



## FEED THE FUTURE ENABLING ENVIRONMENT FOR FOOD SECURITY PROJECT

### Intra-African Agriculture Trade Improvement Scorecards Indicator Descriptions Summary

#### BACKGROUND

In June 2014, African Union member states committed to a set of goals in the Malabo Declaration aimed at boosting intra-African trade in agricultural commodities and services by 2025. Point V of the Malabo Declaration lays out the goals in detail:

- To triple, by the year 2025, intra-African trade in agricultural commodities and services.
- To create and enhance policies and institutional conditions and support systems.
- To simplify and formalize the current trade practices.
- To fast-track the establishment of Continental Free Trade Area (CFTA) and transition to a continental Common External Tariff (CET) scheme.
- To increase and facilitate investment in markets and trade infrastructure.
- To promote and strengthen platforms for multi-actors' interactions.
- To strengthen and streamline the coordination mechanism that will facilitate the promotion [of an] African common position on agriculture-related international trade negotiations and partnership agreements. (Source: Malabo Declaration, 2014, pg. 4).

Agricultural trade volume is dependent on numerous factors, many of which are beyond the control of a single government or private sector firm. There is not one single lever or critical factor that can release food across African borders. An extensive literature review points to certain factors that impede agricultural trade in Africa, however, including:

- Poor connectivity in multi-modal transportation, particularly rural roads; lack of connections to regional networks; low port capacity; and high trucking costs.
- Low agricultural productivity associated with limited use of irrigation, fertilizer, and quality seeds.
- Limited access to mobile telephony and internet services.
- Non-tariff measures involving sanitary and phytosanitary standards and technical standards.
- Anticompetitive laws and regulations which have the effect of limiting market entry in providing seeds and fertilizers, transport services, and food processing and distribution.
- Lack of finance up and down the value chain for growers, wholesalers, traders, and retailers.
- Excessive regulation.
- High administrative costs imposed by customs and other export clearing agencies.



## TRADE SCORECARDS OVERVIEW

The African Union's 2018 Inaugural Biennial Review Report found great variation among countries in meeting the Malabo Declaration's goals. While agricultural trade in the aggregate has been rising, it is not doing so at the rate required to meet the target of tripling intra-African trade by 2025. In an effort to assist policymakers with selecting a course of action, a closer examination of underlying factors may prove beneficial. The indicators used in the Intra-African Agriculture Trade Improvement Scorecards aim to do just that.

The Trade Scorecards that accompany this methodology description present a series of indicators aligned with four key determinants of trade identified in the Regional Strategic Analysis and Knowledge Support System's (ReSAKSS) Africa Agriculture Trade Monitor 2018 report. These are (1) production capacity, (2) the cost of trade, (3) institutional efficiency, and (4) trade policies. In order to be included, each indicator was required to use publicly available data that are regularly updated and actionable at the national level. Countries are individually evaluated in comparison with their sub-Saharan African (SSA) country peers. The coloring of the indicators designates each country's performance in this area relative to its peers. A green designation indicates higher-than-average performance; yellow indicates average performance, with room for improvement; and red indicates below average performance, with greater room for improvement. Black shading indicates that no data were available.

## EXPLANATION OF TOPIC AREAS AND DATA SOURCES

To develop these Trade Scorecards, Fintrac sought publicly available data that were technically relevant proxies — clearly actionable and regularly updated — to ensure that information was both timely and useful to track change. All data were collected between October and November 2018. The following sections provide explanatory notes summarizing the relevance of each indicator used. Much of the available data that met our criteria for the methodology reflect formal trade. Other sources and information on informal trade and local context are always key to a comprehensive picture.

### PRODUCTION CAPACITY

Production capacity refers to factors that affect the level of supplies. It is determined by resource endowments and other technological and institutional factors that enhance productivity. For example, harvests are bolstered by higher rates of fertilizer use. Larger numbers of available improved seed varieties and a regulatory environment friendly to technical and safety standards for farm equipment lead to more resilient production systems. High rates of mobile phone penetration facilitate communication and exchanges between agricultural actors through digital payment systems, and widespread rural electrification helps farmers power lights, pumps, and equipment.

Trade Scorecard Term	Data Used	Source of Data	Description
<b>Ag Productivity</b>			
Fertilizer use	Fertilizer consumption, kilograms per hectare of arable land	Food and Agriculture Organization of the United Nations	Fertilizer consumption measures the quantity of plant nutrients used per unit of arable land. Traditional nutrients (animal and plant manures) are not included. Countries are graded according to what tertile their rate of fertilizer application falls into based on the range of performance across SSA countries, with scores in the highest third receiving "green."
Improved seed varieties	Number of improved seed varieties sold for the four most important food crops	TASAI: the African Seed Access Index	The TASAI Seed Access Index looks at the number of improved seed varieties approved and sold within a set of SSA countries. Specifically, it determines four of the most important food crops in the country and analyzes the number of improved seed varieties sold for each one. Countries in this data set are compared to the highest performer, Kenya,

Trade Scorecard Term	Data Used	Source of Data	Description
			which has 124 approved varieties. While this does not indicate that all countries should have a goal of 124 varieties available, it serves as a benchmark to the seed approval regime in examined countries.
Machinery standards	Machinery indicators, tractor testing and standards (legal) sub-indicator	World Bank, Enabling the Business of Agriculture	This indicator serves to evaluate the country's regime on technical standards and metrology. Ensuring that funds are spent on safe equipment of good quality is one of the benefits of a maintaining a standards regime. This indicator examines national and international tractor standards, the legal framework applicable to testing and the type of approval of tractors, and safety standards. The indicator does not directly measure the degree to which standards are used as a technical barrier to trade. The sub-indicator used provides a score consisting of eight component questions (a point given for each one), including whether tractor registration is required and inspections are performed of in-use tractors as well as the provision of safety standards. Countries scoring 4.0 and above received a score of "green;" countries scoring between 2.0 and under 4.0 received a score of "yellow;" and countries scoring under 2.0 received a score of "red."
Technology			
Mobile phone penetration	Mobile cellular subscriptions per 100 people	International Telecommunication Union, World Telecommunication/ICT Development Report and Database	This indicator measures the number of postpaid and prepaid mobile phone subscriptions that have been used during the last three months per 100 people in the population. Countries are graded according to what tertile their rate of mobile phone penetration falls into based on the range of performance across SSA, with scores in the highest third receiving "green."
Digital payments	Digital payments in the last year (% age 15+)	2018 The Little Data Book on Financial Inclusion (World Bank Group) <i>Note: Data for the Little Data Book was derived from the Global Findex Database.</i>	This indicator measures the ability of rural and disadvantaged people to access payment services through digital means. Percentage of the overall population that made or received a digital payment. Countries with 15 percent or less receive a score of "red," and countries scoring above 50 percent receive a score of "green."
Rural electrification	Access to electricity, rural (percent of population)	World Bank, Sustainable Energy for All (SE4ALL) database	Percentage of rural population having access to electricity. Countries are graded according to what tertile their rate of rural electrification falls into based on the range of performance across SSA, with scores in the highest third receiving "green."

## COST OF TRADE AND INFRASTRUCTURE

The quality of infrastructure together with the cost of transport services are determinants of whether agricultural products can even be physically brought to the border to be traded. Good roads and an efficient trucking system make it easier and cheaper to import and export food. Without the proper infrastructure, rural populations may remain unconnected or only poorly connected to the domestic, regional, or global markets. Even with adequate connections, it may be still be difficult, if not impossible, to trade perishable products, like fruits and vegetables, if transport times are too long and there is a lack of refrigerated equipment. Complicated licensing systems for trucking highlight a propensity for excessive regulation, which can limit competition and raise prices on truck charges. Domestic transport costs indicators are provided to allow further inquiry into costs of trucking within a country's borders.

Trade Scorecard Term	Data Used	Source of Data	Description
<b>Infrastructure</b>			
Quality of roads	Quality of roads indicator	World Economic Forum, Global Competitiveness Report 2018	The quality of roads indicator ranks economies on a 0-100 scale (100 being the world's best performer). Countries for purposes of the Scorecards are graded according to what tertile their ranking falls into based on the range of performance across SSA, with scores in the highest third receiving "green."
Road connectivity	Road Connectivity Index	World Economic Forum, Global Competitiveness Report 2018	The Road Connectivity Index rates road connectivity on a 0-100 scale (100 being the world's best performer). <sup>1</sup> Countries for purposes of the Scorecards are graded according to what tertile their ranking fell into based on the range of performance across SSA, with scores in the highest third receiving "green."
Infrastructure perceptions	Quality of trade and transport infrastructure sub-indicator	World Bank, Logistics Performance Index	The Logistics Performance Index of the World Bank scores an economy's performance on trade logistics. The methodology note describes the six core components used to formulate the Index, of which only "quality of trade and transport infrastructure" is used. <sup>2</sup> Ratings range from "very low" (1) to "very high" (5). Countries are graded according to what tertile their ranking falls into based on the range of performance across SSA, with scores in the highest third receiving "green."
<b>Transport</b>			
Truck licensing	Transport indicators, truck licensing (legal) sub-indicator	World Bank, Enabling the Business of Agriculture	This sub-indicator measures the regulatory and normative framework to access and operate domestically within the road freight transport service network. Overall, the sub-indicators determine the extent to which legal foundations provide for a clear, transparent, and efficient system for accessing the market; guarantee a level playing field for competition; and dedicate special legal provisions for

<sup>1</sup> An alternative indicator, the World Bank Rural Access Index, was considered but not used because the data are not updated regularly. It measures the proportion of the rural population who live within 2 kilometers of the nearest road in good condition.

<sup>2</sup> The others are (i) efficiency of customs and border clearance, (ii) ease of arranging competitively priced shipments, (iii) competence and quality of logistics services, (iv) ability to track and trace consignments, and (v) frequency with which shipments reach consignees within scheduled or expected delivery times.

Trade Scorecard Term	Data Used	Source of Data	Description
			transporting agriculture and food products. Countries are graded according to what tertile their ranking falls into based on the range of performance across SSA, with scores in the highest third receiving “green.”
Cross-border transport licensing	Transport indicators, cross-border transport license (legal) sub-indicator.	World Bank, Enabling the Business of Agriculture	Enabling trucks to cross borders often entails additional permit approvals. The World Bank’s Enabling the Business of Agriculture cross-border transport license sub-indicator is used for this purpose. It consists of nine factors scored either 1 or 0, which all are equally weighted to provide an overall score. Countries receiving a score of 5 receive “yellow;” scores higher or lower than this receive scores of “green” or “red,” respectively.
Domestic transport costs	Trading Across Borders, domestic transport cost sub-indicator	World Bank, Doing Business	Domestic transport captures the time and cost associated with both exports and imports. This includes loading or unloading of the shipment at the warehouse or port/border, transport between warehouse and port/border, and traffic delays and road police checks while shipment is en route. Countries are graded according to what tertile the sum of their combined import and export costs falls into based on the range of performance across SSA, with scores in the lowest third receiving “green.” Note that this data is provided in Doing Business country profiles but is not used by the World Bank in ranking countries on Trading Across Borders.

## INSTITUTIONAL EFFICIENCY

Institutional efficiency refers to the ease of doing business in relation to agricultural trade. High scores per the World Economic Forum’s product market indicator indicate a competitive domestic market. The World Bank’s Enabling the Business of Agriculture finance indicator tracks the ease of accessing finance, with points given for items such as branchless banking and non-bank lending institutions. The secured lending indicator examines the ability of firms and farms to access credit on movable property, including crops on land. Low scores in the private international legal instruments category indicate a need for harmonization with international commercial norms. The World Bank’s Doing Business Trading across Borders indicators calculate the amount of time importers and exporters spend to comply with regulations at the border and to complete documentation. The World Trade Organization’s Trade Facilitation Agreement custom indicator examines a country’s commitment to implement that agreement’s provisions important for agricultural trade.

Trade Scorecard Term	Data Used	Source of Data	Description
Competitive business environment	Product market indicator	World Economic Forum, Global Competitiveness Report 2018	The extent to which a country provides an even playing field for companies to participate in its markets. It is measured in terms of extent of market power, openness to foreign firms and the degree of market distortions. This indicator ranks economies on a 0-100 scale (100 being the world’s best performer). Countries are graded according to what tertile their ranking falls into based on the range of

Trade Scorecard Term	Data Used	Source of Data	Description
			performance across SSA, with scores in the highest third receiving “green.”
Agricultural finance	Finance indicator	World Bank, Enabling the Business of Agriculture	Measures the quality of laws and regulations that promote access to financial services and support the development of agricultural enterprises. It provides a combined score covering branchless banking, warehouse receipts, secured lending, microfinance institutions, and financial cooperatives. Countries are graded according to where their ranking falls among countries SSA, with scores in the highest third receiving “green.”
Secured lending	Getting Credit, Strength of Legal Rights Index	World Bank, Doing Business	<p>This indicator examines the ability of firms and farms to access credit on movable property, including crops on land. It uses the Doing Business Strength of Legal Rights Index (part of Getting Credit scoring) and also adds, where known, a point for the ability of banks to extend credit on crops in the field.</p> <p>It also measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending. It provides a score ranging from 0 to 12 (12 being the best). An additional point is provided if crops in the field may be collateralized. Countries are graded according to the sum of their combined scores, with scores of 8 and above scoring “green,” scores of 4 through 7 receiving “yellow,” and scores of 3 and under receiving “red.”</p>
Private international legal instruments	Custom indicator	United Nations, Commission on International Trade Law (UNCITRAL) -and- Hague Conference on Private International Law	<p>Several private international legal instruments developed by the United Nations (UN) and other global organizations provide benefits to the conduct of private sector participants in international trade. UN members ratifying the following conventions and/or harmonizing laws consistent with them provide greater comfort for private parties engaging in international trade.</p> <p>Countries are scored a point for each of the following instruments they have ratified and/or incorporated into law:</p> <ol style="list-style-type: none"> <li>(1) Convention on the Recognition and Enforcement of Foreign Arbitral Awards (the New York Convention) (1958)</li> <li>(2) UN Convention on Contracts for the International Sale of Goods (1980)</li> <li>(3) UN Convention on the Assignment of Receivables in International Trade (2001)</li> <li>(4) UN Convention on the Use of Electronic Communications in International Contracts (2005)</li> </ol>

Trade Scorecard Term	Data Used	Source of Data	Description
			<p>(5) UN Convention on Contracts for the International Carriage of Goods Wholly or Partly by Sea (2008)</p> <p>(6) UNCITRAL Model Law on International Commercial Arbitration (1985)</p> <p>(7) The Hague Convention Abolishing the Requirement of Legalization for Foreign Public Documents, also known as the Apostille Convention.</p> <p>Countries are graded according to the total number of approved agreements, zero to two agreements receiving a score of “red,” three to four agreements receiving a score of “yellow,” and five or more agreements receiving a score of “green.”</p>
Time to comply with export regulations at its borders	Trading Across Borders	World Bank, Doing Business	<p>Captures the time in hours associated with compliance with the economy’s customs regulations and with regulations relating to other inspections that are mandatory in order for the shipment to cross the economy’s border as well as the time for handling that takes place at its port or border.</p> <p>Note that these data are contained in the Doing Business country profiles. Countries are graded according to the total number of hours it takes to comply, with fewer than 60 hours receiving a score of “green,” 60 to 119 hours receiving a score of “yellow,” and 120 or more hours receiving a score of “red.”</p>
Time to comply with documentary export regulations	Trading Across Borders	World Bank, Doing Business	<p>Captures the time in hours spent preparing the bundle of documents that will enable completion of the international trade for the product and partner pair assumed in the case study. Note that these data are contained in the Doing Business country profiles. Countries are graded according to the total number of hours it takes to comply, with fewer than 60 hours receiving a score of “green,” 60 to 119 hours receiving a score of “yellow,” and 120 or more hours receiving a score of “red.”</p>
Time to comply with import regulations at its borders	Trading Across Borders	World Bank, Doing Business	<p>Captures the time in hours associated with compliance with the economy’s customs regulations and with regulations relating to other inspections that are mandatory in order for the shipment to cross the economy’s border as well as the time for handling that takes place at its port or border. Note that these data are contained in the Doing Business country profiles. Countries are graded according to the total number of hours it takes to comply, with fewer than 60 hours receiving a score of “green,” 60 to 119 hours receiving a score of “yellow,” and 120 or more hours receiving a score of “red.”</p>

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Time to comply with documentary import regulations	Trading Across Borders	World Bank, Doing Business	Captures the time in hours spent preparing the bundle of documents that will enable completion of the international trade for the product and partner pair assumed in the case study. Note that these data are contained in the Doing Business country profiles. Countries are graded according to the total number of hours it takes to comply, with fewer than 60 hours receiving a score of “green,” 60 to 119 hours receiving a score of “yellow,” and 120 or more hours receiving a score of “red.”
World Trade Organization’s Trade Facilitation Agreement	Custom indicator	World Trade Organization’s Trade Facilitation Agreement Facility	The World Trade Organization’s (WTO) Trade Facilitation Agreement (TFA) comprises 16 articles that are important for agricultural trade. <sup>3</sup> The TFA Facility hosts a dashboard that is regularly updated showing the progress of WTO members’ notifications of commitments to the TFA’s numerous provisions. Notification of full implementation of the article or sub-article merits a point. (No points are given for countries that have not ratified the TFA, with Ethiopia — which has not yet joined the WTO — being one of them.) Data from the TFA Facility were collected in November 2018. Countries are graded according to the total number of approved articles, zero to four articles receiving a score of “red,” five to eight articles receiving a score of “yellow,” and nine or more articles receiving a score of “green.”

## TRADE POLICIES

Trade policies include measures aimed at protecting and regulating trade. Average weighted agricultural tariffs and import and export bans indicate ways countries engage in protectionist activity. The OECD Trade Facilitation Index measures the

<sup>3</sup> The 16 articles were referenced from an unpublished USAID/Leadership in Public Financial Management paper titled “Analysis of Developing Countries TFA Commitments Related to Agriculture,” drafted in 2018, which identified the following TFA provisions as important for agricultural trade:

- Art 1.2 Information Available through Internet
- Art 5.1 Notifications for enhanced controls or inspections
- Art 5.2 Detention
- Art 5.3 Test procedures
- Art 7.1 Pre-arrival Processing
- Art 7.2 Electronic Payment
- Art 7.3 Separation of Release
- Art 7.4 Risk Management
- Art 7.9 Perishable Goods
- Art 8 Border Agency Cooperation
- Art 9 Movement of goods intended for import under customs control
- Art 10.1 Formalities and Documentation Requirements
- Art 10.3 Use of International Standards
- Art 10.4 Single Window
- Art 10.7 Common Border Procedures and Uniform Documentation Requirements
- Art 10.8 Rejected Goods

performance of border procedures and policies, and the World Bank's Enabling the Business of Agriculture export licensing indicators measure the severity of controls countries place on their main exports.

Trade Scorecard Term	Data Used	Source of Data	Description
Average weighted agricultural tariff	Simple average (most favored nation applied) of tariffs imposed on agricultural products	World Trade Organization; International Trade Centre; United Nations Conference on Trade and Development, World Tariff Profiles 2017	This indicator takes a simple average of a country's tariffs on imported agricultural products imposed on their most favored partner. Countries are graded according to what tertile their tariff rate falls into based on the range of performance across SSA, with scores in lowest third receiving "green."
Import and export bans recently implemented	Custom indicator	Online searches	Import bans and export bans on food, commodities, pesticides, or seeds generally fail to achieve their intended purpose of protecting markets. Bans are often consequential on food security outcomes. Searches were performed for threatened or imposed bans on the trade of rice, maize, wheat, soy, fertilizer, wheat flour, poultry, genetically modified organisms, and meats. Searches were conducted for any bans in within the past three years. Countries applying very minor or no bans receive a score of "green," countries applying moderate bans receive a score of "yellow," and countries applying multiple or serious bans receive a score of "red."
Trade facilitation performance	Trade facilitation indicators	OECD	Scores of each country are gathered from the OECD website using its average trade facilitation performance value. The trade facilitation indicators (TFIs) take values from 0 to 2, where 2 represents the best performance that can be achieved. They are calculated on the basis of information in the TFIs database. The African Union uses this indicator to measure improvements in the enabling environment for intra-regional trade in agricultural commodities and services. See <a href="https://au.int/sites/default/files/documents/34670-doc-33640-rp-33640-wd-full_br_report_eng.pdf">https://au.int/sites/default/files/documents/34670-doc-33640-rp-33640-wd-full_br_report_eng.pdf</a> , page 8. Countries are graded according to what tertile their ranking falls into based on the range of performance across SSA, with scores in the highest third receiving "green."
Export licensing	Agricultural trade (legal), export licensing sub-indicator	World Bank, Enabling the Business of Agriculture	This sub-indicator consists of five questions, each of which aims to measure the degree of government interference in the marketplace. In order to harmonize the scoring of this item with others, a country answering "no" to all the questions gets a score of 5. A country answering "yes" to all the questions gets a 0. Total scores of 0 receive a grade of "green," scores of 1, 2,

Trade Scorecard Term	Data Used	Source of Data	Description
			or 3 receive a grade of “yellow;” and scores 4 or above receive a grade of “red.”

## BIENNIAL REVIEW REPORT 2018

The African Union’s 2018 Inaugural Biennial Review Report measured member countries’ progress toward achieving the Malabo Declaration’s goals, giving nearly all countries a score across all the goals. The Scorecards specifically look at point V, which is tripling intra-African agricultural trade.

Trade Scorecard Term	Data Used	Source of Data	Description
Tripling intra-African trade	African Union 2018 Biennial Review Report	African Union 2018 Biennial Review Report	Countries should have reached the minimum of 20 percent in growth rate increase. Countries that have reached this goal receive a grade of “green,” while countries that have not receive a grade of “red.”
Establishing intra-African trade policies and institutions	African Union 2018 Biennial Review Report	African Union 2018 Biennial Review Report	Countries are rated by the OECD Trade Facilitation Index. To be considered on track, countries need to reach a cumulative score of 10 points when adding together points given for each of the ten sub-indicators comprising trade facilitation performance. Note that 10 cumulative points equate to an Average Trade Facilitation Performance score equal to one (1) provided by the OECD. Countries that have reached this goal receive a grade of “green,” while countries that have not receive a grade of “red.”

The **Feed the Future Enabling Environment for Food Security** project is a global support mechanism for Feed the Future-focused and aligned Missions and Washington-based USAID offices to address legal, institutional, and regulatory factors that function as market constraints affecting food security.

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