# Zimbabwe

# **ENABLING THE BUSINESS OF AGRICULTURE 2017** Country Profile



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# About the EBA Project

#### What is Enabling the Business of Agriculture (EBA)?

EBA is a World Bank Group initiative that identifies and monitors regulations and policies that affect agriculture and agribusiness markets. The project presents globally comparable data that can inform government decisions and encourage policy dialogue with involved stakeholders with the objective to support multi-stakeholder participation in agricultural value chains and to create an environment that is conducive to local, regional, and international business in agriculture.

### Background and Overview

EBA data can be a useful reference for governments, investors, analysts, and researchers working to improve the enabling environment for agribusiness. Since 2013, the Enabling the Business of Agriculture (EBA) project has collected data on laws and regulations that impact the business environment for agriculture. Enabling the Business of Agriculture 2017 is the third report in the series. The data can be used by governments, investors, analysts, researchers and others interested in this component of the enabling agribusiness environment to assess countries' performance on the topics measured, as well to identify regulatory good practices that can be found around the world.

The methodology used by Enabling the Business of Agriculture builds on the Doing Business methodology and quantifies regulatory practices and legal barriers that affect the business of agriculture. Doing Business has pioneered a unique approach for comparing countries' performances on the regulatory environment; the results are noteworthy—more than 2,900 regulatory reforms have been documented since 2004 in 190 countries around the world. But the Doing Business focus has been on small and medium enterprises located in the largest business cities. Businesses that operate in and around agriculture face additional constraints to enter and operate in the market and often deal with stricter regulatory controls related to registration and quality control of their service and/or goods. Recent shifts in population and food demand have made it all the more paramount that a country's regulatory frameworks and institutions enable farmers to produce and deliver more and safer food.

12 core topic areas studied this year

### What does EBA measure?

Enabling the Business of Agriculture 2017 presents data that measure legal barriers for businesses operating in agriculture in 62 economies and across 12 topic areas. It provides quantitative indicators on regulation for seed, fertilizer, machinery, finance, markets, transport, information and communication technology (ICT), and water (table 1). This year scoring was piloted for the land topic for 38 countries in which data were collected. The data for the remaining 24 countries will be collected next year and the team will refine the methodology further. EBA also collected data on the livestock topic, focusing on veterinary medicinal products (VMPs). The report explains the methodology and provides some insight from data collection for VMPs, but future editions will expand the topical coverage to include the areas of animal feed and genetic resources. Two overarching themes—gender and environmental sustainability—continue to be included in the report analysis to ensure that the messages developed by EBA encourage inclusive and sustainable practices.

| Торіс               | What is measured   |  |
|---------------------|--|--|
| Seed                | Time, cost, and requirements to register a new seed variety  |  |
|                     | Protection and licensing of plant breeder rights   |  |
|                     | Quality control of seed in the market  |  |
| Fertilizer          | Time, cost and regulation for fertilizer registration  |  |
|                     | Quality control of fertilizer in the market  |  |
|                     | Requirements for importing of fertilizer   |  |
| Machinery           | Time, cost and requirements for tractor registration, inspection and maintenance   |  |
|                     | Time, cost and requirements for tractor testing and standards<br>Requirements for importing of tractors  |  |
| Finance             | Requirements for establishing and operating deposit-taking   |  |
|                     | microfinance institutions and financial cooperatives   |  |
|                     | Requirements for third-party agents to provide financial services and  |  |
|                     | provision of e-money by non-financial institutions   |  |
|                     | Use of agriculture relevant assets as movable collateral, and availability of credit information on small loans and from non-bank institutions |  |
| Markets             | Establishment and operation of producer organizations  |  |
|                     | Phytosanitary requirements on management and control of pests and diseases   |  |
|                     | Documents, time, cost and requirements for domestic trade and export   |  |
|                     | of agricultural goods  |  |
| Transport           | Time, cost and requirements to operate commercial trucks   |  |
|                     | Time, cost and requirements for cross-border transport   |  |
| ICT                 | Licensing of mobile operators  |  |
| Water               | Individual water use for irrigation  |  |
|                     | Integrated water resource management   |  |
| Land (pilot scoring | Coverage and relevance of land records   |  |
| for 38 countries)   | Public land management   |  |

#### Table 1: What EBA measures – 12 areas of regulation studied

|                     | Gender disaggregation of land records                           |
|---------------------|---|
|                     |   |
|                     | Leasing of land between private parties                         |
|                     | Procedural safeguards in case of expropriation                  |
| Livestock (not      | Requirements to register veterinary medicinal products          |
| scored)             | Requirements for importing veterinary medicinal products        |
|                     | Requirements for labeling of veterinary medicinal products      |
| Environmental       | Conservation of plant genetic resources                         |
| sustainability (not | Access and sustainable use of plant genetic resources           |
| scored)             | Water quality management  |
|                     | Soil health management  |
| Gender (not         | Availability of gender-disaggregated data                       |
| scored)             | Restrictions on women's employment and activity                 |
|                     | Women's participation and leadership in collective institutions |
|                     | Non-discrimination provisions                                   |
|                     |   |

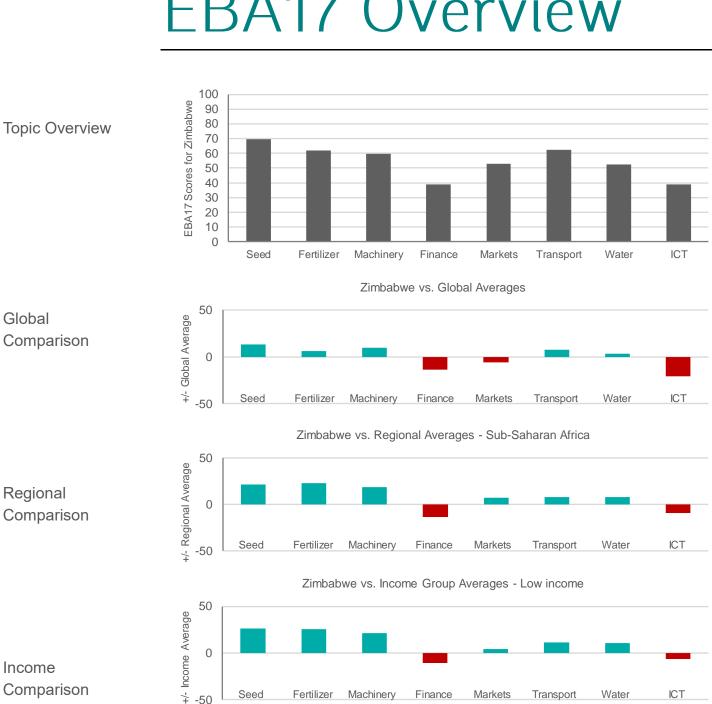
Source: Enabling the Business of Agriculture, Doing Business

#### Legal indicators versus Efficiency indicators

Two types of indicators emerge: legal indicators and efficiency indicators. Legal indicators are derived from a reading of the laws and regulations. In a few instances, the data also include some elements which are not in the text of the law but relate to implementing a good regulatory practice—for example, online availability of fertilizer catalogue. Efficiency indicators reflect the time and cost imposed by the regulatory system—for example, the number of procedures and the time and cost to complete a process such as certifying seed for sale in the domestic market. Data of this type are built on legal requirements and cost measures are backed by official fee schedules when available.

A significant development in this year's report is the refinement of the scoring methodology. For the first time, *Enabling the Business of Agriculture 2017* presents both topic scores, using the distance-to-frontier (DTF) method pioneered by *Doing Business* and topic rankings. The DTF score benchmarks countries with respect to regulatory best practice, showing the absolute distance to the best performance on each *Enabling the Business of Agriculture* indicator, and can help in tracking the countries' absolute level of performance and how it improves over time. The DTF score measures the distance of each country to the frontier, which represents the best performance observed in each indicator for eight *Enabling the Business of Agriculture* topics (seed, fertilizer, machinery, finance, transport, markets, water and ICT). For legal indicators, the frontier is set at the highest possible value, even if no country currently obtains that score. For efficiency indicators, the frontier is set by the highest performing country.

DTF Scores and Benchmarking



# **EBA17** Overview

| Individual Country Results          |   | Zimbabwe |
|-------------------------------------|---|----------|
| Seed Score (0–100)                  |   | 69.65    |
| Plant breeding                      | Plant breeding (0-10)   | 10.0     |
| Variety registration                | Variety registration (0-8)                                    | 4.0      |
|                                     | Time to register new varieties (days)                         | 607.0    |
|                                     | Cost to register new varieties (% income per capita)          | 41.2     |
| Seed quality control                | Seed quality control (0-12)                                   | 8.5      |
| Fertilizer Score (0–100)            |   | 61.86    |
| Fertilizer registration             | Fertilizer registration (0-7)                                 | 4.4      |
|                                     | Time to register new fertilizer product (days)                | 15.0     |
|                                     | Cost to register new fertilizer product (% income per capita) | 15.9     |
| Quality control of fertilizer       | Quality control of fertilizer (0-7)                           | 3.0      |
| Importing & distributing fertilizer | Importing & distributing fertilizer (0-7)                     | 3.0      |
| Machinery Score (0–100)             |   | 59.81    |
| Tractor operation                   | Tractor operation (0-5)                                       | 4.5      |
|                                     | Time to register a tractor (days)                             | 3.0      |
|                                     | Cost to register a tractor (% income per capita)              | 18.8     |
| Tractor testing and standards       | Tractor testing and standards (0-8)                           | 4.7      |
|                                     | Time to obtain type approval (days)                           | N/A      |
|                                     | Cost to obtain type approval (% income per capita)            | N/A      |
| Tractor import                      | Tractor import (0-5)  | 4.0      |
| Finance Score (0–100)               |   | 38.75    |
| Branchless Banking                  | Agent banking (0-5)   | 0.0      |
|                                     | E-money (0-4)   | 0.0      |
| Movable Collateral                  | Warehouse receipts (0-5)                                      | 3.5      |
|                                     | Doing Business - getting credit (0-8)                         | 5.0      |
| Non-bank Lending Institutions       | Microfinance institutions (0-7)                               | 4.0      |
|                                     | Financial cooperatives (0-7)                                  | 3.0      |
| Markets Score (0–100)               |   | 52.99    |
| Producer organizations              | Producer organizations (0-13)                                 | 7.5      |
| Plant protection                    | Plant protection (0-8)  | 2.0      |
| Agricultural trade                  | Agricultural trade (0-9)                                      | No data  |
|                                     | Documents to export agricultural goods (number)               | 1        |
|                                     | Time to export agricultural goods (days)                      | No data  |
|                                     | Cost to export agricultural goods (% income per capita)       | 1.2      |
| Transport Score (0–100)             |   | 62.27    |
| Trucking licenses and operations    | Trucking licenses and operations (0-11)                       | 5.5      |
|                                     | Time to obtain trucking licenses (days)                       | 5.0      |
|                                     | Cost to obtain trucking licenses (% income per capita)        | 14.7     |
| Cross-border transportation         | Cross-border transportation (0-9)                             | 4.0      |
|                                     | Time to obtain cross-border licenses (days)                   | 7.0      |
|                                     | Cost to obtain cross-border licenses (% income per capita)    | 17.6     |
| Water Score (0-100)                 |   | 52.28    |
| Integrated water res. manage.       | Integrated water resource management (0-29)                   | 18.0     |
| Individual water use for irrigation | Individual water use for irrigation (0-20)                    | 8.5      |
| ICT Score (0-100)                   |   | 38.89    |
| Information & communication tech.   | Information & communication technology (0-9)                  | 3.5      |

# Seed

100 90

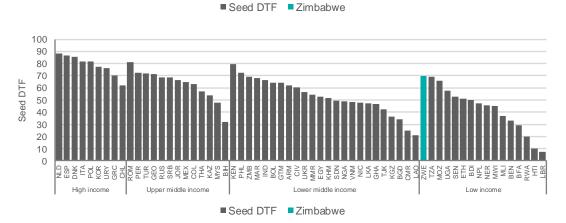
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Seed DTF

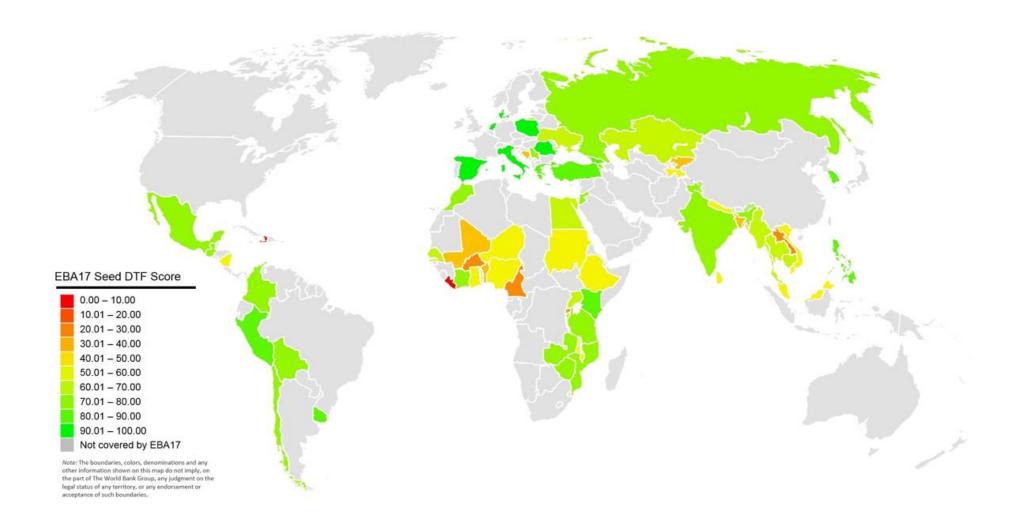
#### **Overall Ranking**

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Regional Comparison

Income Comparison



# EBA17 SEED SUMMARY

DTF: 69.65/100 Rank 15/62

| 10.0 | Plant breeding index (0-10)                        |
|------|--|
| 4.0  | Variety registration index (0-8)                   |
| 8.5  | Seed quality control index (0-12)                  |
| 607  | Time to register new variety (days)                |
| 41.2 | Cost to register new variety (% income per capita) |

## About the EBA Seed Indicators

EBA seed indicators aim to identify obstacles affecting the timely release and production of highquality seed by the formal seed supply system, by examining the regulatory environment for plant breeding, registration of new varieties and seed quality control.

Three indicators have been developed:

- 1. Plant breeding.
- 2. Variety registration.
- 3. Seed quality control.

The seed topic has four types of respondents: (i) seed producers and seed companies; (ii) national and regional seed associations; (iii) government authorities (for example, the Ministry of Agriculture); and (iv) academics. The data are collected through surveys sent to contributors from Washington, DC, and completed with calls, emails and interviews that are conducted with respondents during country visits. Responses from contributors are crosschecked by reviewing the applicable laws and regulations. Desk research and literature review are also performed to verify certain data points.

To make the data comparable across countries, several assumptions about the new variety to be registered are used. Furthermore, only certain procedures are captured by EBA data, and specific rules are used to calculate time and cost. More detail on each issue, including the scoring methodology for each data point, is set out in the annex.

#### Assumptions about the variety

The variety:

- Is a maize variety developed by the private sector.
- Is being registered for the first time in the entire country.
- Has not been registered in any other country.

Note: In exceptional cases when maize varieties are not being developed by the private sector in the country, we consider imported maize variety, which may have been previously registered elsewhere.

#### Procedures

A procedure is defined as any interaction of the seed company's owner, manager or employees with external parties, including any relevant government agencies, lawyers, committees, public and private inspectors and technical experts. All procedures are counted that are legally or in practice required for the seed company to release a new variety of seed. Procedures are consecutive but can be simultaneous.

#### Time

Time is recorded in calendar days and captures the median duration of each procedure. The time span for each procedure starts with the first filing of the application or demand, and ends once the last procedure required to release a new seed variety on the market has been fulfilled, such as the listing in the national catalog or gazette. Any tests performed by the seed company prior to filling an application are not counted. The minimum time for each procedure is one day. The calendar days for distinctiveness, uniformity and stability (DUS) and value for cultivation and use (VCU) tests are determined based on the number of testing seasons required by the authority and the number of cropping seasons existing in the country, as follows:

#### Countries with two cropping seasons per year:

- If one season is required by law to perform the tests, 135 days are counted for the testing procedure.
- If two seasons are required by law to perform the tests, 275 days are counted for the testing procedure. This accounts for the two seasons of 135 days each and 5 days to account for the time needed to plow and prepare the land before the next cropping season (135+5+135 = 275 days).

#### Countries with one cropping season per year:

- If one season is required by law to perform the tests, 182 days are counted for the testing procedure.
- If two seasons are required by law to perform the tests, 547 days are counted for the testing procedure. This accounts for the full calendar year including one season (365 days) and an additional testing season (182 days).

#### Cost

Only official costs are recorded, including fees and taxes. In the absence of fee schedules, a government officer's estimate is taken as an official source. In the absence of government officer's estimates by seed companies are used. If several seed companies provide different estimates, the median reported value is applied. Professional fees (for example, notary fees) are only included if the company is required to use such services. All costs are recorded as a percentage of the country's income per capita.

### **Plant Breeding**

| Data Point   | Answer | Score |
|--|--------|-------|
| Does your country currently have a law granting and protecting plant breeder's rights?   | Yes    | 1     |
| What is the duration (in years) of the Plant Breeders' Rights in your country?   | 20     | 1     |
| Do conditions applicable to the granting of Plant<br>Breeders' Rights differ between national and foreign<br>applicants?                           | No     | 1     |
| Is the list of protected varieties publicly available?   | Yes    | 1     |
| Is it legally allowed for a company to produce<br>breeder/pre-basic seed of local public varieties for use in<br>the domestic market?              | Yes    | 1     |
| Is it legally allowed for a company to produce<br>foundation/basic seed of local public varieties for use in<br>the domestic market?               | Yes    | 1     |
| Are companies obtaining access to germplasm preserved in your national genebank?   | Yes    | 1     |
| Is the licensing of a Plant Breeder's Right to another party for production and sale of the variety legally allowed in your country?               | Yes    | 1     |
| In practice, are there public research institutes that<br>license public varieties to companies for production and<br>sale in the domestic market? | Yes    | 1     |
| Are companies subject to government testing (other<br>than phytosanitary ones), when importing germplasm for<br>the development of new varieties?  | No     | 1     |
| Plant breeding - Legal basis:  |        |       |
| The Seeds Act (Chapter 19:13) 1971 (revised 2001); Plant Breeders' Rights Act (Chapter   |        |       |

18:16) 1979, revised 2001

# Variety Registration

| Data Point   | Answer     | Score |
|--|------------|-------|
| Is DUS testing data from other countries' authorities accepted as official data?   | No         | 0     |
| Is there a legally required variety release committee (VRC) in your country?   | Yes        | 1     |
| What is the composition of the committee?  |            | 0.5   |
| Number of non-governmental representatives   | 5          |       |
| Number of governmental representatives   | 30         |       |
| How often does the VRC meet in practice?   | Biannually | 1     |
| In practice, can a newly registered variety be<br>commercialized immediately after the approval of the<br>registration body? | No         | 0     |
| Does your country have a variety catalogue listing new varieties?  | Yes        | 0.5   |
| Is the catalogue available online?   | No         |       |
| Does the catalogue specify agro-ecological zones suitable for planting of each listed variety?                               | No         | 0     |
| How often is the variety catalogue updated?  | Annually   | 1     |
| Variety registration - Legal basis:  |            |       |
| Seed Regulations and Seeds (Certification Scheme) Notice, 2000; Plant Breeders' Rights                                       |            |       |

Act (Chapter 18:16) 1979, revised 2001

# Variety Registration - Time and Motion

| Data Point   | Answer  |
|--|---------|
| Time to register new variety (days)  | 607     |
| Cost to register new variety (% income per capita)   | 41.2    |
| Procedures:  |         |
| Apply for evaluation and registration of the new maize variety;<br>Field testing – Distinctness, Uniformity, and Stability (DUS) test<br>Field testing – Value for Commercial Use (VCU) test;<br>Technical review;<br>Approval and official release;<br>Listing in national catalog or gazette | ia<br>3 |

# Seed Quality Control

| Data Point   | Answer   | Score |
|--|--|-------|
| Is there an official fee schedule for seed certification activities carried out by the national seed authority?  | Yes  | 1     |
| Does the law oblige plant breeders to ensure the traceability of their plant reproductive material?  | Yes, by<br>retaining<br>records of<br>their<br>suppliers | 0.5   |
| Does the law require plant breeders to retain those records for at least 2 years, or while variety is in use?  | Yes  | 1     |
| Does the law establish a framework for the accreditation<br>of private seed company and/or third parties for the<br>performance of certification activities in your country? | Yes  | 1     |
| In practice, are private seed company and/or third<br>parties (non-governmental institutions) accredited for the<br>performance of certification activities in your country? | Yes  | 1     |
| Which of the following seed certification activities can be performed by an accredited third party?  |  | 1     |
| Field inspection   | Yes  |       |
| Sampling   | Yes  |       |
| Lab Testing  | Yes  |       |
| Labelling  | Yes  |       |
| Does the law require the national authority to perform<br>post-control tests on certified seed?  | Νο   | 0     |
| Does the law require a certain percentage of certified seed to be subject to post-control tests by the national seed authority each year?                                    | N/A  | 0     |
| In case of non-compliance with the varietal purity standards, does the law require any of the following measures?  | N/A  | 0     |
| Does the law require the labelling of seed containers for sale?  | Yes  | 1     |
| Which of the following information must appear on the seed label?  |  | 1     |
| Name and address of seed producer  | Yes  |       |
| Crop species   | Yes  |       |

| Data Point  | Answer | Score |
|---|--------|-------|
| Class of seed   | Yes    |       |
| Net weight  | Yes    |       |
| Lot number  | Yes    |       |
| Certificate number  | No     |       |
| Germination (minimum %)   | Yes    |       |
| Purity (minimum %)  | Yes    |       |
| Year of production  | Yes    |       |
| Repacking or relabeling   | No     |       |
| Chemical treatment on the seed  | Yes    |       |
| Does the law establish a penalty for the fraudulent sale of mislabeled seed bags?                                       | Yes    | 1     |
| Seed quality control - Legal basis:   |        |       |
| The Seeds Act (Chapter 19:13) 1971 (revised 2001), 2001; Seed Regulations and Seeds (Certification Scheme) Notice, 2000 |        |       |

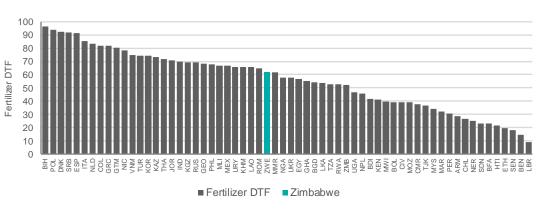
# Fertilizer

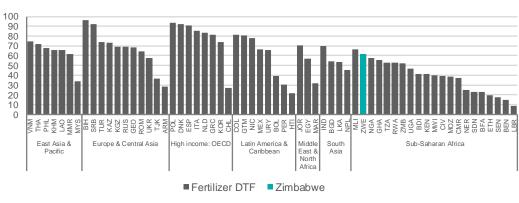
#### **Overall Ranking**

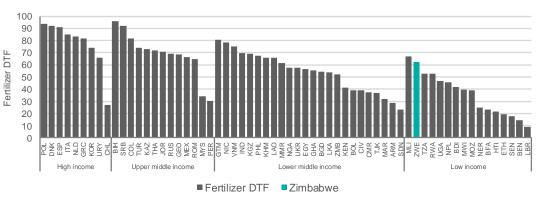


Fertilizer DTF

Income Comparison

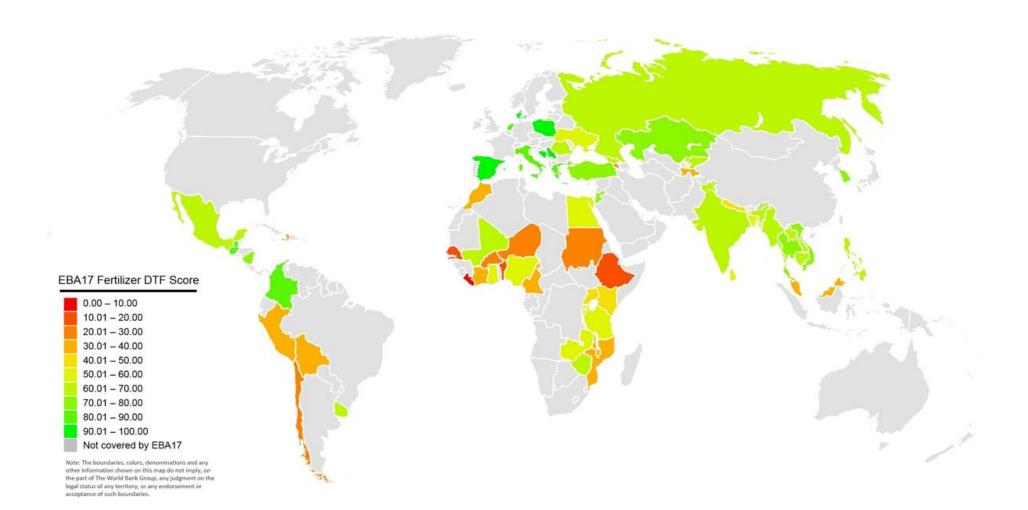






Pg. 15

Fertilizer



# EBA17 FERTILIZER SUMMARY

#### DTF: 61.86/100 Rank 29/62

| 4.4  | Fertilizer registration index (0-7)                       |
|------|---|
| 3.0  | Quality control of fertilizer index (0-7)                 |
| 3.0  | Importing and distributing fertilizer index (0-7)         |
| 15   | Time to register fertilizer product (days)                |
| 15.9 | Cost to register fertilizer product (% income per capita) |

### About the EBA Fertilizer Indicators

EBA fertilizer indicators measure regulatory bottlenecks limiting access to fertilizer. The indicators also focus on operational and economic constraints, as well as the implementation of legislation affecting the fertilizer industry.

Three indicators have been developed, as follows:

- 1. Fertilizer registration.
- 2. Quality control of fertilizer.
- 3. Importing and distributing fertilizer.

The fertilizer topic area has three main types of respondents: i) fertilizer companies, ii) relevant government authorities (for example, the ministry of agriculture), and iii) agricultural input dealer associations. The questionnaire targets all three groups of respondents, whereby the time and motion component is typically answered by the private sector. Data was collected through face-to-face, by phone, or email interviews with respondents.

To make the data comparable across countries, several assumptions about the company and the fertilizer product are used. Furthermore, only certain procedures are captured by EBA data, and specific rules are used to calculate time and cost. More detail on each issue, including the scoring methodology for each data point, is set out in the annex.

#### Assumptions about the fertilizer company

#### The fertilizer company:

- Is a private entity (company, a nongovernmental organization (NGO) and/or a farmer organization or cooperative);
- Is registered in the country;
- Imports fertilizer to sell in the country;
- Has registered at least one new fertilizer product in the country.

#### Assumptions about the registered fertilizer

#### The fertilizer:

- Is a new chemical fertilizer product—a fertilizer product is any product containing nitrogen, phosphorus, potassium or any recognized plant nutrient element or compound that is used for its plant nutrient content.
- Is produced in a foreign country.
- Is being registered for marketing purposes.

#### Procedures

A procedure is defined as any interaction of the company's owners, managers or employees with external parties, for example, government agencies, lawyers, auditors, notaries and customs or border authorities. It includes all procedures that are officially required for the business to legally perform its described activities, such as registering and importing fertilizer. Interactions among owners, managers and employees are not counted as procedures.

#### Time

Time is recorded in calendar days and captures the median duration of each procedure. The time span for each procedure starts with the first filing of the application or demand, and ends once the company has received the final document, such as the fertilizer registration certificate. It is assumed that the company's owners, managers or employees have had no prior contact with any of the officials.

#### Cost

The cost captures official fees and taxes associated with the relevant licenses, permits and certificates, along with their required documents. All costs are recorded as a percentage of the country's income per capita.

# Fertilizer Registration

| Data Point   | Answer | Score |
|--|--------|-------|
| Are private entities required to register new fertilizer products in order to sell them in the country?  | Yes    | 1     |
| According to the law, what type(s) of fertilizer products are required to be registered?   |        | 1     |
| Chemical or mineral fertilizer products  | Yes    |       |
| Organic fertilizer products  | Yes    |       |
| Is field testing required in order to register a fertilizer product?   | No     | 1     |
| Is lab sample analysis required in order to register a fertilizer product?   | Yes    | 1     |
| Is the validity of the chemical fertilizer product registration time-limited?  | Yes    | 0.4   |
| What is the time limitation for a chemical fertilizer product? (in years)  | 1      |       |
| Is there an official online catalogue listing all registered fertilizer products in your country?  | No     | 0     |
| Is the catalogue accessible online?  | N/A    |       |
| Is re-registration of a fertilizer product required in your<br>country if it has previously been registered in another<br>country that is part to the agreement, or approved in the<br>regional catalogue? | N/A    | 0     |
| Fertilizer Registration - Legal basis:   |        |       |
| Fertilizers, Farm Feeds and Remedies Act (Chapter 18:12),  | 2001   |       |

# Fertilizer Registration - Time and Motion

| Data Point  | Answer |
|---|--------|
| Time to register a new fertilizer product (days)            | 15     |
| Cost to register a fertilizer product (% income per capita) | 15.9   |
| Procedures:   |        |
| Application for registration;<br>Lab sample analysis        |        |

# Quality Control of Fertilizer

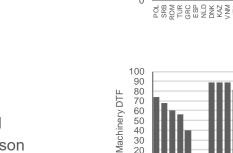
| Data Point  | Answer | Score |
|---|--------|-------|
| Does the law require labeling of fertilizer bags?   | Yes    | 1     |
| Does the law require that labeling must be in at least one of the country's official languages? | No     | 0     |
| Please indicate if the law establishes that the label must provide the following:               |        | 0     |
| Product name  | No     |       |
| Net weight or volume  | No     |       |
| Nutrient contents (N, P2O5, K2O, S, etc.)   | No     |       |
| Name of manufacturer  | No     |       |
| Contact information of manufacturer   | No     |       |
| Country of origin   | No     |       |
| Name of importer  | No     |       |
| Contact information of importer   | No     |       |
| Manufacturing date  | No     |       |
| Expiration date   | No     |       |
| Safety instructions   | No     |       |
| Storage instructions  | No     |       |
| Registration number   | No     |       |
| Does the fertilizer law prohibit the sale of mislabeled fertilizer bags?                        | Yes    | 1     |
| Does the law establish a penalty for the sale of mislabeled fertilizer?                         | Yes    | 1     |
| Does the fertilizer law prohibit the sale of fertilizer products from opened bags?              | No     | 0     |
| Does the law establish a penalty for the sale of fertilizer products from opened bags?          | N/A    | 0     |
| Quality control of fertilizer - Legal basis   |        |       |
| Fertilizers, Farm Feeds and Remedies Act (Chapter 18:12)  | , 2001 |       |

# Importing and Distributing Fertilizer

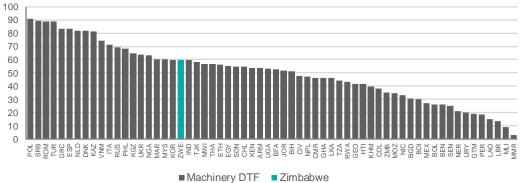
| Data Point   | Answer   | Score |
|--|--|-------|
| Which of the following entities are allowed to import fertilizer products in your country in order to sell them? |  | 1     |
| Private sector companies   | Yes  |       |
| Non-governmental organizations (NGOs)  | Yes  |       |
| Farmer organizations/cooperatives  | Yes  |       |
| Are private sector companies required to register as importers in order to import fertilizer products?           | No   | 0     |
| Is the importer registration general or specific to fertilizer products?   | N/A  |       |
| Is the importer registration time-limited?   | N/A  |       |
| What is the time limitation of the importer registration? (in years)   | N/A  |       |
| Are private sector companies required to obtain an import permit in order to import fertilizer products?         | Yes, a per-<br>shipment<br>permit is<br>required | 0     |
| What is the import permit validity? (in months)  | 3  | 0     |
| Cost as a percentage of income per capita  | 11.8   | 0.5   |
| How long does it take to obtain the import permit? (in calendar days)  | 5  | 0.5   |
| Which of the following entities are allowed to distribute fertilizer products in your country?                   |  | 1     |
| Private sector companies   | Yes  |       |
| Non-governmental organizations (NGOs)  | Yes  |       |
| Farmer organizations/cooperatives  | Yes  |       |
| Importing and distributing fertilizer - Legal basis  |  |       |
| Importation of agricultural goods, 2016  |  |       |

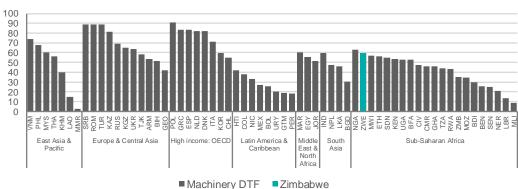
# Machinery

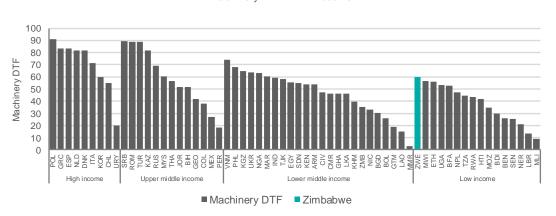
**Overall Ranking** 



Machinery DTF



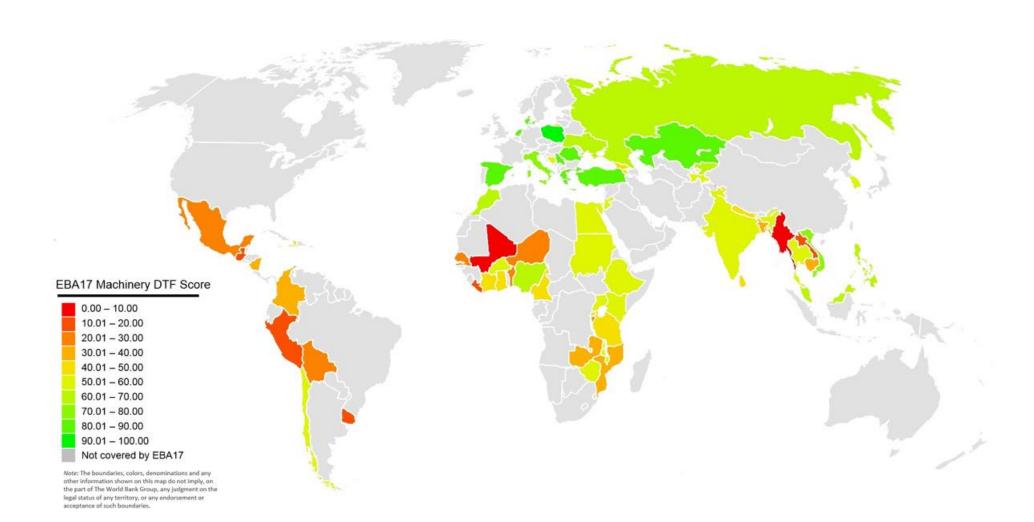




Regional Comparison

Income Comparison

Machinery



# EBA17 MACHINERY SUMMARY

#### DTF: 59.81/100 Rank 20/62

| 4.5  | Tractor operation index (0-5)                      |
|------|--|
| 4.7  | Tractor testing and standards index (0-8)          |
| 4.0  | Tractor import index (0-5)                         |
| 3    | Time to register tractor (days)                    |
| 18.8 | Cost to register tractor (% income per capita)     |
| N/A  | Time to obtain type approval (days)                |
| N/A  | Cost to obtain type approval (% income per capita) |

### About the EBA Machinery Indicators

EBA machinery indicators measure regulatory barriers and associated practices limiting access and use of agricultural tractors by farmers. In particular, the indicators capture the requirements for tractor import, registration and inspection, tractor testing, the prevailing approval process, as well as tractor performance and operator safety standards.

The following three indicators were developed:

- 1. Tractor operation.
- 2. Tractor testing and standards.
- 3. Tractor import.

The machinery topic area has five types of respondents, namely: i) tractor companies (tractor manufacturers, local dealers and distributors); ii) industry associations; iii) tractor testing centers; iv) government authorities, such as the ministry of agriculture or the ministry of transport; and, v) national agricultural research institutes. Data were collected through interviews with respondents.

To make the data comparable across countries, several assumptions about the machinery company and the machinery product are used. Furthermore, only certain procedures are

captured by EBA data, and specific rules are used to calculate time and cost. More detail on each issue, including the score assigned to each data point, is set out in the annex.

#### Assumptions about the importing business

The business:

- Is a private sector company (manufacturer, dealer or distributor of agricultural machinery).
- Is registered as a business in the country.
- Does not operate in an export processing zone or in an industrial estate with special import or export privileges.
- Uses the most-used seaport for importation of tractors in the country. If the country is landlocked, it is assumed that the most-used border posts are used.

#### Assumptions about the machinery product:

The machinery product:

- Is a two-axle or four-wheel drive agricultural tractor.
- Has more than 20 engine horsepower.
- Is designed to furnish the power to pull, carry, propel or drive implements.
- All self-propelled implements are excluded.

A tractor is used as a proxy to assess the enabling regulatory framework and the practices impacting access and use of agricultural tractors for farm mechanization.

#### Procedures

Procedures capture any required company interaction with external parties, such as ministries, government agencies, testing centers, accredited labs and so on to obtain a tractor type approval/homologation. Internal interactions among owners, managers and employees within the company do not count as procedures.

#### Time

Time is recorded in calendar days and captures the average duration of the company interaction with relevant agencies to obtain the tractor type approval or to obtain required licenses, permits and certificates.

#### Cost

Cost captures official fees and taxes associated with the tractor type approval/homologation or the licenses, permits and certificates, along with their required documents. All costs are recorded as a percentage of the country's income per capita.

## **Tractor Operation**

| Data Point  | Answer                      | Score |
|---|-----------------------------|-------|
| According to the law, must tractors be registered once imported?                                | Yes                         | 1     |
| Is registration required for (i) all usage or (ii) use on public roads only?                    | use on public<br>roads only |       |
| According to the law, do in-use tractors have to be inspected for road-worthiness/road-fitness? | Yes                         | 0.5   |
| Is the inspection required for (i) all types of tractors, or (ii) specific types of tractors?   | all types of<br>tractors    | 1     |
| If renewal is required, what is the period between roadworthiness tests (in years)?             | 2                           | 1     |
| Is the provision of tractor after-market service a statutory requirement?                       | Yes                         | 1     |
| Is the provision of tractor after-market parts a statutory requirement?                         | Yes                         |       |
| Tractor operation - Legal basis   |                             |       |

Zimbabwe Vehicle Registration and Licensing Act; National Road Traffic Act, 1996 (No. 93, 1996), SANS 10047 Ed. 5.01, 2007 - The Testing Of Motor Vehicles For Roadworthiness; Consumer protection bill

# Tractor Registration - Time and Motion

| Data Point                                       | Answer |  |  |
|--|--------|--|--|
| Time to register a tractor (days)                | 3      |  |  |
| Cost to register a tractor (% income per capita) | 18.8   |  |  |

# Tractor Testing and Standards

| Data Point   | Answer | Score |
|--|--------|-------|
| Are national tractor standards used in your country? | Yes    | 1     |

| Data Point   | Answer           | Score            |
|--|------------------|------------------|
| Are international tractor standards used in your<br>country?   | Yes              |                  |
| What types of standards are applied in the country?  |                  | 0.67             |
| Operator safety standards  | Yes              |                  |
| Tractor performance standards  | Yes              |                  |
| Engine emission standards  | No               |                  |
| According to the law, are agricultural tractors required to have a type approval before they can be marketed in the country?   | Yes              | 1                |
| Required procedures for type approval:   |                  | 0                |
| Is it a legal requirement to test the tractor in a laboratory in order to obtain the type-approval?  | N/A              |                  |
| Is it a legal requirement to issue a test report following the tractor testing?  | N/A              |                  |
| Does the test report have to be published?   | N/A              |                  |
| Does your country recognize tractor type-approvals issued by other countries or regional organizations?  | Yes              | 1                |
| Does your country recognize tractor test reports issued by the tractor manufacturer?   | Yes              | 1                |
| As long as the specifications of the tractor do not<br>change, how long is the type-approval valid for? (i)<br>unlimited, or (ii) limited to a certain number of years | N/A              | 0                |
| If the type-approval is limited, please indicate how many years it is valid for.   | N/A              |                  |
| Operator Safety Standards:   |                  | 0                |
| Do the national regulations/standards require<br>tractors to be equipped with a fixed roll-over<br>protective structure (ROPS)?  | No               |                  |
| Do the national regulations/standards require<br>tractors to be equipped with a falling object<br>protective structure (FOPS)?   | No               |                  |
| Do the national regulations/standards require tractors to be equipped with a seatbelt?   | Yes              |                  |
| Tractor testing and standards - Legal basis  |                  |                  |
| Control of Goods (Open General Import License) (Standard   | ls Assessment) N | lotice, 2015; ZS |

Control of Goods (Open General Import License) (Standards Assessment) Notice, 2015; ZS 372:2008, Code of practice for transportation of liquid fuels-operational requirements for road tank vehicles, 2008

# Tractor Type Approval - Time and Motion

| Data Point   | Answer |
|--|--------|
| Time to obtain type approval (days)                | N/A    |
| Cost to obtain type approval (% income per capita) | N/A    |
| Procedures:  |        |
| N/A  |        |

# Tractor Import

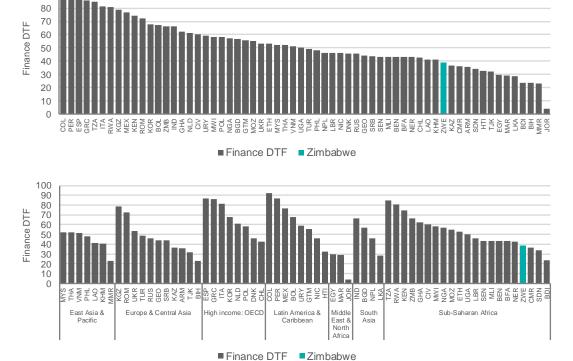
| Data Point  | Answer                             | Score |
|---|------------------------------------|-------|
| Are private sector companies required by law to register as importers of agricultural tractors?   | No                                 | 1     |
| Please indicate if the registration is (i) limited to<br>a certain number of years, or (ii) the registration<br>is indefinite (i.e. the process is done only once).             | N/A                                |       |
| If the registration is limited to a certain number of years, please indicate how many years.  | N/A                                |       |
| If the registration is limited to a certain number of years,<br>please indicate if the re-registration is (i) automatically<br>renewed, or if (ii) re-registration is required. | N/A                                | 1     |
| Is an import permit required by law to import agricultural tractors?  | Yes                                | 0     |
| Please indicate if the permit is required for (i) each<br>shipment of tractors imported, (ii) a certain number of<br>tractors annually, or (iii) a blanket/unlimited license.   | a<br>blanket/unlimi<br>ted license | 1     |
| If the permit is required for each tractor shipment, please indicate the validity of the permit (in months).  | N/A                                | 1     |
| If the required permit is a blanket/unlimited<br>license, please indicate the validity of the permit<br>(in months).  | unlimited                          |       |
| Tractor import - Legal basis  |                                    |       |
| Public notice SI 287, 1975  |                                    |       |

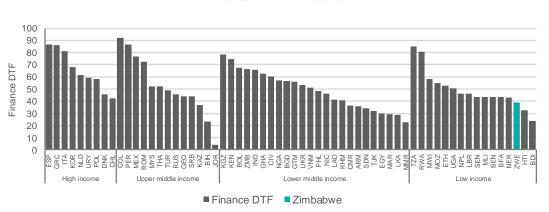
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# Finance

#### **Overall Ranking**

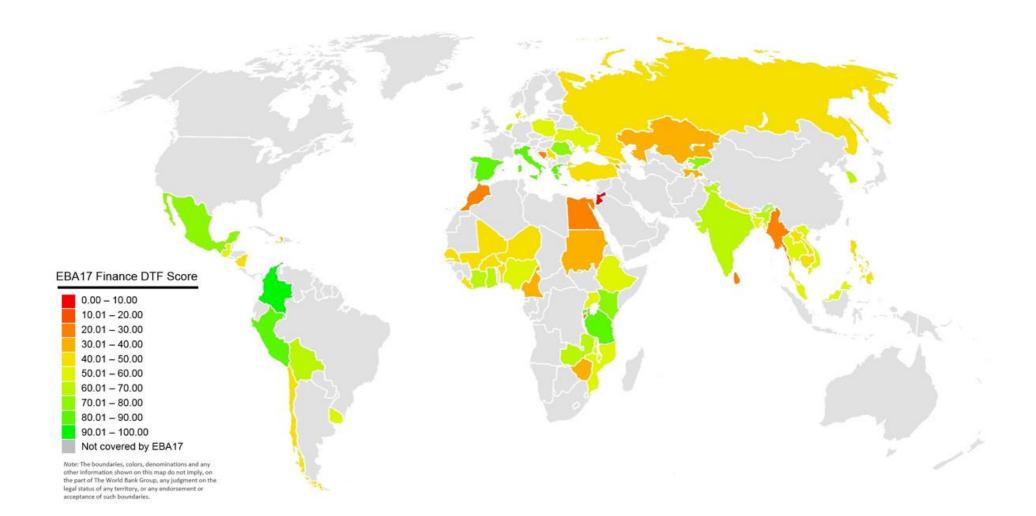
Regional Comparison





Income Comparison

Finance



# EBA17 FINANCE SUMMARY

#### DTF: 38.75/100 Rank 49/62

|     | Branchless banking                        |
|-----|---|
| 0.0 | Agent banking index (0-5)                 |
| 0.0 | E-money index (0-4)                       |
|     | Movable collateral                        |
| 3.5 | Warehouse receipts index (0-5)            |
| 5.0 | Doing Business Getting Credit index (0-8) |
|     | Non-bank lending institutions             |
| 4.0 | Microfinance institutions index (0-7)     |
| 3.0 | Financial cooperatives index (0-7)        |

## About the EBA Finance Indicators

EBA finance indicators measure laws and regulations that promote access to a range of financial services, with a focus on areas that are particularly relevant for potential customers in rural areas. These customers are partially or fully excluded from traditional financial services due to factors such as their geographical location or available type of collateral.

Three indicators have been developed:

- 1. Branchless banking.
  - Agent banking.
  - Electronic money (e-money).
- 2. Movable collateral.
  - Warehouse receipts.
  - Doing Business–Getting Credit.
- 3. Non-bank lending institutions.
  - Operation and prudential regulations of microfinance institutions (MFIs).

Operation and governance of financial cooperatives.

Data for the finance indicators are obtained from three main types of respondents: financial sector supervisory authorities, financial lawyers, and legal officers of financial institutions. Data collections include interviews conducted during country visits directly with respondents, followed by rounds of follow-up communication via email and conference calls with respondents as well as with third parties. Data are also verified through analyses of laws and regulations, including a review of public information sources on banking law, warehouse receipt law, financial institutions law and others. More detail on each indicator, including the scoring methodology for each data point is set out in the annex.

#### 1. Non-bank lending institutions

This indicator measures regulations relevant to deposit-taking MFIs and financial cooperatives. Countries with a high level of financial inclusion will be scored only based on data on financial cooperatives, while the rest of the countries will be scored based on data on both MFIs and financial cooperatives. Finance indicators are designed to measure laws and regulations that promote access to financial services for potential customers that are partially or fully excluded from traditional financial services. In particular, the MFI and agent banking indicators focus on supporting the provision and proliferation of financial services to those who are excluded from traditional banking system. These indicators are not applicable to countries with a high level of financial inclusion where agribusinesses and smallholder farmers have few obstacles accessing the formal financial sector. Therefore, those countries are not measured under these indicators and the corresponding data for those countries are shown as "N/A" (not applicable).

The threshold used to establish what countries fall under those with a high level of financial inclusion has been determined as the average of the normalized values (0–1) of two variables, namely: "account at a financial institution (% of rural adult population)," and "account at a financial institution (% of adult population) based on the World Bank Findex database. Following this approach, those countries with a number higher than 0.8 on the average of normalized values of the above-mentioned two variables will be identified as countries with high level of financial inclusion. Countries under this classification are Denmark, Greece, Italy, Korea, Rep., the Netherlands and Spain.

To make the data comparable across countries, several assumptions about the financial institutions are used, as follows:

#### Assumptions about the financial institutions

• *Microfinance institutions (MFIs)*: MFIs are financial institutions that specialize in the provision of small-volume financial services (such as credit, deposits and loans) to low-income clients. MFIs can take deposits, lend, and provide other financial services to the public and are licensed to operate and are supervised by a public authority.

• **Financial cooperatives:** Financial cooperatives are member-owned, not-for-profit, cooperatives that provide savings, credit, and other financial services to their members. There are typically two types of financial cooperatives, namely: i) small financial cooperatives that provide services only to their members; are typically supervised by either the central bank, the department of cooperatives, or the ministry of finance; and are referred to as savings and credit cooperatives (SACCOs) in some countries; and, ii) cooperative banks that take deposits from and lend to the public, and are regulated under the main financial institution laws and supervised by the central bank. The financial cooperative indicator do not measure cooperative banks but only small financial cooperatives to be consistent with the topic's emphasis on small-scale lending and financial inclusion.

#### 2. Branchless banking

The second indicator includes aggregated data related to agent banking and e-money. In this case, countries with a high level of financial inclusion will be scored only based on data on e-money, whereas the rest of the countries will be scored based on both agent banking and e-money.

#### 3. Movable collateral

For the third indicator all countries will be scored on data on warehouse receipts. Data points from the *Doing Business*-Getting Credit indicator, including data on security interest granted to movable assets and future assets, collateral registry, and credit information from non-bank institutions, will be added to this indicator.

# Branchless Banking

#### Agent banking

| Data Point  | Answer | Score |
|---|--------|-------|
| Is there a legal framework regulating agent banking activities in your country?                                       | No     | 0     |
| According to the law, are there minimum standards in order to qualify and operate as an agent in the following areas? |        | 0     |
| Can be either an operating/established business or<br>an individual   | N/A    |       |
| Has financial soundness   | N/A    |       |
| Has no criminal record  | N/A    |       |
| Has to have real-time connectivity to the commercial bank   | N/A    |       |

| Data Point  | Answer | Score |
|---|--------|-------|
| Location (e.g. within certain distance from bank branch)  | N/A    |       |
| According to the law, what contracts can agent enter into with financial institutions? (only non-exclusive, only exclusive, both)                 | N/A    | 0     |
| According to the law, can agents offer the following services on behalf of a bank?  |        | 0     |
| Cash deposit  | N/A    |       |
| Cash withdrawals  | N/A    |       |
| Transfer of funds to other customers' accounts  | N/A    |       |
| Bill payment  | N/A    |       |
| Balance inquiry   | N/A    |       |
| Opening a deposit account   | N/A    |       |
| Processing of loan application documents  | N/A    |       |
| Know your customer (KYC) or Customer due<br>diligence (CDD) Procedures  | N/A    |       |
| According to the law, are commercial banks liable for the acts of commission and omission of agents providing financial services on their behalf? | N/A    | 0     |
| Agent banking - Legal basis   |        |       |

(\*) Countries that are identified as high level of financial inclusion are not measured under microfinance institutions indicators and agent banking indicators. Please refer to Methodology page for information on the calculation to determine the threshold of high level of financial inclusion.

# Branchless Banking

#### **Electronic money (e-money)**

| Data Point  | Answer | Score |
|---|--------|-------|
| Is there a legal framework regulating e-money activities in your country?                                   | No     | 0     |
| Can non-bank businesses (i.e. businesses that do not hold any financial institution license) issue e-money? | N/A    | 0     |

| Data Point  | Answer | Score |
|---|--------|-------|
| Does the law require that customers' funds are safeguarded<br>and deposited in a trust account at a fully prudentially<br>regulated financial institution under which funds are held on<br>behalf of clients? | N/A    | 0     |
| Does the law require any of the following in order to issue a license?  |        | 0     |
| Capital requirement as a share of income per capita   | N/A    |       |
| Interoperability with other existing electronic money<br>payment/transfer systems   | N/A    |       |
| Existence of internal control mechanism to comply<br>with Anti- Money Laundering and Combating of<br>Financing of Terrorism (AML/CFT) laws, standards<br>and measures   | N/A    |       |
| Consumer protection measures (consumer recourse mechanisms, consumer awareness program etc.)  | N/A    |       |
| Electronic money (e-money) - Legal basis  |        |       |

## Movable Collateral

#### Warehouse receipts

| Data Point  | Answer      | Score |
|---|-------------|-------|
| Is there a law regulating the operation of warehouse receipts in your country?                                      | Yes         | 1     |
| According to the law, must the warehouse operator provide any of the following performance guarantees?              |             | 1     |
| File a bond with the regulator  | No          |       |
| Pay into an indemnity or guarantee fund to secure performance of his obligations as a warehouse operator            | No          |       |
| Must insure the warehouse or the stored goods against fire, earthquakes, theft, burglary or other damage            | Yes         |       |
| According to the law, can warehouse receipts be negotiable?   | Yes         | 1     |
| According to the law, what types of receipts are legally valid? (paper-based, electronic and both)                  | Paper-based | 0.5   |
| According to the law, what following information must be listed on a warehouse receipt in order for it to be valid? |             | 0     |

| Data Point   | Answer | Score |
|--|--------|-------|
| Date of issuance or serial number  | No     |       |
| Location of storage  | No     |       |
| Description of goods (E.g. type, quality, harvest)                           | No     |       |
| Information on security interest over the goods (E.g. certificate of pledge) | No     |       |
| Warehouse receipts - Legal basis   |        |       |
| Chapter 18:25 Warehouse Receipt Act Act 13, 2007                             |        |       |

## Movable Collateral

#### **Doing Business - Getting Credit**

| Data Point   | Answer | Score |
|--|--------|-------|
| Is there an integrated or unified legal framework for secured transactions?  | No     | 0     |
| Does the law allow businesses to grant a non-possessory security right in a single category of movable assets without requiring a specific description of collateral?  | Yes    | 1     |
| Does the law allow businesses to grant a non-possessory security right in substantially all of its assets, without requiring a specific description of collateral?   | Yes    | 1     |
| Are security rights granted to future or after-acquired assets,<br>and do they extend automatically to the products, proceeds or<br>replacements of the original assets?   | Yes    | 1     |
| Is there a collateral registry for movable assets in operation for<br>both incorporated and non-incorporated entities, that is unified<br>geographically and by asset type, with an electronic database<br>indexed by debtor's name? | No     | 0     |
| Are data from retailers or utility companies - in addition to data from banks and financial institutions - distributed?  | Yes    | 1     |
| Are data on loan amounts below 1% of income per capita distributed?  | Yes    | 1     |
| By law, do borrowers have the right to access their data in the credit bureau or credit registry?  | No     | 0     |

## Non-bank Lending Institutions

#### **Microfinance institutions**

| Data Point  | Answer             | Score |
|---|--------------------|-------|
| Does the law allow licensed deposit-taking MFIs in your country?  | Yes                | 1     |
| According to the law, what is the minimum mandatory capital requirement to establish an MFI? (LCU Value)  | Yes                | 1     |
| What is the mandatory Capital Adequacy ratio for MFIs (i.e. the ratio between the total capital and the risk-weighted assets, in percentage points? | No<br>requirement  | 0     |
| Difference between MFIs and commercial banks  | N/A                |       |
| According to the law, what is the maximum size for a single loan that an MFI can grant? (LCU)   | No limit           | 1     |
| As a percentage of income per capita  | No limit           |       |
| According to the law, must MFIs disclose their effective interest rate or the annual percentage rate to loan applicants?                            | Νο                 | 0     |
| According to the law, after how many days in delinquency must MFIs fully provision an unsecured microfinance loan?                                  | No<br>provision    | 0     |
| Difference between MFIs and commercial banks  | N/A                |       |
| Is there a mandatory deposit insurance system that MFIs must subscribe to?  | Yes                | 1     |
| Microfinance institutions - Legal basis   |                    |       |
| Microfinance Act Chapter 24-30, 2013; Circular To Moneylend   | ling And Microfina | nce   |

Institutions No. 04, 2014

(\*) Countries that are identified as high level of financial inclusion are not measured under microfinance institutions indicators and agent banking indicators. Please refer to Methodology page for information on the calculation to determine the threshold of high level of financial inclusion.

## Non-bank Lending Institutions

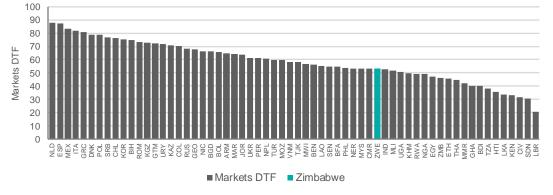
#### **Financial cooperatives**

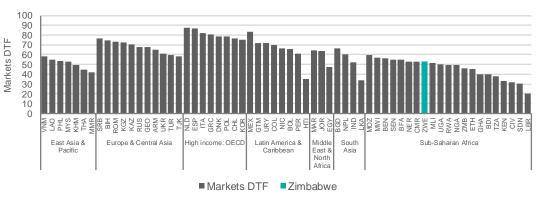
| Data Point   | Answer | Score |
|--|--------|-------|
| Does the law allow financial cooperatives in your country? | Yes    | 1     |

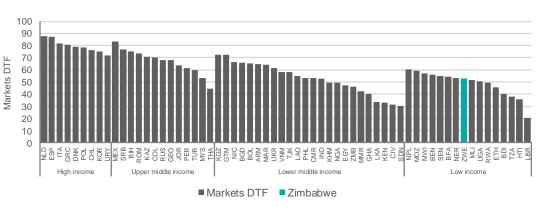
| Data Point  | Answer | Score |
|---|--------|-------|
| According to the law, is there a minimum mandatory capital requirement to establish a financial cooperative?  | No     | 0     |
| Is there a minimum number of members to establish a financial cooperative?  | Yes    | 1     |
| Does the law provide for ratios to ensure the financial<br>stability of financial cooperatives (e.g. liquidity ratio, capital<br>adequacy ratio, solvency ratio, reserve ratio, stable funding<br>ratio, etc.)? | No     | 0     |
| Are financial cooperatives legally required to disclose their effective interest rate or the annual percentage rate to loan applicants?   | No     | 0     |
| Is there a mandatory deposit insurance system that financial cooperatives must subscribe to?  | No     | 0     |
| According to the law, can two or more financial cooperatives merge or amalgamate into a new financial cooperative?  | Yes    | 1     |
| Financial cooperatives - Legal basis  |        |       |
| The Co-operative Societies Act [Chapter 24:05],   |        |       |

# Markets

**Overall Ranking** 



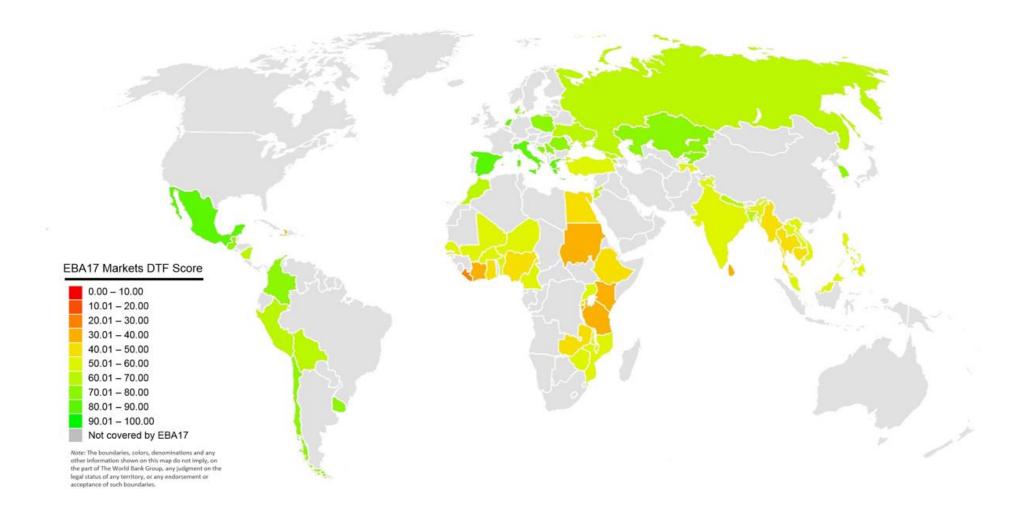




Regional Comparison

Income Comparison

**Markets** 



## EBA17 MARKETS SUMMARY

#### DTF: 52.99/100 Rank 42/62

| 7.5     | Producer organizations (0-13)                   |
|---------|---|
| 2.0     | Plant protection (0-8)                          |
| No data | Agricultural trade (0-9)                        |
| 1       | Documents to export agricultural goods (number) |
| No data | Time to export agricultural goods (days)        |
|         | Time to export agricultural goods (days)        |

## About the EBA Markets Indicators

EBA markets indicators monitor and analyze laws and regulations that can impact smallholder producers and agribusinesses when accessing domestic and foreign agricultural markets for their products.

Three indicators have been developed:

- 1. Producer organizations.
- 2. Plant protection.
- 3. Agricultural trade.

Markets indicators have five main types of respondents: (i) government agencies responsible for agricultural trade, plant protection and cash crops; (ii) private-sector agribusinesses producing and trading agricultural products in domestic and/or international markets, and related trade/export associations; (iii) farmers' organizations, including unions, federations, cooperatives and other similar entities; (iv) chambers of commerce; and (v) lawyers. Data were collected from these respondents using three different surveys: one for the public sector and two for the private sector. Data were collected through interviews conducted during country visits directly with respondents and by email and teleconference calls from Washington, DC.

Details on the methodology for each indicator, including the score assigned to each data point, are set out in the annex.

#### 1. Agricultural trade

To make the data on agricultural trade more comparable across countries, several assumptions about the business, the agricultural products, trading partner and shipment are used. Furthermore, only certain requirements are captured by EBA data, and specific rules are used to calculate time and cost.

#### Assumptions about the business

The business:

- Performs general agricultural trading activities.
- Does not directly engage in agricultural production, processing or retail activities.
- Does not operate in a special export processing zone.

#### Assumptions about the traded product and trading partner

## A theoretical product and trading partner are selected for each country based on official export statistics in accordance with the following rules:

- The traded products are defined and grouped as cash crops, cereals, fruits and vegetables according to the Harmonized Commodity Description and Coding System 1996 version (HS 96).
- All data are sourced from the UN Comtrade Database, using the export data from 2009–13.
- For each country, the combination of the product and the partner country selected represents the highest five-year average export value (in US dollars). For example, cereal exports to Zimbabwe is selected for Zambia. In addition, the HS 4-digit product within the category that is exported the most to the partner country is used for studying the specific legal and regulatory requirements. For example, coffee exports (the top product within the cash crop category) to the United States is selected for Colombia.

#### Assumptions about the shipment

#### The shipment:

- Is transported via a 20-foot full container-load.
- Weighs 10 metric tons or costs US \$10,000, whichever is most appropriate.
- All packing material that requires fumigation (such as wood pallets) is assumed to be treated and marked with an approved international mark certifying that treatment.

#### **Requirements to trade**

A "requirement" for purposes of the study is any legally required qualification or document that must be obtained by the business to buy or sell the selected product in the domestic market or export the product to the trading partner. These requirements may apply to the trader (for example, a selling/buying license, periodic export registration, mandatory memberships, and so on) or to the export consignment on a per shipment basis (for example, phytosanitary certificate, quality certificate, and so on). These requirements involve interactions with external parties,

including government agencies, inspectors and other relevant institutions. Buyer-driven requirements such as private laboratory tests are not considered for purposes of the study.

#### The following principles apply to the requirements recorded:

- Only requirements specific to the product group (or the top exported sub-product within that group) and agricultural products more generally are captured. Customs, commercial and shipping documents that are not specific in this way are not measured (for example, certificate of origin, export declaration, bill of lading, letter of credit, and so on).
- Mandatory membership of a public or private entity is included if it is required to obtain and exercise the right to export the selected product or agricultural products more generally.
- Trader-level licenses include any document or action that is required to obtain and exercise the right to buy or sell the product in the domestic market or export overseas, including registration or accreditation requirements and traditional licenses.
- Documents are collected on a per shipment basis, and one document includes both application and completion of the process (for example, obtain a phytosanitary certificate or obtain a quality certificate).
  - Where multiple documents are obtained simultaneously, they are recorded as separate documents but time is adjusted to reflect their simultaneity.
  - The mandatory documents required by both the country studied and the selected trading partner are included.
  - Both public and private fumigation certificates are excluded if they are not required by the laws of either the country studied or the selected trading partner. Only fumigation that is required for the product itself is captured, and separate fumigation for packaging prior to its purchase/use is not included.

#### Time

Time is recorded in calendar days and captures the median duration to obtain each mandatory document to export on a per shipment basis. Time to complete membership requirements or to obtain trader-level licenses is not captured. The time span for each document starts with the first filing of the application or demand, and ends once the company has received the final document, such as the phytosanitary certificate. If time is obtained only in working days, the data are converted to calendar days based on the assumption that there are five working days per week and the procedure starts on a Monday. It is assumed that the company's owners, managers or employees have had no prior contact with any of the officials and that the company completes each procedure to obtain the document without delay on its side.

#### The following principles apply to how time to obtain documents is measured:

 It is assumed that the minimum time required for each document is one day, except for documents that can be fully obtained online, for which the time required is recorded as half a day.

- Although multiple documents may be obtained (and related processes completed) simultaneously, the process to obtain each document cannot start on the same day (that is, simultaneous processes start on consecutive days).
- If the process to obtain a document can be accelerated for an additional cost and is available to all types of companies, the fastest legal process is chosen and the related costs are recorded. Fast-track options applying only to firms located in an export processing zone or to certain accredited firms under authorized economic operator programs are not taken into account.

#### Cost

The cost includes all official fees and fees for legal or professional services if such services are required by law to complete the qualification requirement or obtain a document. Service fees (for example, those charged by fumigation companies) are only included if the company is required by law to use such services. Traditional (scheduled) border taxes/tariffs are not captured. Other special charges or taxes that apply to the export product or sub-product, or the export of agricultural products generally, are included only where they result in the issuance of a stand-alone mandatory document to export or are conditional to obtain another mandatory document to export.

Where possible, laws, regulations and fee schedules are used as sources for calculating costs. In the absence of fee schedules, estimates by the public/private sector respondents are used. If several respondents provide different estimates, the median reported value is applied. In all cases the cost excludes bribes. All costs are recorded as a percentage of the country's income per capita.

#### 2. Plant Protection

*Plant protection* encompasses regulations, policies and institutional frameworks that affect plant health in a country, including domestic pest management measures as well as phytosanitary controls at the border. In cases where relevant regulations are specific to a product or product group, those applicable to the selected traded product are used.

#### 3. Producer Organizations

*Producer organizations* are also known as agricultural cooperatives, farmers' cooperatives, farmers' organizations or producer associations. A producer organization is defined as a formal, voluntary, joint-owned and democratically controlled organization established for the economic benefit of agricultural producers by providing members with services that support farming activities, such as bargaining with customers or providing inputs, technical assistance, or processing and marketing services.

## To render data on producer organizations comparable across countries, the following case study is used to select the most appropriate legal form in each country:

Several agricultural producers wish to pool their production within a **producer organization** to sell it on the spot market or through long-term sales contracts with buyers ("**the transaction**"). The principal function of the organization is to pool and sell the members' production, and the organization takes ownership of the produce in question.

The following principles also apply:

- Voluntary and open membership;
- Democratic member control ("one member, one vote");
- Joint-ownership by members; and,
- Created to support and promote the economic interests of its members through joint economic activity.

If different forms of producer organizations exist in a country's laws, the one which obtains the highest aggregated score under the producer organizations indicator is selected for inclusion in the dataset.

### Producer Organizations

| Data Point  | Answer | Score |
|---|--------|-------|
| Is there a minimum capital requirement to establish a producer organization?                    | No     | 1     |
| If yes, what is the amount (% income per capita)?   | N/A    |       |
| Does the law prohibit foreign natural persons from becoming members of producer organizations?  | No     | 1     |
| Does the law allow domestic legal persons to become members of producer organizations?          | Νο     | 0     |
| Does the law prohibit foreign legal persons from<br>becoming members of producer organizations? | Yes    |       |
| Does the law prohibit the government from owning shares in producer organizations?              | Yes    | 1     |
| Is there a cap on the dividends paid on member shares?  | Yes    | 0     |
| Can producer organizations distribute profits in the form of shares?                            | Yes    | 1     |
| Does the law allow nonmembers to own shares in producer organizations?                          | No     | 0     |
| Is there a cap on the dividends paid on nonmember shares?                                       | N/A    |       |

| Data Point   | Answer          | Score         |
|--|-----------------|---------------|
| Must an application to register a producer organization be reviewed and decided upon within an explicit time limit set out in the law? | No              | 0             |
| What is the time limit? (calendar days)  | N/A             |               |
| Must the designated regulating authority explain its reasons<br>for rejecting an application to establish a producer<br>organization?  | Yes             | 1             |
| Does the principle of open membership apply to producer organizations?   | Yes             | 1             |
| Does the law establish any of the following:   |                 | 1             |
| Membership in a producer organization is restricted to individuals with legal ownership over land.                                     | Νο              |               |
| Membership in a producer organization is restricted to one member per household.   | No              |               |
| A married woman must receive her husband's authorization before joining a producer organization.                                       | Νο              |               |
| Any other legal restrictions that might apply to female members and limit their participation in producer organizations.               | No              |               |
| Does the law establish any quotas or other mechanisms to promote the participation of female members in producer organizations?        | No              | 0             |
| A gender quota applies to the board of directors.  | No              |               |
| What is the quota for the board of directors?  | N/A             |               |
| A gender quota applies to the supervisory committee.   | No              |               |
| What is the quota for the supervisory committee?   | N/A             |               |
| Other gender-related quotas or mechanisms apply.   | No              |               |
| Does the law require producer organizations to comply with the principle of nondiscrimination?   | No              | 0.5           |
| Is gender mentioned as a specifically protected<br>category?   | Νο              |               |
| (WBL) Does the constitution contain a clause on nondiscrimination?   | Yes             |               |
| (WBL) If there is a nondiscrimination clause in the constitution, does it mention gender?  | Yes             |               |
| Producer organizations - Legal basis   |                 |               |
| Co-operative Societies Act (Chapter 24:05), 1990; Agriculture 1971   | Finance Act (Ch | apter 18:02), |

## **Plant Protection**

| Data Point   | Answer          | Score            |
|--|-----------------|------------------|
| Is there a specific government agency or unit designated by law to conduct pest surveillance on plants?  | Yes             | 1                |
| Does the government or national plant protection agency<br>maintain a list of regulated quarantine pests?  | No              | 0                |
| Is the list of regulated quarantine pests uploaded to the IPPC website?  | No              | 0                |
| Is the list of regulated quarantine pests made<br>available on a relevant government website?  | No              |                  |
| Can growers/producers obtain information on plant pests<br>and disease on a government website? If yes, please<br>identify the information that is provided: | No              | 0                |
| Pictures   | N/A             |                  |
| Host information   | N/A             |                  |
| Current status   | N/A             |                  |
| Potential treatment methods  | N/A             |                  |
| Are land owners/users obligated to report pest outbreaks to the government?  | Νο              | 0                |
| Are penalties in place for non-compliance with the<br>obligation to report pest outbreaks to the<br>government?  | N/A             |                  |
| Is there a specific government agency or unit designated by law to conduct pest risk analysis (PRA) for imports of plant products?                           | Yes             | 1                |
| Are PRA reports publicly available online?   | No              | 0                |
| Does the law allow for phytosanitary import inspections to be carried out on a risk-management basis?  | Νο              | 0                |
| Plant protection - Legal basis   |                 |                  |
| Plant Pests and Diseases Act [Chapter 19:08], 1989; Plant Pes<br>Regulations, 1976   | sts and Disease | es (Importation) |

## Agricultural Trade

| Data Point  | Answer  | Score  |
|---|---------|--------|
| Case study:   |         |        |
| For purposes of the questions on domestic licenses and export, following trading partner/product: 10 MT of tea exported to Sour   |         | er the |
| Does the law establish price regulations in the sector of the selected product (explicit price regulations are considered, including those that apply only to government purchases. Recommended prices are not included)? | No data |        |
| Does the law require that sales and purchases of the selected product have to occur at an auction or a fixed (electronic or physical) marketplace?  | No data |        |
| Are traders required to obtain a trader-level license to buy/sell the selected product or agricultural products more generally in the domestic market?  | No data |        |
| Are exporters required to be members of a specific association or organization to obtain the right to export the selected product or agricultural products more generally?  | No data |        |
| Are exporters required to obtain a trader-level export license<br>to export the selected product or agricultural products more<br>generally to the selected trading partner?  | No data |        |
| Can phytosanitary certificate applications be submitted electronically?   | Yes     | 1      |
| Can phytosanitary certificates be generated, issued and sent<br>in an electronic form (for example, an ePhyto system is in<br>place)?   | No      | 0      |
| Can phytosanitary certificates be issued on-site where the selected product is produced, processed, packaged, stored and so on?   | Yes     | 1      |
| Is the official fee schedule for the phytosanitary certificate publicly available on a government website?  | No      | 0      |
| Is the official fee schedule for the phytosanitary certificate publicly available in legislation?   | No      |        |
| Agricultural trade - Legal basis  |         |        |

## Agricultural Trade - Time and Motion

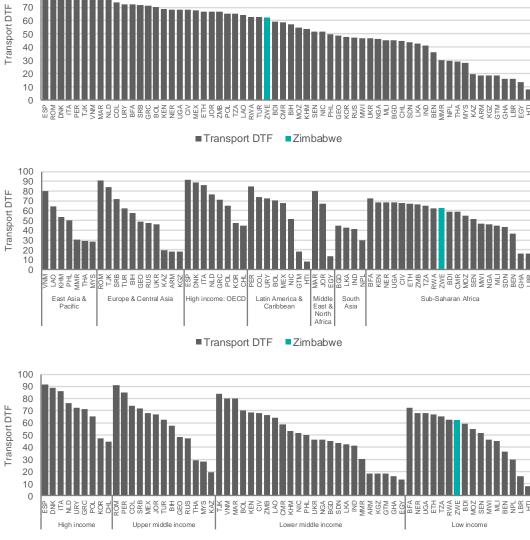
| Data Point   | Answer  |
|--|---------|
| Documents required to export agricultural goods (number) | 1       |
| Time to export agricultural goods (days)                 | No data |
| Cost to export agricultural goods (% income per capita)  | 1.2     |
| Documents:   |         |
| Phytosanitary certificate                                |         |

100 90 80



#### **Overall Ranking**

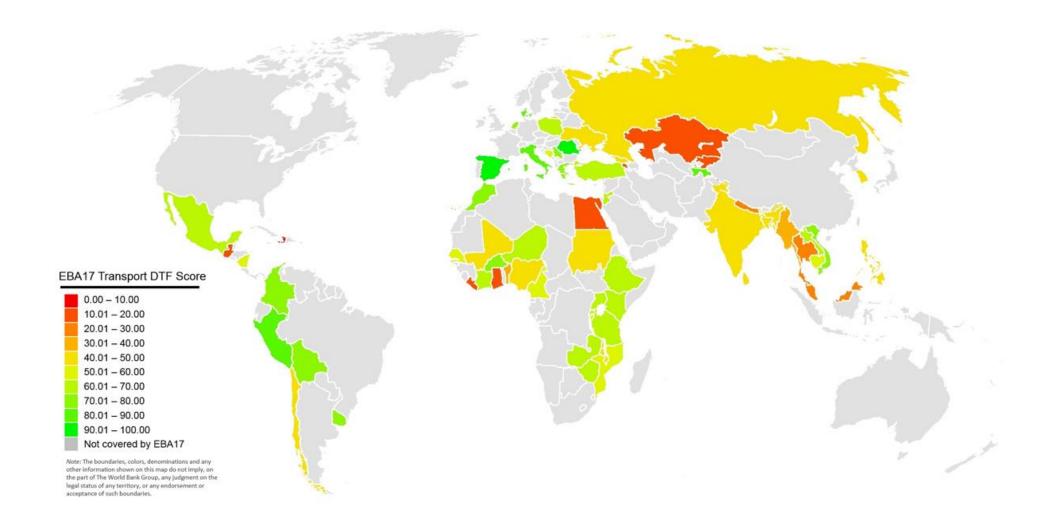
Regional Comparison



Transport DTF Zimbabwe

Income Comparison

Transport



## EBA17 TRANSPORT SUMMARY

#### DTF: 62.27/100 Rank 29/62

| 5.5  | Truck licensing index (0-11)                               |
|------|--|
| 4.0  | Cross-border transportation index (0-9)                    |
| 5    | Time to obtain trucking licenses (days)                    |
| 14.7 | Cost to obtain trucking licenses (% income per capita)     |
| 7.0  | Time to obtain cross-border licenses (days)                |
| 17.6 | Cost to obtain cross-border licenses (% income per capita) |

## About the EBA Transport Indicators

EBA transport indicators measure regulatory and administrative constraints affecting the provision of reliable and sustainable commercial road transport services. The following two sub-indicators have been developed:

- 1. Truck licensing.
- 2. Cross-border transportation.

Data were collected through interviews conducted during country visits directly with respondents, by email and teleconference calls from Washington, DC, and by local staff in the different target countries. The topic mainly targeted private sector respondents including trucking associations, trucking companies and lawyers; and to a lesser extent, public sector respondents including ministries of transport, road transport regulatory authorities and ministries of infrastructure. Even though the questionnaire targeted both groups of respondents, time and cost information was typically answered by the private sector.

To make the data comparable across countries, several assumptions about the trucking company, its environment and scope of cross-border operations are used Furthermore, only certain procedures are captured by EBA data, and specific rules are used to calculate time and cost. More detail on each issue, including the scoring methodology for each, is set out in the annex.

#### Assumptions about the business

#### The business:

- Is a private entity or natural person whose core business is transporting goods by road for commercial purposes;
- Has met all formal requirements to start a business and perform general industrial or commercial activities;
- Is located in the country's largest business city;
- Has a maximum of five trucks; each truck has two axles and a maximum loading capacity of 15 MT (metric tons);
- Transports agricultural products within the country, including perishable products, and it does not transport fertilizers, pesticides, hazardous products or passengers;
- The trucks were first registered in the largest business city less than six months ago; the "trucks" comprise a tractor unit and a trailer;
- All employed drivers have the domestically required driver's license to drive a 15 MT vehicle; and,
- Carries out cross-border transport services with its largest agricultural border-adjacent trading partner.

#### Assumptions about the "reference" product

The "relevant" product selection was based on UN Comtrade's 2009–13, five-year average export value of major plant product groups, and mirror data in cases where data were not sufficient. For example, cereals constitute the reference-product for Bolivia and tomatoes are the ones for Morocco. A list of each country's reference product is available in the Country Data tables.

#### Assumptions about the cross border trading partner

This partner selection was based on UN Comtrade's 2009–13, five-year average trade value of major plant product groups (and mirror data when needed), as well as on a border-adjacent criterion. The partner selection methodology was used as a proxy for defining the largest trading partner by truck, in the absence of transport data disaggregated by mode of transport (sea, air, rail or road). It is also assumed the agricultural products being shipped to and from the largest trading partner were produced locally, not imported. For instance, the largest trading partner of Burundi is Tanzania. A list of each country's largest trading partner is available in Country Data tables.

#### Time

Time was recorded in calendar days and captures the median duration of obtaining the required company or truck license, excluding preparation time. The timespan starts once all required documents have been submitted to the relevant authority and ends once the company has received the final document. It is assumed that the company's owners, managers or employees have had no prior contact with any of the officials.

#### Cost

Costs capture only official costs required by law, including fees and taxes. Fee schedules in transport laws and regulations have been used as legal basis when available, and an estimation from qualified contributors in the alternative scenario. It is assumed that all documents have been submitted in the timely and correct form. All costs are recorded as a percentage of the country's income per capita.

#### Validity

Validity is measured for domestic and cross-border truck licenses. Validity is expressed in years.

## Truck Licensing

| Data Point  | Answer             | Score |
|---|--------------------|-------|
| What type of license is legally required to transport goods commercially in the domestic market?  | Company<br>License | 1     |
| What is the validity of the company license (years)?  | 3                  | 0     |
| What is the validity of the truck license (years)?  | N/A                |       |
| The law does not establish a citizenship requirement to<br>obtain a license (foreign nationals or businesses are allowed<br>to obtain the relevant licenses).                   | Yes                | 1     |
| Please indicate whether the licenses identified have the following additional requirements  |                    | 0     |
| Maximum number of trucks covered under the license.   | No                 |       |
| Maximum transported tonnage.  | Yes                |       |
| Geographical operational limitation.  | No                 |       |
| The company must own a minimum number of trucks.  | No                 |       |
| Licenses only issued to members of a truckers' association or professional body.  | Νο                 |       |
| Licenses cannot be issued to women.   | No                 |       |
| Obtain Government registry or notification certificate  | No                 |       |
| Are any of the following road transport documents required by law when transporting goods by road domestically?   |                    | 0.5   |
| Written contract describing the conditions of<br>carriage, including carrier's liability for loss, damage<br>or delay   | No                 |       |
| Consignment note, packing list, bill of lading, waybill,<br>commercial invoice or any other official document<br>describing the goods shipped, their origin and<br>destination. | Yes                |       |
| Reference product   | Теа                |       |

| Data Point   | Answer | Score |
|--|--------|-------|
| Are there specific regulations related to the transport of perishable agriculture products or foodstuffs, or related to the reference product? | No     | 0     |
| If so, are the following aspects considered/regulated?   |        | 0     |
| Special conditions related to covering/roofing and<br>flooring/insulation in order to protect loads from<br>external and internal contaminants | N/A    |       |
| Vehicle cooling, refrigeration or controlled-<br>temperature aspects   | N/A    |       |
| Prohibition of co-mingling of certain items  | N/A    |       |
| Specific packaging, sealing and stowage conditions for the goods transported   | N/A    |       |
| Loading and unloading specific procedures  | N/A    |       |
| Mandatory cleaning and disinfection protocols and<br>routines of truck container   | N/A    |       |
| Is there a public registry of licensed transport operators?  | Yes    | 1     |
| Are the requirements that a company must fulfill to obtain or renew a road transport license or permit published?                              | Yes    | 1     |
| Can the application for a license or its renewal be submitted electronically?  | No     | 0     |
| Which freight allocation system exists in your country?  |        | 1     |
| Legally binding queuing system (also known as a<br>"tour de rôle")   | No     |       |
| Direct contracting between a producer or trader and<br>a trucking service provider   | Yes    |       |
| Truck licensing - Legal basis  |        |       |
| Road Motor Transportation Act [Chapter 13:15], 1999 (Revised   | 2001)  |       |

## Truck Licensing - Time and Motion

| Data Point   | Answer |
|--|--------|
| Time to obtain trucking licenses (days)                | 5      |
| Cost to obtain trucking licenses (% income per capita) | 14.7   |

## Cross-border Transportation

| Data Point  | Answer       | Score |
|---|--------------|-------|
| Trading partner country   | South Africa |       |
| Are transport rights legally allowed for foreign transport<br>companies or trucks registered in the country's largest<br>neighboring agricultural trading partner?  | Yes          | 1     |
| Are Backhauling rights legally allowed for foreign transport companies or trucks registered in the country's largest neighboring agricultural trading partner?      | Yes          | 1     |
| Are Triangular rights legally allowed for foreign transport<br>companies or trucks registered in the country's largest<br>neighboring agricultural trading partner? | No           | 0     |
| Are Transit rights legally allowed for foreign transport<br>companies or trucks registered in the country's largest<br>neighboring agricultural trading partner?    | Yes          | 1     |
| Are Cabotage rights legally allowed for foreign transport<br>companies or trucks registered in the country's largest<br>neighboring agricultural trading partner?   | No           | 0     |
| Are the transport rights mentioned above specific to certain transit routes or corridors?   | Yes          | 0     |
| Is a cross-border road transport license required for foreign trucks to exercise the transport rights identified above?   | Yes          | 1     |
| What is the validity of the cross-border license (years)?   | 1            | 0     |
| The law does not establish an official limit or quota on the number of cross-border licenses granted  | No           | 0     |

Cross-border transportation - Legal basis

Bilateral Agreement between Zimbabwe and South Africa, 1998; Road Motor Transportation Act [Chapter 13:15], 1999 (Revised 2001); SADC Protocol on Transport, Communications and Meteorology in the Southern African Development Community Region, 1996; Zambia Revenue Authority (Amendment) Act, 2014

## Cross-border Transportation - Time and Motion

| Data Point  | Answer |
|---|--------|
| Time to obtain cross-border license (days)                | 7      |
| Cost to obtain cross-border license (% income per capita) | 17.6   |

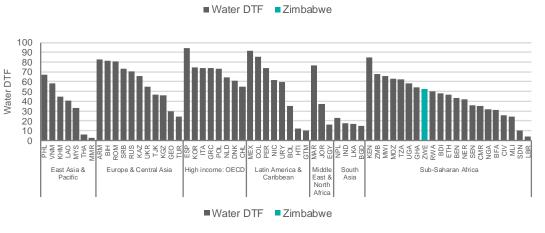
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70

## Water

**Overall Ranking** 





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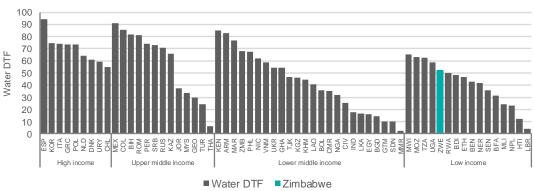
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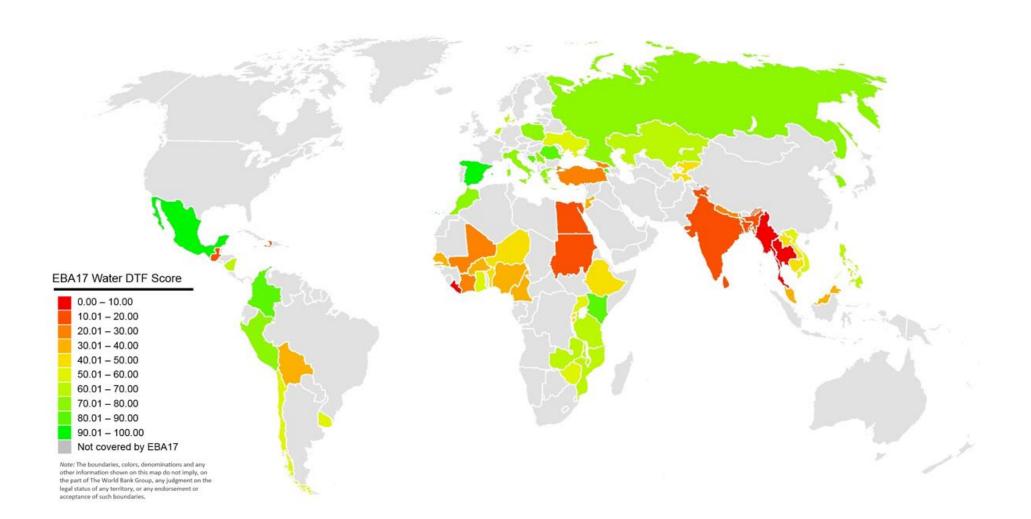
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SGD HTI SDN SDN LBR MR

NN/



Income Comparison



## EBA17 WATER SUMMARY

DTF:52.28/100 Rank 31/62

| 18.0 | Integrated water resource management index (0-29) |
|------|---|
| 8.5  | Individual water use for irrigation index (0-20)  |

## About the EBA Water Indicators

EBA water indicators measure laws and regulations that promote sustainable, inclusive and efficient governance of water resources, with a particular focus on the use of water for irrigation.

Two indicators have been developed:

- 1. Integrated water resources management.
- 2. Individual water use for irrigation.

Water indicators have three main types of target respondents: (i) lawyers specialized in water law and environmental law, both from private practice and the public sector; (ii) technical specialists in the field of water resources management, typically from the public sector; and (iii) academic experts. The questionnaire targets all three groups of respondents, whereby the legal questions are typically answered by lawyer respondents, and implementation questions are typically answered by technical specialists and academic experts. Data collection includes interviews conducted directly with respondents during country visits, followed by rounds of follow-up communication via email and conference calls with respondents, as well as with third parties. Data are also verified through analysis of laws and regulations and a review of publicly-available sources of information on water management and permits.

To make data for the *individual water use for irrigation* indicator comparable across countries, several assumptions about the water user and water source are used. More detail, as well as the score assigned to each data point, is set out in the annex.

#### Assumptions about the water user

The water user:

- Is a farm that grows crops.
- Is a medium-sized farm for the country, with land area that falls between 2 and 10 hectares.

- Uses mechanical means to individually abstract water for irrigation.
- Is not located in a broader irrigation scheme.

If medium-sized farms in the country, as prescribed in any official farm-size classification system, deviate significantly from this given range, it is assumed that the case study farm does not qualify for any exemption from permit requirements that may otherwise apply to small farms (such as exemptions for smallholders or subsistence farmers).

#### Assumptions about the water source

The water source:

- Is a river located 300 meters away from the farm; or
- Is a groundwater well located on the farm.

The choice between surface water and groundwater as a source for irrigation water is made based on the predominant irrigation water source for the country, determined using Food and Agriculture Organization (FAO) 2016 AQUASTAT data. The majority of EBA countries predominantly use surface water for irrigation; those with predominant groundwater use for irrigation are: Bangladesh, Denmark, India, Jordan, Nicaragua and the Netherlands.

### Integrated Water Resources Management

| Data Point   | Answer | Score |
|--|--------|-------|
| Does the national legal framework provide for the establishment of river/lake basin institutions?  | Yes    | 1     |
| Does at least one river/lake basin institutions currently exist in the country?  | Yes    | 1     |
| Number   | 7      |       |
| Is there an authority legally mandated to manage groundwater?  | Yes    | 1     |
| Does the legal framework provide any of the following remits for basin/aquifer institutions?   | Yes    | 0.5   |
| They function as units of special-purpose<br>government at the basin/aquifer level   | Yes    |       |
| They advise units of general-purpose government<br>on water resources matters in the basin/aquifer                                       | Yes    |       |
| They function as a forum for basin/aquifer<br>stakeholders to meet, debate and achieve a<br>consensus of opinion on basin/aquifer issues | Νο     |       |
| Does the legal framework provide an internal organizational structure for basin/aquifer institutions?                                    | Yes    | 1     |

| Data Point  | Answer | Score |
|---|--------|-------|
| Is there a legal requirement for water users in the basin/aquifer to be represented in the basin/aquifer institution?                           | No     | 0     |
| Does the legal framework require the creation of a national plan for water management and use?  | No     | 0     |
| Does the legal framework require the creation of management plans for individual basins/aquifers?   | Yes    | 1     |
| Which of the following are legally required components of basin/aquifer plans?  |        | 0.5   |
| Resource descriptions and categorizations   | Yes    |       |
| Uses  | Yes    |       |
| Pollution sources   | No     |       |
| Identification of protected areas   | Yes    |       |
| Drought/flood mitigation plan   | No     |       |
| Economic analyses   | No     |       |
| Long-term objectives  | No     |       |
| Is there a legal requirement for public consultation with water users during the development of basin/aquifer plans?                            | Yes    | 1     |
| Does the legal framework set a mandatory timeline for periodic updating of basin/aquifer plans?   | Yes    | 1     |
| Period (Years)  | 10     |       |
| Has at least one basin plan been completed?   | Yes    | 1     |
| Does the legal framework establish or require the establishment of a priority order for water allocation between different types of water uses? | Yes    | 1     |
| Is the government legally required to develop a plan to<br>monitor water resources, and if so, are any of the following<br>components required? | No     | 0     |
| Criteria for monitoring locations   | N/A    |       |
| Criteria for monitoring frequency   | N/A    |       |
| Monitoring objectives   | N/A    |       |
| Reference test/measurement methods  | N/A    |       |
| Does the legal framework set a mandatory timeline for periodic updating of the monitoring plan?   | N/A    | 0     |
| Period (Years)  | N/A    |       |
| Is the government legally required to monitor water resources, and if so, is it required to monitor the following?                              | Yes    | 1     |
| Quantity  | Yes    |       |
| Quality   | Yes    |       |
| Are monitoring results legally required to be publicly available?   | N/A    | 0     |
| Are monitoring results currently publicly available online?   | No     | 0     |

| Data Point  | Answer | Score |
|---|--------|-------|
| Does the legal framework assign responsibility to an                                  |        |       |
| authority for creating an inventory of water resources?                               | Yes    | 1     |
| Does the legal framework set a mandatory timeline for                                 | Yes    | 1     |
| periodic updating of the inventory of water resources?                                |        |       |
| Is the inventory of water resources legally required to be publicly available?        | No     | 0     |
| Is the inventory of water resources currently publicly                                | X      |       |
| available online?   | Yes    | 1     |
| Does the legal framework require the creation of a registry                           | Yes    | 1     |
| of water users?   | 100    |       |
| Is the registry of water users legally required to be publicly available?             | Yes    | 1     |
| Is the registry of water users currently publicly available                           |        | 0     |
| online?   | No     | 0     |
| May the government impose special measures in cases of                                | Yes    | 1     |
| water stress?   |        |       |
| What are the legal effects of measures that will be imposed in cases of water stress? |        | 1     |
| No new water use permits may be issued  | Yes    |       |
| Existing permits may be curtailed   | Yes    |       |
| No new activity or land use impacting on the water                                    | N e e  |       |
| resource may be permitted   | Yes    |       |
| Does the legal framework promote water conservation and                               | X      | 0     |
| efficiency, and if so, does it include any of the following mechanisms?               | Yes    | 0     |
| Provides a mandate for the government to promote                                      | Yes    |       |
|   |        |       |
| Creates incentives for improved water practices                                       | No     |       |
| Requires the adoption of improved water use<br>practices                              | No     |       |
| Promotes the adoption of less water intensive crops                                   | No     |       |
| Requires the development of mechanisms for  |        |       |
| quantifying water use efficiency  | No     |       |
| Does the legal framework prescribe water quality standards                            |        |       |
| for use in irrigation, and if so, does it include any of the                          | No     | 0     |
| following parameters?   | NI/ A  |       |
| Coliforms   | N/A    |       |
| Salinity  | N/A    |       |
| Nitrates  | N/A    |       |
| Phosphates  | N/A    |       |
| Integrated water resources management - Legal basis                                   |        |       |
| Water Act, Cap. 20:24, 1998   |        |       |
| 1 ator 1 at, oup 2012 1, 1000   |        |       |

## Individual Water Use for Irrigation

| Data Point  | Answer  | Score |
|---|---------|-------|
| What must the farm specified in the case study do before  |         | 1     |
| abstracting and using water for irrigation?   |         |       |
| Acquire a water abstraction and use permit  | Yes     |       |
| Declare or register its water abstraction and use   | No      |       |
| No action required  | No      |       |
| Must the case study farm's permit issuance comply with an applicable water basin plan?                                      | Yes     | 1     |
| Does the legal framework prescribe the procedure for the case study farm to acquire a new water abstraction and use permit? | Νο      | 0     |
| Is it legally required to provide public notice of the case study farm's permit application?                                | No      | 0     |
| Is there a minimum time length for public notice of the case study farm's application?                                      | N/A     | 0     |
| Minimum time length (days)  | N/A     |       |
| Is there a requirement for a certain means of public notice?  | N/A     | 0     |
| Newspaper   | N/A     |       |
| Government website  | N/A     |       |
| Letter to affected users  | N/A     |       |
| Government billboards   | N/A     |       |
| Does the legal framework set a maximum time duration for case study farm's water abstraction and use permit?                | Yes     | 1     |
| Time duration (months)  | 240     |       |
| Does the legal framework provide streamlined procedures for permit renewal?   | No      | 0     |
| May the case study farm obtain its water abstraction and use permit by a transfer from another permit holder?               | Yes     | 1     |
| Must the government be notified of, or approve, the transfer of water abstraction and use permits?                          | Approve | 0.5   |
| Does the legal framework prescribe the procedure by which to transfer a water abstraction and use permit?                   | Νο      | 0     |
| Is the case study farm legally required to pay charges for the amount of water resources abstracted for irrigation?         | No      | 0     |
| Does the legal framework mandate an authority to set charges for water abstraction?   | Yes     | 1     |

| Data Point   | Answer                          | Score     |
|--|---------------------------------|-----------|
| Does the legal framework specify a method for calculating the water abstraction charge?  | No                              | 0         |
| Is an authority legally mandated to collect charges for water abstraction?   | No                              | 0         |
| Which of the following are legally required as standard permit conditions?   |                                 | 0         |
| Volume/rate of withdrawal  | No                              |           |
| Place of abstraction   | No                              |           |
| Place of use   | No                              |           |
| Purpose of use   | No                              |           |
| Return flows   | No                              |           |
| Quality of returned waste or excess water  | No                              |           |
| Is the case study farm legally required to keep records of the quantity of water it abstracts?   | Yes                             | 1         |
| Does the legal framework permit the government to inspect<br>the case study farm for permit compliance, and if so, does it<br>provide any of the following powers to inspectors? | Yes, with<br>specific<br>powers | 0.5       |
| To require documentation or other information from<br>users relating to uses of or impacts on water<br>resources   | No                              |           |
| To enter premises for inspection purposes  | Yes                             |           |
| To take measurements and/or samples  | Yes                             |           |
| Does the legal framework detail offenses for violations of permit-related obligations, and if so, does it specifically list any of the following?                                | Yes,<br>specific<br>offenses    | 0.5       |
| Using water without a required permit or declaration   | Yes                             |           |
| Failure to comply with permit conditions   | Yes                             |           |
| Misrepresenting or omitting information to regulators  | No                              |           |
| Hindering investigators or disabling monitoring equipment  | Yes                             |           |
| Constructing water abstraction points without<br>permission  | Yes                             |           |
| In cases of drought, must the government make a formal declaration of drought or emergency before curtailing the case study farm's permit?                                       | Yes                             | 1         |
| Individual water use for irrigation - Legal basis  |                                 |           |
| Water Act, Cap. 20:24, 1998; Zimbabwe National Water Author  | rity Act, Cap. 20               | :25, 2000 |

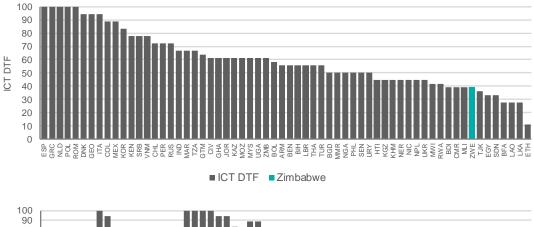
ICT DTF

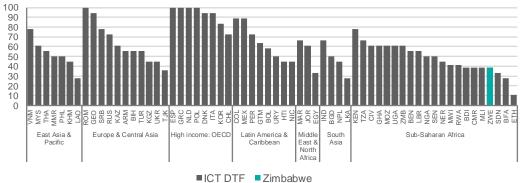
ICT

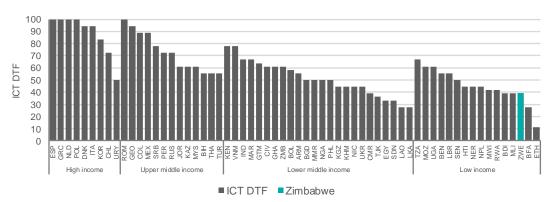
**Overall Ranking** 

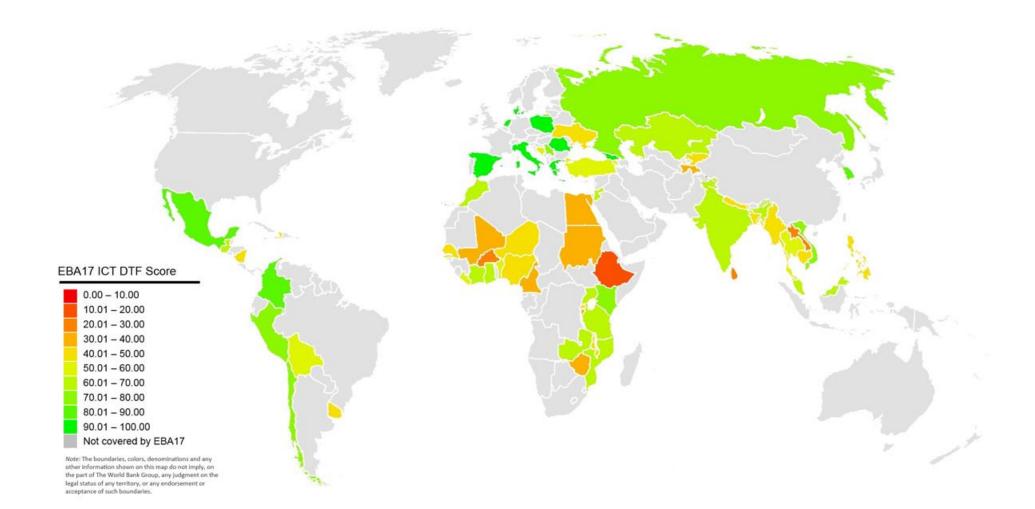
Regional Comparison

Income Comparison









## EBA17 ICT SUMMARY

DTF:38.89/100 Rank 52/62

3.5

Information & communication technology index (0-9)

## About the EBA ICT Indicator

The information and communication technology (ICT) indicator measures laws, regulations and policies that promote an enabling environment for the provision and use of ICT services, with a particular focus on rural areas. The ICT indicator focuses on the regulations and policies to improve access to ICT services.

The ICT topic area has three main types of respondents, as follows: i) mobile operators; ii) ICT and/or telecommunication regulatory authorities; and iii) telecommunication lawyers. The questionnaire targets all three groups of respondents. Data were collected through interviews conducted during country visits directly with respondents and also by email and teleconference calls from Kuala Lumpur, Malaysia and Washington, DC.

The data points below measure the legal requirements to operate as a mobile service provider that offers core mobile services which include voice, SMS (Short Message Service) and/or data.

## ICT

| Data Point  | Answer   | Score |
|---|--|-------|
| What type of operating license is required for mobile operators offering core mobile services (voice, SMS, data) in your country?   | Individual<br>License  | 0     |
| Is the licensing framework for mobile operators offering core<br>mobile services (voice, SMS, data) in your country technology<br>and service neutral?                    | No   | 0     |
| What is the validity (in years) of the operating license for mobile operators offering core mobile services (voice, SMS, data)?   | 15   | 1     |
| Are operating license costs (including first-time fee and/or annual fees, if applicable) publicly available?  | Yes, stated in<br>the law or<br>regulation,<br>available in hard<br>copy but not<br>accessible<br>online | 0.5   |
| Are renewal conditions for operating and spectrum licenses for<br>mobile operators offering core mobile services (voice, SMS,<br>data) stated in laws and/or regulations? | Yes, for<br>operating<br>licenses  | 0.5   |
| Has digital dividend been ever licensed to mobile operators in your country?  | No   | 0     |

| Data Point  | Answer                                    | Score |  |  |
|---|---|-------|--|--|
| Has low frequency spectrum (below 1 Ghz) been ever licensed to mobile operators in your country?  | Yes                                       | 1     |  |  |
| Is voluntary spectrum trading among operators allowed by law?   | No  | 0     |  |  |
| Is infrastructure sharing between mobile operators legally allowed in your country?   | Yes, passive<br>infrastructure<br>sharing | 0.5   |  |  |
| ICT - Legal basis   |   |       |  |  |
| Postal and Telecommunications (Licensing, Registration and Certification) Regulations, 2005;<br>Zimbabwe National Frequency Allocation Plan, 2014 |   |       |  |  |

# Appendix EBA Methodology

*EBA 2017* data are collected in a standardized way. The team designs questionnaires for each topic area and administers them to experts in each country. The questionnaires use a hypothetical, standardized case scenario to ensure comparability across countries. The standard business case with assumptions about the legal form of the business, its size, its location and the nature of its operations for each topic applied for all countries. Assumptions guiding respondents through their completion of the survey questionnaires vary by topic and are presented in more detail in the sections above. In addition, in the interest of comparability, the values in the assumptions are not fixed values but proportional to the country's gross national income (GNI) per capita.

Once the data are collected and analyzed, several follow- up rounds address and resolve any discrepancies in the answers the respondents provide, including through conference calls, written correspondence and country visits. For the EBA 2017 data collection, the team traveled to 14 countries to verify data and recruit respondents. The data are current as of June 30, 2016.

Legal indicators emerge from a reading of the laws and regulations. In a few instances, the data also include some elements which are not in the text of the law but relate to implementing a good regulatory practice - for example, the online availability of a fertilizer catalogue. The team identified good regulatory practices for each topic area. The individual questions or regulatory dimension are assigned numerical scores ranging from 0 to 1 (see topic data notes, below, for details). The scores of the different indicators within one topic are also averaged into a topic score.

Efficiency indicators reflect the efficiency of the regulatory system - for example, the number of procedures and the time and cost to complete a process such as certifying seed for sale in the domestic market. Data of this type are built on legal requirements, and the cost measures are backed by official fee schedules, when available. Time estimates often involve an element of judgment by respondents who routinely administer the relevant regulations or undertake the relevant transactions. To construct the time estimates for a particular regulatory process, such as completing the requirements to import fertilizer, the process is broken down into clearly defined steps and procedures. The time to complete these steps is verified with expert respondents - through conference calls, written correspondence and visits by the team - until there is convergence on a final answer. The specific rules followed by each topic on defining procedures, time and cost estimates are described below.

EBA 2017 presents two aggregate measures per topic: (i) the distance-to-frontier scores and (ii) the topic rankings that results from ordering distance-to-frontier scores. The distance-to-frontier score benchmarks economies with respect to regulatory best practice in each topic, showing the absolute distance to the best performance on each EBA indicator. The distance-to-frontier score captures the gap between a country's performance and a measure of best practice across the entire sample of 27 indicators for eight EBA topics (the land, environment, livestock and gender indicators are excluded). For transport, for example, the Russian Federation has the shortest time (1 day) to obtain a cross-border license required for domestic trucks in the partner country; Denmark has the highest number of regulatory good practices in terms of trucking licenses and operations (10.8 out of 11). The complete list of indicators is presented in table A.1, below. EBA indicators are divided into legal and efficiency indicators. In efficiency indicators, the time, cost

and documents required to conduct a specific administrative procedure (such as the registration of a new fertilizer product) are combined to build a single indicator.

Calculating the topic's distance-to-frontier score for each country involves two main steps. In the first step individual component indicators are normalized to a common unit where each of the 27 component indicators is rescaled using the linear transformation (worst–y)/(worst–frontier). In this formulation the frontier represents the best performance on the indicator across all countries. The best performance and the worst performance are established based on the data collected as of June 2016. For legal indicators such as branchless banking indicator in the finance topic, or the plant protection indicator in the markets topic, the frontier score is set at the highest possible value and the worst performance corresponds to the worst possible score. For efficiency indicators, a score of 0 is assigned in cases of "No practice" and "N/A".

To mitigate the effects of extreme outliers in the distributions of the rescaled data for efficiency indicators (for example, very few economies need more than 954 days to complete the procedures to register a fertilizer product), the worst performance is calculated after the removal of outliers. The definition of outliers is based on the distribution for each component indicator. To simplify the process two rules were defined: the 95th percentile is used for the indicators with the most dispersed distributions (including the time and cost indicators), and the 99th percentile is used for the number of documents (for example, the number of documents required to export agricultural products). No outlier is removed for legal indicators scores (such as seed quality control and assurance, tractor testing and standards, or producer organizations).

In the second step for calculating the distance-to-frontier score, the scores obtained for individual indicators for each country are aggregated through simple averaging into one distance-to-frontier score for each topic: fertilizer, seed, machinery, finance, markets, transport, water, and ICT. *EBA 2017* uses the simplest method: it gives equal weight to each of the topic components or indicators. The only exception are efficiency indicators, where the distances to frontier associated with the time, cost and documents are combined and averaged to build a single efficiency indicator. In the area of registration of a new seed variety, the team has made sure that countries are not penalized by their geographical conditions, and different distance-to-frontier scores are established for countries with one or two cropping seasons.

If no data could be obtained for a specific data point, such data point was excluded from the corresponding DTF indicator score in that country. If more than half of the data points could not be obtained for a particular legal or efficiency indicator, that indicator was excluded from the calculation of the DTF topic score in that country.

A country's distance-to-frontier score is indicated on a scale from 0 to 100, where 0 represents the worst performance and 100 the frontier. The difference between a country's distance-to-frontier score in 2016 and future score will illustrate the extent to which the country has closed the gap to the regulatory frontier over time. And in any given year the score measures how far a country is from the best performance at that time.

## Scoring methodology for <u>seed</u> indicators

| INDICATOR               | DESCRIPTION  | WHAT IS MEASURED   | HOW IT IS SCORED   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|-------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| PLANT<br>BREEDING       | This indicator<br>measures the<br>regulatory good  | <ol> <li>There is a regulation governing<br/>plant breeders' rights</li> </ol>   | A score of 1 if yes<br>A score of 0 if no  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                         | practices identified as<br>supporting the plant<br>breeding process.   | <ol> <li>The duration (in years) of the plant<br/>breeders' rights (PBR)</li> </ol>  | A score of 1 if the protection lasts at<br>least 20 years<br>A score of 0 if the protection last less<br>than 20 years   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                         |  | <ol> <li>Conditions to benefit from plant<br/>breeders' rights do not differ<br/>between national and foreign<br/>applicants</li> </ol>  | than 20 years         A score of 1 if conditions do not differ         A score of 0 if conditions differ   |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                         |  | <ol> <li>A list of protected varieties is<br/>publicly available</li> </ol>  | A score of 1 if yes<br>A score of 0 if no  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                         |  | <ol> <li>Companies are legally allowed to<br/>produce breeder/pre-basic seed of<br/>local public varieties for use in the<br/>domestic market</li> </ol>                           | A score of 1 if yes<br>A score of 0 if no  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                         |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | <ol> <li>Companies are legally allowed to<br/>produce foundation/basic seed of<br/>local public varieties for use in the<br/>domestic market</li> </ol> | A score of 1 if yes<br>A score of 0 if no |
|                         |  | <ol> <li>Companies are obtaining access<br/>to germplasm preserved in<br/>publically managed gene banks</li> </ol>   | A score of 1 if yes<br>A score of 0 if no  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                         |  | <ol> <li>Plant breeding rights can be<br/>licensed to another party for<br/>production and sale of the variety</li> </ol>  | A score of 1 if yes<br>A score of 0 if no  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                         |  | 9. There are public research<br>institutes in the country that<br>license public varieties to<br>companies for production and sale<br>in the domestic market                       | A score of 1 if yes<br>A score of 0 if no  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                         |  | <ol> <li>Companies importing germplasm<br/>for the development of new<br/>varieties are required to undergo<br/>government testing (other than<br/>phytosanitary tests)</li> </ol> | <ul> <li>A score of 1 if government testing is not required</li> <li>A score of 0 if yes government testing is required</li> </ul>                               |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
| VARIETY<br>REGISTRATION | This indicator<br>measures the<br>regulatory good<br>practices identified as<br>supporting the efficient<br>registration and<br>release of a locally<br>developed new seed<br>variety into the | <ol> <li>DUS testing data from other<br/>countries' authorities is accepted<br/>as official data for the purpose of<br/>registration</li> </ol>                                    | A score of 1 if yes<br>A score of 0 if no  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                         |  | 2. The law establishes a variety release committee (VRC) in the country  | A score of 1 if yes<br>A score of 0 if no  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |
|                         |  | <ol> <li>The composition of the legally<br/>mandated VRC includes the private<br/>sector</li> </ol>  | A score of 1 if governmental and<br>nongovernmental representatives (that<br>is, seed associations, seed<br>companies) constitute one-half or<br>more of the VRC |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |   |   |

| INDICATOR               | DESCRIPTION   | WHAT IS MEASURED  | HOW IT IS SCORED  |
|-------------------------|---|---|---|
|                         | registration process<br>through case studies.                                     |   | A score of 0.5 if nongovernmental<br>representatives are included in the<br>committee but constitute less than one<br>half<br>A score of 0 if nongovernmental |
|                         |   |   | representatives are not included in the<br>VRC or the VRC does not exist  |
|                         |   | 4. The frequency of VRC meetings  | A score of 1 if the VRC meets on demand or at least once per cropping season  |
|                         |   | 4. The nequency of vice meetings  | A score of 0 if the VRC meets less<br>than once per cropping season, or if<br>the VRC does not meet at all  |
|                         |   | <ol> <li>A variety can be commercialized<br/>immediately after the decision of<br/>the VRC</li> </ol>   | A score of 1 if yes<br>A score of 0 if no   |
|                         |   |   | A score of 1 if yes   |
|                         |   | <ol> <li>A catalog listing new registered<br/>varieties is publicly available online</li> </ol>   | A score of 0.5 if the variety catalog is not available online   |
|                         |   |   | A score of 0 if the variety catalog does not exist  |
|                         |   | <ol> <li>The variety catalog specifies agro-<br/>ecological zones suitable for the<br/>variety.</li> </ol>                                      | A score of 1 if yes<br>A score of 0 if no   |
|                         |   | <ol> <li>The frequency with which the<br/>variety catalog is updated</li> </ol>   | A score of 1 if the catalog is updated<br>each cropping season<br>A score of 0 if the catalog is updated  |
|                         |   |   | less than once a year   |
|                         |   | 9. Time to register a new maize   | <b>Total time</b> required for all legally<br>mandated procedures is aggregated<br>and presented in calendar days.  |
|                         |   | variety   | A score of 0 if there is no requirement<br>to register or if the registration is not<br>done in practice  |
| SEED QUALITY<br>CONTROL |   | 10. Cost required to register a new   | <b>Total cost</b> for all legally mandated procedures is aggregated and presented in % of income per capita.  |
|                         |   | maize variety   | A score of 0 if there is no requirement<br>to register or if the registration is not<br>done in practice  |
|                         | This indicator<br>measures legally<br>mandated processes<br>and practices of seed | <ol> <li>There is an official fee schedule<br/>for seed certification activities<br/>performed by the competent<br/>public authority</li> </ol> | A score of 1 if yes<br>A score of 0 if no   |
|                         |   | <ol> <li>Plant breeders are required to<br/>ensure the traceability of the plant<br/>reproductive material used</li> </ol>                      | A score of 1 if the plant breeder is<br>required to retain: (i) records of the<br>plant reproductive material or (ii) both                                    |

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|-----|----|
|-----|----|

| INDICATOR | DESCRIPTION | WHAT IS MEASURED  | HOW IT IS SCORED  |
|-----------|-------------|---|---|
|           |             |   | records of the plant reproductive<br>material and of their suppliers<br><b>A score of 0.5</b> if the plant breeder is<br>required to retain records of their<br>suppliers<br><b>A score of 0</b> if neither are required  |
|           |             | <ol> <li>Time in years during which plant<br/>breeders are legally obliged to<br/>keep the traceability records</li> </ol>  | A score of 1 if more or equal to two<br>years<br>A score of 0.5 if less than two years<br>A score of 0 if no obligation   |
|           |             | <ol> <li>There is a legal framework for the<br/>accreditation of private seed<br/>companies and/or third parties for<br/>the performance of certification<br/>activities</li> </ol>   | A score of 1 if yes<br>A score of 0 if no   |
|           |             | <ol> <li>Private seed companies and/or<br/>third parties (nongovernmental<br/>institutions) are accredited in<br/>practice for the performance of<br/>certification activities</li> </ol>   | A score of 1 if yes<br>A score of 0 if no   |
|           |             | <ol> <li>The following seed certification<br/>activities can be performed by an<br/>accredited seed company/third<br/>party:         <ul> <li>Field inspection</li> <li>Sampling</li> <li>Lab testing</li> <li>Labelling</li> </ul> </li> </ol> | A score of 0.25 for each of the listed activities   |
|           |             | <ol> <li>The competent public authority is<br/>required to perform post-control<br/>tests on certified seed</li> </ol>  | <ul> <li>A score of 1 if both laboratory and field post-control tests are required or if only field post-control tests are required</li> <li>A score of 0.5 if only laboratory post-control tests are required</li> <li>A score of 0 if neither are required</li> </ul>                     |
|           |             | <ol> <li>A minimum percentage of certified<br/>seed must be subject to post-<br/>control tests</li> </ol>   | A score of 1 if yes<br>A score of 0 if no   |
|           |             | <ol> <li>The competent public authority is<br/>required to take measures in the<br/>case of noncompliance with the<br/>varietal purity standards</li> </ol>   | A score of 1 if the law imposes the<br>withdrawal of the seed and a formal<br>request to comply with applicable<br>standards, or if the law only provides<br>for a formal request to comply with<br>applicable standards<br>A score of 0.5 if the law imposes the<br>withdrawal of the seed |
| -         |             | 10. Seed containers must be labeled   | A score of 0 if none are required<br>A score of 1 if yes<br>A score of 0 if no  |

| INDICATOR | DESCRIPTION | WHAT IS MEASURED  | HOW IT IS SCORED   |
|-----------|-------------|---|--|
|           |             | <ol> <li>Seed container labels must<br/>provide the following information:         <ul> <li>Name and address of seed<br/>producer</li> <li>Crop species</li> <li>Class of seed</li> <li>Net weight</li> <li>Lot number</li> <li>Certificate number</li> <li>Germination (minimum %)</li> <li>Purity (minimum %)</li> <li>Year of production</li> <li>Repacking or relabeling</li> <li>Chemical treatment on the<br/>seed</li> </ul> </li> </ol> | A score of 1 if 8 or more if the label<br>requirements must be included in the<br>label<br>A score of 0 if less than 8 |
|           |             | 12. There is a penalty for the<br>fraudulent sale of mislabeled seed<br>bags  | A score of 1 if yes<br>A score of 0 if no  |

## Scoring methodology for <u>fertilizer</u> indicators

| INDICATOR                             | DESCRIPTION  | WHAT IS MEASURED   | HOW IT IS SCORED  |
|---------------------------------------|--|--|---|
| FERTILIZER<br>REGISTRATION<br>(LEGAL) | This indicator measures<br>the legal requirements<br>to register a fertilizer<br>and the extent to which<br>public information on<br>registered products is<br>available through | Private entities are required to<br>register new fertilizer products to sell<br>them in the country  | A score of 1 if yes<br>A score of 0 if no   |
|                                       |  | The following type(s) of fertilizer<br>products must be registered:<br>Chemical or mineral fertilizer<br>products<br>Organic fertilizer products | A score of 0.5 for each category that must be registered  |
|                                       | fertilizer catalogues.   | Field testing is not required to   | A score of 1 if field testing is not required   |
|                                       |  | register a fertilizer product  | A score of 0 if field testing is required   |
|                                       |  | A lab sample analysis is required to register a fertilizer product   | A score of 1 if yes<br>A score of 0 if no   |
|                                       |  |  | A score of 1 if yes   |
|                                       |  | 5. The validity of the chemical  | A score of 0.8 if time-limited and validity is equal to or greater than 10 years  |
|                                       |  | fertilizer product registration is<br>not time-limited   | A score of 0.4 if time-limited and validity is less than 10 years   |
|                                       |  |  | A score of 0 if fertilizer products are<br>not required to be registered by law or<br>if the private sector is not allowed to<br>register fertilizer products |

|  |  | 6. | An official catalogue listing all<br>registered fertilizer products in<br>the country is publicly available<br>online<br>Re-registration of a fertilizer<br>product is not required in the<br>country if it has already<br>previously been registered in<br>another country that is part of<br>an agreement or approved in | A score of 1 if yes<br>A score of 1 if re-registration is not required  |
|--|--|----|--|---|
| FERTILIZER<br>REGISTRATION<br>(EFFICIENCY)     | Building up on legal<br>requirements to register<br>fertilizer, this indicator<br>captures the time and<br>cost needed to comply<br>with the legal<br>requirements to register | 1. | the regional catalogue<br>Total time to register a fertilizer<br>product   | Total time required for all legally<br>mandated procedures is aggregated<br>and presented in calendar days<br>A score of 0 if there is no requirement<br>to register or if the registration is not<br>done in practice  |
|  | requirements to register<br>a fertilizer.  | 2. | Total cost to register a fertilizer<br>product   | Total cost required for all legally<br>mandated procedures is aggregated<br>and presented in % of income per<br>capita<br>A score of 0 if there is no requirement<br>to register or if the registration is not<br>done in practice  |
| IMPORTING<br>AND<br>DISTRIBUTING<br>FERTILIZER | As fertilizer production<br>is concentrated in only<br>a few countries,<br>requiring most others to<br>rely on imports, these  | 1. | Private entities are allowed to<br>import fertilizer products into the<br>country to sell them   | <b>A score of 0</b> if any of the restrictions apply  |
|  | data focus on the<br>private sector's role and<br>the requirements for<br>importing and<br>distributing fertilizer.  | 2. | Private entities are required to<br>register as importers to import<br>fertilizer products but the<br>registration is not time-limited   | <ul> <li>A score of 1 if yes, or the time limit is greater or equal to 10 years</li> <li>A score of 0.5 if importer registration is time-limited and the time is greater or equal to 5 years</li> <li>A score of 0 if the company doesn't have to register as an importer or if the company has to register and registration is time-limited to less than five years</li> </ul> |
|  |  | 3. | Private entities are not required<br>to obtain an import permit to<br>import fertilizer products. If an<br>import permit is required, the<br>permit is a blank import permit<br>without a volume restriction   | A score of 1 if no permit is required<br>A score of 0.5 if a blank permit is<br>required<br>A score of 0 if a permit is required<br>with per shipment or volume<br>restrictions   |
|  |  | 4. | If an import permit is required,<br>the time validity of the import<br>permit is at least 12 months  | A score of 1 if no permit is required<br>A score of 0.5 if validity is equal or<br>greater than 12 months<br>A score of 0 if validity is less than 12<br>months   |
|  |  | 5. | The official cost to obtain an import permit is equal or less than 50% income per capita   | A score of 1 if no permit is required<br>A score of 0.5 if the cost is equal or<br>less than 50% of income per capita   |

|            |   | 6. | The time it takes to obtain the import permit is less or equal to 14 calendar days<br>Private entities are allowed to distribute fertilizer products in   | A score of 0 if the cost is more than<br>50% of income per capita<br>A score of 1 if no permit is required<br>A score of 0.5 if less or equal to 14<br>calendar days<br>A score of 0 if more than 14 calendar<br>days<br>A score of 1 if yes                                    |
|------------|---|----|---|---|
| QUALITY    |   | 1. | the country<br>The law requires labeling of   |   |
| CONTROL OF | These indicators focus  |    | fertilizer containers   | A score of 1 if yes   |
| FERTILIZER | on labeling<br>requirements,<br>legislation on the sale<br>of mislabeled and open<br>fertilizer containers, and<br>practices in monitoring<br>fertilizer quality. | 2. | The law requires that labeling<br>must be in at least one of the<br>country's official languages  | A score of 1 if yes   |
|            |   | 3. | The law establishes that the<br>label must provide the following:<br>a. brand name<br>b. net weight or volume<br>c. content description<br>d. name of the manufacturer<br>e. contact information of the<br>manufacturer<br>f. country of origin<br>g. name of the importer<br>h. contact information of<br>importer<br>i. manufacturing date<br>j. expiration date<br>k. safety instructions<br>l. storage instructions<br>m. registration number | A score of 1 if 10 or more label<br>requirements are included in the label<br>A score of 0.5 if between 5 and 9<br>label requirements are included in the<br>label<br>A score of 0 if less than 5 label<br>requirements are included in the label<br>or if no label is required |
|            |   | 4. | If the fertilizer law prohibits the sale of mislabeled fertilizer bags  | A score of 1 if yes   |
|            |   | 5. | If the law establishes a penalty<br>for the sale of mislabeled<br>fertilizer  | A score of 1 if yes   |
|            |   | 6. | If the fertilizer law prohibits the<br>sale of fertilizer products from<br>opened bags or containers  | A score of 1 if yes   |
|            |   | 7. | If the law establishes a penalty<br>for the sale of fertilizer products<br>from opened bags or containers   | A score of 1 if yes   |

### Scoring methodology for <u>machinery</u> indicators

INDICATOR

DESCRIPTION

WHAT IS MEASURED

HOW IT IS SCORED

#### Pg. 78

| TRACTOR<br>IMPORT               | This indicator<br>examines the private<br>machinery sector's<br>ability to import<br>agricultural tractors,<br>importer registration<br>and renewal<br>requirements, and<br>import permit  | Companies are not required to register<br>as importers of agricultural tractors. If<br>the registration is required, the validity<br>is indefinite or greater than 10 years | <ul> <li>A score of 1 if companies are not required to register as importers</li> <li>A score of 0.5 if the registration is required but the validity is indefinite or greater than or equal to 10 years</li> <li>A score of 0 if the registration is required and the validity is less than 10 years</li> </ul> |
|---------------------------------|--|---|--|
|                                 | requirements.  | If registration is required and limited to<br>a certain number of years, the<br>registration is automatically renewed   | A score of 1 if the registration is not<br>required or the registration is<br>automatically renewed<br>A score of 0 if registration renewal is<br>required   |
|                                 |  | An import permit is not required to<br>import agricultural tractors.<br>If a permit is required, the cost is less<br>than 25% of income per capita                          | <ul> <li>A score of 1 if import permit is not required</li> <li>A score of 0.5 if the import permit is required and the cost is smaller or equal to 25% of income per capita</li> <li>A score of 0 if the import permit is required and the cost is greater than 25% of income per capita</li> </ul>             |
|                                 |  | If an import permit is required, it is a<br>blank import permit without volume or<br>other restrictions   | <ul> <li>A score of 1 if the permit is a blank<br/>permit, or if the import permit is not<br/>required</li> <li>A score of 0 if the import permit is<br/>required for each tractor shipment or<br/>the permit is limited to a certain<br/>number of tractors annually</li> </ul>                                 |
| TRACTOR<br>OPERATION<br>(LEGAL) |  | If an import permit is required, it is valid for a period of at least 12 months   | <ul> <li>A score of 1 if the import permit has unlimited validity or if the import permit is not required</li> <li>A score of 0.5 if the permit has a validity of 12 months or longer</li> <li>A score of 0 if the permit has a validity of less than 12 months</li> </ul>                                       |
|                                 | This indicator<br>evaluates the<br>requirement of tractor<br>registration,<br>roadworthiness<br>inspections of in-use<br>tractors, and provision<br>of after-market parts<br>and services. | According to the law, tractors must be registered once imported if they will be used on public roads  | <ul> <li>A score of 1 if registration is required for use on public roads only</li> <li>A score of 0.5 if registration is required for all usage</li> <li>A score of 0 if registration is not required</li> </ul>  |
|                                 |  | According to the law, in-use tractors<br>have to be inspected for<br>roadworthiness/road-fitness and if the<br>cost of inspection is affordable                             | A score of 1 if the roadworthiness<br>inspection is required and the cost is<br>less than or equal to 2% of income per<br>capita<br>A score of 0.5 if the roadworthiness-<br>inspection is required and the cost is<br>greater than 2% of income per capita  |
|                                 | · · · · · · · · · · · · · · · · · · ·  |   |  |

|  |  |  | A score of 0 if the roadworthiness-<br>inspection is not required or it is not<br>done in practice   |
|--|--|--|--|
|  |  | The roadworthiness inspection is required for all types of tractors  | <ul> <li>A score of 1 if inspection is required for all types of tractors</li> <li>A score of 0.5 if inspection is required for specific types of tractors</li> <li>A score of 0 if no inspection is required</li> </ul>   |
|  |  | If the roadworthiness inspection is required, the results are valid for more than two years but less than four years                                 | A score of 1 if yes<br>A score of 0.5 if renewal is required<br>and the period between<br>roadworthiness tests is less than two<br>years or greater than four years<br>A score of 0 if renewal is not required   |
|  |  | Tractor dealers must provide tractor after-market service and parts  | <ul> <li>A score of 1 if both tractor aftermarket service and parts must be provided</li> <li>A score of 0.5 if either tractor aftermarket service or parts must be provided</li> <li>A score 0 if neither tractor aftermarket nor parts must be provided</li> </ul> |
| TRACTOR<br>OPERATION<br>(EFFICIENCY)           | Building on the legal<br>indicator with regards<br>to tractor registration,<br>this indicator measures<br>the time and the cost<br>required to register a<br>tractor.                            | Total time to register a tractor   | Total time required for all legally<br>mandated procedures is aggregated<br>and presented in calendar days<br>A score of 0 if there is no requirement<br>to register or if the registration is not<br>done in practice   |
|  |  | Total cost to register a tractor   | Total cost for all legally mandated<br>procedures is aggregated and<br>presented in % of income per capita<br>A score of 0 if there is no requirement<br>to register or if the registration is not<br>done in practice   |
| TRACTOR<br>TESTING AND<br>STANDARDS<br>(LEGAL) | This indicator<br>examines national and<br>international tractor<br>standards, the legal<br>framework applicable<br>to testing and the type<br>of approval of tractors,<br>and safety standards. | National and/or international tractor standards are used in the country  | <ul> <li>A score of 1 if international standards are used</li> <li>A score of 0.5 if national standards are used</li> <li>A score of 0 if no standards are used</li> </ul>   |
|  |  | If national and/or international tractor<br>standards are used in the country, the<br>following standards are included:<br>operator safety standards | <ul> <li>A score of 0.33 is assigned to each of the standards that is included.</li> <li>A score of 0 if none of the three standards are used or there are not</li> </ul>  |

|   |  | tractor performance standards engine emission standards  | national and/or international standards used in the country   |
|---|--|--|---|
|   |  | Tractors are required to obtain the type approval before they can be marketed in the country   | A score of 1 if yes<br>A score of 0 if no   |
|   |  | To obtain the type approval, the<br>following procedures are required:<br>tractor testing in a test laboratory<br>the issuance of the test report<br>the publication of the test report                                    | A score of 0.33 is assigned to each requirement<br>A score of 0 if the type approval is not required or it is not done in practice  |
|   |  | The country recognizes the tractor type approvals issued by authorities in other countries   | A score of 1 if yes<br>A score of 0 if no   |
|   |  | The country recognizes tractor test<br>reports by the tractor manufacturer for<br>the issuance of the type approval  | A score of 1 if yes<br>A score of 0 if no   |
|   |  | The type approval has unlimited<br>validity provided that the specifications<br>of the tractor do not change   | A score of 1 if yes<br>A score of 0.5 if limited to five or more<br>years<br>A score of 0 if less than five years or<br>the type approval is not required   |
|   |  | The national regulations/standards<br>require tractors to be equipped with<br>protective structures, such as roll-over<br>protection (ROPS) structures or falling<br>object protection (FOPS) structures,<br>and seatbelts | <ul> <li>A score of 1 if ROPS or FOPS are required in combination with seatbelts</li> <li>A score of 0.33 if neither ROPS or FOPS nor seatbelts are required</li> <li>A score of 0 if ROPS or FOPS are required and seatbelts are not required</li> <li>A score of 0 if seatbelts are required and ROPS or FOPS are not required</li> </ul> |
| TRACTOR<br>TESTING AND<br>STANDARDS<br>(EFFICIENCY) | Building on the legal<br>indicator with regards<br>to tractor testing and<br>the type approval, this<br>indicator measures the<br>time and the cost<br>required to test an<br>agricultural tractor and<br>obtain a tractor type<br>approval. | Time to obtain the tractor type approval   | Total time for all legally mandated<br>procedures to obtain the type approval<br>is aggregated and presented in<br>calendar days<br>A score of 0 if there is no requirement<br>to obtain type approval or if the tractor<br>type approval is not done in practice   |
|   |  | Cost to obtain the tractor type approval   | <ul> <li>Total cost for all legally mandated procedures to obtain the type approval in % of income per capita</li> <li>A score of 0 if there is no requirement to obtain type approval or if the tractor type approval is not done in practice</li> </ul>   |

## Scoring methodology for <u>finance</u> indicators

| INDICATOR  | DESCRIPTION  | WHAT IS MEASURED   | HOW IT IS SCORED                             |
|--|--|--|--|
| NON-BANK<br>LENDING<br>INSTITUTIONS<br>Operation and<br>prudential<br>regulation of<br>MFIs<br>(operations) <sup>a</sup> | This indicator<br>measures the<br>regulatory framework<br>for deposit-taking<br>MFIs.    | <ol> <li>The country allows and regulates<br/>deposit-taking MFIs</li> <li>There is a minimum capital<br/>requirement to establish an MFI</li> <li>The regulated minimum capital<br/>adequacy ratio for MFIs is at least<br/>equal to, or no more than 2<br/>percentage points higher, than the<br/>capital adequacy ratio for<br/>commercial banks<sup>b</sup></li> <li>Loan sizes of MFIs are: not limited<br/>to a specific amount; or are greater<br/>than 10 times the gross national<br/>income (GNI) per capital if there is<br/>a specific amount; or are a<br/>percentage of capital, equity or<br/>deposits<sup>c</sup></li> <li>MFIs must disclose the effective<br/>interest rate or a proxy to loan<br/>applicants</li> <li>MFIs are required to fully provision<br/>a delinquent, unsecured loan after<br/>the same number of days required<br/>for commercial banks, or within<br/>half the number of days required<br/>for commercial banks</li> <li>MFIs are required to subscribe to a<br/>deposit insurance system</li> </ol> | <b>A score of 1</b> if yes for each question |
| Operation and<br>governance of<br>financial<br>cooperatives<br>(operations)  | This indicator<br>measures the<br>regulatory framework<br>for financial<br>cooperatives. | <ol> <li>There is a law regulating financial<br/>cooperatives, or there is a specific<br/>section of a general cooperatives<br/>law that regulates the governance<br/>and operation of financial<br/>cooperatives</li> <li>There is a minimum capital<br/>requirement to establish a financial<br/>cooperative</li> <li>A minimum number of members is<br/>required to establish a financial<br/>cooperative</li> <li>Ratios are defined in the law to<br/>ensure the financial stability of<br/>financial cooperatives</li> <li>Financial cooperatives</li> <li>Financial cooperatives must<br/>disclose the effective interest rate<br/>or a proxy to loan applicants</li> <li>Financial cooperatives must<br/>subscribe to a mandatory deposit<br/>insurance system</li> <li>Two or more financial cooperatives<br/>may merge or amalgamate into a<br/>new financial cooperative</li> </ol>   | <b>A score of 1</b> if yes for each question |
| BRANCHLESS<br>BANKING  | This indicator<br>measures the entry<br>and operational                                  | <ol> <li>There exists a legal framework to<br/>regulate agent banking activities</li> </ol>  | A score of 1 if yes                          |
| Agent banking<br>(operations) <sup>d</sup>   | requirements for agent banking.  | <ol> <li>Whether there are minimum<br/>standards to qualify and operate as<br/>an agent in the following areas: 1)</li> </ol>  | A score of 0.2 for each standard             |

|   |   | can either be an<br>operating/established business or<br>an individual; 2) has to have<br>financial soundness; 3) has no<br>criminal record; 4) has to have real-<br>time connectivity to a commercial<br>bank; and 5) location  |   |
|---|---|--|---|
|   |   | <ol> <li>Agents can enter into both exclusive<br/>and non-exclusive contracts with<br/>financial institutions</li> </ol>   | A score of 1 if yes<br>A score of 0.5 if only non-exclusive<br>contracts are allowed<br>A score of 0 is assigned if only<br>exclusive contracts are allowed   |
|   | This indicator<br>measures the legal<br>framework for e-<br>money, in particular,<br>the entry and<br>operational<br>requirements for<br>non-financial<br>institution e-money<br>issuers. | <ul> <li>4. The types of services that agents can offer on behalf of a bank includes:</li> <li>a. cash deposits;</li> <li>b. cash withdrawals;</li> <li>c. transfer of funds to other customers' accounts;</li> <li>d. bill payments;</li> <li>e. balance inquiry;</li> <li>f. opening a deposit account;</li> <li>g. collection/processing of loan application documents;</li> <li>h. know your customer (KYC) and customer due diligence (CDD) procedures</li> </ul> | A score of 0.125 for each service that can be offered   |
|   |   | <ol> <li>Commercial banks are liable for the<br/>acts of commission and omission of<br/>agents providing financial services<br/>on their behalf</li> </ol>   | A score of 1 if yes   |
| Electronic<br>money (e-<br>money<br>operations) |   | <ol> <li>E-money is defined and regulated</li> <li>Non-financial institution businesses<br/>are allowed to issue e-money</li> <li>Non-financial institution e-money<br/>issuers are required to keep<br/>customer's funds safeguarded and<br/>deposited in a trust at a fully<br/>prudentially regulated financial<br/>institution under which funds are<br/>held on behalf of clients</li> </ol>  | A score of 1 if yes for each question   |
|   |   | <ul> <li>4. There are four requirements for non-financial institution businesses to receive a license to issue e-money:</li> <li>a. an initial capital requirement; for the initial capital requirement, countries are divided into four groups (1, 2/3, 1/3 and 0) based on the country's capital requirement as a multiple of its income per capita</li> </ul>   | <ul> <li>A score of "1*1/4" if the capital requirement is less than 101 times the GNI per capita, but greater than 0</li> <li>A score of "2/3*1/4" if the minimum capital is equal to or greater than 101 times the income per capita, but less than 501</li> <li>A score of "1/3*1/4" if the minimum capital is equal to or greater than 501 times the income per capita, but less than 901</li> <li>A score of 0 if the minimum capital requirement is equal to or greater than 901 times the income per capita or if there are no provisions on the minimum capital requirement</li> </ul> |

|  |  | <ul> <li>b. interoperability with other existing electronic money payment/transfer systems</li> <li>c. existence of internal control mechanisms to comply with Anti-Money Laundering and Combatting Financing of Terrorism (AML/CFT) laws, standards and measures</li> <li>d. consumer protection measures such as consumer recourse mechanisms, consumer awareness programs, and so on</li> </ul>  | <b>A score of 1/4</b> if the law states the requirement and 0 if it does not  |
|--|--|---|---|
| MOVABLE<br>COLLATERAL<br>Warehouse<br>receipts<br>(operations) | This indicator<br>measures the<br>regulatory framework<br>facilitating the use of<br>agricultural<br>commodities as<br>collateral.   | <ol> <li>There is a law regulating the<br/>operation of warehouse receipts or<br/>the regulation of warehouse<br/>receipts is included in other<br/>general legislation</li> <li>Warehouse operators are required<br/>to file a bond with the regulator,<br/>pay into an indemnity fund to<br/>secure performance by him of his<br/>obligations as a warehouse<br/>operator, or are required to insure<br/>the warehouse or the stored goods<br/>against fire, earthquakes, theft,<br/>burglary or other damage</li> <li>Warehouse receipts are negotiable</li> </ol> | A score of 1 if yes for each question   |
|  |  | <ol> <li>The types of warehouse receipts<br/>that are legally valid: paper-<br/>based, electronic or both</li> </ol>  | A score of 1 is assigned if the law<br>allows both paper-based and<br>electronic warehouse receipts, and if<br>electronic warehouse receipts are<br>explicitly mentioned in the regulation<br>A score of 0.5 is assigned if the law<br>allows only paper-based receipts<br>A score of 0 is assigned if warehouse<br>receipt is not recognized or used |
|  |  | <ul> <li>5. Information that must be listed on a warehouse receipt for it to be valid. There are four details measured, namely:</li> <li>date of issuance or serial number location of storage</li> <li>description of goods in storage, (for example, type, quality and harvest)</li> <li>information on security interest over the goods (for example, a certificate of pledge)</li> </ul>  | A score of 0.25 for each piece of information that needs to be listed   |
| Doing Business<br>– Getting Credit<br>(operations)             | This indicator<br>measures the legal<br>rights of borrowers<br>and lenders with<br>respect to secured<br>transactions and the<br>reporting of credit<br>information. A total of<br>eight data points from<br>the indicator's sub-<br>indices (five data<br>points from the<br>strength of legal rights | <ol> <li>There is a legal framework for<br/>secured transactions that grant<br/>security interest in movable assets</li> <li>The law allows businesses to grant<br/>a non-possessory security right in<br/>a single category of movable<br/>assets without requiring a specific<br/>description of collateral</li> <li>The law allows businesses to grant<br/>a non-possessory security right in<br/>substantially all of its assets,<br/>without requiring a specific<br/>description of collateral</li> </ol>   | A score of 1 if yes for each question   |

| sub-index a<br>data points<br>credit inforr<br>sub-index)<br>included. | from the nation | Security rights are granted to<br>future or after-acquired assets,<br>and they extend automatically to<br>the products, proceeds or<br>replacements of the original assets<br>Existence of a collateral registry<br>for movable assets in operation for<br>both incorporated and non-<br>incorporated entities, that is unified<br>geographically and by asset type,<br>with an electronic database<br>indexed by debtor's name<br>The credit information is<br>distributed from retailers or utility<br>companies—in addition to data<br>from banks and financial<br>institutions<br>Credit information includes data on<br>loan amounts below 1% of income<br>per capita<br>There is a legal framework that<br>allows borrowers to access their |  |
|--|-----------------|---|--|
|  |                 | data in the credit bureau or credit<br>registry   |  |

<sup>a</sup> Countries with a high level of financial inclusion are not measured under the operation and prudential regulation for MFIs subindicator.

<sup>b</sup> The methodology adopts the Basel Committee recommendation in "Microfinance activities and the Core Principles for Effective Banking Supervision" and the International Development Bank's Jansson et al. (2004) "Principles and Practices for Regulating and Supervising Microfinance" report in establishing a CAR that falls within 2-3 percentage point of commercial banks or in the range of 10% to 15%.

<sup>c</sup> In some countries, the maximum loan an MFI can extend is limited to a percentage of deposits or a percentage of core capital. This language is included in risk management regulations, intended to limit the exposure of the institution to a single borrower. For countries with this type of loan limitation, EBA 2017 considers it "no limit" because the currency value corresponding to that percentage is so high as to present no effective limit to borrowers.

<sup>d</sup> Countries with high level of financial inclusion are not measured under the agent banking sub-indicator.

#### Scoring methodology for <u>markets</u> indicators

| INDICATOR                          | DESCRIPTION  | WHAT IS MEASURED   | HOW IT IS SCORED   |
|------------------------------------|--|--|--|
| AGRICULTU-<br>RAL TRADE<br>(LEGAL) | This indicator<br>measures regulatory<br>requirements<br>applicable to the<br>domestic trade and | <ol> <li>There are no price regulations in<br/>the sector of the selected product<br/>(explicit price regulations are<br/>considered, including those that<br/>apply only to government<br/>purchases. Recommended prices<br/>are not included)</li> </ol> | A score of 1 if price regulations do not<br>exist<br>A score of 0 if price regulations exist |

|   | export of agricultural   |     |  |   |
|---|--|-----|--|---|
|   | products.  | 2.  | Sales and purchases of the<br>selected product do not have to<br>occur at an auction or a fixed<br>(electronic or physical)<br>marketplace   | <ul> <li>A score of 1 if sales and purchases<br/>do not have to occur at an auction or a<br/>fixed market</li> <li>A score of 0 if sales and purchases<br/>have to occur at an auction or a fixed<br/>market</li> </ul> |
|   |  | 3.  | Traders do not have to obtain a<br>trader-level license to buy/sell the<br>selected product or agricultural<br>products more generally in the<br>domestic market                         | A score of 1 if the license is not<br>required<br>A score of 0 if the license is required   |
|   |  | 4.  | Exporters do not have to be a<br>member of a specific association<br>or organization to obtain the right<br>to export the selected product or<br>agricultural products more<br>generally | A score of 1 if membership is not<br>required<br>A score of 0 if the membership is<br>required  |
|   |  | 5.  | Exporters do not have to obtain a<br>trader-level export license to<br>export the selected product or<br>agricultural products more<br>generally to the selected trading<br>partner      | A score of 1 if the license is not<br>required<br>A score of 0 if the license is required   |
|   |  | 6.  | Phytosanitary certificate<br>applications may be submitted<br>electronically   | A score of 1 if yes   |
|   |  | 7.  | Phytosanitary certificates may be<br>generated, issued and sent in an<br>electronic form (for example, an<br>ePhyto system is in place)  | A score of 1 if yes   |
|   |  | 8.  | Phytosanitary certificates may be<br>issued on-site where the selected<br>product is produced, processed,<br>packaged, stored and so on  | A score of 1 if yes   |
|   |  | 9.  | The official fee schedule for the phytosanitary certificate is publicly available  | <ul> <li>A score of 0.5 is assigned to each of the following:</li> <li>The official fee schedule is available on a government website.</li> <li>The official fee schedule is available in legislation.</li> </ul>       |
| AGRICULTU-<br>RAL TRADE<br>(EFFICIENCY) | This indicator<br>measures the number,<br>time and cost of<br>agriculture- and | 10. | Total number of mandatory<br>documents required to export the<br>selected product to the selected<br>trading partner   | <b>Total number</b> of mandatory,<br>agriculture-specific documents is<br>aggregated and presented in number<br>form  |
|   | product-specific<br>documents to export<br>agricultural products.              | 11. | Total time to obtain the<br>mandatory documents required to<br>export the selected product to the<br>selected trading partner  | <b>Total time</b> required to obtain the mandatory, agriculture-specific documents is aggregated and presented in calendar days   |
|   |  | 12. | Total cost to obtain the<br>mandatory documents required to<br>export the selected product to the<br>selected trading partner  | <b>Total cost</b> required to obtain the mandatory, agriculture-specific documents is aggregated and presented in % income per capita   |
| PLANT<br>PROTECTION                     | This indicator<br>examines the strength  | 1.  | A specific government agency or unit is designated by law to   | A score of 1 if yes   |

|                       | of the domestic plant<br>protection framework<br>by considering the                         |    | conduct pest surveillance on<br>plants   |  |
|-----------------------|---|----|--|--|
|                       | legal obligations<br>applicable to domestic<br>pest management.                             | 2. | The government or national plant<br>protection agency maintains a list<br>of regulated quarantine pests  | A score of 1 if yes  |
|                       |   |    |  | A score of 0.5 is assigned to each of the following:   |
|                       |   | 3. | The list of regulated quarantine<br>pests is publicly available on a<br>relevant government website and  | <ul> <li>The list of regulated quarantine<br/>pests is uploaded to the IPPC<br/>website.</li> </ul>  |
|                       |   |    | uploaded to the IPPC website   | • The list of regulated quarantine pests is made available on a relevant government website.   |
|                       |   | 4. | <ul> <li>A pest database that contains<br/>details on the pests present in the<br/>country is available on a<br/>government website and contains<br/>the following features:</li> <li>a. pictures</li> <li>b. host information</li> <li>c. current status</li> <li>d. potential treatment methods</li> </ul> | <b>A score of 0.25</b> is assigned to each of the features available in the pest database  |
|                       |   |    |  | A score of 1 if yes  |
|                       |   | 5. | Land owners/users are obligated<br>to report pest outbreaks to the<br>government, and penalties are in<br>place for non-compliance   | A score of 0.5 if land owners/users<br>are obligated to report pest outbreaks<br>to the government, but there are no<br>penalties for noncompliance<br>A score of 0 if land owners/users are |
|                       |   |    |  | not obligated to report pest outbreaks to the government   |
|                       |   | 6. | A specific government agency or<br>unit is designated by law to<br>conduct pest risk analysis (PRA)<br>for imports of plant products   | A score of 1 if yes  |
|                       |   | 7. | The PRA reports are publicly available online  | A score of 1 if yes  |
|                       |   | 8. | Phytosanitary inspections on<br>imports of plant products may be<br>carried out on a risk basis  | A score of 1 if yes  |
| PRODUCER<br>ORGANIZA- | This indicator<br>measures the laws   |    |  | A score of 1 if there is no minimum capital requirement  |
| TIONS                 | applicable to the<br>creation of producer<br>organizations, their<br>growth, efficiency and | 1. | There is no minimum capital requirement to establish a producer organization   | A score of 0.5 if the minimum capital requirements is equal to or less than 1 time the income per capita   |
|                       | inclusiveness.  |    |  | A score of 0 if the minimum capital requirement is greater than 1 time the income per capita   |
|                       |   | 2. | Foreign natural persons may be<br>members of a producer<br>organization  | A score of 1 if foreign natural persons<br>are explicitly allowed to be members<br>or if there is no prohibition on their<br>membership (for example, the law is<br>silent)                  |
|                       |   |    |  |  |

|           |  | A score of 1 if both domestic and<br>foreign legal persons may be<br>members<br>A score of 0.8 if all domestic legal<br>persons are allowed to be members<br>but foreign legal persons are<br>prohibited |
|-----------|--|--|
| 3.        | Domestic and foreign legal<br>persons may be members of a<br>producer organization   | A score of 0.6 if only certain domestic<br>legal persons are allowed to be<br>members and foreign legal persons<br>are not prohibited  |
|           |  | A score of 0.4 if only certain domestic legal persons are allowed to be members and foreign legal persons are prohibited   |
|           |  | <b>A score of 0</b> if domestic legal persons are not allowed to be members  |
| 4.        | The government may not own shares in a producer organization   | A score of 1 if government shares in a producer organization is prohibited   |
| 5.        | There is no cap on the dividends paid on member shares   | A score of 1 if there is no cap on dividends   |
| 6.        | Profits may be distributed in the form of shares   | A score of 1 if yes  |
|           | Nonmembers may own shares in<br>a producer organization and<br>there is no cap on dividends  | A score of 1 if nonmember shares are allowed and there is no cap on dividends  |
| 7.        |  | A score of 0.8 if nonmember shares<br>are allowed and there is a cap on<br>dividends   |
|           |  | A score of 0 if nonmember shares are<br>not allowed or if the law is silent on the<br>issue of nonmember participation   |
|           |  | A score of 1 if there is a time limit and it is equal to or less than 10 days  |
| 8.        | An application to register a   | A score of 0.75 if there is a time limit and it is equal to or less than 30 days   |
|           | producer organization must be<br>reviewed and decided upon<br>within an explicit time limit set out<br>in the law                              | A score of 0.5 if there is a time limit and it is equal to or less than 60 days  |
|           |  | A score of 0.25 if there is a time limit and it is more than 60 days   |
|           |  | A score of 0 if there is no time limit   |
| 9.        | The designated regulating<br>authority must explain its reasons<br>for rejecting an application to<br>establish a producer organization        | A score of 1 if yes  |
| 10.       | The open membership principle applies to producer organizations  | A score of 1 if yes  |
| 11.<br>a. | Women's membership in a<br>producer organization is not<br>restricted by any additional<br>requirements, such as:<br>legal ownership over land | A score of 1 if none of the listed restrictions exist  |

|  | b.<br>c.<br>d.                  | only one member per household<br>a married woman has to receive<br>her husband's authorization<br>before joining a producer<br>organization<br>other legal restrictions that might<br>apply to female members and<br>limit their participation in producer<br>organizations   | A score of 0 if any of the listed restrictions exist   |
|--|---------------------------------|---|--|
|  | 12.<br>a.<br>b.<br>c.           | A quota or other mechanism is<br>established by law to promote<br>women in producer<br>organizations, such as:<br>a gender quota for the board of<br>directors of producer<br>organizations<br>a gender quota for the<br>supervisory committee of<br>producer organizations<br>other gender-related quotas or<br>mechanisms applicable to<br>producer organizations | A score of 1 if any of the listed quotas exist   |
|  |                                 |   | This question is scored in two<br>parts:   |
|  |                                 |   | For the constitution:  |
|  |                                 |   | A score of 0.5 if the constitution contains a clause on nondiscrimination and it mentions gender   |
|  | 13.                             | The constitution and the law on<br>producer organizations contain<br>provisions on nondiscrimination  | A score of 0.3 if the constitution<br>contains a clause on<br>nondiscrimination, but it does not<br>mention gender                                   |
|  |                                 |   | A score of 0 if the constitution does<br>not contain a clause on<br>nondiscrimination  |
|  |                                 | and both mention gender as a specifically protected category  | For the law on producer organizations:   |
|  | specifically protected category |   | A score of 0.5 if the law requires<br>producer organizations to comply with<br>the principle of nondiscrimination and<br>it mentions gender          |
|  |                                 |   | A score of 0.3 if the law requires<br>producer organizations to comply with<br>the principle of nondiscrimination, but<br>it does not mention gender |
|  |                                 |   | A score of 0 if the law does not<br>require producer organizations to<br>comply with the principle of<br>nondiscrimination                           |

\* The 2016 data of Women, Business and the Law – Accessing Institutions are used as secondary data. The specific data points included: (1) whether the constitution contains a clause on nondiscrimination or not; and (2) if it exists in the constitution, whether the nondiscrimination clause mentions gender or not.

## Scoring methodology for <u>transport</u> indicators

| INDICATOR                     | DESCRIPTION   | WHAT IS MEASURED  | HOW IT IS SCORED   |   |  |
|-------------------------------|---|---|--|---|--|
| TRUCK<br>LICENSING<br>(LEGAL) | This indicator<br>measures the<br>regulatory and<br>normative framework<br>and associated<br>efficiency to access<br>and operate  | <ol> <li>Type of license legally required to<br/>transport goods commercially in<br/>the domestic market:         <ul> <li>a) License at the company level</li> <li>b) License at the truck level</li> <li>c) Both at the company and<br/>truck level licenses</li> <li>d) No license required</li> </ul> </li> </ol>   | <ul> <li>A score of 1 if only the company-level license is required</li> <li>A score of 0.5 if both company-level and truck-level licenses are required or only the truck license is required</li> <li>A score of 0 if no license is required</li> </ul>   |   |  |
|                               | domestically within the<br>road freight transport<br>service market. Overall,<br>the indicators<br>determine the extent to<br>which legal foundations<br>provide for a clear,<br>transparent and<br>efficient system for<br>accessing the market,<br>guarantee a level<br>playing field for<br>competition, and<br>dedicate special legal<br>provisions for<br>transporting agriculture<br>and food products. | road freight transport<br>service market. Overall,<br>the indicators<br>determine the extent to<br>which legal foundations<br>provide for a clear,<br>transparent and<br>efficient system for<br>accessing the market,<br>guarantee a level<br>playing field for<br>competition, and<br>dedicate special legal<br>provisions for<br>transporting agriculture  | road freight transport<br>service market. Overall,<br>the indicators<br>determine the extent to<br>which legal foundations<br>provide for a clear,<br>transparent and<br>efficient system for<br>accessing the market,<br>guarantee a level<br>playing field for<br>competition, and<br>dedicate special legal<br>provisions for<br>transporting agriculture | <ol> <li>Validity of the relevant domestic<br/>license(s) is at least five years</li> <li><i>Note</i>: If the country does not require a<br/>domestic license, the score of this<br/>question will read "N/A" (not<br/>applicable)</li> </ol>   | A score of 1 if yes<br>A score of 0 if the validity is less than<br>five years or N/A<br>If a country has "both" licenses, a<br>score of 1 if both licenses have a<br>validity of at least five years, and a<br>score of zero if otherwise |
|                               |   |   |  | <ol> <li>Citizenship requirements do not<br/>apply to obtain a license (foreign<br/>nationals or businesses are<br/>allowed to obtain the relevant<br/>licenses)</li> <li>Note: If the country does not require a<br/>domestic license, the score of this<br/>question will read "N/A"</li> </ol> | A score of 1 if yes<br>A score of 0 if no or N/A   |
|                               |   | <ol> <li>The law does not establish any of<br/>the following additional<br/>requirements to obtain a license:         <ol> <li>Maximum number of trucks<br/>covered under the license</li> <li>Maximum transported tonnage</li> <li>Geographical operational<br/>limitations</li> <li>Minimum number of trucks under<br/>the license</li> <li>Licenses are only issued to<br/>members of a truckers'<br/>association or professional body</li> <li>Licenses cannot be issued to<br/>women</li> <li>Obtain government registry or<br/>notification certificate</li> </ol> </li> <li>Note: If the country does not require a<br/>domestic license, the score of this<br/>question will read "N/A."</li> </ol> | <b>A score of 1</b> if no additional<br>requirements<br><b>A score of 0</b> if any additional<br>requirement or "N/A"  |   |  |
|                               |   | <ul> <li>5. Documents required by law when transporting goods by road domestically include:</li> <li>a. Written contract describing the conditions of carriage, including carrier's liability for loss, damage</li> </ul>   | A score of 1 if documents listed under<br>both (a) and (b) are required<br>A score of 0.5 if yes only to either (a)  |   |  |
|                               |   | <ul> <li>b. Consignment note, packing list,</li> <li>bill of lading, waybill, commercial</li> <li>invoice or any other official</li> <li>document describing the goods</li> </ul>   | or (b)<br>A score of 0 if no documents are<br>required by law when transporting  |   |  |

| shipped, their origin and<br>destination  |   |
|---|---|
| 6. The law establishes specific regulations related to the transport of perishable agriculture  | A score of 1 if yes<br>A score of 0 if no   |
| products or foodstuffs, or related to the reference product   |   |
| <ol> <li>The law considers the following<br/>aspects as part of regulations for<br/>the transport of agri-food<br/>products:         <ol> <li>Special conditions related to<br/>covering/roofing and<br/>flooring/insulation to protect loads<br/>from external and internal<br/>contaminants</li> <li>Vehicle cooling, refrigeration or<br/>controlled-temperature aspects</li> <li>Prohibition of co-mingling of<br/>certain items</li> <li>Specific packaging, sealing and<br/>stowage conditions for the goods<br/>transported</li> <li>Loading and unloading specific<br/>procedures</li> <li>Mandatory cleaning and<br/>disinfection protocols and<br/>routines of truck container</li> </ol> </li> </ol> | A score of 0.166 for each aspect<br>regulated<br>A score of 0 for each aspect not<br>regulated<br>A score of 0 if "N/A"   |
| <i>Note</i> : If the country has no specific regulations for agricultural or food products, the score of this question will read "N/A"  |   |
| <ol> <li>There is a public registry of licensed transport operators</li> <li><i>Note</i>: If the country does not require a domestic license, the score of this question will read "N/A"</li> </ol>   | A score of 1 if the registry is available<br>online or by other means (official<br>gazette, phone, certified agent,<br>billboards at public authority, and so<br>on)<br>A score of 0 if no or "N/A"     |
|   |   |
| <ol> <li>Public availability of requirements<br/>that companies must fulfill to<br/>obtain or renew a road transport<br/>license</li> <li>Note: If the country does not require a<br/>domestic license, the court of this</li> </ol>  | A score of 1 if the requirements are<br>published on a government website or<br>available by other means (official<br>gazette, phone, certified agent,<br>billboards at public authority, and so<br>on) |
| domestic license, the score of this question will read "N/A"  | A score of 0 if no or "N/A"   |
| 10. The application or renewal for a license can be submitted electronically  | A score of 1 if yes   |
| <i>Note</i> : If the country does not require a domestic license, the score of this question will read "N/A"  | A score of 0 if no or "N/A"   |
| <ol> <li>Freight is allocated through direct<br/>contracting between a producer<br/>or trader and a trucking service<br/>provider</li> </ol>  | A score of 1 if yes   |

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| TRUCK<br>LICENSING<br>(EFFICIENCY) | This indicator<br>measures the<br>procedural efficiency<br>(time and cost<br>required) of the<br>licensing systems in<br>place in a country, as<br>perceived by the<br>relevant road transport<br>operators.   | <ol> <li>Total time required to obtain a<br/>domestic license</li> </ol>   | Total time required to obtain the<br>relevant license is presented in<br>calendar days<br>A score of 0 if there is no license<br>required<br><i>Note</i> : If "both" licenses are required,<br>their times and costs are aggregated. |   |
|------------------------------------|--|--|--|---|
|                                    |  | <ul> <li>13. Total cost required to obtain a domestic license</li> <li><i>Note</i>: If the country does not require a domestic license, the score of this question will read "N/A"</li> </ul>  | Total cost to obtain the relevant<br>license is presented in % of income<br>per capita<br>A score of 0 if there is no license<br>required<br><i>Note:</i> If "both" licenses are required,<br>their times and costs are aggregated.  |   |
| CROSS-<br>BORDER<br>TRANSPORT-     | This indicator<br>measures the<br>completeness of the  | <ol> <li>Transport rights are granted to<br/>foreign transport companies or<br/>trucks registered in the trading<br/>partner</li> </ol>  | A score of 1 if yes<br>A score of 0 if no  |   |
| ATION (LEGAL)                      | legal and regulatory<br>framework governing<br>cross-border transport<br>between a given<br>country and its largest<br>trading partner. Overall<br>the indicators aim to<br>assess whether a<br>country's national<br>regulatory environment<br>encourages cross-<br>border transport. | <ol> <li>Backhauling rights are granted<br/>to foreign transport companies<br/>or trucks registered in the<br/>trading partner</li> </ol>  | A score of 1 if yes<br>A score of 0 if no  |   |
|                                    |  | trading partner. Overall<br>the indicators aim to<br>assess whether a<br>country's national<br>regulatory environment<br>encourages cross-   | <ol> <li>Triangular rights are granted to<br/>foreign transport companies or<br/>trucks registered in the trading<br/>partner</li> </ol>   | A score of 1 if yes<br>A score of 0 if no   |
|                                    |  |  | regulatory environment<br>encourages cross-  | regulatory environment<br>encourages cross- |
|                                    |  | <ol> <li>Cabotage rights are granted to<br/>foreign transport companies or<br/>trucks registered in the trading<br/>partner</li> </ol>   | A score of 1 if yes<br>A score of 0 if no  |   |
|                                    |  | <ol> <li>Transport rights are not specific<br/>to certain transit routes or<br/>corridors.</li> </ol>  | A score of 1 if transit rights are not<br>specific<br>A score of 0 if transit rights are<br>specific   |   |
|                                    |  | <ol> <li>A cross-border license is<br/>required for foreign trucks to<br/>operate in your country.</li> </ol>  | A score of 1 if yes<br>A score of 0 if no  |   |
|                                    |  | <ol> <li>The validity of the cross-border<br/>license required when operating<br/>in trading partner is at least five<br/>years.</li> <li><i>Note</i>: If the country does not require<br/>a cross border license, the score of</li> </ol> | A score of 1 if yes<br>A score of 0 if the validity is less than<br>five years, N/A, or if the license<br>constitute a "single-entry" permit   |   |
|                                    |  | <ul> <li>this question will read "N/A."</li> <li>9. The law does not establish an official limit or quota on the number of cross-border licenses granted.</li> </ul>   | A score of 1 if yes<br>A score of 0 if no or "N/A"   |   |

|  |  | <i>Note:</i> If the country does not require<br>a cross-border license, the score of<br>this question will read "N/A." |  |
|--|--|--|--|
| CROSS-<br>BORDER<br>LICESNCING<br>(EFFICIENCY) | This indicator<br>measures the<br>procedural efficiency<br>(time and cost<br>required) of the<br>licensing systems in<br>place in a country, as<br>perceived by the<br>relevant road transport | <ol> <li>Total time required to obtain a<br/>cross-border license</li> </ol>   | Total time required to obtain the cross<br>border license is presented in<br>calendar daysA score of 0 if there is no license<br>required or if licensing does not apply<br>in practiceNote: If the country is considered an<br>"island country" |
|  | operators. This license<br>refers to trucks going<br>from the home country<br>to the largest trading<br>partner.   |  | taken into account for the final score.         Total cost required to obtain the cross-border license is presented in % of income per capita  |
|  |  | <ol> <li>Total cost required to obtain the<br/>cross-border license in income<br/>per capita</li> </ol>                | A score of 0 if there is no license<br>required or if the licensing is not<br>applied in practice  |
|  |  |  | <i>Note</i> : If the country is considered an "island country, <sup>*a</sup> this question is not taken into account for the final score.  |

Notes: The truck licensing indicator refers exclusively to domestic operations. In contrast, the cross-border transport indicator refers to transport operations undertaken between a given country and its largest neighboring agricultural trading partner.

<sup>a</sup> "Island countries" include Korea, the Philippines and Sri Lanka.

#### Scoring methodology for <u>water</u> indicators

| INDICATOR                        | DESCRIPTION   |                                     | WHAT IS MEASURED  | HOW IT IS SCORED  |  |
|----------------------------------|---|-------------------------------------|---|---|--|
| INTEGRATED<br>WATER<br>RESOURCES | ATER<br>SOURCES<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENTA<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>ANAGEMENT<br>AN | 1.                                  | The establishment of basin<br>institutions is provided for in the<br>law.             | A score of 1 if yes   |  |
| MANAGEMENT                       |   | features that comprise modern water | 2.  | Number of basin institutions existing   | A score of 1 if at least one basin institution exists  |
|                                  |   | 3.                                  | A specific government agency or<br>unit is designated by law to<br>manage groundwater | A score of 1 if yes   |  |
|                                  |   | and source protection.              | 4.  | Basin institutions have the<br>following remits:<br>a. special purpose<br>government<br>b. advisory<br>c. stakeholder consensus | A score of 1 if the law provides for all<br>of the listed remits<br>A score of 0.5 if the law provides for at<br>least one of the listed remits<br>A score of 0 if the law provides for<br>none of the listed remits |

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|---|----------|----|
|   | <u> </u> |    |

| 5<br>6<br>7<br>8 | <ul> <li>structure for basin institutions is<br/>set out in the law</li> <li>Water users must be represented<br/>in basin institutions</li> <li>A national water plan is required</li> </ul>   | A score of 1 if yes  |
|------------------|--|--|
| 9                | <ul> <li>The following specific components<br/>must be included in basin plans:</li> <li>a. resource description and<br/>categorization</li> <li>b. uses</li> <li>c. pollution sources</li> <li>d. protected areas</li> <li>e. drought/ flood plan</li> <li>f. economic analysis</li> <li>g. long-term objectives</li> </ul> | A score of 1 if the legal framework<br>requires all of the listed components<br>A score of 0.5 if at least three of the<br>listed components are required<br>A score of 0 if none of the listed<br>components are required   |
|                  | <ol> <li>Water users must be consulted<br/>during the development of basin<br/>plans</li> <li>Basin plans must be periodically<br/>updated in accordance with a<br/>mandatory timeline provided for in<br/>the law</li> </ol>  | A score of 1 if yes  |
| 1                | 2. Number of basin plans completed   | A score of 1 if at least one plan has been completed   |
| 1                | <ol> <li>An order of priority for water<br/>allocation between different types<br/>of users is required</li> </ol>   | A score of 1 if yes  |
| 1                | <ol> <li>A water resources monitoring plan<br/>is required, including the following<br/>components:         <ul> <li>a. criteria for monitoring<br/>locations</li> <li>b. criteria for monitoring<br/>frequency</li> <li>c. monitoring objectives</li> <li>d. reference test/ measurement<br/>methods</li> </ul> </li> </ol> | A score of 1 if the legal framework<br>requires the development of a water<br>resources monitoring plan and<br>provides for each of the listed<br>components:<br>A score of 0.5 if the legal framework<br>requires the development of a water<br>resources monitoring plan and<br>provides two of the listed components<br>A score of 0 if the legal framework<br>does not require the development of a<br>water resources monitoring plan |
| 1                | <ol> <li>Monitoring plans must be<br/>periodically updated in accordance<br/>with a mandatory timeline provided<br/>for in the law</li> </ol>  | A score of 1 if yes  |
| 1                | <ol> <li>Public monitoring of water<br/>resources quantity and quality is<br/>required</li> </ol>  | A score of 1 if the legal framework<br>requires monitoring both water<br>resources quantity and quality<br>A score of 0.5 if the legal framework<br>requires monitoring of only one aspect<br>or the other (quality or quantity)<br>A score of 0 if the legal framework<br>does not require monitoring of water<br>resources   |

| <ol> <li>There is a legal obligation to make<br/>monitoring results publicly<br/>available</li> <li>Monitoring results are publicly<br/>available in practice (online)</li> <li>There is a legal obligation to<br/>create an inventory of water<br/>resources</li> <li>The inventory of water resources<br/>must be periodically updated in<br/>accordance with a mandatory<br/>timeline provided for in the law</li> <li>There is a legal obligation to make<br/>water inventory data publicly<br/>available</li> <li>Water inventory data are publicly<br/>available</li> <li>Water is a legal obligation to<br/>create a registry of water users</li> <li>There is a legal obligation to<br/>make<br/>the water users registry publicly<br/>available</li> <li>There is a legal obligation to make<br/>the water users registry is publicly<br/>available</li> <li>The water users registry is publicly<br/>available</li> <li>Special measures may be<br/>imposed in cases of water stress</li> </ol> | A score of 1 if yes for each question  |
|---|--|
| <ul> <li>27. The following special measures may be imposed in cases of water stress:</li> <li>a. restricted issuance of new water use permits</li> <li>b. curtailment of existing water use permits</li> <li>c. restricted issuance of new construction / activity permits with impacts on water resources</li> </ul>   | A score of 1 if all of the listed<br>measures may be imposed by the<br>government<br>A score of 0.5 if at least one of the<br>listed measures may be imposed by<br>the government<br>A score of 0 if none of the listed<br>measures may be imposed by the<br>government  |
| <ul> <li>28. Water conservation and efficiency is promoted through the following features in the law:</li> <li>a. mandate for the government to promote conservation and efficiency</li> <li>b. incentives</li> <li>c. obligation to adopt improved water use practices</li> <li>d. promotion of less water-intensive crops</li> <li>e. obligation to implement a mechanism to quantify efficiency</li> </ul>   | A score of 1 if the legal framework<br>promotes water conservation and<br>efficiency and provides all of the<br>features listed.<br>A score of 0.5 if the legal framework<br>provides at least two of the listed<br>features<br>A score of 0 if the legal framework<br>does not promote water conservation<br>and efficiency |
| <ul> <li>29. Water quality standards for use in irrigation are set out in the law and include the following parameters:</li> <li>a. coliforms</li> <li>b. salinity</li> <li>c. nitrates</li> <li>d. phosphates</li> </ul>   | A score of 1 if the legal framework<br>prescribes all the listed water<br>standards for use in irrigation<br>A score of 0.5 if the legal framework<br>includes at least two of the listed<br>parameters<br>A score of 0 if the legal framework<br>does not prescribe water quality<br>standards for use in irrigation        |

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| INDIVIDIAL<br>WATER USE<br>FOR<br>IRRIGATION | permits, as well as the<br>depth and quality of<br>these permit<br>requirements by<br>examining public<br>notice requirements,<br>transfers, water use<br>charges, and<br>obligations and<br>enforcement. | <ol> <li>A permit or declaration before<br/>abstracting and using water for<br/>irrigation is required</li> </ol>  | A score of 1 if a permit is required<br>A score of 0.5 if only a declaration is<br>required<br>A score of 0 if neither are required  |  |  |                     |
|--|---|--|--|--|--|---------------------|
|  |   | <ol> <li>Permit issuance must comply with<br/>an applicable basin plan</li> <li>Detailed procedures to acquire a<br/>new abstraction and use permit<br/>are set out in the law</li> <li>There is a public notice obligation<br/>for new permit applications</li> <li>A minimum time length applies to<br/>public notice</li> <li>Public notice for new permit<br/>applications must be via a specific<br/>medium (for example, a<br/>newspaper, government website,<br/>billboard and so on)</li> <li>Water abstraction and use permits<br/>are subject to a maximum time<br/>duration set out in the law</li> <li>Legal framework specifies<br/>streamlined renewal procedures</li> <li>Legal framework allows permit<br/>transfer</li> </ol> | A score of 1 if yes for each question  |  |  |                     |
|  |   | <ol> <li>Notification or approval by the<br/>government is required before a<br/>permit can be transferred</li> </ol>  | A score of 1 if notification is required<br>A score of 0.5 if approval is required<br>A score of 0 if neither notification nor<br>approval is required   |  |  |                     |
|  |   |  |  |  | <ol> <li>Detailed procedures for permit<br/>transfer are set out in the law</li> <li>Charges apply based on the<br/>amount of water resources<br/>abstracted for irrigation</li> <li>A specific government agency or<br/>unit is designated by law to set<br/>charges for water abstraction</li> <li>A method for calculating the water<br/>abstraction charge is provided in<br/>the law</li> <li>A specific government agency or<br/>unit is designated by law to collect<br/>charges for water abstraction</li> </ol> | A score of 1 if yes |
|  |   | <ul> <li>45. Standard permit conditions include the following: <ul> <li>a. volume/rate of withdrawal</li> <li>b. place of abstraction</li> <li>c. place of use</li> <li>d. purpose of use</li> <li>e. return flows</li> <li>f. quality of returned water</li> </ul> </li> </ul>  | A score of 1 if the legal framework<br>specifies all of the listed conditions.<br>A score of 0.5 if only three of the listed<br>conditions are specified<br>A score of 0 if none of the listed<br>conditions are specified |  |  |                     |
|  |   | 46. Record keeping on the quantity of water abstracted is required   | A score of 1 if yes  |  |  |                     |

| 47. | <ul> <li>The government has certain inspection powers to ensure permit compliance, including:</li> <li>a. demand users to produce relevant documentation</li> <li>b. enter premises</li> <li>c. take measurements</li> </ul>  | A score of 1 if the government has all<br>listed inspection powers<br>A score of 0.5 if the government has<br>only general inspection powers or two<br>of the listed specific inspection powers<br>A score of 0 if the government has<br>neither general nor specific inspection<br>powers  |
|-----|---|---|
| 48. | <ul> <li>Specific offenses in violation of permit-related obligations are prescribed in the law, including:</li> <li>a. using water without a required permit or declaration</li> <li>b. failure to comply with permit conditions</li> <li>c. misrepresenting or omitting information to regulators</li> <li>d. hindering investigators or disabling monitoring equipment</li> <li>e. constructing water abstraction points without permission</li> </ul> | A score of 1 if the law prescribes<br>specific offences and includes all the<br>listed specific offenses.<br>A score of 0.5 if the law declares that<br>any water-related violation will be<br>considered an offense or prescribes<br>only two of the specific offenses listed<br>A score of 0 if neither general nor<br>specific offenses are prescribed in the<br>law |
| 49. | Before it can curtail permits, the<br>government is required to make a<br>formal declaration of drought or<br>emergency   | A score of 1 if yes   |

## Scoring methodology for <u>ICT</u> indicators

| INDICATOR | DESCRIPTION  |    | WHAT IS MEASURED   | HOW IT IS SCORED   |
|-----------|--|----|--|--|
| ICT       | These data measure<br>countries' ICT licensing<br>framework, validity and<br>transparency of<br>associated costs. The<br>data also cover | 1. | Operators offering core mobile<br>services do not require a license<br>to operate or a simple<br>notification to the regulatory<br>agency is allowed | <ul> <li>A score of 1 if a simple notification is required or an operating license is not required</li> <li>A score of 0 if an individual license is necessary to operate</li> </ul> |
|           | spectrum management<br>and infrastructure<br>sharing.  | 2. | The licensing framework for<br>mobile operators offering core<br>mobile services is technology<br>and service neutral                                | A score of 1 if yes<br>A score of 0.5 if technology or service<br>neutral<br>A score of 0 if neither technology nor<br>service neutral   |
|           |  | 3. | The validity (in years) of the operating license for mobile operators offering core mobile services is equal to or greater than 15 years             | A score of 1 if yes<br>A score of 0 if no  |

| 4.  | The operating license costs,<br>including first-time fee and/or<br>annual fees, if applicable, are<br>publicly available | A score of 1 if available online or if<br>license not required<br>A score of 0.5 if available in hard copy<br>A score of 0.25 if available upon<br>individual written request<br>A score of 0 if not publicly available   |
|---|--|---|
| <ol> <li>The renewal conditions for<br/>operating and spectrum licenses<br/>for mobile operators offering<br/>core mobile services are stated<br/>in laws and/or regulations</li> </ol> |  | <ul> <li>A score of 1 if yes, for both operating and spectrum licenses</li> <li>A score of 0.5 if yes, for operating or spectrum licenses</li> <li>A score of 0 if neither operating nor spectrum licenses</li> </ul>   |
| 6.  | Digital dividend has been<br>licensed in practice to mobile<br>operators   | A score of 1 if yes<br>A score of 0 if no   |
| 7.  | Low frequency spectrum (below<br>1 GHz [gigahertz]) has been<br>licensed in practice to mobile<br>operators              | A score of 1 if yes<br>A score of 0 if no   |
| 8.  | Voluntary spectrum trading<br>among operators is allowed by<br>law   | A score of 1 if yes<br>A score of 0 if no   |
| 9.  | Infrastructure sharing between<br>mobile operators is legally<br>allowed   | <ul> <li>A score of 1 if both passive and active infrastructure sharing</li> <li>A score of 0.75 if active infrastructure sharing</li> <li>A score of 0.5 if passive infrastructure sharing</li> <li>A score of 0 if neither passive nor active infrastructure sharing</li> </ul> |

Enabling the Business of Agriculture 2017, the third report in the series, offers insights into how laws and regulations affect private sector development for agribusinesses, including producer organizations and other agricultural entrepreneurs. Globally comparable data and scored indicators encourage regulations that ensure the safety and quality of agricultural inputs, goods and services but are not too costly or burdensome. The goal is to facilitate the operation of agribusinesses and allow them to thrive in a socially and environmentally responsible way, enabling them to provide essential agricultural inputs and services to farmers that could increase their productivity and profits. Regional, income-group and country-specific trends and data observations are presented for 62 countries and across 12 topics: seed, fertilizer, machinery, finance, markets, transport, water, ICT, land, livestock, environmental sustainability and gender. Data are current as of June 30, 2016.

For more information, please see http://eba.worldbank.org







Government of the Netherlands





