Chapter 5

# Informal Cross-Border Trade in Africa

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# Introduction

Enhancing intra-African trade in agricultural products is today considered a priority objective by African governments and the African Union. It is seen as an engine for development and important for food security and self-reliance.

The trade database designed for this report shows that, on average over the past decade (2009–2018), only about 22 percent of African agricultural trade took place among African nations. The same statistic is 38 percent in North America, 60 percent in Asia, and 70 percent in the European Union.[1] It is true that this statistic is not a good measure of regional integration, as the share of intraregional trade depends on the geography of each continent and the gross domestic products (GDP) of each member. But it seems abnormally low for Africa.

However, intra-African trade, especially agricultural trade, is in fact much larger than the official statistic alone suggests. The gap is due to informal trade, a major phenomenon in Africa.

Several studies provide a statistical evaluation of informal cross-border trade (ICBT) and conclude that its value is quite large as compared with formal trade.

The National Bank of Rwanda initiated a survey of ICBT between Rwanda and its four neighboring countries (Burundi, Democratic Republic of the Congo [DRC], Tanzania, and Uganda) at 53 border posts, both official and unofficial, and concluded that in 2011, Rwanda's informal exports to these four countries were 51 percent higher than formal exports (Republic of Rwanda, 2018). Ogalo (2010) collected statistics from the Bank of Uganda and the Uganda Bureau of Statistics and estimated that, in 2006, the value of informal exports from Uganda to its five neighboring countries (Republic of Congo, Kenya, Rwanda, South Sudan, Tanzania) was around 86 percent of the value of official exports to these countries. Smuggling — that is, trade of licit products at border posts not covered by customs officials — is known to be substantial between Benin and Nigeria (Bouët et al. 2019): a survey initiated by the National Institute of Benin concluded that the value of smuggled products between the two countries was five times higher than officially recorded exports (INSAE 2011).

Informal trade is an important source of income for many poor rural African households. Ama et al. (2014) interviewed 520 informal traders in 2012 at Botswana's borders with Namibia, South Africa, Zambia, and Zimbabwe and found income is the main motivation behind ICBT. Afrika and Ajumbo (2012) estimate that ICBT provides a source of income for approximately 43 percent of Africa's population. ICBT also plays an important role in terms of food security: in West Africa, a food-deficit region, ICBT in staple foods accounts for about 30 percent of total trade in the region (USAID 2015).

ICBT is also known to have a significant gender bias. Ama et al. (2014) estimate that the share of women participating in ICBT was 61 percent in 2012 in Botswana. This share is estimated at 70 percent in the South African Development Community (SADC) region (UN Development Fund for Women, 2009) and 60 percent in western and central Africa (Afrika and Ajumbo 2012). According to Lesser and Moisé-Leeman (2009, 16), for women, "informal trade often constitutes the sole source of earnings and economic empowerment."

So, in Africa, ICBT is widespread and heavily linked to food security and development. Improving measurement of this trade is important for designing better policies. First, obtaining more accurate trade data means enhancing the measurement of balance of payments and external accounts, an important element for the design of macroeconomic policy. It may also contribute to better

1 With the European Free Trade Area (Iceland, Liechtenstein, Norway, Switzerland) included.

economic modeling of the impact of trade agreements. The omission of this type of trade from economic data is likely to considerably bias the intraregional trade indicators frequently used by African policy decision-makers and analysts.

Second, evaluating ICBT more precisely can facilitate the development of more accurate domestic food balance sheets, which are key for food security.

Third, measurement of this type of trade can provide a more accurate picture of aspects related to informal trade, including informal labor markets and movement of staple foods during periods of crisis; these are particularly relevant issues in the current COVID-19 pandemic.

Fourth, the measurement of informal trade is fundamental in view of the Malabo Declaration, in which African states committed themselves to tripling the level of intra-African agricultural trade by 2025, and to the establishment of an African Continental Free Trade Area. In order to measure the success of this project, an accurate measure of the totality of cross-border trade is obviously needed.

This chapter aims to propose an assessment of the reality of informal trade in Africa, particularly in agriculture: How is it defined? What are its determinants? What is its magnitude, both in terms of traded products and countries involved? We present two interesting initiatives that are intended to assess the phenomenon of ICBT in African regions: (1) an initiative coordinated by the Permanent Interstate Committee for Drought Control in the Sahel (Comité permanent Inter-État de Lutte contre la Sécheresse au Sahel, abbreviated as CILSS) and implemented by the West African Association for Cross-Border Trade in Agro-forestry-pastoral and Fisheries Products - (AOCTAH, Association Ouest Africaine du Commerce Transfrontalier des produits Alimentaires, Agro-sylvo-pastoraux et Halieutiques) that measures informal/unrecorded trade in agricultural commodities in West Africa; and (2) an initiative designed by the Uganda Bureau of Statistics (UBoS) and Bank of Uganda (BoU) which assesses informal/unrecorded trade in agricultural and industrial commodities at Uganda's borders with its neighboring countries.

The current sanitary situation, related to COVID-19, is of utmost importance as it may increase poverty and food insecurity in Africa. Therefore, we also provide in this chapter a preliminary analysis of border policies adopted in March 2020 in Africa, with a look at preliminary data on ICBT in eastern Africa. We conclude by addressing some issues related to the policies related to ICBT and to the African Continental Free Trade Area.

The next section defines ICBT. The third and fourth sections identify the main reasons underlying this trade in Africa and present the methods adopted to measure it. The following section offers some statistics about the magnitude of ICBT in Africa, with a detailed presentation of the two initiatives mentioned. The final sections address the role of ICBT during the 2020 pandemic, with a presentation of preliminary statistics, and offer some conclusions.

# What is informal cross-border trade?

There is much confusion about what ICBT is, and definitions differ from one institution to another.

For UNCTAD, "informal cross-border trade is trade between neighboring countries conducted by vulnerable, small, unregistered traders. Typically, it is proximity trade involving the move of produce between markets close to the border. The informality refers to the status of the trader (unregistered), not necessarily to the trade itself (captured or unrecorded by the official customs system)."[2]

Afrika and Ajumbo define ICBT as "trade in processed or non-processed merchandise which may be legal imports or exports on one side of the border and illicit on the other side and vice-versa, on account of not having been subjected to statutory border formalities such as customs clearance" (2012, 2).

For Lesser and Moisé-Leeman, ICBT is "trade in legitimately produced goods and services, which escapes the regulatory framework set by the government, as such avoiding certain tax and regulatory burdens" (2009, 9).

The main point of contention is whether the term "informal" applies to trade or to traders. UNCTAD considers that ICBT is cross-border trade operated by the informal sector, while Afrika and Ajumbo (2012) and Lesser and Moisé-Leeman (2009) consider that ICBT is trade that escapes statutory border formalities.

It is easier to understand what these definitions imply if we consider the different categories of trade that we intend to include in this phenomenon. Lesser and Moisé-Leeman (2009) established the following classification:

- *Informal unregistered traders or firms operating entirely outside the formal economy* (**ICBT definition A**). This is unrecorded trade operated by informal traders or informal firms. An example given is trade in small quantities conducted by individuals carrying sufficiently small quantities of a good through a border crossing such that this passage is not subject to control, whether or not this lack of control is legal. In Uganda, UBoS has been tracking this type of trade for 15 years. Another example is informal traders or informal firms making cross-border shipments of a good or several goods but avoiding official customs posts: this activity is illegal.

- *Formal (registered) firms fully evading trade-related regulations and duties* by, for instance, avoiding official border crossing points (**ICBT definition B**). This is smuggling of licit products by formal firms, which transport their shipment avoiding official border points.[3] The specificity here is that total shipment is not registered by customs officials, unlike the next type of ICBT.[4] A recurring example is given by Nigeria: due to restrictions (bans, high import duties, and so on) adopted by its government, price differences on either side of the border are such that firms in the formal sector are ready to take the risk of illegality by bringing their goods across borders not covered by the customs authorities.

2 UNCTAD, accessed February 18, 2020, https://unctad.org/en/Pages/DITC/Gender-and-Trade/Gender-Project-1617J.aspx.
3 Smuggling of illicit products like drugs or arms is not considered in this study.
4 ICBT definition B could also be called the "Bhagwati-Hansen" type of smuggling (Bhagwati and Hansen 1973). More precisely, in the economic literature, the "Bhagwati-Hansen" type of illegal trade is trade through illegal border posts, and the "Pitt" type of illegal trade is trade through legal border posts (Pitt 1981; Martin and Panagariya 1984).

- *Formal (registered) firms partially evading trade-related regulations and duties by resorting to illegal practices*, such as under-invoicing or misclassifying (**ICBT definition C**). This corresponds to trade by formal firms which partly avoid the payment of customs duties by either underreporting the volume of trade, by underpricing the shipment, or by misclassifying the product to benefit from a lower import duty levied on a substitute. This activity is also illegal. Evidence of this type of ICBT is often given by comparing trade flow reported by the exporting country with trade flow reported by the importing country (mirror trade flows). In Africa, the empirical literature points out that this type of trade is common in countries like Nigeria and Kenya (see Bouët and Roy 2012). The level of import duties and quality of institutions are important factors affecting the magnitude of these trade flows (Jean, Mitaritonna, and Vatan 2018).

In this chapter we survey all types of ICBT. Each time we present statistics, we carefully define which type of ICBT these statistics refer to.

# Why do we observe informal cross-border trade?

As stated by Golub and Mbaye, ICBT "in Africa is a natural outcome of the combination of economic, ethnic, and cultural connections transcending artificially-demarcated national borders with lack of coordination of trade policies across countries and weak state enforcement capabilities" (2009, 597). In this section we emphasize the role not only of historical and cultural factors, but also of economic determinants.

## Historical and cultural determinants

A major factor explaining the importance of informal trade in Africa is historical and cultural. Colonization involved the establishment of largely artificial borders in Africa, notably at the Berlin Conference in 1884–1885, and the post-colonization period reinforced this trend. As a result, African states are defined by these borders, rather than cultural factors. The consequences noted by many historians are, on the one hand, the multiplication of interstate conflicts linked to the delimitation of borders and, on the other hand, the development of ICBT.

Trade in Africa has traditionally taken place between people of the same clan or ethnic group. However, these communities are distributed on both sides of these borders because of this historical factor. Little et al. (2010) and Tegegne et al. (1999) give the example of Ethiopia–Kenya transborder trade or trade between Uganda and the DRC, Sudan, Kenya, Tanzania, and Rwanda as an illustration of ICBT conducted between people of the same ethnic group. Golub and Mbaye (2009) cite the case of trade between Gambia and Senegal (Mourides ethnic group); Bouquet (2003) the case of trade of cocoa between Ghana and Côte d'Ivoire; and Golub and Hansen-Lewis (2012) the case of Yoruba trading between Benin and Nigeria.

Market failures may explain why informal trade takes place within ethnic groups. For example, in the southern and southeastern borders of Ethiopia, there is almost no access to credit. In this Ethiopian region, informal trade consists mostly of exports of livestock. Traders buy animals on credit and repay lenders when the animals are sold. Because trust is more solid within ethnic groups, informal trade prioritizes exchange between people of the same group.

Ethnic groups also play this role because of insufficient provision of public goods. Ethnic groups can substitute for governments in providing hospitals, safety nets, and access to culture and economic information (Golub and Hansen-Lewis 2012).

ICBT definition A corresponds to this determinant. This trade is operated by informal traders, either with small quantities through official border posts or with larger quantities and avoiding border posts.

## Poverty

An important determinant of ICBT is poverty. This concerns ICBT definition A and, in particular, informal trade in small quantities operated by individuals.

Africa has the world's highest poverty rates, both in absolute and relative terms. According to World Bank estimates,[5] among all regions, in 2015, sub-Saharan Africa has by far the highest poverty headcount ratio (41.1 percent for an International Poverty Line of US$1.90 per day, in 2011 PPP) and the largest number of poor people (413.3 million).

Many studies have been conducted based on interviews of informal cross-border traders. They often show that the primary motivation for ICBT is to provide a source of income, food security, and a way to overcome poverty (Ama et al. 2014). In Rwanda, a majority of ICBT participants live on more than US$2 per day, a sum they would never achieve with formal employment (Charalambides and Parker 2016). For traders and small-scale producers, ICBT contributes to poverty alleviation and provides a way to meet their basic needs (food, education, housing).

## Degree of law enforcement and price differences across borders

Some microeconomic models (Pitt 1981; Martin and Panagariya 1984; Sheikh 1989; Métivier and Bouët 2018) have developed a theory of informal trade that is simple but explains the problem well.

To simplify the understanding of existing models, one can first understand the behavior of a smuggler who sees an import prohibition as the opportunity to make a profit: the prohibition raises the domestic price in the importing country above the world price.[6] It corresponds to ICBT definition A where such smuggling is carried out by agents operating in the informal sector, and to definition B when it is carried out by agents in the formal sector.

Smuggling is a risky business. The probability of being caught depends positively on the degree of law enforcement in the importing country (Métivier and Bouët 2018), but in some models it depends positively on the smuggled amount, and negatively on the amount of money the smuggler spends to avoid being caught (Martin and Panagariya 1984).

If caught, the smuggler loses his entire shipment and may be subject to a penalty from the customs authorities. If he is not caught, he makes a profit equal to the quantity transported times the difference between the domestic and world price, minus the amount of money spent for not being caught, minus the traditional transportation costs. Smuggling will occur as long as it generates a positive expected profit.[7]

5 See World Bank News, September 19, 2018, https://www.worldbank.org/en/news/press-release/2018/09/19/decline-of-global-extreme-poverty-continues-but-has-slowed-world-bank.
6 It is worth mentioning that in Africa, there are also many export bans. In this case the domestic price is lower than the foreign price and it is beneficial to avoid border posts in order to sell the commodity abroad.
7 It is important for economists to understand that this literature assumes that smuggling of agricultural products is described as an activity with increasing costs, either because the probability of being caught increases with the quantities diverted, or because the smuggler has to commit increasingly large sums of money in order not to be caught. As the demand for this illegally transported good decreases with the selling price of the contraband, there is an equilibrium quantity in this market.

So with this simple model in mind, we understand that smuggling depends positively[8] on the price difference between the two sides of the border, which is a function of import duties or a prohibition put in place on the importing side, or an export ban on the other side, or a quota which can be more or less restrictive.[9]

The implementation of complex regulations, especially sanitary or phytosanitary norms or technical barriers to trade, not aligned with international or regional standards, leads to a higher price on the importing side. Inefficiency of customs procedures also augments the price of imported goods, especially when it concerns time-sensitive products (fresh agricultural commodities). Foreign exchange controls also raise trade costs and consumer prices.

According to Bouët, Cosnard, and Laborde (2017), in terms of import duties, Africa is the most protectionist continent in the world. Africa's average import duty on all merchandise is 9.67 percent, with higher protection in the agricultural sector (19.58 percent). Africa also has the highest average duty on its overall (including both agricultural and nonagricultural) intracontinental trade (8.62 percent) and is second only to Asia for agricultural products. Despite the success of certain regional agreements (ECCAS, EAC, and SACU) in suppressing duties, African countries still impose high duties on trade between regional economic communities (RECs). This appears to be a major disincentive for intra-African trade, particularly for agricultural products; these products face a 15.23 percent duty inside the continent, compared with 9.86 globally (Bouët, Cosnard, and Laborde 2017). However, most RECs in Africa do not have high tariff levels on their intraregional imports (Odjo, Traoré, and Zaki 2019). Econometric studies have shown that ICBT definition C (customs duty evasion) increases with the level of import duties (Bouët and Roy 2012; Jean, Mitaritonna, and Vatan 2018).

Export taxes are also common in Africa. Kim (2010) mentions that of over 35 African countries that are members of the World Trade Organization (WTO), and whose trade policy was assessed by a WTO Trade Policy Review between 2003 and 2009, 30 were imposing export duties.

African governments apply export duties to generate public revenues, sometimes on all exported products — on this issue, Kim (2010) cites the case of Chad, Gambia, and Niger — or in specific value chains, using a Differential Export Tax scheme[10] to make the processing stage more competitive. Bouët and Odjo (2020) give the example of DRC in the wood value chain and Tanzania in the cashew nut and the wet blue leather industries.

Even within a REC, trade can be impeded by prohibitions implemented by governments that do not respect the trade liberalization scheme imposed by the agreement. Evidence of import or export bans is difficult to ascertain as there is no initiative aimed at systematically collecting information on these policy instruments and the notifying scheme at WTO is far from perfect. However, there are many case studies proving their prevalence in African agriculture. In ECOWAS, Nigeria often implements import bans, even on merchandise originating within ECOWAS (Bouët et al. 2019). Porteous (2017) cites the case of 13 short-term export bans on maize implemented by 5 countries in East and Southern Africa. Schulz (2019) collects information on 32 sub-Saharan African countries that have implemented export prohibitions on raw commodities including cashews, raw hides, and timber, among others.

8 Other forms of ICBT can be more or less explained by a similar economic model.
9 Price elasticities of demand and supply may play a role, especially in case of a quantitative restriction or a tariff with imperfect substitution between local and foreign goods.
10 A Differential Export Tax scheme is a system of export taxation with higher taxes on unprocessed goods and lower taxes on semi-processed and processed goods. The objective is to reduce more the price of the unprocessed good such that the entire system makes the processing stage of transformation more competitive thanks to a comparatively low input price. For example in Tanzania, raw hides and skins are chargeable to an export tax at the rate of 80% of FOB value of exports or US$ 0.52 per kg whichever is greater, while exports of wet blue leather are levied at the rate of 10% on FOB value (Tanzania Revenue Authority 2020). The scheme implemented by the Tanzanian government intends to give more support to exports of wet blue leather while contributing simultaneously to public revenues.

## Complex regulations and standards

The development of any form of informal trade often responds to price differences. Many African countries have implemented Price Stabilization Boards, which often create price differences. Bouquet (2003) cites the example of informal trade in cocoa between Ghana and Côte d'Ivoire. This informal trade is a response to the price board in Côte d'Ivoire, which guarantees higher prices for cocoa in Côte d'Ivoire than in Ghana. Import licenses and other administrative procedures, for example concerning currency convertibility, can also create significant price differences.

For Bouët and Odjo (2020), the implementation of regional trade agreements in Africa has entailed significant changes in African trade policies, especially the removal of impediments to cross-border trade such as import licenses and other procedural barriers.

Sanitary and phytosanitary (SPS) measures have a complex impact on the potential split between formal and informal trade. On one side, they represent a supplementary cost that has a negative impact on trade flows. On the other side, an SPS norm can act as a signal of quality for consumers and as such, increase trade. When regional trade agreements lead to the harmonization of SPS regulations, it can facilitate trade between member countries but impede trade with nonmember countries.

In the African case, let us mention two important points. First, there is a lack of empirical evidence about the impact of African SPS regulations on intra-African trade. Second, in many African regions, the demand of consumers for food safety may be low, as illustrated by a recent impact evaluation project concerning maize and aflatoxin in Nigeria (Narayan et al. 2019).

## Inefficiency of customs procedures

There is strong evidence of inefficient customs procedures in Africa. Inefficient customs procedures waste transporters' time. This cost might be transmitted into final consumer prices. Customs officers may demand bribes: either there is no import duty at the border and a bribe represents a supplementary cost for the transporter, or there is an import duty to be paid and the bribe may (or may not) serve as a way of paying less taxes. In West Africa, the CILSS initiative, in collaboration with WACTAF, collects data on road harassment by customs officers, police, gendarmerie, civil servants from city halls, and sanitary and phytosanitary institutes. For example, in June 2017, the average number of checkpoints was five controls per 100 km in Côte d'Ivoire. Along the livestock corridor between Mauritania and Senegal, recorded illegal payments per 100 km averaged $24 in the same month, while delays in the delivery of cola caused by road harassment averaged 231 minutes per 100 km.

Inefficiency of customs procedures encourages smuggling (ICBT definition B): smuggling may allow traders to save time and money. In the case of lengthy customs procedures, smuggling may be greater when traded products are fresh agricultural commodities. The Institut National de la Statistique et de l'Analyse Economique (INSAE – National Institute for Statistics and Economic Analysis) conducted a survey on ICBT at many (unofficial) border points over a short period in 2011 (INSAE 2011). This survey, the Enquête sur le Commerce Extérieur Non Enregistré (ECENE), covered only illegal border posts and thus provides a direct measurement of smuggling. Using the ECENE survey, Bensassi et al. (2016a) empirically analyze the determinants of smuggling and conclude that agricultural products, goods facing higher tariffs or an import ban,

and time-sensitive[11] products are commonly smuggled, while other goods are legally traded. Bensassi et al. (2016b) confirm these results in Benin, Togo, and Nigeria.

The Doing Business group (World Bank 2016) constructs well-known indicators to measure the cost in both time and money, excluding tariffs and border taxes, of exporting and importing a specific shipment of goods to and from a country's main trading partner. Time to export and time to import include documentary compliance, border compliance, and domestic transport (all in hours). Cost to export and cost to import include documentary compliance, border compliance, and domestic transport (all in US dollars). Regarding the eight components of the trading-across-borders indicator from Doing Business 2020 (World Bank 2020), that is, the two components (documentary compliance and border compliance) of time and cost to export and to import, for six of these eight indicators, sub-Saharan Africa has the worst performance of any region. For one of the eight indicators, the Middle East and North Africa region is the worst. Clearly, the time required to export and the time to import are still very high for many African countries. For example, in Sudan, the time to export (border compliance and documentary compliance) is estimated at 15.4 days in 2019. In Tanzania, the time to import (border compliance and documentary compliance) is estimated at 26.7 days in 2019.

## Geography and border markets

It is often argued that Africa's borders are naturally porous. Often, there are few geographical obstacles the passage from one side of the border to the other. This facilitates the development of ICBT. In Benin, there are more than 170 informal border points but only a small number of official border posts. It is obviously difficult and costly for African governments to control so many informal border crossings. Porosity of borders greatly facilitates ICBT definitions A and B.

Large open markets have been developed close to border points. In Africa, there are many examples of market-shed centers accessed by traders from contiguous countries: the market of Mbeya in Tanzania, accessed by citizens from Zambia and Malawi, or the Mazabuka market-shed in Zambia accessed by citizens from Zimbabwe (Stuart 2020). In West Africa, CILSS has listed three regional border markets in Benin, seven in Burkina Faso, seven in Côte d'Ivoire, and seven in Ghana, among others.

11 Time-sensitiveness is a measure of sensitiveness of products to time spent in transportation. It was provided by Hummels and Schaur (2013) who exploit a rich database of the premium paid by US exporters on expensive and rapid air cargo as compared to slow and cheap ocean cargo to identify time-sensitiveness of products.

**Box 5.1** GENDER ASPECTS OF ICBT

The gender dimension is important in ICBT. The presence of women in ICBT activities reflects their participation in informal activities in general because of lack of access to finance and productive capital. Many studies have concluded that the majority of informal cross-border traders in Africa are women. According to Brenton and Isik (2012), 80 percent of cross-border traders in the Great Lakes region are women, and Njiwa et al. (2011) find that 75 percent of informal cross-border traders between Malawi and Zambia are women. In Botswana, 61 percent of informal cross-border traders are women (Ama et al. 2014) and 74 percent of informal traders in Rwanda are women (Republic of Rwanda 2012). Women are particularly present in the agricultural sector, linking areas in surplus to localities in short supply but also in agricultural processed goods and light manufacturing commodities not requiring complex certificates (Gagera and Bhan 2016; Ama et al. 2014). ICBT seems to play a role in alleviating poverty (Cagatay and Ozler 1995) and contributes to women's empowerment, family and child support,[12] and employment[13] (Chen et al. 2006; Yussuf 2014).

Women experience specific situations not observed for men, such as harassment and extorsion at the border. It is well documented that women engaged in ICBT are subject to discrimination. Women traders are very often subject to harassment, extortion, time-consuming procedures, and documentary requirements at border crossing points (Brenton et al. 2013). In East Africa, Higgins and Turner (2010) have shown that female cross-border traders pay larger bribes than their male peers and must often provide sexual favors to avoid detention by the border guards or confiscation of their goods. However, the time-consuming procedures women face are often related to the nature of products they carry. Indeed, there is often a gender-based specialization for the products being traded. For instance, in the ECOWAS region, some of the procedures faced by women reflect the fact that they are more specialized in products that do not always originate from the region, are subject to rules of origin, and not subject to duty-free trade.

# Measuring ICBT

Over the years, various methods have been proposed to measure the "missing" part of trade in Africa, including ICBT. These can be broadly divided into indirect and direct methods. Indirect methods involve using mirror data and econometric techniques while direct ones build upon surveys at border points and strategic markets.

## Indirect methods for measuring missing trade and their limitations

The use of mirror data is one of the most widely used methods analysts employ when measuring the missing part of trade for a given country. The method consists of comparing the declarations of the two trading partners and filling the gap in the data with the declaration of the reporting partner. Using this methodology could help improve the quality of trade data, particularly in Africa.

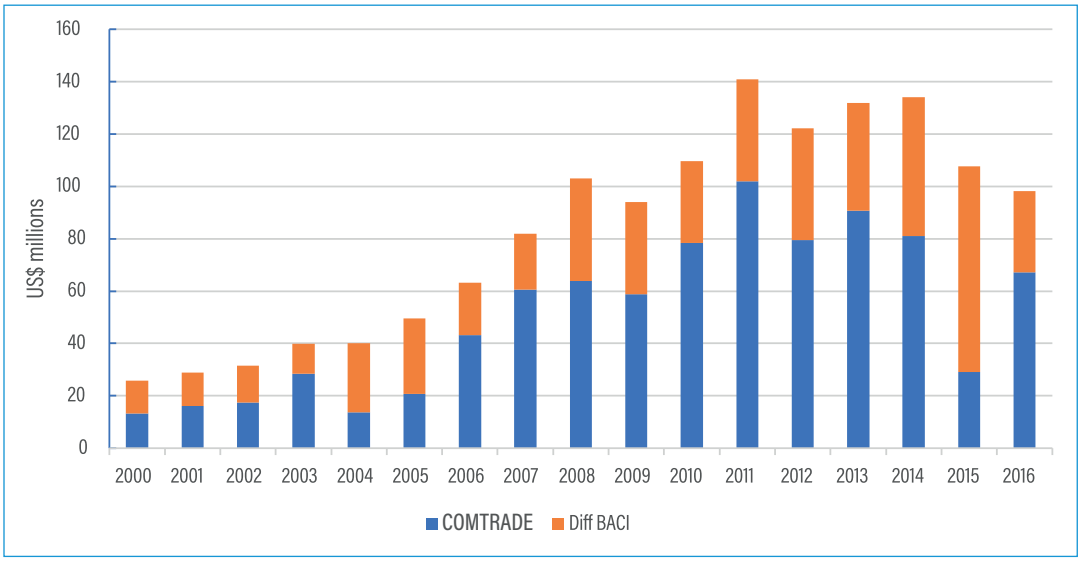
12 School fees and health expenditure.
13 UNIFEM surveys in West and Central Africa report that women informal cross-border traders employ on average 1.2 people, and support 3.2 children and 3.1 dependents who were not children or spouses (UN Women 2008).

This methodology clearly addresses the issues raised by the existence of ICBT definition C (formal firms partially evading trade-related regulations and duties by resorting to under-invoicing or declassifying) but does not address issues raised by smuggling and trade in small quantities.

The Base pour l'Analyse du Commerce International (BACI – database for the Analysis of International Trade) built by CEPII is based on the methodology of mirror flows, with additional treatments to improve the quality of declarations and increase the number of countries for which trade data are available. Using econometric (gravity) techniques to properly measure the CIF/FOB (cost insurance freight/free on board: this ratio is an estimate of the cost of the insurance and transportation) ratios and weight the quality of declarations,[14] the database brings additional information and comes up with a unique flow. Performing this treatment significantly increases the level of trade data for Africa.

Figure 5.1 below presents the difference between BACI and UN COMTRADE data for ECOWAS countries from 2000 to 2016. We use the COMTRADE database for the comparison and not the database we created for this report. Indeed, the essential point here is that this comparison illustrates the limitations of official international data. Depending on the year, the difference between the two databases ranges from one third to two thirds (as in 2015). Thus, using mirror data can help fill a significant gap in trade data and capture part of the missing trade.

Figure 5.1 ECOWAS total imports, all products, BACI and COMTRADE databases




Source: BACI and COMTRADE.

Note: Diff BACI = difference between BACI data and COMTRADE data.

Table 5.1 presents the main characteristics of the difference between the two databases in more detail, and provides useful information for the African case. It is worth noting that the difference is much greater for intraregional trade compared to extraregional flows. Indeed, on average the ratio is 1.90 for intraregional trade compared with 1.45 for extraregional trade, primarily because declarations for extraregional partners are of better quality than intraregional ones, which suffer from underreporting on both sides. As shown in Table 5.2, African countries do not always report to COMTRADE or their declarations are subject to issues so that they are available only with significant delays or even not included. This is the main limitation of relying on mirror data — when declarations are absent or bad on both sides, one cannot retrieve the "missing" part of trade. It is then necessary to call for direct methods.

14 See Gaulier (2010) for a full description of the methodology.

Table 5.1. ECOWAS intraregional and extraregional trade, all products

| | Intraregional trade (US$ millions) | | | Extraregional trade (US$ millions) | | |
|---|---|---|---|---|---|---|
| Year | COMTRADE | BACI | BACI/COMTRADE | COMTRADE | BACI | BACI/COMTRADE |
| 2000 | 2.4 | 2.7 | 1.1 | 10.9 | 23.1 | 2.1 |
| 2001 | 2.0 | 2.7 | 1.3 | 14.1 | 26.1 | 1.8 |
| 2002 | 1.7 | 2.9 | 1.7 | 15.8 | 28.8 | 1.8 |
| 2003 | 3.3 | 4.2 | 1.3 | 25.1 | 35.6 | 1.4 |
| 2004 | 3.2 | 4.6 | 1.4 | 10.4 | 35.4 | 3.4 |
| 2005 | 4.5 | 6.5 | 1.4 | 16.2 | 43.0 | 2.7 |
| 2006 | 4.3 | 6.5 | 1.5 | 38.9 | 56.7 | 1.5 |
| 2007 | 5.9 | 7.4 | 1.2 | 54.6 | 74.5 | 1.4 |
| 2008 | 8.0 | 10.9 | 1.4 | 55.9 | 92.0 | 1.6 |
| 2009 | 3.8 | 6.4 | 1.7 | 54.9 | 87.7 | 1.6 |
| 2010 | 6.2 | 8.6 | 1.4 | 72.1 | 101.1 | 1.4 |
| 2011 | 7.4 | 9.8 | 1.3 | 94.6 | 131.1 | 1.4 |
| 2012 | 8.3 | 11.7 | 1.4 | 71.1 | 110.5 | 1.6 |
| 2013 | 9.2 | 13.9 | 1.5 | 81.5 | 118.1 | 1.4 |
| 2014 | 7.5 | 12.1 | 1.6 | 73.6 | 121.9 | 1.7 |
| 2015 | 4.4 | 7.5 | 1.7 | 24.8 | 100.2 | 4.0 |
| 2016 | 4.3 | 7.0 | 1.6 | 62.8 | 91.2 | 1.5 |

Source: Mitaritonna and Traoré (2017).

Table 5.2 Declaration to COMTRADE

| | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
|---|---|---|---|---|---|---|---|
| Nigeria | Y | Y | Y | Y | Y | | Y |
| Ghana | Y | Y | Y | Y | | | Y |
| Côte d'Ivoire | Y | Y | Y | Y | Y | Y | Y |
| Mali | Y | Y | Y | | | | Y |
| Senegal | Y | Y | Y | Y | Y | Y | Y |
| Burkina Faso | Y | Y | Y | Y | Y | Y | Y |
| Benin | Y | Y | Y | Y | Y | Y | Y |
| Togo | Y | Y | Y | Y | Y | Y | Y |
| Liberia | | | | | | | |
| Guinea | | | | Y | Y | Y | |
| Sierra Leone | | | | | Y | Y | Y |
| Cabo Verde | Y | Y | Y | Y | Y | Y | Y |
| Guinea-Bissau | | | | | | | |
| Gambia | Y | Y | Y | Y | Y | | Y |
| Niger | Y | Y | Y | Y | Y | Y | Y |

Source: COMTRADE (2019).
Note: Y stands for the availability of the declaration of commodities trade data by the country's national statistical institute to COMTRADE.

## *Econometric approaches*

Analysts have also used econometric methods in their attempts to fill the gap of missing trade data and thus the informal component. The econometrics methods used are largely based on gravity equations. In other words, this approach establishes a norm of trade, that is, what trade volumes should be given the characteristics of the country. The norm of trade (the predicted value from the gravity equation) is then compared to actual (observed) flows and the difference is the "missing" trade, which could include informal transactions. The variables used in the gravity equations are the GDP of trade partners, distance, and trade policy variables (tariffs and nontariff measures).[15] In a study involving African countries using a gravity equation in manufacturing trade, Villoria (2008) estimates missing intra-African exports at approximately US$300 million, the highest value being in Central and West Africa. It is worth noting that the gravity approach is based on a theoretical model estimated with econometric methods and has its own limitations. Also, for cases when missing trade is available from both gravity estimates and direct surveys, the former always underestimated the real flows observed (Mitaritonna and Traoré 2017).[16] This again suggests the value of using direct methods to measure ICBT and missing trade.

15 Other variables are used as well, such as dummy variables for common language or former colony and more technical ones such as the so-called multilateral resistance terms (Anderson and van Wincoop 2003).
16 This is the case for Benin for instance. Villoria (2008) predicts that missing exports represent 5 percent of Benin's exports, which is quite low compared to both mirror flows and direct surveys.

## *National accounts data*

Although not widely used, it would be possible to use macroeconomic identities between supply and uses and the system of national accounts to retrieve trade flows. However, this is a very challenging task. Estimates of production are available, but there are measurement errors, particularly in agriculture. On the other hand, estimating the uses of production (consumption, stocks, feed, etc.) is also highly challenging and subject to measurement errors. This calls again for direct methods of measurement.

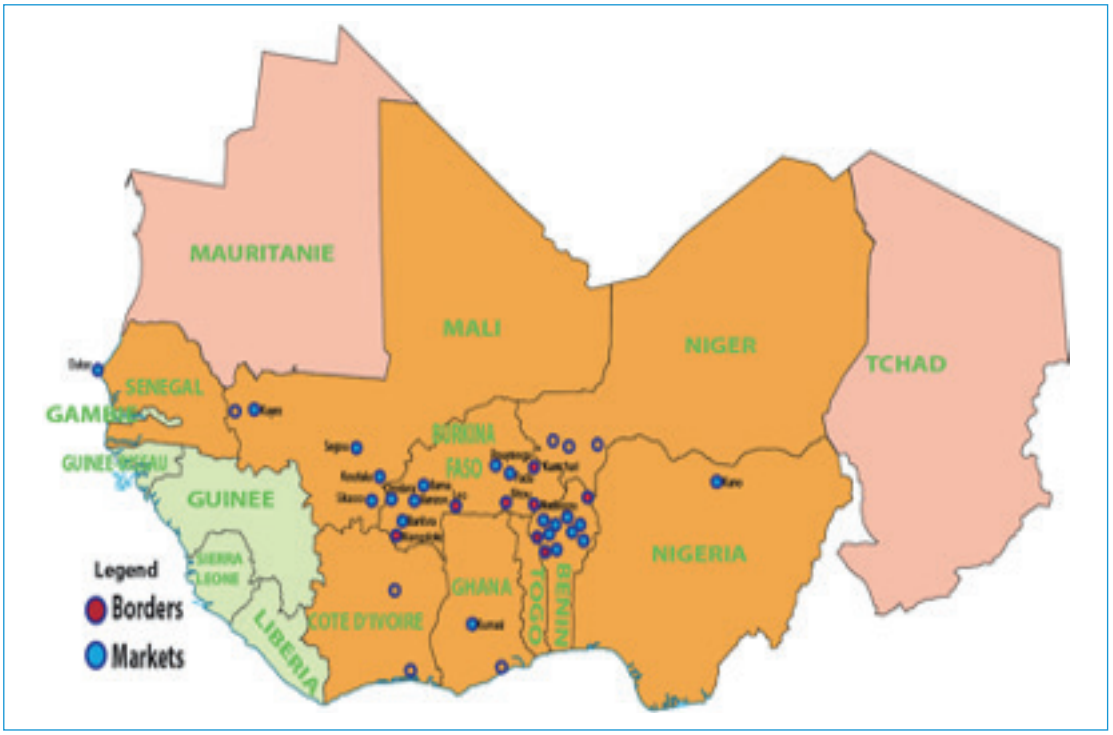
# Direct methods

As using mirror flows and indirect methods to assess ICBT are not sufficient, different initiatives have been developed to monitor informal (or "unregistered") trade in recent years in Africa. In this section, we first present the two main initiatives to monitor informal trade in Africa, namely the CILSS and WACTAF initiative in western Africa and UBoS in Uganda, and then we briefly review the others.

## *The CILSS and WACTAF initiative*

In West Africa, CILSS and WACTAF have the only permanent ICBT monitoring system for agro-sylvo-pastoral products and fisheries under its Regional Support Program of Market Access funded by USAID. The data collection activities started in April 2013. Data on 57 products are collected on value and volume of intraregional agricultural trade on strategic markets and along the major commercial corridors linking Senegal, Mali, Burkina Faso, Benin, Togo, Ghana, Côte d'Ivoire, and Nigeria (Figure 5.2).

Figure 5.2 Trade data collection points




Source: CILSS.

This initiative is aimed at collecting information on unrecorded trade flows along trade corridors in West Africa. It aims at monitoring the exact value of transactions along trade corridors.[17] Therefore, comparing these data to formal borders data allows us to have an idea of the magnitude of informal trade.

The CILSS approach is characterized by collaboration with professional partner organizations/ national apex associations to conduct the work. Data are collected by 10 apex associations from 17 countries (15 ECOWAS, Chad, and Mauritania), which have jointly created the West African Association for Cross-Border Trade in Agro-forestry-pastoral and Fisheries Products (WACTAF). Each partner organization/association has a focal point per value chain/commodity per country, and two data collectors per association per commodity and per strategic market or exit point are selected. Data collection is done in the strategic markets and exit points every market day. The data collected are the following:

- Date of departure of truck/train/tractor
- Country of origin
- Truck registration number
- Export volume (number of bags)
- Export price (FOB) per unit in local currency
- Type of commodity
- Variety (cereals)/Category (livestock)
- Data collection point/Loading point (in country of origin)
- Destination country
- Unloading point (in country of destination)
- Trader contact information

The CILSS approach (working with apex associations) has many advantages. First, it helps increase the coverage of the monitoring and involves the cooperation of actors (traders). Second, and more importantly, the fact that data are collected daily avoids seasonality issues that are significantly present in agriculture. With this kind of coverage, there is no need to extrapolate the data collected to have annual flows as is always done with usual surveys. However, some issues remain unresolved. Not all areas in West Africa are covered, in particular, the east and west production and commercialization basins[18] are yet to be properly included. Also, certain means of transportation (transportation through lagoons for instance) are not fully considered or are neglected.

17 Indeed CILSS, as indicated in their cross-border trade data collection methodological document, monitors both "formal cross-border trade" in which the trader has submitted documentation at the border and "informal cross-border trade," which is defined as unregistered and/or unregistered trade not subject to formal written border procedures.
18 CILSS intervention areas are divided into three production and trade basins: the eastern basin includes Benin, Chad, Niger, and Nigeria; the central basin is composed of Burkina Faso, Côte d'Ivoire, Ghana, Mali, and Togo; the western basin includes Cabo Verde, Gambia, Guinea, Guinea-Bissau, Liberia, Mauritania, Senegal, and Sierra Leone.

## UBoS approach

Surveys of ICBT in Uganda started in 2005 and are still being carried out. They are operated and financed by the Uganda Bureau of Statistics (UBoS) and the Bank of Uganda (BoU).

According to the definition adopted by UBoS and BoU, ICBT refers to "trade transactions between residents and non-residents across the economic boundaries of two or more countries that are not recorded by Customs Authorities" (UBoS and BoU 2013, v). This definition is largely consistent with ICBT definition A and the methodology used to measure it confirms this point.

The UBoS survey aims to assess the volume and value of informal trade between Uganda and its neighbors (DRC, Kenya, Rwanda, South Sudan, and Tanzania). The goal is to provide an estimation of informal cross-border exports, primarily of agricultural and food commodities. Ugandan trade has clear regional patterns, with high levels of trade (imports and exports) with Kenya and the DRC. The country also exports large amounts to South Sudan, where demand for food imports is high because of low agricultural productivity exacerbated by drought and political unrest.

Because of the magnitude of informal trade between these countries, accurate measurement of ICBT has important implications for Uganda. Beyond traditional balance of payments and food balance sheet concerns, the surveys address recommendations by the Eastern African Community (EAC) Council for regular monitoring of ICBT within the region.

By 2013, the Uganda survey covered 19 border posts and 4 bus terminals; one to two enumerators were stationed at each point to observe trade and, when necessary, to interview traders, clearing agents, and revenue officers. Exports are valued FOB, that is, without inclusion of taxes, transportation, and insurance costs, while imports are valued CIF, that is, cost of insurance and freight included. The selection of the monitoring sites was primarily based on the significance of trade flows through the border post. Moreover, data collection is limited to two weeks per month to reduce costs, with the weeks randomly chosen. In a recent annual report (2014), UBoS and BoU recognized that this survey does not cover all border points and as such likely underestimates total informal trade, but it was felt the underestimation was likely minimal.[19]

Collected data at the monitored posts include merchandise into/out of the country carried on foot, bicycles, pushcarts, motorcycles, vehicles, wheelchairs, donkeys, and boats, both in large and small quantities, that is not recorded by customs authorities, and undeclared or under-declared merchandise from traders on formal customs declaration documents.

Data collection does not cover trade reported to customs officials, nor goods transiting into and out of the country at any border post being monitored, nor goods smuggled into or out of the country (including nighttime cross-border transactions).

## Other initiatives

Monitoring informal trade at the border is not an easy task. It requires significant means to be done properly and is very expensive. This explains why many initiatives conducted in Africa, summarized in Table 5.3, have been of short duration or the monitoring has been conducted at few border points.

While some are the work of researchers and performed only at one point in time and for some border points (Achello and Echessassh 1997; Bensassi et al. 2015), others are more institutionalized (ECENE 2010) or operated on a continuous basis (FEWSNET). In terms of methodology, the FEWSNET initiative is probably the closest one to CILSS and WACTAF.

19 The report notes that the survey is only conducted between 7 am and 6 pm and thus may miss trade occurring outside of those hours.

In collaboration with local partners, FEWSNET conducts regular analysis of markets and trade of food commodities in southern and eastern Africa. In eastern Africa, within the Food Security and Nutrition Working Group regional platform, the network participates in the monitoring of cross-border trade of 88 food commodities and livestock in 26 cross-border markets. The countries covered are Burundi, Djibouti, DRC, Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Sudan, Tanzania, and Uganda; the commodities covered are cash crops like maize, beans, wheat, rice, sorghum, and sesame. In southern Africa, in partnership with the Alliance for Commodity Trade in Eastern and Southern Africa (ACTESA, a specialized agency of COMESA) and the World Food Programme, it monitors 29 borders points. The countries covered are DRC, Malawi, Mozambique, South Africa, Tanzania, Zambia, and Zimbabwe.

The other permanent initiative worth mentioning is Rwanda's. Since a pilot survey done in 2009, the Rwandan government has been conducting regular assessment of ICBT at 53 border crossings with its four neighboring countries (Burundi, DRC, Tanzania, and Uganda).

Table 5.3 Main studies and initiatives to track informal trade collecting data

| Initiatives | Geographical area | Goods | Main limitations |
|---|---|---|---|
| LARES (Laboratoire d'Analyse Regionale et d'Expertise Locale) - 1991-2004 | Nigeria and neighboring countries | Agricultural and manufactured products | Comprehensiveness |
| Achello and Echessassh (1997) | Uganda and Tanzania | All goods | Important crossing points were omitted due to security reasons |
| Lesser and Moisé-Leeman, (2009) | Uganda and 5 neighbors countries | All goods | Study based on other sources |
| Bensassi et al. (2013) | Tunisia and Libya | All goods | Small part of the frontiers |
| Bensassi et al. (2015) | Algeria and Mali | All goods | Small part of the frontiers |
| CILSS (2013 ongoing) | West Africa<br>Collection started in 2013, on a daily basis | Agriculture and food products | Financial constraints, which often stopped the work |
| ECENE (2010 and 2011) | Benin with all its neighbors | All goods entry/exit the country<br>Products are very detailed and codified using the HS rev2 nomenclature, at 8 digits. | Financial constraints, which limited the work: only 10 days (in January for 2010) and 10 days in September 2011.<br>Need to extend the period of the survey to nighttime (different goods exchanged and problem of security), and different time of the year (seasonality) |
| FEWSNET (2005 ongoing) | Eastern Africa<br>Southern Africa | 88 food commodities and livestock | Extrapolation problems to wider areas |
| Uganda Bureau of Statistics (2005 ongoing) | Uganda and its neighbors | All goods | Trade occurring at night not covered<br>Difficulty in accurately estimating the quantities of some traded items |
| Regional Agricultural Trade Intelligence Network –RATIN (Eastern Africa Grain Council) | Eastern Africa (7 countries) | 19 agricultural commodities in Southern Africa | Methodology not available |

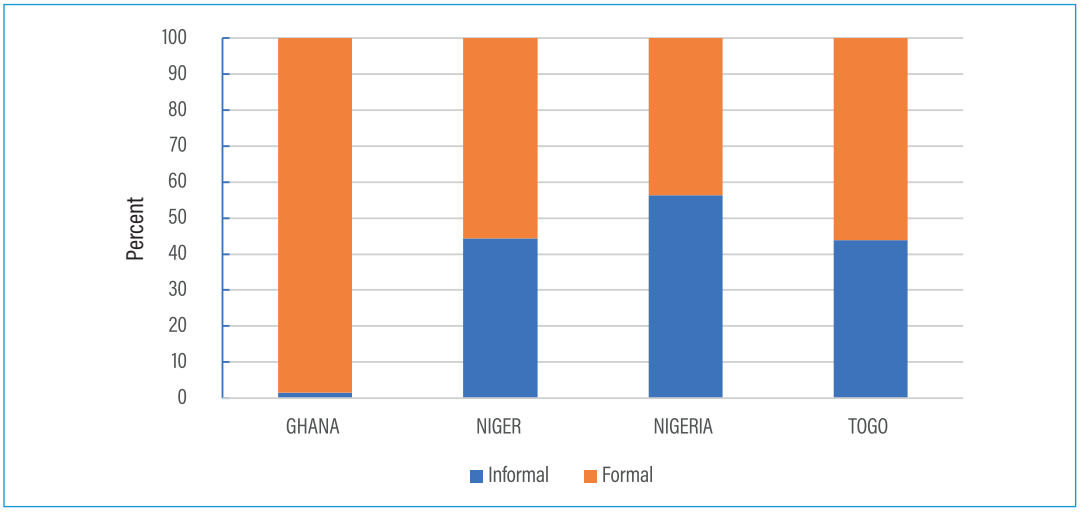
Source: Authors.

# Magnitude of ICBT in Africa

## Review of previous studies

Although many studies aimed at assessing the magnitude of ICBT in Africa are partial (conducted on a particular border, for selected goods, or for a limited period of time), they all suggest the importance of unrecorded trade and the figures are large in all surveys. In the case of Benin with all its neighbors (ECENE 2010), informal trade represented 40 percent of total trade in 2010 (Figure 5.3). For its main partner (Nigeria), informal trade represented more than 50 percent of export flows. The same figures hold for imports (57 percent of total import flows were informal).

Figure 5.3 Benin exports (selected partners), 2010




Source: INSTAT (ECENE 2010).

In a comprehensive review, Bouët et al. (2018) arrive at similar figures from the literature. In Rwanda, in 2014, 59 percent of the country's exports to its four neighboring countries were informal flows. The main products exported through the informal channels are agro-pastoral products, mainly maize and livestock. In Kenya, the 2011 survey conducted by the Kenya National Bureau of Statistics revealed that 25 percent of trade flows with Ethiopia took place through informal channels. Similar figures are found in the other studies mentioned in Table 5.3. We focus here on two examples that are particularly detailed and complete. While the CILSS example focuses on agricultural commodities, UBoS covers all products.

It is worth noting that while the initiatives by CILSS and WACTAF started with agricultural products, in 2020 they began covering all products through the creation of the Informal Trade Regulation Support Programme in the ECOWAS Region (ITRSP), for which a secretariat, the ITRSP Technical Secretariat (ECOWAS TS-ITRSP), was set up.[20]

20 Jointly set up by CILSS, WACTAF, UEMOA, and ECOWAS.

# Two examples

## *Agricultural products in the West Africa region with CILSS and WACTAF data*

As previously mentioned, CILSS and WACTAF specialized in monitoring ICBT for agro-sylvo-pastoral products in Africa until recently, while from 2020 onward, data have been collected on all types of products. The dataset, built daily, is a consistent source of information that gives an accurate view of transactions.

First, one can observe the significant amount of the transactions. Table 5.4 presents maize trade flows between selected West African countries. Total maize imports for all countries range from US$49,000 to US$7.5 million. When compared to formal transactions as recorded by COMTRADE, the difference is significant for most cases. For all cases, CILSS and WACTAF records are far above official statistics. The ratio between CILSS and WACTAF figures and official ones ranges from 1.27 for Ghana to 137 for Mali. This clearly raises the question of the reliability of official statistics for agricultural products in the region.

For cattle, we observe a pattern similar to maize. Table 5.5 presents trade flows for cattle between selected West African countries. As for maize, trade flows here observed by WACTAF are always significantly higher than those observed by customs. The ratio between the two ranges from 1.06 for Senegal to 47 for Ghana for total imports.

One should be cautious here with the figures, however. Not all trade flows recorded by CILSS and WACTAF are informal and some of them are likely to be also recorded by customs. Therefore, we do not have a pure dichotomy between formal and informal flows, but rather recorded and unrecorded trade: the latter can be evaluated by examining its difference from COMTRADE data.

Table 5.4 Maize bilateral flows in 2016 (US$ thousands)

| | UN COMTRADE | | | | | | CILSS | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Burkina Faso** | **Ghana** | **Mali** | **Niger** | **Togo** | | **Burkina Faso** | **Ghana** | **Mali** | **Niger** | **Togo** |
| **Benin** | 0.54 | | | 2845.58 | 1.34 | **Benin** | 1440.85 | | | 8.91 | |
| **Burkina Faso** | | 38.41 | 36.61 | 31.99 | | **Burkina Faso** | | 900.64 | 48.03 | 7761.08 | 45.88 |
| **Côte d'Ivoire** | 58.39 | 81.27 | | 3.947 | | **Côte d'Ivoire** | 3254.73 | 24.48 | 4990.69 | 65.06 | |
| **Ghana** | | | | 13.77 | | **Ghana** | 2204.47 | | | 626.38 | 0.04 |
| **Mali** | 0.74 | | | | | **Mali** | | | | | |
| **Nigeria** | | 0.55 | | 134.32 | | **Nigeria** | | | | 5285 | |
| **Togo** | | 727.92 | | | | **Togo** | 679.92 | 154.74 | | | |
| **Total** | 59.68 | 848.16 | 36.61 | 3029.63 | 1.34 | **Total** | 7579.98 | 1079.85 | 5038.72 | 13746.43 | 45.92 |
| | | | | | | **Ratio CILSS/ COMTRADE** | 127.0 | 1.3 | 137.6 | 4.5 | 34.3 |

Source: CILSS and COMTRADE.

Note: Exporter in row, Importer in column; this is trade in commodity 1005 according to the Harmonized System 4.

Table 5.5 Livestock bilateral flows in 2016 (US$ thousands)

| | | COMTRADE | | | | CILSS | | | |
|---|---|---|---|---|---|---|---|---|---|
| | **Côte d'Ivoire** | **Ghana** | **Nigeria** | **Senegal** | | **Côte d'Ivoire** | **Ghana** | **Nigeria** | **Senegal** |
| **Burkina Faso** | 67.195 | 1107.601 | 15.134 | | **Burkina Faso** | 20783.69 | 5254.749 | 14927.88 | |
| **Mali** | 50144.87 | | | 25,551.29 | **Mali** | 39645.3 | | | 27339.29 |
| **Niger** | | | 3285.54 | | **Niger** | | | 7585.245 | |
| **Total** | 50212.06 | 1107.601 | 3300.674 | 25,551.29 | | 60428.99 | 5254.749 | 22513.13 | 27339.29 |
| | | | | | **RatioCILSS/ COMTRADE** | 1.2 | 47.4 | 6.8 | 1.1 |

Source: CILSS and COMTRADE.

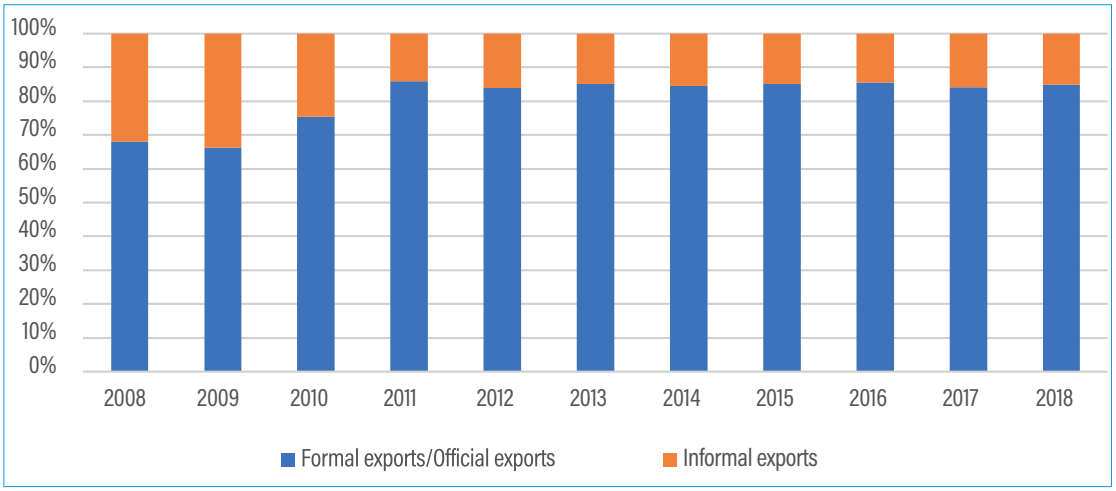
Note: Exporter in row, Importer in column; this is trade in commodity 0102 according to the Harmonized System 4.

## *Uganda and its neighbors for all products covered by UBoS[21]*

Now we present some features of ICBT surveyed by UBoS at Ugandan borders.

Over the 2008–2018 period, informal cross-border exports represented between 14.1 percent and 33.7 percent of total Ugandan exports (see Figure 5.4). This share has decreased since 2011, and now ranges between 14 percent and 16 percent of total exports each year.

Figure 5.4 Share of official and informal exports in total exports, Uganda, all products, 2008–2018

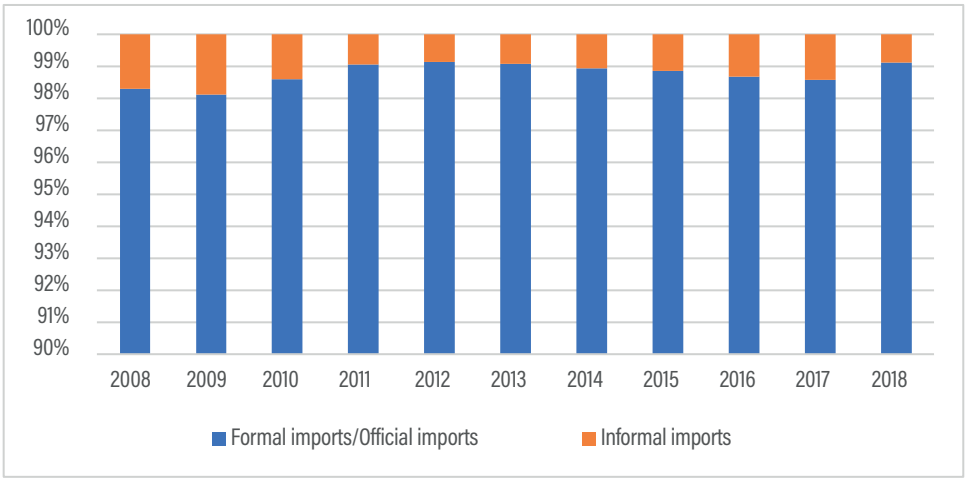



Source: UBoS and BoU.

In contrast, informal imports in Uganda, as recorded by UBoS, represent only a fraction of total imports: between 1 percent and 2 percent (see Figure 5.5). Compared to export flows, import flows are more reliably recorded by customs administrations due to the collection of taxes.

21 Makochekanwa and Matchaya (2019) conduct an interesting survey of initiatives tracking ICBT in eastern and southern Africa.

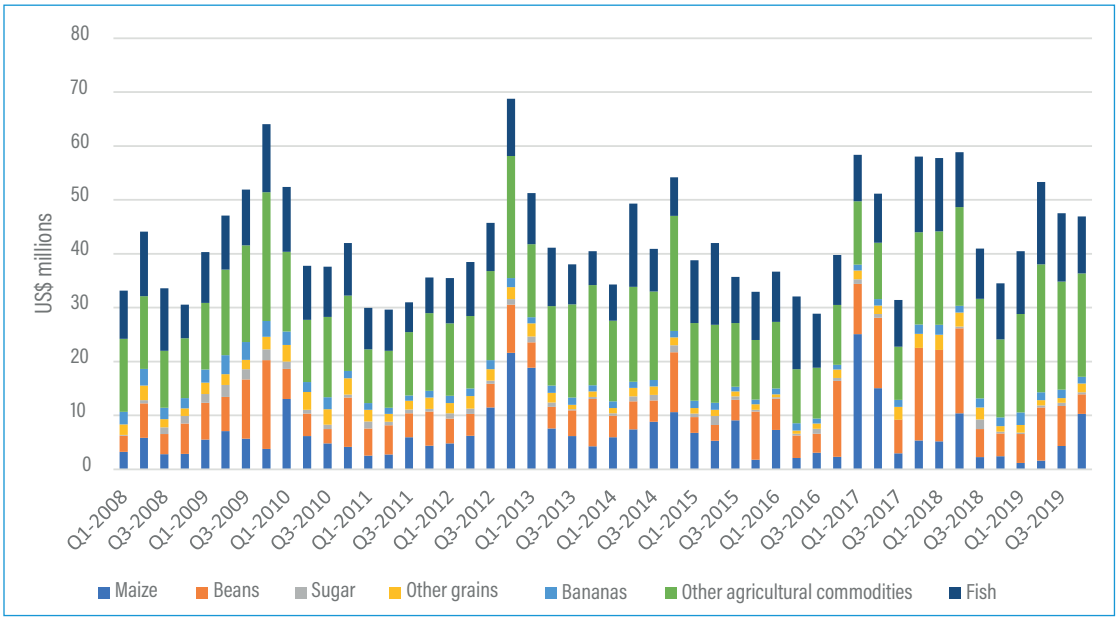
Figure 5.5 Share of official and informal imports in total imports, Uganda, all products, 2008–2018




Source: UBoS and BoU.

Over the 2008–2019 period, the share of agricultural and fish products in Uganda's total informal exports has varied in a range of 21 percent to 50 percent, rising to a peak in 2014, and then falling slightly: it is now between 33 percent and 40 percent. Among them, fish, beans, and maize are the most exported commodities (see Figure 5.6).[22]

Figure 5.6 Informal cross-border exports by agricultural products, Uganda, 2008–2019

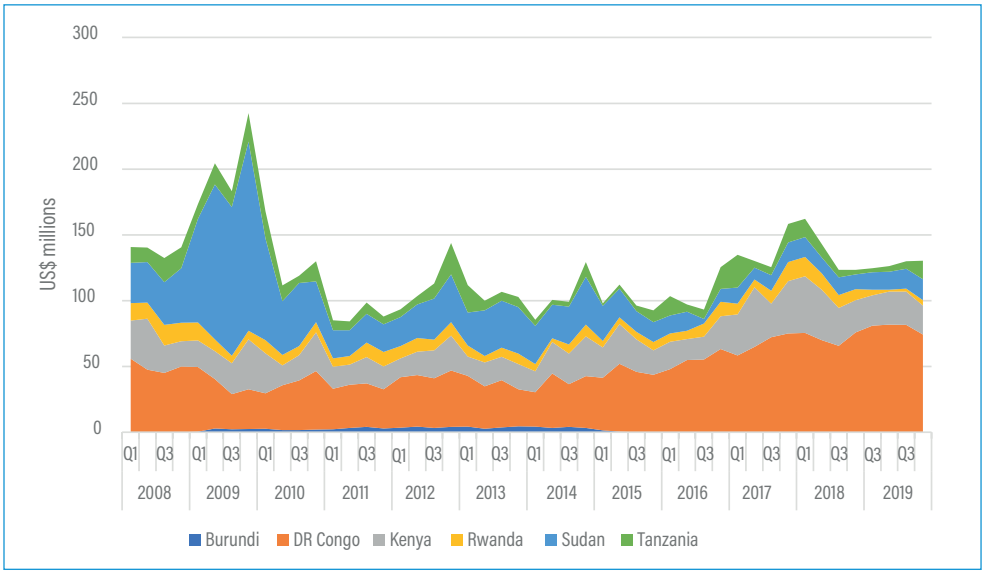



Source: UBoS and BoU.

The primary destination of Uganda's informal exports is the DRC, which now absorbs more than 60 percent of these exports (see Figure 5.7). The other important destination is Kenya, which receives around 20 percent of these exports.

22 Unfortunately, data on informal cross-border imports of agricultural products are not available.

Figure 5.7 Informal cross-border exports by destination, all products, Uganda, 2008–2019




Source: UBoS and BoU.

# Informal cross-border trade in the time of COVID-19

At a time when Africa is losing its first victims to the coronavirus, health issues are of particular concern on the continent. But food security could also become a priority.

Africa is dependent on world trade for its food security. World production and stocks of staple food products were, in April 2020, at a satisfactory level. But a local food shortage may occur in eastern Africa because of the outbreak of locusts.

However, some producing countries, in a somewhat irrational panic, have applied export restrictions and even export bans. During March and April 2020, many countries took decisions to ban or suspend agricultural exports on world markets. This includes Armenia, Belarus, Cambodia, Egypt, Honduras, Kazakhstan, Kyrgyzstan, Russia, Serbia, Thailand, and Viet Nam.[23] These decisions lead to an increase in international prices, clearly penalizing most African countries, which are net importers.

All these elements point to a risk of growing food insecurity. Indeed, today in Africa, all food supplies must be encouraged. This includes ICBT, given its important role as a source of revenue and a source of food accessibility.

But another piece of bad news comes from the African countries themselves. Many of them (Burkina Faso, Cameroon, Republic of Congo, Côte d'Ivoire, Ethiopia, Gambia, Ghana, Libya, Mali, Niger, Rwanda, Sudan, Uganda, and Zimbabwe among others)[24] have opted to close land borders. Measures are more or less restrictive, but in countries like Cameroon, Republic of Congo, Côte d'Ivoire, Ethiopia, Gambia, Ghana, and Zimbabwe, land borders are strictly closed. In most cases, these interdictions concern movement of persons, while traffic of trucks shipping goods is authorized.

23 At IFPRI, David Laborde developed a tracker in 2020 to follow the adoption of export restrictions. See: https://public.tableau.com/profile/laborde6680#!/vizhome/ExportRestrictionsTracker/FoodExportRestrictionsTracker?publish=ye

24 This list has been set up thanks to the Al Jazeera website (accessed April 22, 2020): https://www.aljazeera.com/news/2020/03/coronavirus-travel-restrictions-border-shutdowns-country-200318091505922.html

The decision to close borders has already been criticized by epidemiologists, who fear it creates an incentive for people to use borders not covered by customs authorities and thus an encourages the movement of people without health controls.

In economic terms, it jeopardizes ICBT in agricultural products, especially trade in small quantities operated by individuals (ICBT definition A). This trade often makes it possible to meet the basic needs of daily life and can represent, as we have shown in this chapter, not only substantial amounts of a country's food supply, but also an essential source of income, particularly for women, and a margin of flexibility in terms of food security. When an African area finds its food supply under pressure, this trade makes it possible to meet these needs quickly and spontaneously.

In addition, these border closure measures make it more difficult for people at risk of famine to access international food aid, as in South Sudan, where local harvests over the last two years have been severely affected by locusts and floods. These same measures can also prevent or slow livestock transhumance and affect farmers' access to quality inputs or to pesticides.

Containment measures and curfews in many countries make daily access to food markets even more difficult. These measures can slow port activity, as in Abidjan (Côte d'Ivoire). Uncoordinated curfew hours can make it difficult for transporters of fresh food, as in West Africa, where shipments of fresh food have been stopped, leading to food wastage in a region that has been food insecure for many years. Perishable products (tomatoes, onions, bananas, and colas, among others) constitute an important part of the value of cross-border trade. The peculiarity of these products is that, due to their highly perishable nature and the high temperatures in the region, these products are generally moved at night to benefit from the cooler temperatures and so minimize losses. The introduction of curfews has forced those involved in cross-border trade to move only during the day, increasing the risk of loss and damage. Curfews also lengthen transport times for these products as traders are forced to park all night until the end of curfew hours. According to CILSS, in April 2020, all these factors caused significant losses and waste of agricultural commodities in the logistics chain for traders.

It should also be noted that in the wake of the measures relating to COVID-19, illicit collections by gendarmes, customs officers, and police officers along West African trade corridors increased by almost 50 percent in April 2020 compared to the same period of the previous year.

Sanitary measures along the road corridors and at the borders also lengthen the transport and transit times of these products.

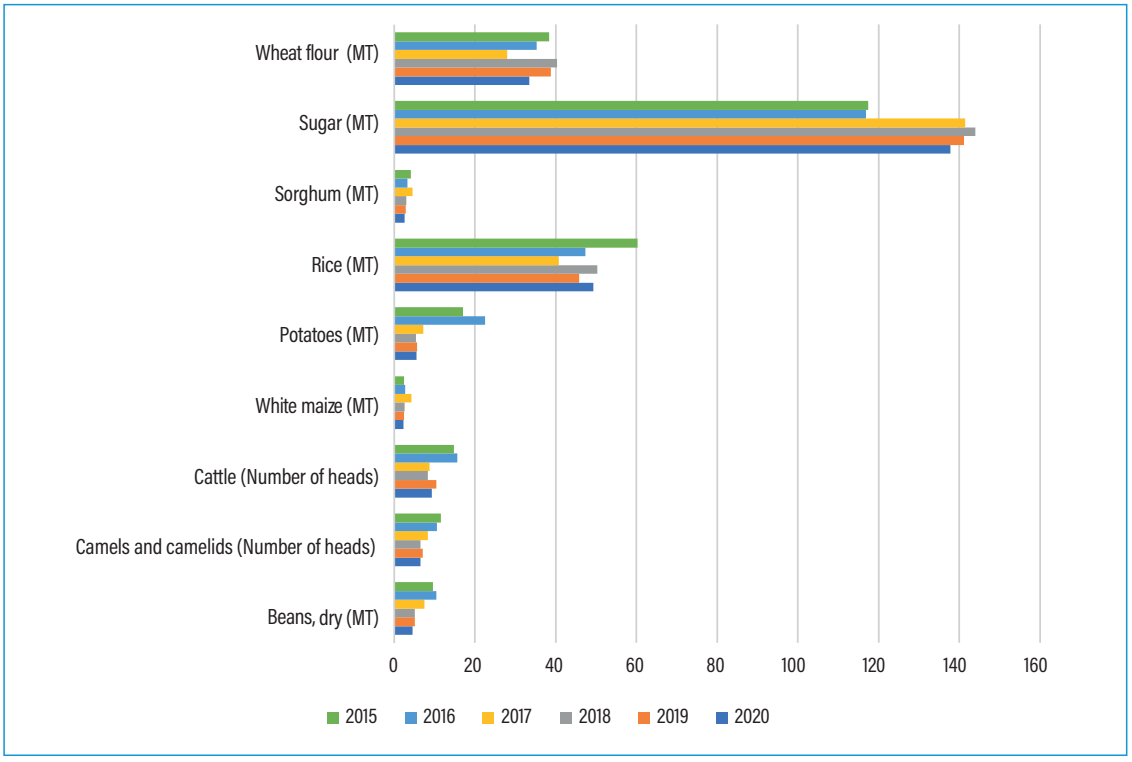
Lastly, we can expect that closing land borders may stimulate smuggling.

All in all, in Africa, the international health situation is likely to lead to a serious deterioration in food security if measures restricting the movement of people continue to be applied and significantly affect informal trade in agricultural products, whether domestic or international.

The impact on ICBT flows in eastern Africa is illustrated by the data collected daily by the Food Security and Nutrition Working Group (FSNWG) Market Analysis on cross-border trade (both formal and informal), as presented in Figure 5.8 for ICBT at Bula Hawo (Somalia), in Figure 5.9 for ICBT at Matema (Ethiopia), in Figure 5.10 for ICBT in Isebania (Kenya), and in Figure 5.11 for ICBT in Jabalain (Sudan).[25]

25 The authors of this chapter thank Thomas Awuor (Food Security and Nutrition Working Group – FSNWG) for his support.

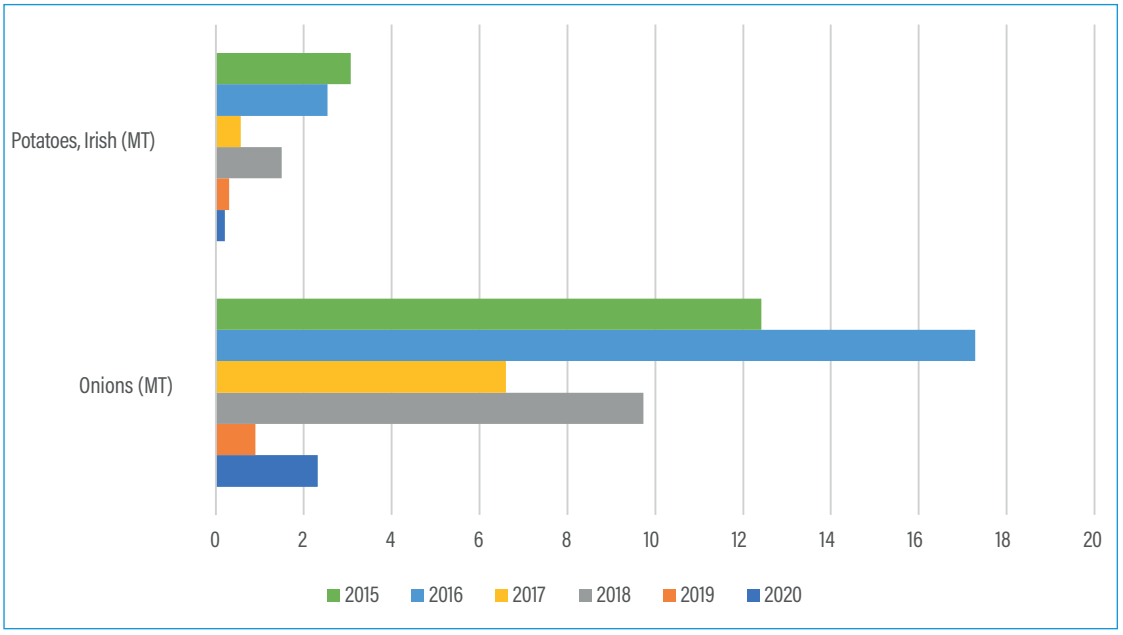
Figure 5.8 Informal cross-border trade at Bula Hawo (Somalia–Ethiopia border), average of weekly data, January to May, 2015–2020




Source: Food Security and Nutrition Working Group (FSNWG).

Note: MT = metric tons.

Figure 5.9 Informal cross-border trade at Matema (Ethiopia–Sudan border), average of weekly data, January to May, 2015–2020




Source: Food Security and Nutrition Working Group (FSNWG).

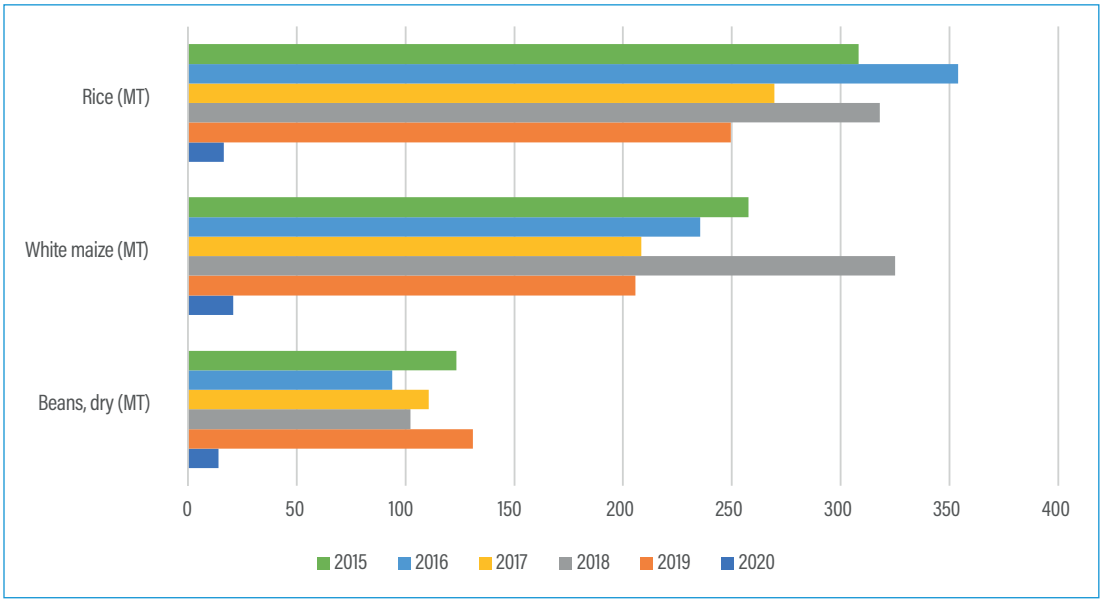
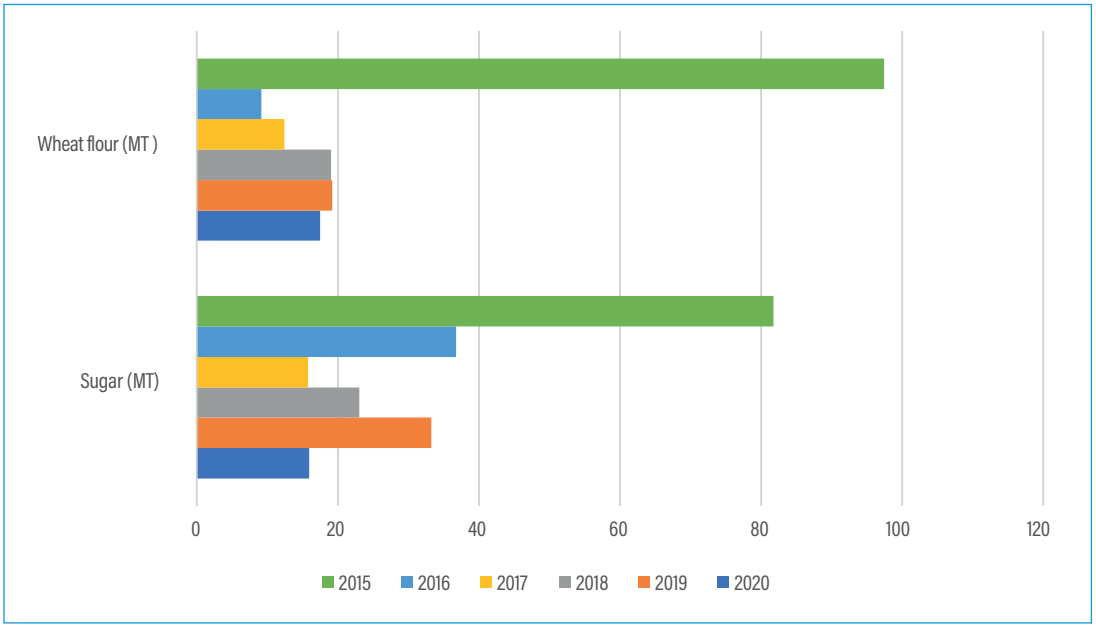



Figure 5.10 Informal cross-border trade at Isebania (Kenya–Tanzania border), average of weekly data, January to May, 2015–2020




Source: Food Security and Nutrition Working Group (FSNWG).

Figure 5.11 Informal cross-border trade at Jabalain (Sudan–South Sudan border), average of weekly data, January to May, 2015–2020

Source: Food Security and Nutrition Working Group (FSNWG).

The Food Security and Nutrition Working Group collects data on informal and formal cross-border trade of 88 food commodities and livestock in eastern Africa. These figures compare the averages of weekly data collected during the first five months of each year from 2015 to 2020.

The magnitude of these trade flows is significant: in 2019, at Isebania for example, informal flows of beans represented 63 percent of formal flows for beans, 62 percent for rice, and 53 percent for white maize.

There may be some evidence of a negative impact of the COVID-related border restrictions on ICBT in Isebania (Figure 5.10): ICBT of rice, white maize, and beans has been significantly lower during the first five months of 2020 than during previous years. An explanation may be that customs officers must now record commodities passing through the borders as part of the COVID-19 screening of traders. So it has become difficult to not document trade which previously counted as informal. But the diminution of this trade might also have been caused by other factors, such as less monitoring by enumerators. Moreover, these data do not point to a significant decrease of ICBT in Bula Hawo (Figure 5.8), Matema (Figure 5.9), or Jabalain (Figure 5.11).

# Conclusion

This chapter aimed to assess the reality of informal trade in Africa, particularly in agriculture: How should it be defined? What are its determinants? What is its nature, both in terms of traded products and countries connected?

Behind the concept of informal trade, there are several realities: cross-border trade conducted by informal traders crossing at official border posts with small quantities or crossing borders at points not covered by officials to avoid controls, and cross-border trade conducted by formal traders who reduce the cost of import duties at the border by under-declaration or misclassification, or who smuggle merchandise by avoiding customs officials.

ICBT is a product of a specific culture and history. But economic factors are predominant: high costs of formal trade, a relatively low level of enforcement of laws and regulations in African countries, and poverty are key determinants of the magnitude of the phenomenon.

There are many initiatives to measure ICBT. These cover the entire African continent. They are initiated either by governments (central bank or national statistical institutes), development agencies, or regional or international institutions. But there is currently no permanent and continentwide system for monitoring and quantifying ICBT in Africa, although such an initiative would be quite useful.

The FARM-TRAC project, financed by the International Fund for Agricultural Development and implemented by the CILSS consortium, IFPRI, and WACTAF, is exemplary in this respect. It is based on two essential pillars: (1) improving the quality of data on informal trade and trade barriers in the Sahel and West Africa, and (2) promoting intraregional trade in agro-sylvo-pastoral and fishery products to stimulate regional growth, reduce poverty, and improve food security in the Sahel and West Africa. These data on informal cross-border flows, collected by CILSS through private socio-professional organizations, have been recognized by the National Statistical Institutes and are in the process of being integrated into the official databases of these Institutes and the regional institution (ECOWAS). So, the official registration of trade in agricultural products in West Africa, mostly unrecorded until now, is expected to improve significantly in the medium term.

From a political point of view, the objective of African authorities is now to "formalize" informal trade.[26] Their objective is not, or is no longer, to discourage this trade. In the eyes of decision-

26 This point reflects many discussions that the authors of this chapter have had with experts and policymakers whose professional interest is largely related to African cross-border informal trade. In addition, one of the authors of this chapter is the originator of one of the two initiatives presented in this chapter (CILSS/WACTAF) and has been in charge of it for more than a decade. With support from USAID, IFPRI economists launched a research program on informal cross-border trade in agricultural products in Africa beginning in 2016. The

makers, it is necessary to reduce the costs associated with formal trade. Political momentum has been growing for several years now to establish regional trade agreements or deepen

existing relations: lowering trade barriers, improving the efficiency of customs procedures, trade facilitation, and so on. These are policies that have also been implemented to enhance regional trade in general, not only to reduce incentives for ICBT. Trade integration at the continental level should facilitate the reduction of ICBT definitions B (smuggling) and C (fiscal evasion).

For example, Togo has been identified as a "good pupil" by the Doing Business unit in its 2020 report. This report has noted that in "2017 Togo made trading across borders easier by implementing an electronic single-window system, which reduced the time for border compliance and documentary compliance for both exporting and importing", and in "2016 Togo reduced the time for documentary and border compliance for importing by implementing an electronic platform connecting several agencies for import procedures and payments."

As another example, in West Africa, CILSS and WACTAF are multiplying communication initiatives around the information collected on red tape and road harassments in order to put pressure on police, military, and customs authorities to reduce, or even eliminate, the security check-points set up on regional trade corridors.

There may be costs associated with the formalization of informal trade: formalizing trade implies a cost related to administrative documents, such as sanitary and phytosanitary inspections. For example, in Tanzania, the concern of government authorities and the EAC Secretariat is to facilitate the access of informal trade actors to sanitary and phytosanitary documents when exporting to Kenya. Another example is provided by the Ugandan authorities, who have initiated the formation of associations of informal trade actors to assist their illiterate members in completing export declarations.

It is also crucial to address the issue of harassment and extortion carried out by customs officials to the detriment of trading women. In Rwanda, a specific program aimed at this objective has been implemented since 2012: it enhances cooperation between border institutions at posts on the DRC–Rwanda and Uganda–Rwanda frontiers, and conducts an annual training for customs officials that focuses on gender issues. This effort also includes a program aimed at improving border management and infrastructure.[27]

The African Continental Free Trade Area is moving forward today and aims to be the largest free-trade area in the world. The implementation of this free trade zone should boost regional trade and reduce ICBT, in particular smuggling and fiscal evasion, thanks to the elimination of import duties on most products and the simplification or removal of nontariff measures and customs procedures. If this continental integration favors economic growth and a reduction of poverty, it should indirectly reduce ICBT (definition A). Finally, it will be important to take informal trade into account in order to accurately assess the impact of this agreement.

program has resulted in three workshops, and 10 countries and 38 organizations visited across Africa.
27 See Republic of Rwanda Ministry of Industry and Trade (2012).

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