Since 2003 export revenue has decreased progressively. A possible explanation may be the adoption, in 2003, by the

European Parliament and Council of the Directive 2000/36/EC of June 23rd to allow the use of vegetable fats other than cocoa paste in the manufacturing of chocolate. This can be seen in the decrease in the exported volume of cocoa beans but also in the decrease in market prices. This situation certainly contributed to the decrease in cocoa bean exports, but one would expect a more severe fall in cocoa paste exports, which does not occur. Export revenues have since returned to the level achieved in 2003.

The remaining analysed Ivorian exports have experienced periods of slight growth and decline within ranges of values (around €24-225 million) between 1999 and 2010.

Figure 3 reports the export to production ratio levels for Ivory Coast's main exports to the EU between 1999 and 2009. Unfortunately, FAOSTAT does not provide production information for cocoa paste and cocoa butter.

Figure 3 Ivory Coast agro-food export volume to production ratio



Source: EUROSTAT (2011) and FAOSTAT (2011)

In 1999 and 2001, the volume of cocoa beans exported to the EU was above 50% of Ivory Coast's total production volume. Those two years represent the highest ratio of exports to the EU to production volume in the 11-year period analysed. Overall, the export to production ratios do show a correlation for pineapples and cocoa beans (except in 2009). The two series tend to oscillate from year to year over the analysed period. The ratio of exports to the EU to

production of pineapples has been volatile over the years, especially after 2002 with values above 70%. As of 2004, there has been an augmentation of production and a decrease in exports to the EU which has lowered the ratio to about 27%. The evolution of bananas and plantains' EU export to production ratios is very limited.

Analysis of Export Shares to the EU and Tariffs

Pineapples and cocoa reveal decreasing trends in EU import shares, but almost all agro-food products undergo periods of growth and decline. Pineapples and cocoa beans experience the greatest decrease in EU import share, by 45 and 14 percentage points, respectively, between 1999 and 2009.

Country-Specific Conclusions on Shares and Tariffs

All duty reduction schemes, with the exception of that applied to bananas, are straightforward; a zero tariff is applied to Ivorian commodities if they are exported under the Lomé Convention provisions, or a reduced quota is imposed if the same commodities are exported under the GSP. Either way, the tariff is inferior to the third country tariff.

Given this scenario, it is contradictory that the EU shares of three of Ivory Coast's main exports have decreased in the same time period (cocoa beans, bananas and pineapples), while another has remained relatively constant (cocoa butter) and only the EU share of cocoa paste exported from Ivory Coast has increased. One is then led to believe that decreasing shares are not due to tariff factors as these have become increasingly favourable.

The Lomé Convention and the Cotonou Agreement (Ivory Coast and Kenya)

Signed in 2000, the Cotonou Agreement extended, until the end of 2007, the non-reciprocal preferences granted to ACP countries exporting to the EU, which have been in place since the first Lomé Convention of 1975. However, the Cotonou Agreement and the non-reciprocal preferences granted under its provisions were ruled to be non-compliant with WTO regulations and are now in the process of being replaced by the Economic Partnership Agreements (EPAs).

The Cotonou Agreement states, in Annex V, Article 1:⁵

⁵ 2000, *Partnership Agreement between the Members of the African, Caribbean and Pacific Group of States and the European Community and its Member States*, Annex V, pp 1

Products originating in the ACP States shall be imported into the Community free of customs duties and charges having equivalent effect.

(a) *For products originating in the ACP States:*

- *listed in Annex 1 to the Treaty where they come under a common organization of the market within the meaning of Article 34 of the Treaty, or*
- *subject, on import into the Community, to specific rules introduced as a result of the implementation of the common agricultural policy,*

the Community shall take the necessary measures to ensure more favourable treatment than that granted to third countries benefiting from the most-favoured-nation clause for the same products.

The treaty referred to above is the *Treaty Establishing the European Community* which *inter alia* establishes the Common Agricultural Policy (Article 34). Therefore, agricultural products originating from ACP countries are not universally subject to a full elimination of tariffs but are only given a more favourable treatment than that given to commodities originating elsewhere.

Even though treatment given to ACP agro-food goods is dependent on the orientations of the CAP, the premise established by the Cotonou Agreement was still widely contested by non-ACP trade partners. The main cause for complaint was the fact that the Cotonou Agreement did not conform to the WTO's *Most-Favoured Nation* principle stating that a country or customs union should extend to all trading partners the treatment granted to its most favoured one.

Although the Cotonou Agreement clearly specifies that ACP countries will enjoy greater benefits than any other state when exporting agro-food goods to the EU, it is also very unequivocal in stating that the EU will not fully liberalise its agricultural commodities market. Tariff quotas and import duties still remain for selected agricultural commodities.

The Cotonou Agreement includes four of the five Project Countries: Ivory Coast, Kenya, South Africa and Uganda. However, South Africa and Uganda are also covered by other arrangements that precede the Cotonou Agreement in terms of regulation of trade with the EU: the TDCA and the EBA, respectively. Therefore, in the context of this study, the Cotonou Agreement will be analysed from the points of view of Ivory Coast and Kenya exclusively.

4.2 Kenya

Introduction

The regional hub for trade and finance in East Africa, Kenya, has been hampered by reliance upon several primary goods whose prices have remained low. Kenya's agricultural output is particularly vulnerable to natural factors such as floods and droughts and those usually have a severe impact on the economic growth of the country.

Production

Kenya's main agro-food commodities are either not export market-oriented, like milk, maize and potatoes, or face important obstacles to penetrating the EU market, as in the case of sugar. Table 5 reports the average production and trade figures for Kenya between 1999 and 2009.

Table 5 Average production and trade figures for Kenya (1999-2009)

Product	Exports as % of production	Exports to the EU-27 (Mio €)	Exports as % of total agri-food exports (Mio €)	Exports / Total EU-27 imports (Mio €)	Exports (Mio €) % change	Exports to the EU-27 (Mio tonnes)	Exports as % of total agri-food exports (Mio tonnes)	Exports / Total EU-27 imports (Mio tonnes)
Fresh cut flowers and flower buds, for bouquets or for ornamental purposes	n/a	1677	16	31	n/a	0.5	10.1	33
Black fermented tea and partly fermented tea, in immediate packaging of > 3 kg	29.7	1706	17	36	6	1.0	22.1	37
Coffee (excl. roasted and decaffeinated)	79.3	1153	11	2	-22	0.5	10.9	2
Fresh or chilled beans 'vigna spp., phaseolus spp.', shelled or unshelled	94.9	987	10	35	81	0.4	7.9	21
Pineapples, prepared or preserved	11.4	522	5	18	-9	0.6	13.8	14

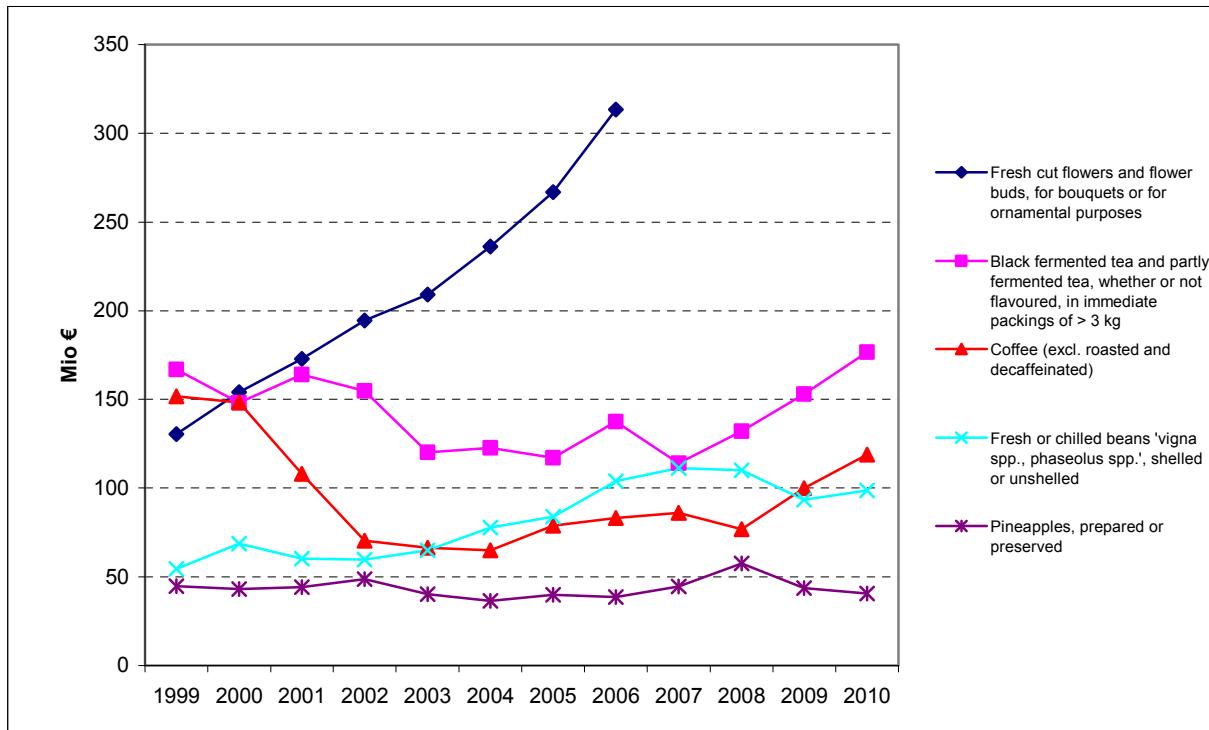
Source: EUROSTAT (2011) and FAOSTAT (2011)

Concerning Kenya's main agro-food exports to the EU, as shown in Table 5, all are cash crops. Between 1999 and 2009, tea was Kenya's most important cash crop in terms of export value, accounting for 17% of the total agro-food export earnings. This is followed closely by fresh cut flowers at 16% of total agro-food export earnings. They are followed by coffee and beans at 11% and 10%, respectively. Finally, prepared or preserved pineapples are also a major Kenyan export to the EU, representing 5% of the agro-food exports' revenue over the assessed period.

Historic Production and Trade Levels

Figure 4 illustrates how the levels of Kenya's main agro-food commodities exported to the EU varied between 1999 and 2010. EUROSTAT did not provide fresh cut flowers export data for Kenya from 2007.

Figure 4 Historic levels of Kenya's main agro-food exports to the EU



Source: EUROSTAT (2011)

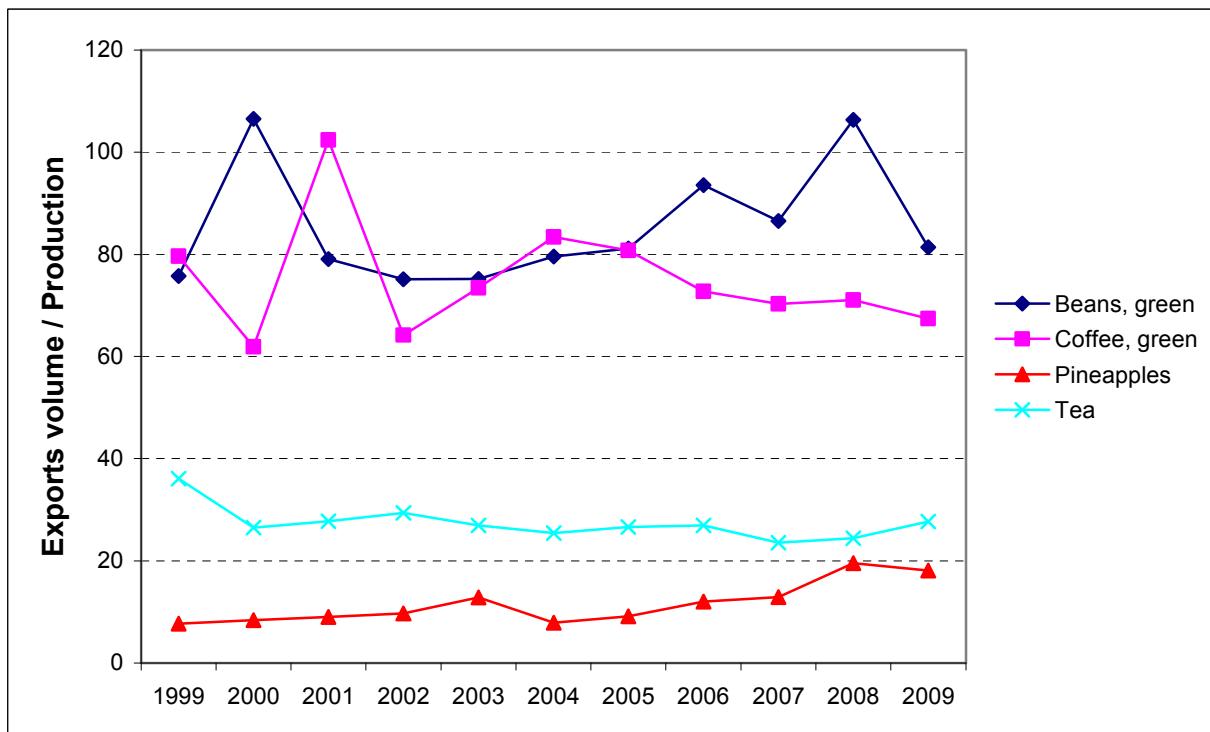
As Figure 4 illustrates, fresh cut flowers grew by 140% between 1999 and 2006. The only other commodity that also presented significant growth was beans, which grew by 71% between 1999 and 2010.

In contrast, coffee and tea, two typical cash crops African countries make use of to tap into the EU market, suffered decreases in their exports in the first few years of the new millennium. Coffee exports to the EU, as seen in Figure 4, decrease significantly between 2000 and 2009. It is possible that other exporters, such as Uganda, captured some of Kenya's market share during that time period, thus contributing to the decrease in export revenue generated by Kenyan coffee. Between 2008 and 2010, Kenyan exports increased, possibly at the expense of Ugandan exports. Prepared or preserved pineapple exports remained roughly stable throughout the analysed period. Overall, Kenya's export history is representative of the gap that currently exists in some African countries, like Morocco and Uganda, between

traditional and non-traditional crops with the latter gaining ground on the former as the main agro-food export revenue generators.

Figure 5 illustrates how export and production levels are related for Kenya's main agro-food commodities exported to the EU.

Figure 5 Kenya's agro-food export volume to production ratio



Source: EUROSTAT (2011) and FAOSTAT (2011)

The EU share of coffee exported from Kenya varied from 62% to 100% between 1999 and 2009 without showing a clear trend until 2006. In 2000, the EU share of Kenyan coffee exports reached a historical low, which could imply that the country's decreased exports to the EU may have been the result of export diversion, with Kenyan exporters tapping into alternative markets for that time period. As for tea, the evolution of its EU share is more stable and progressively decreasing at a low rate. Following 1999, a peak was registered in 2002, but the general trend is one of a decreasing export to the EU to production ratio between 2001 and 2009.

Tariff Analysis

Kenya is a beneficiary of the Lomé Convention. It is allowed to export its main agro-food commodities duty free to the EU without tariffs or quotas. Preferences over competing countries are practically non-existent in the cases of tea and coffee, as all tariffs on these two products have been eliminated, regardless of the exporting partner, since 2001. As for fresh cut flowers, beans and pineapples, Kenya's advantage over third countries is considerable.

4.3 Morocco

Introduction

Morocco has around 8.1 million hectares of arable land, of which approximately one sixth is irrigated. It has a generally temperate Mediterranean climate although it is subject to desertification and land degradation. Agriculture accounts for 87% of the total water used. The agro-food business sector provides income for about 40% of the population, i.e. more than 13 million people. Agriculture remains the main source of rural development in Morocco. As well as its strategic role in domestic food security, agriculture plays an essential role in employment, regional planning and the environment.

Morocco signed an Association Agreement with the European Union in a framework process in February 1996, which entered into force in March 2000. Morocco is an active participant in the process, which aims to create a Euro-Mediterranean Free Trade Area, and pursues a close economic relationship with the EU that is defined as "more than association, but less than accession".

The European Union is Morocco's first trading partner, with a revenue of approximately €18.5 billion in 2009 (60% of Morocco's trade), the bulk of which was related to textiles and agricultural goods. In 2010, Morocco exported €2.0 billion of agro-food products to the EU, a share of less than 1% of total EU imports.

Production

Morocco's main agricultural production consists of tomatoes, indigenous chickens, cattle and sheep, cows' milk, oranges and almonds. In the rainy area of North East Morocco, barley, wheat and other cereals can be grown without irrigation. Along the Atlantic coast, olives, citrus fruits, and grapes for wine are cultivated, largely with water supplied by artesian wells. The average production and trade figures of the analysed products between 1999 and 2009 are reported in Table 6.

Table 6 Average production and trade figures for Morocco (1999-2009)

Product	Exports as % of production	Exports to the EU-27 (Mio €)	Exports as % of total agri-food exports (Mio €)	Exports / Total EU-27 imports (Mio €)	Exports (Mio €) % change	Exports to the EU-27 (Mio tonnes)	Exports as % of total agri-food exports (Mio tonnes)	Exports / Total EU-27 imports (Mio tonnes)
Tomatoes, fresh or chilled	28.4	2093	11	67.55	103	2.8	19.0	67
Fresh or chilled beans 'vigna spp., phaseolus spp.', shelled or unshelled	91.8	1114	6	36.39	703	0.9	6.2	48
Fresh or dried oranges	23.6	812	4	16.07	-45	1.7	11.5	16
Fresh or dried mandarins incl. tangerines and satsumas, clementines, wilkins and similar citrus hybrids	31.7	887	5	31.31	-11	1.2	8.3	29
Olives, prepared or preserved otherwise than by vinegar or acetic acid (excl. frozen)	13.9	709	4	57.71	12	0.7	4.8	58

Source: EUROSTAT (2011)⁶ and FAOSTAT (2011)

Trade

Moroccan exports of agro-food products to the EU are unevenly distributed throughout the year. Morocco's ability to supply the EU with agro-food products off-season (November 1st to May 14th) is a very important factor in trade between the two partners. There are two seasons for tomatoes, fresh beans and oranges and a single season for clementines and olives.

At the 1995 Barcelona conference, the Euro-Mediterranean Partnership was inaugurated. The partnership grants substantial preferential access to selected EU agricultural markets. To develop further bilaterally, the European Union and Morocco have set up the EU-Morocco Association Agreement. The EU-Morocco Association Agreement also determined that entry prices for tomatoes should be reduced in the same proportion and at the same pace as the entry prices bound by the WTO.

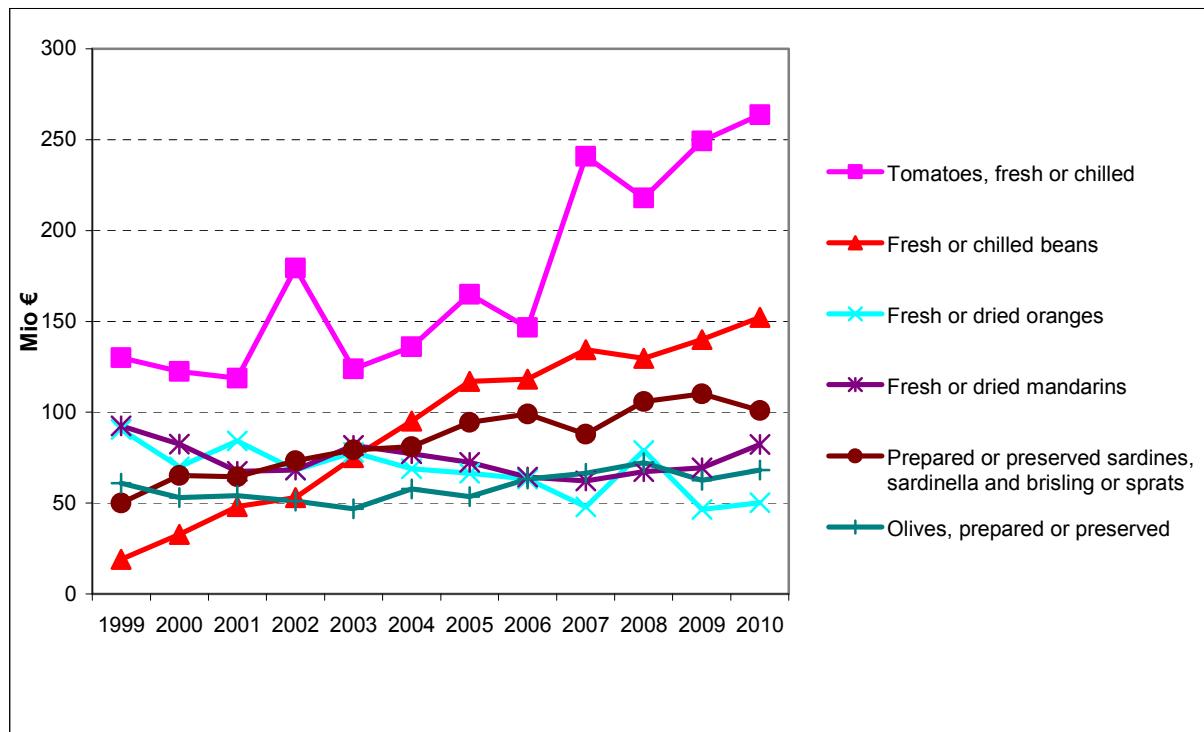
Of Morocco's remaining principal exports, oranges and clementines are covered by similar provisions as those covering tomatoes (tariff quotas and entry price system), beans are subject to potential entry quotas and potential tariff barriers that are decided by the EU on a yearly basis, and processed olives are subject to an unconditional 100% duty reduction. Prepared or preserved sardines are also allowed duty free into the EU, as set out in the EU-Morocco Association Agreement. Since commodities originating from fisheries were outside the scope of this project they were not analysed. Two sets of tariffs are imposed on tomatoes, oranges

and beans, which represent exports that are clearly influenced by the EU harvest season: one coinciding with the EU harvest season and another during the off-season.

Historic Trade Levels of Top Exports

Figure 6 reports the evolution of Morocco's main exports to the EU between 1999 and 2010.

Figure 6 Morocco's main agro-food exports to the EU



Source: EUROSTAT (2011)

As shown in Figure 6, clearly defined trends are difficult to identify for Morocco's exports, except for fresh and chilled beans. Most trendlines are either irregular or show signs of very small changes over time. Between 1999 and 2010, fresh and chilled bean and tomato exports to the EU increased by 703% and 103%, respectively. Meanwhile fresh and dried oranges and fresh and dried mandarins decreased by 45% and 11% over the analysed period.

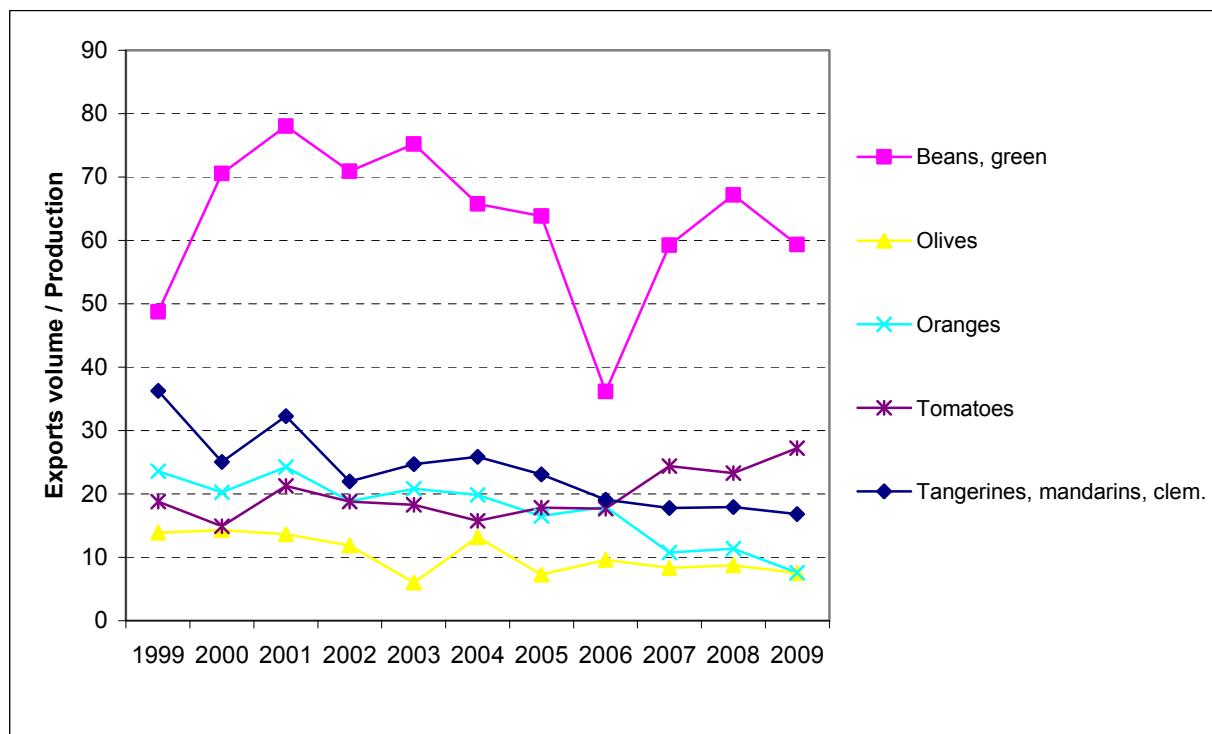
The most interesting trendline in Figure 6 is associated with tomatoes, as it presents two prominent peaks, in 2002 and 2007. The 2002 peak is due to an increase in tomato prices, as export volume levels remained stable in comparison with the years immediately before and afterwards. It is likely that prices rose due to the fact that 2002 followed three years of decreasing production levels in Morocco. The 2007 peak is also associated with an increase in

⁶ Eurostat traditional external trade database access (ComExt) is available at External Trade Database at http://epp.eurostat.ec.europa.eu/portal/page/portal/external_trade/data/database. Statistical Database of the United Nations Food and Agriculture Organization – FAOSTAT, 1999-2009, available at <http://faostat.fao.org/>

tomato prices, and an increase in production, as well as an increase in volume of exports. This resulted in a historic high with regard to exports in 2007.

Figure 7 reports the ratio of the volume of Moroccan exports to the EU to the volume of Moroccan production. The data show that 63% of Moroccan green beans were exported to the EU, whilst one in five and one in four mandarins and tomatoes were exported to the EU between 1999 and 2009, respectively. Oranges' and olives' ratio of exports volume to production are 17% and 10% respectively.

Figure 7 Moroccan agro-food export volume to production ratio



Source: EUROSTAT (2011) and FAOSTAT (2011)

4.4 South Africa

Introduction

South Africa is a middle-income, emerging market with an abundant supply of natural resources. The country has an agricultural population of 4.9 million people, which accounts for one tenth of the country's total population of 50.5 million⁷. There are almost a thousand agricultural cooperatives and agribusinesses throughout the country, and agricultural exports represent 7% of total South African exports. The agricultural industry contributes to around

⁷ FAO country profile of South Africa is accessible via their website.

10% of formal employment, a relatively low figure compared to other parts of Africa. South Africa ranks as number 12 in terms of world citrus production, but it is the second biggest exporter of fresh citrus fruit after Spain, thus South Africa dominates the southern hemisphere in terms of citrus exports.

Production

The main agro-food commodities produced in South Africa are sugar cane, maize, cows' milk and barley for beer. South Africa's main produced commodities have very little potential for export to the EU. Products such as sugar cane face strong competition in the European market. Sugar produced in Europe originates mainly from beet, whose cultivation is supported by the EU.⁸ In addition, the trade potential of sugar cane is low since sugar, the processed product, is the actual traded commodity. High tariffs are imposed on maize, and the transportation and safety regulations for products of animal origin pose a serious challenge to their exportation. Table 7 reports the average production and trade figures for South Africa between 1999 and 2009.

Table 7 Average production and trade figures for South Africa (1999-2009)

Product	Export as a % of production	Exports to the EU-27 1999-2009 (Mio €)	Exports as % of total agri-food exports	Export (M euros) % change	Exports to the EU-27 1999-2009 (M tonnes)	Exports as % of total agri-food exports 1999-2010 (M tonnes)	Exports / Total EU-27 imports (M euros)	Exports / Total EU-27 imports (Mio tonnes)
Wine of fresh grapes, <= 2 l	16.9	3511	16	80.3	1.4	4.7	16	18
Wine of fresh grapes > 2 l	12.5	994	4	252.1	1.1	3.5	23	19
Fresh grapes	12.4	3255	15	87.0	2.0	6.5	37	34
Fresh or dried oranges	31.6	2125	10	125.3	4.1	13.3	39	37
Fresh apples	28.1	1563	7	-16.9	1.8	6.0	20	20
Fresh pears and quinces	33.0	963	4	65.4	1.2	3.8	32	30

Source: EUROSTAT (2011) and FAOSTAT (2011)

Trade

South Africa's top exports to the EU are products to which some level of preference has been granted by the Trade, Development and Cooperation Agreement (TDCA). Wine is the main

⁸ 2006, *The European Sugar Sector, A Long Term Competitive Future*, European Commission, pp 1, available at http://ec.europa.eu/agriculture/capreform/sugar/infopack_en.pdf

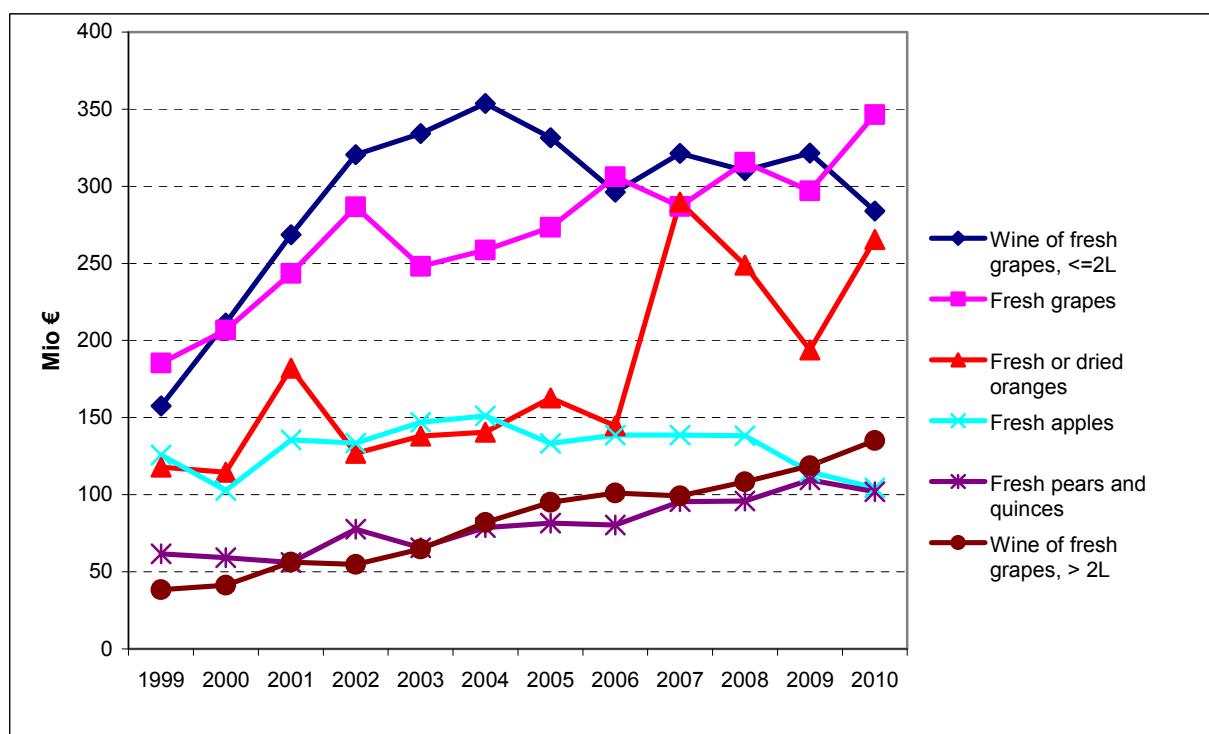
source of revenue as far as agro-food trade with the EU is concerned. Export income between 1999 and 2010 for wine in containers with a capacity equal or inferior to two litres and those of superior capacities, was €4,505 million, which corresponds to 20% of the total agro-food export earnings during that period.

Grapes are second with an export revenue of €3,255 million, or 15% of the total agro-food earnings. All the remaining commodities in this study (oranges, apples and pears) represent more modest shares of South African exports, possessing a combined export value of €4,651 million, or approximately 21% of South African total agro-food export revenue.

Historic Trade and Production Levels of Top Exports

As shown by Figure 8, South Africa's main agro-food commodity exports to the EU have, in general, increased between 1999 and 2010.

Figure 8 South Africa's main agro-food exports to the EU



Source: EUROSTAT (2011)

The trend visible for wine, grapes, oranges, and pears and quinces is a tendency for exports to increase. Both classifications of wine exported from South Africa to the EU saw overall increases in their export levels, even though wine in containers of a lower capacity experienced a decrease between 2004 and 2006. During this period, the EU-South Africa agreement on trade of wines was already being enforced, therefore one is led to believe that

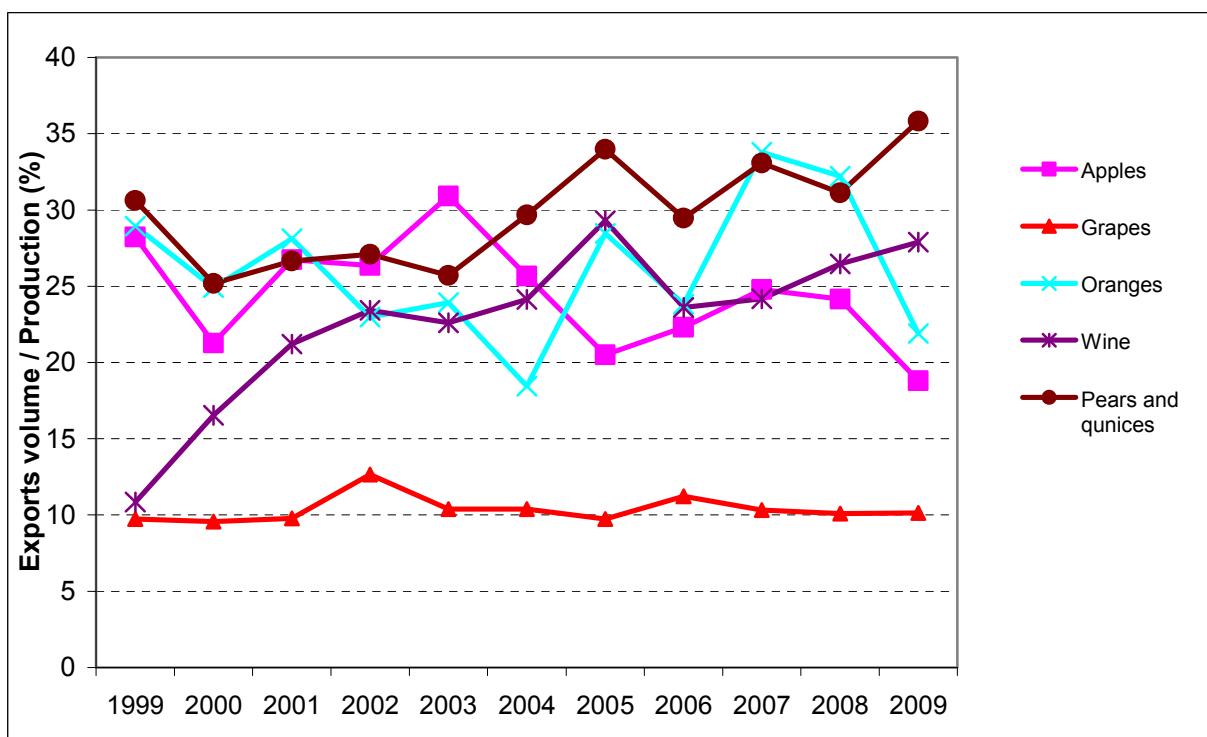
the decrease is either due to supply side constraints like poor vintages or to the diversion of South African wines to alternative markets.

The case of oranges is particularly interesting as it presents a drastic growth from 2006 to 2007 which is partially offset during 2007 and 2009, most of which was then recouped in 2010. This is undoubtedly associated with the phasing out of tariffs on orange imports from South Africa, which began in 2005 and ended in 2010 as determined by the TDCA. With the decrease in tariffs, South African oranges become more attractive to European importers and more competitive in the European market. It is also legitimate to assume that this increase in imports of South African oranges is strongly linked to the decrease in imports of Moroccan oranges that occurs in the same period (Figure 6), thus representing a case of supplier substitution.

Fresh apples experienced an export revenue shrinkage between 1999 and 2010.

Figure 9 presents the ratio of volume of South African exports to the EU to volume of South African production for the most important agro-food commodities.

Figure 9 South African agro-food export volume to production ratio



Source: EUROSTAT (2011) and FAOSTAT (2011)

Figure 9 shows that pears, quinces and wine see an increase in the ratio of exports to production volumes over the analysed period. Oranges and apples experience a decrease in the ratio, whilst grapes remain unchanged.

Trade, Development and Cooperation Agreement (South Africa)

The TDCA establishes preferential trade arrangements between the EU and South Africa, with the progressive introduction of an FTA. The EU is South Africa's main trading and investment partner. The FTA aims to ensure better access to the EU market for South Africa and access to the South African market for the EU. As a result, it plays an important role in South Africa's integration in the world economy. The TDCA covers around 90% of current bilateral trade between the two parties.

Following the fall in global bilateral trade volumes in 2009, South Africa's exports fell from €22 billion to €15 billion; however 2010 saw a 20% recovery to almost €18 billion, with total trade volumes rising almost 25% from €31 billion in 2009 to €39 billion in 2010.

4.5 *Uganda*

Introduction

Uganda is a landlocked country in East Africa, bordered on the east by Kenya, on the north by Sudan, on the west by the Democratic Republic of the Congo, on the southwest by Rwanda, and on the south by Tanzania. The southern part of the country includes a substantial portion of Lake Victoria. Agriculture is the most important sector of the Ugandan economy, employing over 80% of the work force.

Production

Uganda's main agricultural commodities are predominantly orientated towards domestic consumption. The main commodities produced by Uganda between 1999 and 2010 were plantains (35%), cassavas (19%), sweet potatoes (10%), sugar cane (8%) and maize (4%). As all of the analysed agro-food commodities produced in Uganda are allowed duty free into the EU, there is no explanation in relation to a trade agreement as to why they are not important export products. The figures are supported by the types of commodities produced, which are mostly staple foods that are part of the typical diet of many people in sub-Saharan Africa. Additionally, this would also be in line with subsistence agriculture practices that still largely overshadow market oriented agriculture in the majority of LDC.

Trade

As shown by Table 8, coffee is Uganda's top export to the EU, representing 72% and 73% of the country's agro-food exports in volume and value, respectively, between 1999 and 2009. Coffee has been a major driving force behind the Ugandan economy.

In fact, coffee export is strongly associated with Uganda's internationally praised economic growth in the 1990s. Coffee reached its current top spot on the country's export list due to the high prices the commodity achieved in international markets in this period, and also due to the liberalisation of its domestic subsector. Even though the international market is no longer as favourable for Ugandan coffee as it once was, the product remains essential for the creation of jobs and wealth in the country.

Table 8 Average production and trade figures for Uganda (1999-2009)

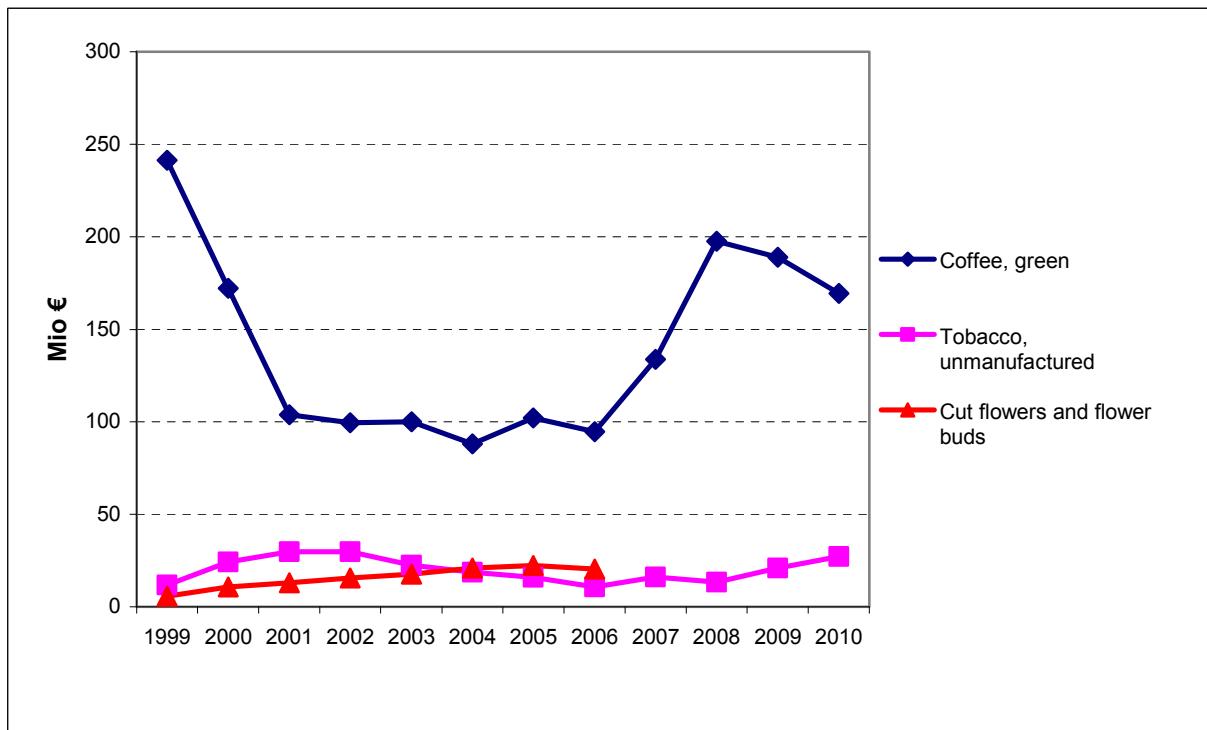
Product	Exports as % of production	Exports to the EU-27 (Mio €)	Exports as % of total agri-food exports (Mio €)	Exports / Total EU-27 imports (Mio €)	Exports (Mio €) % change	Exports to the EU-27 (Mio tonnes)	Exports as % of total agri-food exports (Mio tonnes)	Exports / Total EU-27 imports (Mio tonnes)
Coffee (excl. roasted and decaffeinated)	6.9	1691	73	3.5	-30	1.4	72	4.4
Tobacco, partly or wholly stemmed or stripped, otherwise unmanufactured	24.0	241	10	1.2	130	0.1	4	1.5
Fresh cut flowers and flower buds, for bouquets or for ornamental purposes ⁹	n/a	126	5	2.3	263	0.0	2	2.1

Source: EUROSTAT (2011) and FAOSTAT (2011)

Tobacco was Uganda's second most important export to the EU between 1999 and 2009, representing 10% of the country's total agro-food export revenue (€241 million), during that period. Fresh cut flowers, a non-typical crop, represent the third main agro-food exports to the EU with a combined revenue of €126 million between 1999 and 2006, the equivalent of 5% of the total export value.

Figure 10 reports Uganda's main agro-food exports to the EU.

Figure 10 - Uganda's main agro-food exports to the EU



Source: EUROSTAT (2011)

In the second half of the 1990s, Uganda suffered two major setbacks to its coffee exports: prices started to fall in the international market, and the country's plantations were hit by the coffee wilt disease that decimated many of the crops. Export levels decreased until recent years but still remained above those of any other commodity in Uganda by a considerable margin. Recently, prices in the international market have recovered after years of continuous fall. However, Uganda's weakened productive system and the failure of government programmes to get coffee production back on track has prevented the commodity from taking such a prominent place in the country's exports as it once had.

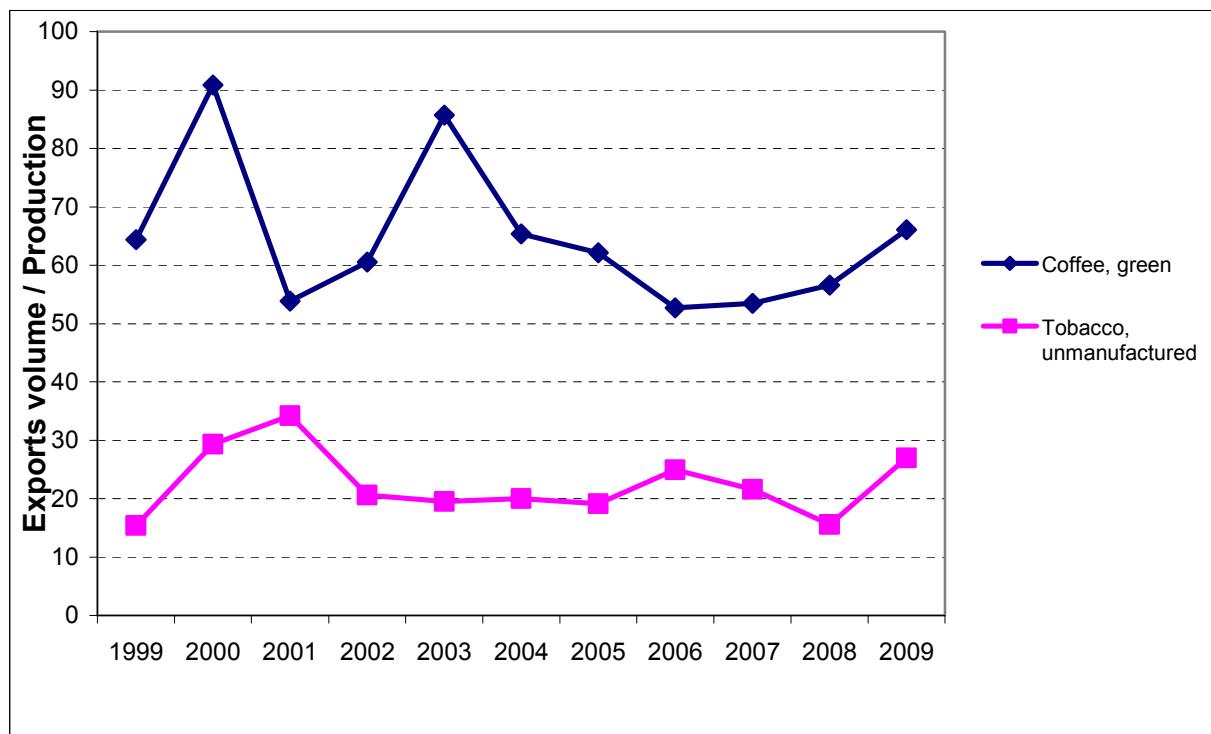
As for tobacco, export levels suffered less severe fluctuations from 1999 to 2009, but were at a much lower level compared to coffee, which further confirms that coffee is, by far, the most important agro-food market commodity in Uganda.

Export revenue from fresh cut flowers has been increasing steadily since 1999 and in 2004 they surpassed tobacco as Uganda's second most important agro-food export. The positive overall performance of Ugandan fresh cut flowers in the international market is an example of how Uganda's investment in non-traditional crops is paying off. Fresh cut flowers remained the second most significant agro-food commodity exported to the EU, as shown in Figure 10, despite the figures excluding data from 2007 onwards due to EUROSTAT constraints.

Analysis of Export Shares to the EU and Tariffs

Figure 11 shows the volume of Ugandan exports to the EU as a percentage of the volume of production for coffee and tobacco. Data on cut flowers and flower buds were not available.

Figure 11 Ugandan agro-food export volume to production ratio



Source: EUROSTAT (2011) and FAOSTAT (2011)

From studying Figure 11, it is possible to conclude that the export volume as a share of production increased by 2 percentage points for coffee between 1999 and 2009. Meanwhile for tobacco, the increase was 12 percentage points. The peak noted in the EU's share of Ugandan coffee exports in 2003 may be the result of supply constraints elsewhere, as coffee producing countries, like Ethiopia and Kenya, are also very vulnerable to environmental and external factors affecting production.

Everything But Arms Initiative (Uganda)

As the only Project Country classified as a Least Developed Country (LDC), Uganda is entitled to export to the EU under the most favourable tariff regime granted to any trade partner.

Included in Section 3, articles 12 and 13, of the EU's Generalised System of Preferences¹⁰, the *Special Arrangement for Least Developed Countries*, popularly known as the Everything But Arms (EBA) initiative, concedes LDCs the possibility to export any commodity to the EU, tariff and quota free, with the exception of armaments.

However, the EBA initiative also established special regimes for three sensitive products:

- Duties on commodities under HS heading 1006 (rice) were reduced by 20% on 1 September 2006, by 50% on 1 September 2007 and by 80% on 1 September 2008. Duty free quota for rice ended on 31 August 2009.
- Duties on the products of CN code 0803 00 19 (bananas) were reduced by 20% annually as of 1 January 2002 and eliminated on 1 January 2006.
- Duties on the products under heading 1701 (sugar) were reduced by 20% on 1 July 2006, by 50% on 1 July 2007 and by 80% on 1 July 2008. Duty free quota for sugar ended on 30 September 2009.

In reality, the EBA initiative provides few more advantages for Uganda than the 1975 Lomé Convention (and the 2000 Cotonou Agreements). The only substantial improvement is that Uganda can continue to export duty free commodities to the EU without any restraining quotas. For the last 25 years, Uganda has never reached its quota limit.¹¹

¹⁰ 2005, *Council Regulation (EC) No 980/2005 of 27 June applying a scheme of generalised tariff preferences*, Official Journal of the European Union L 169, Volume 48, p. 1-43

¹¹ 2006, *Integrated Framework - Uganda: Diagnostic Trade Integration Study*. Available at: <http://www.integratedframework.org>

5 Survey results

This chapter presents some of the results obtained from the data collected from the survey conducted in 2009 according to the methodology described in Chapter 3. The data provide valuable information on exporters' and products' characteristics, as well as on the exporters' perceptions towards several NTMs.

The survey produced a large amount of significant data regarding NTMs and their effect on African agro-food exports to the EU. NTMs addressed by the survey were grouped into 5 categories:

- Taxes and Subsidies;
- Customs and Procedures;
- Standards and Regulations;
- Specific Limitations; and
- Distribution Chain and Infrastructure.

The data analysis presented in this chapter is structured in three different sections. Firstly, a description of the socioeconomic characteristics of the sample of agricultural exporters interviewed is presented (Section 5.1). Secondly, in Section 5.2 the description of export products by country is analysed. Finally, the results from the interviews describing the NTMs faced by exporters in the selected countries are presented in Section 5.3.

5.1 *Exporters' characteristics*

In this section, we present the characteristics of the exporters interviewed in the survey. Table 9 presents the average value of several characteristics by country and in parenthesis their standard deviation. Data from the exporters were collected with different purposes in mind. Regarding exporters' years in business, this variable reflects the experience that exporters have in international business and thus possible improvements in their export market strategies over the years in business. According to Table 9, the average years of experience varies considerably across countries. Exporters from the selected countries have been exporting for at least the last 10 years, with the exception of Ivory Coast. Exporters from

Ivory Coast have the lowest average number of years of experience in the export business (4.7), while Moroccan exporters had been exporting on average for 14.5 years by the time the survey was conducted. This variable is important for this study because it may be that successful exporters have been improving their export chains and marketing channels over time (experience), which is linked to an increased flow of their export shares to the EU. Another variable included in this table refers to the total annual revenues accrued by exporters. Annual export revenue is an important indicator of a company's size. In this sense, it is important to keep in mind that most of the exporters interviewed export several products to different destinations, therefore the values provided by them are not directly related to the agricultural exports targeted in the exporter interview. South Africa has the highest average exporter revenues of the countries analysed with €7.3 Mio a year. Accruing nearly €4.8 Mio per year, Morocco is the country with the second highest exporter revenues reported. The lowest exporter revenue average found was in Ivory Coast accounting for nearly €1.5 Mio a year.

Table 9 Characteristics of exporters included in the survey by country

	Kenya	Ivory Coast	Morocco	Uganda	South Africa
Years in Business	13.60 (7.20)	4.67 (3.08)	14.55 (6.80)	12.05 (5.90)	12.80 (5.32)
Annual export revenues (€)	1 700 000 (4.49E+05)	1 500 000 (1.16E+05)	4 800 000 (7.65E+04)	3 730 000 (7.28E+04)	7 320 000 (7.29E+04)
% of export value going to the EU	79 (0.5)	40 (0.5)	50 (0.3)	77 (0.48)	52 (0.3)
Top EU export markets	Netherlands, UK, Germany	France, Netherlands, Germany	France, Netherlands, UK	Netherlands, UK	Netherlands, UK, Germany

Source: own data

Information on the importance of the European market for these agricultural exporters is captured by the variable percentage of export value accrued from exports to European countries and the percentage of export value going to the EU. Exporters from Kenya (79%), followed by Uganda (77%), are the exporters with the highest concentration of exports going to the EU. The Netherlands and the UK appear as the main destinations for the five countries and across the exporters interviewed. Several studies have already linked common colonization history with current trade relationships (Aloka, et al 2009; Kee et al, 2009 and Fedderke et al, 2010).

5.2 Business and product characteristics by country

5.2.1 Ivory Coast

From Ivory Coast, the principal products covered by this survey were cocoa, coffee, cashew nuts and mangoes. In Table 10 the main characteristics associated with the export of these products are presented. Cocoa and coffee have similar shipment patterns, both are mainly shipped prepacked¹² (60% and 66%, respectively), transported by sea to the EU (100%) and sold under FOB contracts (100%).

Shipments of cashew nuts and mangoes are exclusively sold prepacked (100%), and are transported by sea (100%). Regarding terms of delivery contracts, cashew nuts are sold mainly as FOB (75%), while the contracts involving the trading of mangoes are more diversified; they can be sold either as FOB, CFR or under other contracts (in this case Ex Works¹³).

Table 10 Characteristics of selected agricultural exports from Ivory Coast

Product characteristics	Cocoa	Coffee	Cashew nuts	Mangoes
No. observations	5	3	4	3
Export packaging				
Prepacked (%)	60	66.66	100	100
Bulk (%)	20	33.33	0	0
Packed for final consumer (%)	20	0	0	0
Means of transportation to EU				
Air (%)	0	0	0	0
Sea (%)	100	100	100	100
Terms of delivery (%)				
Free on board (%)	100	100	75	33.33
Cost and Freight (CFR) (%)	0	0	25	33.33
Others (%)	0	0	0	33.33

Source: own data

¹² According to the European legislation, prepacked products are sold individually at a constant weight or volume chosen in advance by the filler. The weight or volume must be: a) at least 5 grams or 5 millilitres for the smallest packages, b) no more than 10 kilograms or 10 litres for the largest packages (Council Directive 76/211/EEC).

¹³ Ex works implies a low risk for the exporter as the agricultural commodities are ready to be picked up at the exporters' location (works, factory, warehouse, plant) on the date agreed upon.

5.2.2 Kenya

The main Kenyan export commodities identified in the survey are fresh beans and flowers, but there are also exporters dedicated to coffee (2) and tea (2). According to the statements given by exporters and presented in Table 11, fresh beans are packed for final consumption (50%), but are also shipped as bulk (25%) and prepacked (25%). Given that fresh beans are highly perishable they are only transported by air, and sold either under FOB (50%), CFR (37%) or other contracts (in this case carriage and insurance paid (CIP) (12%)).

Flowers are delivered mainly prepacked (62%), for final consumers (25%) or in bulk (12%). They are transported by air presumably due to their perishability and the selling contracts are in most cases FOB (75%) although some export businesses also involve CFR contracts (25%). The trading conditions for coffee and black tea from Kenya have more similarities probably because of the lengthy storage periods that these two commodities can withstand without their organoleptic characteristics being affected. These commodities are mostly shipped as bulk (100% and 50% respectively), but black tea was reported by one exporter to be sold as prepacked. As these products are non-perishable they are transported to their export destinations by sea and the contracts signed are FOB in all cases.

Table 11 Characteristics of selected agricultural exports from Kenya

Product characteristics	Fresh Beans	Flowers	Coffee	Black tea
No. observations	8	8	2	2
Export packaging				
Pre-packed (%)	25	62.5	0	50
Bulk (%)	25	12.5	100	50
Packed for final consumer (%)	50	25	0	0
Means of transportation to EU				
Air (%)	100	100	0	0
Sea (%)	0	0	100	100
Terms of delivery (%)				
Free on board (%)	50	75	100	100
Cost and Freight (CFR) (%)	37.5	25	0	0
Others (%)	12.5	0	0	0

Source: own data

5.2.3 Morocco

Products exported from Morocco to the EU covered in the survey are citrus fruits, tomatoes, fresh beans and olives (Table 12). Citrus fruits are typically exported prepacked (45%), in bulk (36%) or for final consumption (18%). Due to the short distance between Morocco and the closest EU borders, 100% of the exporters in the survey transport their produce by truck to the EU. Citrus fruits are traded, mostly as FOB (54%), followed by CFR (27%) but also as CIF and other contracts. The packaging used in tomato trading is mostly designed for the final consumer (50%), but they are also exported prepacked (33.3 %) and in bulk (16.6%). Tomato transportation takes place either by truck (50%) or by sea (50%). The trading contracts involving the export of tomatoes are mainly CIF and Free on Truck (33.33% each), and the tomatoes are delivered duty paid (16.6%), as presented in Table 12.

The two exporters of fresh beans presented different exporting patterns. One exports in bulk and the other's shipments are sent ready for the final consumer. One exporter transports their beans by air and the other by truck. Finally, one exporter trades FOB and the other free on truck. The olive exporter interviewed ships their olives ready for the final consumer, by sea and under the contract costs and freight.

Table 12 Characteristics of selected agricultural exports from Morocco

Product characteristics	Citrus fruits	Tomatoes	Beans	Olives
No. observations	11	6	2	1
Export packaging	0	0	0	0
Prepacked (%)	45.4	33.33	0	0
Bulk (%)	36.4	16.66	50	0
Packed for final consumer (%)	18.2	50	50	100
Means of transportation to EU				
Air (%)	0	0	50	0
Sea (%)	0	50	0	100
Truck (%)	100	50	50	0
Terms of delivery (%)				
Free on board (%)	54	0	50	0
Costs, Insurance and Freight (%)	9.5	33.33	0	0
Costs and freight (%)	27	0	0	100
Delivered duty paid (%)	0	16.6	0	0
Others (%)	9.5	33.33	50	0

Source: own data

5.2.4 South Africa

Table 13 presents the characteristics of the exported products featured in this survey from South Africa. These include apples, pears, plums, citrus fruits, and grapes (see Table 13). Apples, pears and plums from South Africa are shipped either prepacked (50%) or ready for final consumption (50%), and they are shipped mainly by sea (75%) but also by air (25%). The contracts involved depend mostly on the exporter rather than on the product. Their trade takes place under different contracts and can be FOB, CFR, DDP and Ex Works (25% each). Citrus fruit exporters ship their produce mainly prepacked (72.7%), as well as in bulk and for the final consumer (9% each), and they ship only by sea (100%). The contracts involved vary from FOB (36.3%) to CIF and other contracts (27 % each) and, to a lesser extent, CFR (9%). Exporters involved in grape trading have homogenous business characteristics. These exporters send grapes mostly packaged for final consumers (80%) but also prepacked (20%), they are shipped only by sea (100%) and the contracts involved are different for each exporter (DDP, CIF, delivered duty unpaid, free on truck, Ex Works).

Table 13 Characteristics of selected agricultural exports from South Africa

Product characteristics	Apples, pears and plums	Citrus fruits	Grapes
No. observations	4	11	5
Export packaging	0	0	0
Prepacked (%)	50	72.7	20
Bulk (%)	0	9	0
Packed for final consumer (%)	50	9	80
Means of transportation to EU			
Air (%)	25	0	0
Sea (%)	75	100	100
Truck (%)	0	0	0
Terms of delivery (%)			
Free on board (%)	25	36.3	0
CIF (%)	0	27.2	20
Cost and Freight (CFR) (%)	25	9	0
Delivered duty paid (%)	25	0	20
Others (%)	25	27.2	60

Source: own data

5.2.5 Uganda

Exporters from Uganda who were surveyed are involved in the trade of coffee and flowers, and one exporter stated tobacco as their main trading commodity to the EU (see Table 14). Coffee exporters mainly shipped their produce in bulk (80%) but also prepacked (20%). Due to coffee's longevity in terms of storage, all exporters ship it by sea (100%). The trading contracts used are, in most cases, free on truck (40%), FOB (40%), and Ex Works (20%).

Exporters of flowers packaged their products as prepacked or ready for final consumption (44.4% each), although some also send their products as bulk (11.1%). Probably due to the high perishability of flowers, the main means of transportation used is air (89%), and to a lesser extent, sea (11%). The contracts involved are mainly CIF (67%), but also FOB (22%) and FOT (11%). The tobacco exporter shipped their produce prepacked by sea and FOB.

Table 14 Characteristics of selected agricultural exports from Uganda

Product characteristics	Coffee	Flowers	Tobacco
No. observations	10	9	1
Export packaging	0	0	0
Prepacked (%)	20	44.4	100
Bulk (%)	80	11.1	0
Packed for final consumer (%)	0	44.4	0
Means of transportation to EU			
Air (%)	0	88.8	0
Sea (%)	100	11.1	100
Truck (%)	0	0	0
Terms of delivery (%)			
Free on board (%)	40	22.2	100
CIF (%)	0	66.6	0
Cost and Freight (CFR) (%)	0	0	0
Others (%)	60	11.1	0

Source: own data

5.3 NTM survey

Exporters were asked about how they perceive the impact of several NTMs on their export flows to the EU for specific products. NTMs were classified in five categories, each addressing a particular group of NTMs, as follows:

- Taxes and Subsidies;
- Customs and Procedures;

- Standards and Regulations;
- Specific Limitations; and
- Distribution Chain and Infrastructure.

Each category covers between six and nine single measures, and the classification of measures included in the questionnaires and analysed in this section are presented in Annex A. Below, the exporters' answers regarding the NTMs grouped in these categories are presented. The grading scale was as follows: -1: Negative Impact; -0.5: Minor Negative Impact; 0: No Impact; 0.5: Minor Positive Impact; 1: Positive Impact. The NTM grading tables presented in sections 5.3.1 to 5.3.5 include aggregate answers from all participants by country and commodity.

Description of the categories

Taxes and Subsidies: Taxes and subsidies are NTMs put in place by governments to artificially increase the competitiveness of domestically produced goods by subsidising internal production or taxing imports. These taxes or subsidies can be implemented as port taxes, subsidies, etc.

Customs and procedures: This category includes bureaucratic aspects, processes and other types of obstacles associated with international trade activities that may be used, intentionally or not, to protect domestic markets from imported goods. This includes government implemented measures such as inspections, licences and duties, as well as gratuities illicitly solicited by customs officials and representatives.

Standards and regulations' measures deal with food safety issues and technical standards that produce has to comply with in order to be traded. This group of NTMs is of increasing importance in the agricultural sector.

The *specific limitations* category covers quantitative NTMs and similar restrictions. Some examples are import quotas and their administration methods (licensing, auctions, and other); export limitations and bans; limits on imports; foreign exchange controls often based on licensing; prohibitions such as embargoes; domestic content and mixing requirements forcing the use of local components in a final product; and discriminatory preferential trading agreements.

NTMs under the *Distribution Chain and Infrastructure* group were considered especially important in reference to this study as they were deemed to be some of the most significant and often overlooked factors impairing African agro-food exporters' performance. These NTMs include all limitations related to transportation, packaging, handling, preservation, etc.

5.3.1 Ivory Coast

The category 'taxes and subsidies' refers to those taxes taking many forms other than tariffs, such as port taxes or surcharges, as specified in the table for Ivory Coast (Table 15). This table shows that the perceptions in Ivory Coast of these measures are quite similar for cocoa and coffee exporters who do not perceive any effect caused by European policies, African state trading or European surcharges on their exports, while African government surcharges on the other hand are perceived as negative. African assistance, countervailing duties and insurance charges are perceived as slightly positive measures. The negative perceptions of the cocoa exporters are mainly driven by the export taxes levied on cocoa exports (WTO, 1995), which by 2009 were among the highest export taxes of cocoa-growing export countries (FAO, 2009).

Mango producers have a mixed profile, perceiving African government surcharges as a positive measure, African government assistance and European surcharges as neutral measures; and the remaining measures as negative. Exporters of cashew nuts perceive most of the measures as negative, except insurance charges which are perceived as positive, while European policies that favour domestic suppliers are perceived as being neutral.

Table 15 Taxes and Subsidies

Number of observations	Total 15	Cashew 4	Mango 3	Coffee 3	Cocoa 5
African Government assistance	0.13 (0.69)	-0.25 (0.86)	0 (1)	0.166 (0.28)	0.5 (0.5)
Countervailing duties	-0.26 (0.56)	-0.75 (0.5)	-0.66 (0.57)	0.166 (0.28)	0.1 (0.22)
European policies that favour domestic suppliers	-0.13 (0.51)	0 (0.81)	-0.66 (0.57)	0 (0)	0 (0)
African State trading	-0.16 (0.36)	-0.375 (0.47)	-0.33 (0.57)	0 (0)	0 (0)
European Union surcharges	-0.13 (0.29)	-0.375 (0.47)	0 (0)	0 (0)	0 (0)
African Government surcharges	-0.23 (0.75)	-0.125 (1.03)	0.5 (0.5)	-0.66 (0.57)	-0.5 (0.5)
Insurance charge/premiums	0.36 (0.54)	0.625 (0.75)	-0.66 (0.57)	0 (0)	0.2 (0.44)

Source: own data

The results obtained for the category 'customs and procedures' measures in Ivory Coast are presented in Table 16. These results appear to vary more across commodities than across measures. Anti-dumping duties, rules of origin and pre-shipment inspection are perceived as

neutral by exporters of mangoes, coffee and cocoa, while cashew nut exporters perceived them as negative. According to exporters' opinions, measures related to customs formalities have a negative impact on export flows. Export licensing is perceived as negative by cashew nut and coffee exporters, while cocoa and mango exporters perceive it as slightly positive. Entry price systems are perceived by all exporters in Ivory Coast as positive or neutral. The method of duty calculation is perceived by all exporters as neutral.

Table 16 Customs and Procedures

Number of observations	Total 15	Cashew 4	Mango 3	Coffee 3	Cocoa 5
Anti-dumping duties	-0.066 (0.45)	-0.25 (0.95)	0.0 (0)	0.0 (0)	0.0 (0)
Rules of origin	-0.066 (0.17)	-0.25 (0.28)	0.0 (0)	0.0 (0)	0.0 (0)
Customs formalities	-0.13 (0.48)	-0.25 (0.5)	-0.16 (0.28)	-0.33 (0.57)	-0.1 (0.54)
Export licensing	-0.03 (0.58)	-0.25 (0.5)	0.33 (0.57)	-0.16 (0.73)	0 (0.61)
Pre-shipment inspection	0.36 (0.54)	-0.125 (0.25)	0.33 (0.57)	-0.33 (0.57)	0.6 (0.54)
Prior import deposits	-0.06 (0.25)	-0.25 (0.5)	0.0 (0)	0 (0)	0 (0)
Bribes solicited by customs officials	-0.2 (0.49)	0.0 (0.70)	0.16 (0.28)	-0.33 (0.57)	-0.3 (0.44)
Entry price system and standard import values	0.1 (0.47)	0.25 (0.95)	0.0 (0)	0 (0)	0.1 (0.22)
Method of duty calculation	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)	0.0 (0)

Source: own data

Table 17 presents the average perceived impacts of 'standards and regulations' measures on export flows to the EU. On average, all these measures are perceived as positive across exporters; only coffee exporters see measures related to critical mass of exportable quality and testing and certification arrangements as not impacting on exports. These perceptions are in line with the policies implemented by the government. Ivory Coast takes appropriate measures to protect the health of the consumers of their exports. A specific administration at the Ministry of Agriculture and Animal Resources is responsible for the health control through veterinary and phytosanitary control services for animal products and through seed and plant services for vegetal products destined for export markets. These control services are performed by separate divisions of the Laboratoire National d'Appui au Développement Agricole (LANADA) (FAO, 2003).

Thus, these trends suggest that, in Ivory Coast, measures implemented by the government to improve the quality of Ivorian exports have, according to most of the exporters, positive effects on their export flows. This trend contrasts with perceptions observed for other countries included in this survey such as Morocco and South Africa (Tables 27 and 32, respectively).

Table 17 Standards and Regulations

Number of observations	Total 15	Cashew 4	Mango 3	Coffee 3	Cocoa 5
Labelling	0.40 (0.47)	0.25 (0.5)	0.33 (0.28)	0.66 (0.57)	0.40 (0.54)
	0.40 (0.47)	0.25 (0.5)	0.33 (0.28)	0.66 (0.57)	0.40 (0.54)
Packaging	0.13 (0.69)	0.0 (0.7)	0.33 (0.28)	0.0 (1)	0.20 (0.83)
	0.66 (0.48)	0.25 (0.5)	0.66 (0.57)	1.0 (0)	0.80 (0.54)
EU SPS measures	0.46 (0.51)	0.25 (0.5)	0.66 (0.57)	0.66 (0.57)	0.40 (0.54)
	0.4 (0.54)	0.25 (0.64)	0.66 (0.57)	0.33 (0.57)	0.40 (0.54)
Other private measures	0.23 (0.72)	0.125 (0.62)	0.66 (0.57)	0.0 (1)	0.20 (0.83)
Testing and certification arrangements					

Source: own data

Table 18 shows the main trends obtained for the NTM category 'specific limitations' across exporters in Ivory Coast. Measures such as European and African embargoes, discrimination resulting from bilateral agreements and tariff adjustments are considered to not affect exports. Ivory Coast trade has been characterized by a variety of quantitative restrictions. Up until the currency devaluation in 1994, they were concentrated on basic agricultural products and agricultural inputs. Quantitative restrictions in Ivory Coast concerned mainly rice, wheat and vegetable fibre products (FAO, 2003). Thus, in this study they are perceived as slightly negative by one cocoa exporter, while all the other exporters consider these measures to be neutral. Measures to regulate domestic prices are seen positively by exporters of cashew nuts and negatively by exporters of coffee and cocoa. These trends are in line with policies implemented by the Ivorian government to diversify exports and diminish dependence on traditional export products (cocoa and coffee). Tariff quotas are perceived as positive by cashew nut exporters and for the rest of exporters quotas have no impact.

Table 18 Specific Limitations

Number of observations	Total 15	Cashew 4	Mango 3	Coffee 3	Cocoa 5
Quantitative restrictions	-0.03 (0.12)	0 (0)	0 (0)	0 (0)	-0.1 (0.22)
European and African Embargoes	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Discrimination resulting from bilateral agreements	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
Measures to regulate domestic prices	-0.03 (0.58)	0.125 (0.25)	0 (0)	-0.16 (1.04)	-0.1 (0.74)
Tariff quotas	0.06 (0.17)	0.25 (0.28)	0 (0)	0 (0)	0 (0)
Tariff adjustments	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Source: own data

Table 19 displays the average responses for 'distribution chain and infrastructure' to these policy measures across exporters for Ivory Coast. Regarding this category, different perceptions were obtained across exporters. Mango and cashew nut exporters perceive transportation from ports to EU ports of entry as very negative measures, while transportation over land is perceived as negative.

According to the literature (FAO, 2009), exports of pineapples and non-traditional products such as flowers, ornamental plants, mangoes and papayas encountered difficulties which limited export volumes. This was mainly because of the limited freight capacities on Air Afrique and Air France aircrafts, and their monopoly on the air routes, and the lack of organization of local exporters. This fact will partially explain some of the main trends on perception for the export of these products.

Transport costs have a substantial influence on the country's trade performance. Maritime transport constitutes 6-9% of the costs for coffee, cocoa and cotton exports (World Bank, 1995). Transport costs were high as a consequence of delays owing to government regulations concerning allocation of space available on ships, hence the negative perceptions expressed by all exporters.

Table 19 Distribution chain and Infrastructure

Number of observations	Total 15	Cashew 4	Mango 3	Coffee 3	Cocoa 5
Connections and telecommunications	0.13 (0.35)	0.00 (0)	0.00 (0)	0.33 (0.57)	0.2 (0.44)
Transportation costs from production location to shipping place	-0.26 (0.41)	0.00 (0)	0.00 (0)	-0.83 (0.28)	-0.30 (0.44)
Transportation from ports to EU ports of entry	-0.73 (0.45)	-1 (0)	-1 (0)	-0.33 (0.57)	-0.60 (0.54)
Access to labelling, packaging, refrigeration structures	0.20 (0.36)	0.00 (0)	0.00 (0)	0.50 (0.5)	0.30 (0.44)
Infrastructures access for transportation from the production place to ports of export	-0.33 (0.48)	0.00 (0)	0.00 (0)	-1.00 (0)	-0.40 (0.54)
Transportation over land	-0.66 (0.24)	-0.50 (0)	-0.50 (0)	-1.00 (0)	-0.70 (0.27)

Source: own data

5.3.2 Kenya

The category 'taxes and subsidies' in Kenya shows specific patterns for different exporters according to the products they export (see Table 20). Exporters of tea perceive these measures as neutral for their exports. Coffee exporters see almost all measures as neutral with the exception of African State trading which is perceived as negative by one of the two coffee exporters. Bean exporters refer to African government assistance as measures having a positive impact on their exports, while countervailing duties measures do not cause any impact on their exports. The remaining measures are referred to as negative by exporters of fresh beans. Flower exporters see as positive the African government assistance measures, and the remaining measures are all perceived as having a negative impact on exports.

Across all exporters, the perception of government assistance is positive. The reason possibly underlying these trends could be the service offered by the government to assist exporters in promoting their exports abroad, as well as the advice regarding export procedures offered by the Department of International Trade in Kenya (Kenyan Ministry of trade and Industry, 2007).

Table 20 Taxes and Subsidies

No observations	Total 20	Beans 8	Coffee 2	Flowers 8	Tea 2
African Government assistance	0.175 (0.37)	0.312 (0.45)	0 (0)	0.125 (0.35)	0 (0)
Countervailing duties	-0.05 (0.22)	0 (0)	0 (0)	-0.125 (0.35)	0 (0)
European policies that favour domestic suppliers	-0.25 (0.41)	-0.25 (0.46)	0 (0)	-0.375 (0.44)	0 (0)
African State trading	-0.15 (0.36)	-0.125 (0.35)	-0.5 (0.7)	-0.125 (0.35)	0 (0)
European Union surcharges	-0.2 (0.34)	-0.125 (0.35)	0 (0)	-0.375 (0.35)	0 (0)
African Government surcharges	-0.125 (0.35)	-0.125 (0.44)	0 (0)	-0.184 (0.37)	0 (0)
Insurance charge/premiums	-0.1 (0.20)	-0.125 (0.23)	0 (0)	-0.125 (0.35)	0 (0)

Source: own data

Regarding ‘customs and procedure’ measures, in this category trends are more specific to measures than to products (see Table 21). Anti-dumping duties, rules of origin, and pre-shipment inspections are perceived as having a positive impact by all exporters in Kenya. Exporters of fresh beans, coffee and flowers have a positive perception of customs formalities and export licensing while tea exporters see these measures as negative for exports. Prior deposits are seen as neutral by all exporters except for one exporter of flowers. Bribes solicited by customs officials are perceived as having a negative effect on trade by all exporters. Entry price systems are negatively perceived by bean and flower exporters, while exporters of coffee and tea do not perceive any effect caused by these measures. According to Kenyan exporters’ perceptions, methods of duty calculation do not impact their exports in any way. Other customs measures, such as export licensing, have been abolished to foster exports (Institute of Economic Affairs, 2006). As result, most of the exporters included in the survey consider these non-existent measures slightly positive (with the exception of one tea exporter).

Table 21 Customs and Procedures

No observations	Total 20	Beans 8	Coffee 2	Flowers 8	Tea 2
Anti-dumping duties	0.05 (0.22)	0 (0)	0 (0)	0.125 (0.35)	0 (0)
Rules of origin	0.375 (0.64)	0.125 (0.64)	1 (0)	0.375 (0.69)	0.75 (0.35)
Customs formalities	0 (0.42)	0 (0.53)	0 (0)	0.062 (0.41)	-0.25 (0.35)
Export licensing	0.07 (0.37)	0.18 (0.37)	0 (0)	0.062 (0.41)	-0.25 (0.35)
Pre-shipment inspection	0.1 (0.47)	0.25 (0.37)	0.25 (0.35)	0.062 (0.56)	0 (0.7)
Prior import deposits	-0.1 (0.3)	0 (0)	0 (0)	-0.25 (0.46)	0 (0)
Bribes solicited by customs officials	-0.27 (0.37)	-0.25 (0.37)	-0.25 (0.35)	-0.31 (0.45)	-0.25 (0.35)
Entry price system and standard import values	-0.15 (0.32)	-0.06 (0.17)	0 (0)	-0.31 (0.45)	0 (0)
Method of duty calculation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Source: own data

Perceptions of exporters towards measures related to 'Standards and Regulations' are presented in Table 22. Exporters of coffee, flowers and tea view all these measures as having a positive impact on export flows. Meanwhile tea exporters are more optimistic than coffee and flower exporters with regards to measures such as other private measures and testing and certification arrangements. Exporters of fresh beans perceive only two measures as positive: labelling and packing, while the remaining measures are seen as having a negative impact on their exports.

An *a priori* expectation was to observe positive perceptions for these measures from fresh bean exporters. As is well known, fresh beans from Kenya are some of the most representative horticultural export products from Africa entering into the EU market (Jaffee S. and Henson S., 2004). Fresh bean production in Kenya has managed in just a few years to integrate a series of good practices to comply with the required regulations for entering the EU market. This gradual integration of practices should cause a positive perception of these measures in comparison with other commodities in the country in which the integration of good production practices is still not so well-established. However, the results show a contrary trend compared to other agricultural exporter groups (flowers, coffee and tea).

Table 22 Standards and Regulations

No observations	Total 20	Beans 8	Coffee 2	Flowers 8	Tea 2
Labelling	0.17 (0.51)	0.06 (0.72)	0.25 (0.35)	0.25 (0.37)	0.25 (0.35)
Packaging	0.15 (0.4)	0.12 (0.51)	0.25 (0.35)	0.125 (0.35)	0.25 (0.35)
Critical mass of exportable quality	0.125 (0.42)	-0.06 (0.72)	0.25 (0.35)	0.25 (0.37)	0.25 (0.35)
EU SPS measures	0.1 (0.55)	-0.06 (0.72)	0.5 (0.70)	0.06 (0.41)	0.5 (0.70)
Private SPS measures	-0.05 (0.48)	-0.18 (0.53)	0 (0)	0.06 (0.56)	0 (0)
Other private measures	-0.05 (0.48)	-0.31 (0.59)	0 (0)	0.06 (0.17)	0.5 (0.70)
Testing and certif. arrangements	0.2 (0.59)	-0.06 (0.77)	0.5 (0.70)	0.06 (0.17)	1 (0)

Source: own data

Measures related to specific limitations and the opinions of Kenyan exporters are shown in Table 23. Coffee and tea exporters have the perception that none of these measures affect their exports. Fresh bean exporters perceive as neutral quantitative restrictions and tariff adjustments, while the remaining measures are instead perceived as slightly negative. Flower exporters perceive negatively 'discriminations resulting from bilateral agreements' and 'measures to regulate domestic prices', and the remaining measures as neutral.

Table 23 Specific Limitations

No observations	Total 20	Beans 8	Coffee 2	Flowers 8	Tea 2
Quantitative restrictions	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)
European and African Embargoes	-0.025 (0.11)	-0.06 (0.17)	0 (0)	0 (0)	0 (0)
Discrimination resulting from bilateral agreements	-0.075 (0.18)	-0.125 (0.23)	0 (0)	-0.06 (0.17)	0 (0)
Measures to regulate domestic prices	-0.075 (0.18)	-0.125 (0.23)	0 (0)	-0.06 (0.17)	0 (0)
Tariff quotas	-0.05 (0.22)	-0.125 (0.35)	0 (0)	0 (0)	0 (0)
Tariff adjustments	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Source: own data

For measures related to 'distribution chain and infrastructure', Kenyan exporters have different perceptions, as presented in Table 23.. The results show a clear trend across exports for the different measures. For example, transportation costs and the infrastructure access from

production place to shipping place, as well as transportation over land, are negatively perceived across exporters. Transportation from African ports to EU ports of entry is seen by most of the exporters as negative (only in the case of exporters of fresh beans did the average equal zero). Other measures such as connections and communications are seen by most of the exporters as positive (with the exception of one coffee exporter). Access to labelling, packing and refrigeration is perceived as having a positive impact on export flows for all commodities exported by survey participants.

Although Kenya has some advantages compared to other African countries in terms of infrastructure, transport infrastructure has not yet reached the necessary level. Most of the exporters in Kenya are engaged in the horticultural business. These products are perishable and delicate. They require considerable expertise to be handled carefully, and to minimize the length of time from harvest to their arrival in the destination markets. The necessary infrastructure to comply with these criteria is, for most of the exporters, difficult to attain. It requires managerial and marketing skills to link production planning with marketing and distribution. Although exporters do still face constraints due to Kenya's domestic infrastructure, it is also important to develop post-harvest facilities and transport infrastructure to ensure immediate transportation of highly perishable products (African Economic Outlook, 2009). These problems are reflected in the mostly negative perceptions of exporters towards measures related to distribution chain and infrastructure in Kenya.

Table 24 Distribution Chain and Infrastructure

No observations	Total 20	Beans 8	Coffee 2	Flowers 8	Tea 2
Connections and telecommunications	-0.02 (0.76)	0.06 (0.72)	-0.5 (0.7)	0.06 (0.94)	0 (0)
Transportation costs from production location to shipping place	-0.45 (0.64)	-0.25 (0.65)	-0.5 (0.7)	-0.68 (0.7)	-0.25 (0.35)
Transportation from ports to EU ports of entry	-0.15 (0.67)	0 (0.53)	-0.5 (0.7)	-0.125 (0.83)	-0.5 (0.70)
Access to labelling, packaging, refrigeration structures	0.125 (0.39)	0.06 (0.72)	0 (0)	0.25 (0.46)	0 (0)
Infrastructures access for transportation from the production place to ports of export	-0.1 (0.57)	-0.06 (0.72)	-0.25 (0.35)	0 (0.75)	-0.5 (0.70)
Transportation over land	-0.15 (0.51)	0 (0)	-0.5 (0.7)	-0.125 (0.44)	-0.5 (0.70)

Source: own data

5.3.3 Morocco

In Morocco the exporters interviewed are engaged in the export of fresh beans (2), citrus fruits (11), olives (1), and tomatoes (6). The category 'taxes and subsidies' in Morocco shows specific patterns for certain measures across exporters (see Table 25). Some measures such as European policies favouring domestic suppliers, surcharges (EU and African) and insurance charges are perceived as measures that negatively affect export flows. Measures which are viewed positively are those from the government to assist exporters. Other measures such as countervailing measures are perceived positively by tomato and fresh bean exporters and negatively by citrus fruit and olive exporters. 'African state trading' is differently perceived by exporters of different products: those who export citrus fruits and tomatoes notice these measures as having positive impact on their exports, while olive and fresh bean exporters have the perception of a negative impact caused by these measures.

Table 25 Taxes and Subsidies

No. observations	Total 20	Beans 2	Citrus 11	Olives 1	Tomatoes 6
African Government assistance	0.37 (0.58)	0.5 (0.7)	0.45 (0.52)	0.5	0.8 (0.66)
Countervailing duties	-0.32 (0.63)	0.25 (0.35)	-0.63 (0.55)	-1.0	0.8 (0.66)
European policies that favour domestic suppliers	-0.7 (0.49)	-1.0 (0)	-0.77 (0.26)	-0.5	-0.75 (0.41)
African State trading	-0.1 (0.47)	0.25 (0.35)	-0.22 (0.41)	-0.5	-0.16 (0.4)
European Union surcharges	-0.87 (0.22)	-0.75 (0.35)	-0.95 (0.15)	-1.0	-0.83 (0.25)
African Government surcharges	-0.57 (0.37)	-0.75 (0.35)	-0.54 (0.41)	-0.5	-0.58 (0.37)
Insurance charge/premiums	-0.35 (0.28)	-0.25 (0.35)	-0.31 (0.25)	-0.5	-0.41 (0.37)

Source: own data

Moroccan exporters' perceptions towards measures related to 'customs and procedures' are presented in Table 26. With regards to these measures all exporters perceive them as negative for their export flows to the EU. The bribes solicited by customs officials, as well as the entry price system (EPS) and standard import volume, are particularly negatively perceived. Only in the case of pre-shipment inspection did one exporter of fresh beans mention these measures as having a positive impact on export flows.

The CAP regulates the prices of certain imports of fruit and vegetables, and these regulations are known as the Entry Price System (EPS). This system is applied in particular to products such as tomatoes, citrus fruits, grapes and peaches. Several studies have shown (Emlinger et al. 2010; Chemnitz and Grethe 2005) that the EPS severely affects most of the agricultural exports from Morocco. Many exporters associate the EPS not only with the NTM category 'Entry Price System' but also with the 'countervailing measures' or 'European policies favouring domestic suppliers' categories. Therefore, some negative perceptions were registered for those categories, especially for citrus fruit and tomato exporters.

Table 26 Customs and Procedures

No. observations	Total 20	Beans 2	Citrus 11	Olives 1	Tomatoes 6
Anti-dumping duties	-0.57 (0.70)	-0.5 (0.7)	-0.81 (0.33)	-1.0	-0.66 (0.40)
Rules of origin	-0.4 (0.52)	-0.5 (0)	-0.54 (0.47)	-1.0	-0.41 (0.49)
Customs formalities	-0.42 (0.51)	-0.25 (0.35)	-0.63 (0.32)	-1.0	-0.5 (0.31)
Export licensing	-0.17 (0.52)	-0.25 (0.35)	-0.31 (0.41)	-0.5	-0.16 (0.40)
Pre-shipment inspection	-0.02 (0.57)	0.25 (0.35)	-0.31 (0.33)	-0.5	-0.16 (0.40)
Prior import deposits	-0.3 (0.44)	-0.25 (0.35)	-0.5 (0.31)	-0.5	-0.5 (0.44)
Bribes solicited by customs officials	-0.62 (0.50)	-0.25 (0.35)	-0.86 (0.82)	-1.0	-0.75 (0.41)
Entry price system and standard import values	-0.67 (0.56)	-0.75 (0.35)	-0.81 (0.33)	-1.0	-0.66 (0.40)
Method of duty calculation	0 (0)	0 (0)	0 (0)	0 (0)	0 (0)

Source: own data

Perceptions related to NTMs under the classification of 'standards and regulations' mostly depend on the kind of products exported (see Table 27). Citrus fruit and fresh bean exporters perceive measures dealing with quality standards such as labelling, packing, critical mass of exportable quality as positive, while phytosanitary measures such as EU SPS, other private measures and testing and certification arrangements are perceived as measures which negatively affect their export flows to the EU. The olive exporter marked all measures as having negative impacts on their export flows to the EU. The other case is the tomato

exporters who perceive most of the measures as positive, with the exception of EU SPS measures which are perceived as negative.

Morocco has several competitive advantages which allow her to import at competitive prices into the EU (e.g. low labour costs, adequate climate for year-round tomato production, proximity to the EU market, longstanding trade relationships with the EU, etc.). However Morocco still faces important challenges related to standards and regulations to increase exports of fruit and vegetables to the EU.

Table 27 Standards and Regulations

No. observations	Total 20	Beans 2	Citrus 11	Olives 1	Tomato 6
Labelling	0.17 (0.65)	0.25 (0.35)	0.04 (0.61)	-0.5	0.25 (0.68)
Packaging	0.12 (0.66)	0.25 (0.35)	0.04 (0.61)	-0.5	0.25 (0.68)
Critical mass of exportable quality	0.3 (0.57)	0.25 (0.35)	0.40 (0.62)	-1.0	0.25 (0.75)
EU SPS measures	-0.32 (0.75)	-0.75 (0.35)	-0.36 (0.67)	-1.0	-0.16 (0.68)
Private SPS measures	-0.07 (0.61)	-0.5 (0)	0.04 (0.52)	-0.5	0.25 (0.52)
Other private measures	-0.15 (0.48)	-0.5 (0)	-0.13 (0.39)	-0.5	0.08 (0.37)
Testing and certification arrangements	-0.07 (0.52)	-0.5 (0)	-0.04 (0.26)	-0.5	0 (0.31)

Source: own data

Opinions of Moroccan exporters regarding measures classified in the category of 'specific limitations' are presented in Table 28. In the case of exporters of fresh beans, citrus fruits and tomatoes they perceive all measures classified under this category as negative for their exports. The only measures perceived as positive are those aimed at regulating domestic prices for olives. In general, citrus fruit exporters gave the most negative scores for these measures, followed by tomato and fresh bean exporters, while the olive exporter seems to be the only one perceiving most of these measures as neutral for their export business. Additionally, the one measure referring to tariff adjustments has been perceived by most of the exporters as neutral; only citrus fruit exporters see these measures as potentially negative for their export flows to the EU.

Although Morocco is considered a preferential partner (Emlinger, 2010; and see Chapter 4) regarding bilateral trade agreements, with TRQ for several products, perceptions of exporters for this category suggest that trade might still be hindered by non-tariff measures.

Table 28 Specific Limitations

No. observations	Total 20	Beans 2	Citrus 11	Olives 1	Tomato 6
Quantitative restrictions	-0.8 (0.37)	-0.5 (0.70)	-0.86 (0.32)	0	-0.91 (0.20)
European and African Embargoes	-0.65 (0.48)	-0.5 (0.70)	-0.81 (0.40)	0	-0.5 (0.54)
Discrimination resulting from bilateral agreements	-0.8 (0.34)	-0.5 (0.70)	-0.90 (0.20)	0	-0.83 (0.25)
Measures to regulate domestic prices	-0.62 (0.53)	-0.75 (0.35)	-0.77 (0.41)	0.5	-0.5 (0.63)
Tariff quotas	-0.82 (0.22)	-0.5 (0.70)	-0.90 (0.20)	-1.0	-0.75 (0.41)
Tariff adjustments	-0.05 (0.22)	0 (0)	-0.90 (0.30)	0 (0)	0 (0)

Source: own data

Exporters' answers for the category 'distribution chain and infrastructure' are presented in Table 29. In this category, exporters' opinions vary according to the products exported to the EU. Fresh bean and olive exporters see the following as measures with no effect: connections and telecommunications, transportation costs and infrastructure access for transportation from production location to shipping places, as well as access to labelling and packing. Meanwhile transportation from ports to EU ports of entry and transportation over land are perceived as negative measures. Citrus fruit exporters consider all of these measures to have a negative impact on their export flows to the EU, especially transportation from ports to EU entry ports and transportation over land. Perceptions for transportation from ports to the EU are more negatively perceived, which explains why most of the exporters prefer to transport their products by truck (Section 5.1) Finally, tomato exporters perceive as slightly positive the access to labelling, packing and refrigeration systems and as negative transportation costs, transportation from ports to EU entry ports and infrastructure access for transportation.

Table 29 Distribution Chain and Infrastructure

No. observations	Total 20	Beans 2	Citrus 11	Olives 1	Tomato 6
Connections and telecommunications	-0.25 (0.55)	0 (0)	-0.45 (0.52)	0 (0)	0 (0.63)
Transportation costs from production location to shipping place	-0.25 (0.44)	0 (0)	-0.36 (0.45)	0 (0)	-0.16 (0.51)
Transportation from ports to EU ports of entry	-0.85 (0.36)	-0.75 (0.35)	-1.0	-1.0	-0.58 (0.58)
Access to labelling, packaging, refrigeration structures	-0.1 (0.30)	0 (0)	-0.22 (0.34)	0 (0)	0.08 (20)
Infrastructures access for transportation from production places to ports of export	-0.3 (0.49)	0 (0)	-0.5 (0.5)	0 (0)	-0.8 (0.49)
Transportation over land	-0.6 (0.34)	-0.5 (0)	-0.72 (0.26)	-0.5	-0.41 (0.49)

Source: own data

5.3.4 South Africa

Exporters interviewed in South Africa gave valuable information on the different NTM categories considered in this study. The results of the answers for the category 'taxes and subsidies' are presented in Table 30. Apple, grape and plum exporters perceive all measures as impacting negatively on their exports to the EU, except countervailing duties which are positively perceived by apple and grape exporters and as of having no impact by the plum exporter. Citrus fruit exporters associate all these measures with negative impacts on their exports. Finally, the pear exporter sees as negative for their exports measures related to African state trading, EU and African surcharges, as well as insurance charges/premiums.

In spite of the FTA signed with the EU (DG TRADE, 2011), several products were excluded from the negotiation (e.g. certain citrus fruits, apples, pears, grapes and bananas). Given that most of the exporters are involved in the trade of these excluded products, it is then expected that their perceptions towards these measures would be negative.

Table 30 Taxes and Subsidies

No Observations	Total 20	Apple 2	Citrus 11	Grapes 5	Pears 1	Plums 1
African Government assistance	-0.42 (0.51)	-1 (0)	-0.27 (0.51)	-0.6 (0.54)	0	-0.5
Countervailing duties	0.07 (0.33)	0.5 (0.70)	-0.04 (0.15)	0.2 (0.44)	0	0
European policies that favour domestic suppliers	-0.55 (0.45)	-1.0 (0)	-0.5 (0.44)	-0.6 (0.54)	0	-0.5
African State trading	-0.32 (0.43)	-1.0 (0)	-0.04 (0.15)	-0.5 (0.5)	-1.0	-0.5
European Union surcharges	-0.57 (0.40)	-1.0 (0)	-0.59 (0.37)	-0.5 (0.5)	-0.5	0
African Government surcharges	-0.45 (0.35)	-1.0 (0)	-0.40 (0.30)	-0.2 (0.27)	-1.0	-0.5
Insurance charge/premiums	-0.3 (0.41)	-0.75 (0.35)	-0.22 (0.41)	-0.3 (0.44)	-0.5	0

Source: own data

South African exporters' opinions of the category 'customs and procedures' are presented in Table 31. Citrus fruit exporters are the group of exporters with the highest number of positive perceptions of these measures. Citrus fruit exporters perceive prior import deposits and entry price system as having a positive impact, and the remaining measures are evaluated as impacting negatively on exports. Apple exporters perceive anti-dumping measures as positive while the remaining measures are rather negatively perceived. Grape exporters perceive as negative all measures included in this category with the exception of methods of duty calculation, which apparently has no impact on exports. The pear exporter sees most of the measures as neutral with the exception of anti-dumping measures, rules of origin and entry price system which are perceived as negative. Finally, the plum exporter evaluates most of the measures as having no impact on their exports but perceives rules of origin, custom formalities, export licensing and entry price systems as negative.

Table 31 Customs and Procedures

No Observations	Total	Apple	Citrus	Grapes	Pears	Plums
	20	2	11	5	1	1
Anti-dumping duties	-0.5 (0.35)	0.5 (0.70)	-0.04 (0.15)	-0.2 (0.44)	-0.5	0
Rules of origin	-0.3 (0.41)	-0.25 (0.35)	-0.27 (0.34)	-0.2 (0.57)	-1.0	-0.5
Customs formalities	-0.5 (0.36)	-0.5 (0)	-0.54 (0.41)	-0.5 (0.35)	0	-0.5
Export licensing	-0.22 (0.37)	-0.5 (0.70)	-0.13 (0.32)	-0.3 (0.44)	0	-0.5
Pre-shipment inspection	-0.35 (0.43)	-0.25 (0.35)	-0.36 (0.50)	-0.5 (0.35)	0	0
Prior import deposits	-0.02 (0.25)	0 (0)	0.04 (0.15)	-0.2 (0.44)	0	0
Bribes solicited by customs officials	-0.1 (0.30)	0 (0)	-0.09 (0.30)	-0.2 (0.44)	0	0
Entry price system and standard import values	-0.2 (0.41)	-1.0 (0)	0.04 (0.26)	-0.3 (0.27)	-0.5	-0.5
Method of duty calculation	-0.05 (0.22)	-0.5 (0.70)	0 (0)	0 (0)	0	0

Source: own data

With regards to measures classified in the category 'standards and regulations' (see Table 32), the perceptions of exporters are quite similar. In general, measures under this category are perceived as having a negative impact on exports to the EU. In particular, apple and pear exporters gave the most negative scores for these measures. The plum exporter classified labelling, packing and critical mass measures as NTMs with no impact on their export flows.

Table 32 Standards and Regulations

No Observations	Total	Apple	Citrus	Grapes	Pears	Plums
	20	2	11	5	1	1
Labelling	-0.2 (0.34)	-0.5 (0)	-0.09 (0.20)	-0.3 (0.57)	-0.5	0
Packaging	-0.12 (0.31)	-0.5 (0)	-0.04 (0.26)	-0.1 (0.41)	-0.5	0
Critical mass of exportable quality	-0.7 (0.29)	-0.25 (0.35)	-0.09 (0.37)	0 (0)	0	0
EU SPS measures	-0.62 (0.39)	-1.0 (0)	-0.59 (0.43)	-0.6 (0.41)	-0.5	-0.5
Private SPS measures	-0.67 (0.37)	-1.0 (0)	-0.54 (0.41)	-0.8 (0.27)	-1.0	-0.5
Other private measures	-0.35 (0.46)	-0.75 (0.35)	-0.31 (0.56)	-0.2 (0.27)	-0.5	-0.5
Testing and certification arrangements	-0.42 (0.49)	-0.5 (0)	-0.22 (0.56)	-0.7 (0.27)	-1.0	-0.5

Source: own data

The perceptions of exporters towards NTMs in the category 'specific limitations' are presented in Table 33. Apple and grape exporters perceive all measures in this category as negative, only tariff adjustments are noted as having no effect on their exports. Citrus fruit exporters perceive relatively positively the measures to regulate domestic prices, while the remaining measures are perceived as rather negative for their exporters. Pear and plum exporters do not observe any impact from these measures on their export flows to the EU.

Table 33 Specific Limitations

No Observations	Total 20	Apple 2	Citrus 11	Grapes 5	Pears 1	Plums 1
Quantitative restrictions	-0.1 (0.34)	-0.5 (0.70)	0 (0.22)	-0.2 (0.44)	0	0
European and African Embargoes	-0.07 (0.33)	-0.5 (0.70)	-0.04 (0.15)	-0.2 (0.44)	0	0
Discrimination resulting from bilateral agreements	-0.35 (0.43)	-1.0 (0)	-0.22 (0.34)	-0.5 (0.5)	0	0
Measures to regulate domestic prices	-0.35 (0.443)	-0.5 (0.70)	0.04 (0.15)	-0.4 (0.54)	0	0
Tariff quotas	-0.125 (0.39)	-0.5 (0.70)	-0.13 (0.23)	-0.6 (0.54)	0	0
Tariff adjustments	-0.05 (0.22)	0 (0)	-0.09 (0.30)	0 (0)	0	0

Source: own data

The exporters' opinions of 'distribution chain and infrastructure' are presented in Table 34. Connections and telecommunications are perceived by all exporters as positive measures. Meanwhile transportation costs appear to be perceived as measures negatively affecting most of the exporters with the exception of the plum exporter who perceives these measures as positive. The means of transportation from ports to EU ports of entry are perceived as negatively affecting the export flows for South African exporters. The access to labelling, packing and refrigeration structures are perceived for the majority of exporters as positive measures, fostering the exports to the EU. Infrastructure and access for transportation from the production place to ports in all cases are perceived as measures undermining the exports to the EU. Finally, transport over land is perceived as a generally negative measure affecting exports of all products but grapes.

Table 34 Distribution Chain and Infrastructure

No Observations	Total 20	Apple 2	Citrus 11	Grapes 5	Pears 1	Plums 1
Connections and telecommunications	0.3 (0.47)	0.5 (0.70)	0.9 (0.37)	0.6 (0.54)	0.5	0.5
Transportation costs from production location to shipping place	-0.5 (0.48)	-0.75 (0.35)	-0.5 (0.5)	-0.5 (0.35)	-1.0	0.5
Transportation from ports to EU ports of entry	-0.55 (0.58)	-1.0 (0)	-0.31 (0.68)	-0.8 (0.27)	-1.0	-0.5
Access to labelling, packaging, refrigeration structures	0.07 (0.49)	0 (0)	0.13 (0.50)	-0.1 (0.65)	0	0.5
Infrastructures access for transportation from the production place to ports of export	-0.05 (0.60)	-0.5 (0.70)	-0.18 (0.46)	0.5 (0.70)	-0.5	0
Transportation over land	-0.12 (0.53)	-0.5 (0)	-0.27 (0.41)	0.4 (0.65)	-0.5	0

Source: own data

5.3.5 Uganda

The exporters interviewed in Uganda provided information for three products: coffee (10), flowers (9) and tobacco (one exporter). Exporters' perceptions of NTMs in the category 'taxes and subsidies' are presented in Table 35. These measures are perceived differently by exporters in Uganda according to the products exported. Coffee exporters in Uganda perceived measures such as countervailing duties, African state trading, EU surcharges, and insurance charges as measures with a slightly negative impact on their exports to the EU. At the same time, measures such as African government assistance and European policies that favour domestic suppliers are seen as measures with a positive impact on their coffee exports to the EU. Flower exporters perceive most of the measures as negative with the exception of African government assistance which is perceived as being positive for their exports. The tobacco exporter sees EU policies that favour domestic suppliers as positive, while surcharges (EU or African) are perceived as negative for their exports.

As part of Uganda's efforts to create favourable conditions for a market-driven economy, as of 31 July 2001 the monopoly of state agencies in the marketing of agricultural products was abolished (FAO, 2003). Some measures from this period might remain in the country and thus most of the exporters still perceive African state trading slightly negatively. The Ugandan government established regulatory bodies like the Uganda Coffee Development Authority and the Cotton Development Organization to ensure that farmers and exporters maintain certain

quality standards of products and to provide technical backstopping (FAO, 2003). As a result African government assistance is well perceived by most of the exporters interviewed.

Table 35 Taxes and Subsidies

No observations	Total 20	Coffee 10	Flowers 9	Tobacco 1
African Government assistance	0.15 (0.36)	0.05 (0.28)	0.27 (0.44)	0
Countervailing duties	-0.05 (0.27)	-0.1 (0.31)	0 (0.25)	0
European policies that favour domestic suppliers	0.075 (0.49)	0.3 (0.48)	-0.11 (0.41)	0.05
African State trading	-0.05 (0.15)	-0.05 (0.15)	-0.05 (0.16)	0
European Union surcharges	-0.12 (0.42)	-0.1 (0.31)	-0.05 (0.46)	-1.0
African Government surcharges	-0.15 (0.43)	0 (0.40)	-0.22 (0.36)	-1.0
Insurance charge/premiums	-0.15 (0.32)	-0.2 (0.34)	-0.11 (0.33)	0

Source: own data

Measures related to 'customs and procedures' are differently perceived by exporters in Uganda (see Table 36). Coffee exporters perceive these measures in most cases as having no or very little impact on their exports to the EU. Measures perceived by coffee exporters as positive are anti-dumping duties, rules of origin, export licensing, pre-shipment inspections and bribes solicited by customs official; other measures are perceived on average as having no impact or only a slightly negative impact on exports (entry price system). Flower exporters have a positive perception of measures such as pre-shipment inspections and entry price system, while the remaining measures are perceived as negative for exports. The tobacco exporter has a negative perception of customs formalities and export licensing, but for the remaining measures no impact on their exports is perceived.

Table 36 Customs and Procedures

No observations	Total	Coffee	Flowers	Tobacco
	20	10	9	1
Anti-dumping duties	0.075 (0.24)	0.15 (0.33)	0 (0)	0
Rules of origin	0.025 (0.49)	0.1 (0.69)	-0.05 (0.16)	0
Customs formalities	-0.05 (0.48)	0 (0.66)	-0.05 (0.16)	-0.5
Export licensing	0.025 (0.52)	0.15 (0.66)	-0.05 (0.30)	-0.5
Pre-shipment inspection	0.17 (0.61)	0.2 (0.82)	0.16 (0.35)	0
Prior import deposits	-0.05 (0.22)	0 (0)	-0.11 (0.33)	0
Bribes solicited by customs officials	-0.025 (0.19)	0.05 (0.15)	-0.11 (0.22)	0
Entry price system and standard import values	0 (0.16)	-0.05 (0.15)	0.05 (0.16)	0
Method of duty calculation	0 (0)	0 (0)	0 (0)	0

Source: own data

Opinions on measures related to 'standards and regulations' are provided in Table 37. Coffee exporters see most of these measures as positive for their exports; only critical mass of exportable quality is perceived as slightly negative. Flower and tobacco exporters agree on the positive impacts that measures under this category might have on their exports.

The Ugandan government has established an export promotion board to assist agricultural exporters and to facilitate the promotion of Ugandan exports. This board offers advisory services on packaging and labelling, as well as assistance with the requirements to export to the EU (UEPB, 2011). Judging from these results, it seems that these measures are perceived positively by exporters.

Table 37 Standards and Regulations

No observations	Total 20	Coffee 10	Flowers 9	Tobacco 1
Labelling	0.22 (0.41)	0.15 (0.41)	0.22 (0.36)	1.0
Packaging	0.17 (0.43)	0.05 (0.49)	0.22 (0.26)	1.0
Critical mass of exportable quality	0.05 (0.48)	-0.1 (0.45)	0.11 (0.41)	1.0
EU SPS measures	0.27 (0.47)	0.2 (0.25)	0.27 (0.61)	1.0
Private SPS measures	0.17 (0.46)	0.25 (0.42)	0.11 (0.54)	0
Other private measures	0.27 (0.47)	0.35 (0.52)	0.11 (0.33)	1.0
Testing and certification arrangements	0.35 (0.43)	0.5 (0.40)	0.16 (0.43)	0.5

Source: own data

The results of the interviews regarding the category 'specific limitations' are presented in Table 38. Of the exporters interviewed, coffee exporters are those with the most diverse perceptions of these measures, while flower and tobacco exporters perceived most of these measures as neutral for their exports to the EU. Coffee exporters see the following as negative measures for exports: quantitative restrictions, discrimination resulting from bilateral agreements, as well as European and African embargoes, whereas measures to regulate domestic prices are perceived as slightly positive.

Table 38 Specific Limitations

No observations	Total 20	Coffee 10	Flowers 9	Tobacco 1
Quantitative restrictions	-0.05 (0.15)	-0.05 (0.15)	-0.05 (0.16)	0
European and African Embargoes	-0.1 (0.26)	-0.2 (0.34)	0 (0)	0
Discrimination resulting from bilateral agreements	-0.07 (0.24)	-0.15 (0.33)	0 (0)	0
Measures to regulate domestic prices	0.02 (0.25)	0.05 (0.36)	0 (0)	0
Tariff quotas	0 (0)	0 (0)	0 (0)	0
Tariff adjustments	0 (0)	0 (0)	0 (0)	0

Source: own data

Table 39 shows the exporters' answers regarding impacts of measures in the category 'distribution chain and infrastructure'. Connections and telecommunications are perceived by flower exporters as measures with a positive impact on their exports. Coffee exporters also perceive connections and telecommunications, as well as access to labelling and packing, as positive measures. The remaining measures are perceived by these exporters as negative for their export flows to the EU. The tobacco exporter perceives connections and telecommunications, as well as access to labelling, packaging, refrigeration structures, as having no impact while the other measures are perceived as rather negative.

Table 39 Distribution Chain and Infrastructure

No Observations	Total 20	Coffee 10	Flowers 9	Tobacco 1
Connections and telecommunications	0.3 (0.61)	0.5 (0.66)	0.11 (0.54)	0
Transportation costs from production location to shipping place	-0.3 (0.59)	-0.15 (0.66)	-0.38 (0.48)	-1.0
Transportation from ports to EU ports of entry	-0.175 (0.63)	-0.1 (0.45)	-0.16 (0.79)	-1.0
Access to labelling, packaging, refrigeration structures	0.025 (0.37)	0.15 (0.33)	-0.11 (0.41)	0
Infrastructures access for transportation from the production place to ports of export	-0.375 (0.66)	-0.4 (0.65)	-0.27 (0.71)	-1.0
Transportation over land	-0.5 (0.45)	-0.5 (0.40)	-0.5 (0.55)	-0.5

Source: own data

As Uganda is a landlocked country, delivery of their exports depends heavily on air transport, and for the time being there is adequate capacity for export transportation including up to eight flights per week flying to the EU. Although there is good cooperation between fish, flower and vegetable exporters to fill charter flights results show that interviewed exporters are still not completely satisfied with the current situation regarding the transport infrastructures to export their agricultural products.

Across all categories it is observed that flower exporters have, in general, a more negative perception of non-tariff measures on their export flows to the EU. This might be explained by the fact that floriculture is still a relatively new Ugandan trade subsector, which started in 1993. The subsector expanded from one farm in 1993 up to 75 by 1998. The rapid investment in floriculture is attributed to the linkage of Ugandan exporters with Dutch trading houses, as well as the competitive edge Ugandan flowers have over other producers (FAO, 2003). However, as the results of this survey suggest, the rapid increase in trade of Ugandan flowers might not be directly linked to a decrease in the non-tariff measures imposed in markets.

6 Summary

This report presents the results of a survey carried out in 2009 amongst African exporters of agricultural commodities to the EU. Exporters interviewed come from five African countries: Uganda, South Africa, Morocco, Kenya and Ivory Coast. The survey covered a total of 95 interviews, 20 from each of the following countries – Uganda, South Africa, Morocco and Kenya – and 15 from Ivory Coast. The exporters were carefully selected by the survey team's local experts, taking into account two conditions: (i) the questionnaires had to be completed by the respondent in due time, and with enough detail to allow for a quality analysis; and (ii) the group of exporters selected had to represent the largest possible array of the main commodities exported by the respective country. The selected businesses are representative of the most competitive African agricultural exporters. The sample represents nearly 70% of the major exporters in each of the selected countries. The survey focused on the collection of information on exporter characteristics and NTM incidence and their impact on export flows. Information on business characteristics refers to exporters' characteristics (years in business, annual revenues from exports, percentage of export values going to the EU, and top EU export markets) and trade characteristics (type of contract signed, means of transportation of commodities, export packaging). Information collected on NTM incidence refers to possible measures which might be affecting trade flows to the EU and their impact, whether this is positive or negative, on export flows (the NTMs addressed for each product are displayed in Annex A).

Exporter and business characteristics

The exporters' characteristics presented in Section 5.2 such as years in business, annual revenues from exports, percentage of export values going to the EU, and top EU export markets are, in general, more varied across countries than across the exporters of different commodities in the same country. Product characteristics collected in the interviews were export packing (pre-packed, bulk, or packaged for final consumer), means of transportation to the EU (by truck, air, sea) and terms of delivery (FOB, CIF, etc.). With regards to business characteristics, it appears that similar products (e.g., fruits, or coffee and tea) are subject to similar trading contracts within each country. In addition, some similarities in trading

characteristics for certain products across countries have also been observed (e.g., coffee and tea).

NTM survey

The responses to the survey show some general trends. Firstly, for the category 'taxes and subsidies', these measures in Kenya, Morocco and South Africa are perceived equally for exporters exporting the same or similar commodities (e.g. beans from Kenya and Morocco, citrus from Morocco and South Africa) while in Ivory Coast and Uganda their perception is more related to the specific measures addressed rather than to the commodity exported.

Secondly, the answers obtained for NTMs classified under the category 'customs and procedures', suggest that the impact of these measures on exports in Kenya, South Africa and Uganda are related to the specific kind of measure addressed rather than to the kind of product or the exporter preferences. In the case of Morocco and Ivory Coast the responses suggest a closer link between the types of product exported and the impact of these measures on export flows.

Thirdly, concerning 'standards and regulations', the respondents in the five countries were very opinionated. The results showed that they perceive related obstacles and supports as having a direct connection to the type of product in question. Thus NTMs in this category are perceived rather similarly by exporters of the same product (either negatively or positively) in all the countries. The general trend from the survey suggests that labelling and packaging requirements are viewed in a very positive light, whereas EU and private SPS standards are not.

Fourthly, the responses of questions related to the category 'specific limitations' appears to be linked to the kind of product exported within each country rather than to the kind of measure addressed in the five countries selected. The respondents were largely indifferent to the different NTMs covered in the 'specific limitations' category. Some of these measures have the potential to affect African exports to the EU including quotas, embargoes and discrimination from bilateral agreements.

Finally, NTMs classified as 'distribution chain and infrastructure constraints' have often been seen as key barriers to export performance. Replies were mainly guided by the kind of measure addressed, shedding light on two key areas: transportation and communication. Transportation costs from the production site to the port of export (which involves overland

transportation), from the export port to the EU entry export (typically sea or air freight) and transport infrastructure, and transportation, were seen as problematic. On the other hand, results showed that communications were acceptable for the majority of the respondents in the selected countries.

While bearing in mind the complexity of the effects that NTMs have on trade flows and the key information collected with this study, attempting to observe specific trends and to come up with conclusive findings from the survey is subject to some limitations. Carefully designed econometric studies to facilitate statistical or econometric modelling to relate trade effects with the answers obtained from the interviewed exporters are needed to complement the findings of this survey. However, the results presented in this report do represent a valuable piece of information through the collection of primary information on the effects that NTMs have on exports flows from African agricultural products to the EU. This database can help in establishing objectives to control and reduce trade obstacles for these products when entering into the EU.

7 Annexes

Annex A

1 Taxes and Subsidies

- 1) African Government assistance to African exporters/producers, including subsidies and tax benefits
- 2) Countervailing duties (additional import duty imposed to offset Government subsidies in the exporting country, when the subsidized imports cause material injury to domestic industry in the importing country)
- 3) European Union procurement (policies that favour domestic suppliers when imported goods are price-competitive and are of comparable quality)
- 4) African State trading, government monopoly practices, etc.
- 5) European Union surcharges, port taxes, etc.
- 6) African Government surcharges, port taxes, export taxes, etc.
- 7) Insurance charge/premiums

2. Customs and Procedures

- 1) Anti-dumping duties (penalties imposed upon suspiciously low-priced imports)
- 2) Rules of origin (laws, regulations and administrative practices applied to ascribe a country of origin)
- 3) Customs formalities (Customs valuation Customs classification Consular formalities, required declaration of goods by the shipper and examination of declarations by the customs authorities)
- 4) Export licensing (procedures requiring submission of an application or other documentation to an administrative body for approval as a prior condition for importation)
- 5) Pre-shipment inspection (formalities before sending the goods, process of selecting a representative group of products from a larger group)
- 6) Prior import deposits (requirement to place a deposit in advance with the central bank as the condition for obtaining foreign currency to pay for imports, discriminatory credit restrictions, credit restrictions that apply only to imports) % of turnover (adjust for exporters)
- 7) Bribes solicited by customs officials
- 8) Entry price system and standard import values
- 9) Method of duty calculation

3. Standards and Regulations

- 1) Labelling technical regulations and standards (measures that address labelling issues that include environmental protection, safety, national security and consumer information)
- 2) Packaging technical regulations and standards (measures that address packaging issues that include environmental protection, safety, national security and consumer information)
- 3) Critical mass of exportable quality product at producer place
- 4) EU SPS measures (chemical residue limits, disease free product, requirements for specific product treatments)
- 5) Private SPS measures (global gap, British Retail Consortium, International Food Standard)

- 6) Other private measures (related to inorganic farming, fair trade, animal welfare, environmental protection, etc)
- 7) Testing and certification arrangements (methods to verify the exported goods meet the prescribed product standards)

4. Specific Limitations

- 1) Quantitative restrictions/export restraints (explicit limits, usually by volume, on the amount of a specified commodity that may be imported into a country)
- 2) European and African Embargoes and other restrictions of similar effect (a ban on African and/or European imports, either with respect to specific products or to specific countries)
- 3) Discrimination resulting from bilateral agreements (a treaty or other agreement that is bias towards the participating parties)
- 4) Measures to regulate domestic prices (process to control the price at which a commodity trades within a country)
- 5) Tariff quotas (higher tariff rate to imported goods after a specified quantity of the item has entered the country at a lower prevailing rate)
- 6) Tariff adjustments

5. Distribution chain and Infrastructure

- 1) Connections and telecommunications
- 2) Transportation costs from production location to port, airports and other shipping places
- 3) Transportation from ports of export to EU ports of entry
- 4) Access to labelling, packaging, refrigeration structures
- 5) Infrastructures access for transportation from the production place to ports of export (road, railways, etc)
- 6) Transportation over land

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Abstract

This report presents the main results obtained from a survey on the impacts of non-tariff measures (NTMs) existing in trade flows from African agricultural and food trade to the EU. The report begins with a literature review of current methods used to detect the presence of, and tools to analyse, NTMs. The methodology used to assemble the data, as well as the procedure for selecting the countries, is detailed. This is followed by production and trade statistics from the selected countries. The constructed database is analysed, focusing on NTMs from the perspective of African exporters of agro-food products. A summary of the main trends observed across the countries and commodities is presented in the last section of this report.

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