



ENABLING THE BUSINESS OF AGRICULTURE 2017

This booklet contains highlights from *Enabling the Business of Agriculture 2017*, doi: 10.1596/978-1-4648-1021-3. A PDF of the final, full-length book, once published, will be available at <https://openknowledge.worldbank.org/> and print copies can be ordered at <http://Amazon.com>. Please use the final version of the book for citation, reproduction, and adaptation purposes.

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Since 2013, *Enabling the Business of Agriculture* (EBA) has collected data on laws and regulations that impact the business environment for agriculture. The analysis has yielded some important results, such as: EBA country data have been used to open dialogues on regulatory reform with governments across several countries in Sub-Saharan Africa and East Asia; indications of interest from other development agencies in joining forces with the World Bank; engagement with a range of vital stakeholders from the private sector to civil society to academia; and continued enhancement of the methodology.

Enabling the Business of Agriculture 2017 (EBA17) aims to foster a more conducive environment for agribusiness. By providing key data on regulatory frameworks that are globally comparable and actionable, it strengthens the information base that can be used for policy dialogue and reform. Such efforts can stimulate private sector activity and lead to more efficient and effective agricultural value chains.

What does Enabling the Business of Agriculture 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, water and information and communication technology (ICT) (table 1). 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. 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.



Table 1 | What *Enabling the Business of Agriculture* measures—12 areas of regulation studied

TOPIC	WHAT IS MEASURED
SEED	<ul style="list-style-type: none"> > 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	<ul style="list-style-type: none"> > Time, cost and regulation for fertilizer registration > Quality control of fertilizer in the market > Requirements for importing fertilizer
MACHINERY	<ul style="list-style-type: none"> > Time, cost and requirements for tractor registration, inspection and maintenance > Time, cost and requirements for tractor testing and standards > Requirements for importing tractors
FINANCE	<ul style="list-style-type: none"> > 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 nonfinancial institutions > Use of agriculture relevant assets as movable collateral and availability of credit information on small loans and from non-bank institutions
MARKETS	<ul style="list-style-type: none"> > 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	<ul style="list-style-type: none"> > Time, cost and requirements to operate commercial trucks > Time, cost and requirements for cross-border transport
WATER	<ul style="list-style-type: none"> > Water use permits > Water resource management
ICT	<ul style="list-style-type: none"> > Licensing of mobile operators
LAND	<p><i>(pilot scoring for 38 countries)</i></p> <ul style="list-style-type: none"> > Coverage and relevance of land records > Public land management > Gender disaggregation of land records > Leasing of land between private parties > Procedural safeguards in case of expropriation
LIVESTOCK	<p><i>(not scored)</i></p> <ul style="list-style-type: none"> > Requirements to register veterinary medicinal products > Requirements for importing veterinary medicinal products > Requirements for labeling of veterinary medicinal products
ENVIRONMENTAL SUSTAINABILITY	<p><i>(not scored)</i></p> <ul style="list-style-type: none"> > Conservation of plant genetic resources > Access and sustainable use of plant genetic resources > Water quality management > Soil health management
GENDER	<p><i>(not scored)</i></p> <ul style="list-style-type: none"> > Availability of gender-disaggregated data > Restrictions on women's employment and activity > Women's participation and leadership in collective institutions > Non-discrimination provisions

Sources: EBA database; Doing Business database.











Farmers harvest their crops near Kisumu, Kenya. Photo: Peter Kapuscinski / World Bank.









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 a 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.

Countries with more agribusiness-friendly regulations

EBA scores countries on both the quality and efficiency of their regulatory systems, through two aggregate measures per topic: (i) the distance-to-frontier (DTF) score or absolute distance of a country to the best performance on each topic; and (ii) the topic ranking that results from ordering DTF scores (see table 1.2). For more information on the methodology, see the full report.

Table 1.2 | Country rankings on EBA topics by economies

	 SEED	 FERTILIZER	 MACHINERY	 FINANCE	 MARKETS	 TRANSPORT	 WATER	 ICT
ARMENIA	28	53	30	52	23	56	5	31
BANGLADESH	54	35	49	23	21	45	56	37
BENIN	55	61	53	41	34	50	38	31
BOLIVIA	25	45	52	13	22	15	43	30
BOSNIA AND HERZEGOVINA	56	1	34	60	11	32	6	31
BURKINA FASO	57	56	32	41	37	12	47	59
BURUNDI	40	42	50	59	55	30	33	52
CAMBODIA	38	26	44	48	46	34	37	43
CAMEROON	58	48	37	51	41	31	44	52
CHILE	29	54	28	46	9	46	28	15
COLOMBIA	27	8	45	1	17	10	3	9
CÔTE D'IVOIRE	30	45	35	18	60	19	49	22
DENMARK	3	3	8	37	6	3	24	6
EGYPT, ARAB REP.	37	33	26	56	49	61	55	57
ETHIOPIA	39	59	25	27	51	21	34	62
GEORGIA	13	21	42	39	19	38	48	6
GHANA	48	34	38	16	54	59	30	22
GREECE	14	9	5	4	5	14	12	1
GUATEMALA	26	10	57	24	14	58	58	21
HAITI	61	58	43	54	57	62	57	43
INDIA	21	18	21	15	43	49	53	18
ITALY	4	6	11	6	4	4	10	6
JORDAN	22	17	33	62	25	22	41	22
KAZAKHSTAN	35	15	9	50	16	55	18	22
KENYA	7	43	29	10	59	16	4	12
KOREA, REP.	8	14	19	12	10	39	9	11
KYRGYZ REPUBLIC	53	19	14	8	13	56	36	43
LAO PDR	59	27	59	47	35	26	40	59
LIBERIA	62	62	60	35	62	59	61	31
MALAWI	50	44	23	20	33	41	19	50
MALAYSIA	45	50	18	28	40	54	45	22

	 SEED	 FERTILIZER	 MACHINERY	 FINANCE	 MARKETS	 TRANSPORT	 WATER	 ICT
MALI	52	23	61	41	44	44	50	52
MEXICO	24	24	51	9	3	20	2	9
MOROCCO	20	51	17	57	24	8	8	18
MOZAMBIQUE	23	47	47	25	30	33	21	22
MYANMAR	34	30	62	61	53	51	62	37
NEPAL	46	41	36	34	28	52	52	43
NETHERLANDS	1	7	7	17	1	9	20	1
NICARAGUA	44	11	48	36	20	36	23	43
NIGER	49	55	55	45	39	17	39	43
NIGERIA	42	31	16	22	48	43	46	37
PERU	10	52	58	2	27	5	11	15
PHILIPPINES	11	22	13	33	38	37	17	37
POLAND	5	2	1	21	7	24	13	1
ROMANIA	6	28	3	11	12	2	7	1
RUSSIAN FEDERATION	18	20	12	38	18	40	15	15
RWANDA	60	38	41	7	47	27	32	50
SENEGAL	36	60	54	41	36	35	42	37
SERBIA	19	4	2	40	8	13	14	12
SPAIN	2	5	6	3	2	1	1	1
SRI LANKA	47	36	39	58	58	48	54	59
SUDAN	41	56	27	53	61	47	59	57
TAJIKISTAN	51	49	22	55	32	6	35	56
TANZANIA	17	37	40	5	56	25	22	18
THAILAND	32	16	24	29	52	53	60	31
TURKEY	12	13	4	32	29	28	51	31
UGANDA	31	40	31	31	45	18	26	22
UKRAINE	33	32	15	26	26	42	29	43
URUGUAY	9	25	56	19	15	11	25	37
VIETNAM	43	12	10	30	31	7	27	12
ZAMBIA	16	39	46	14	50	23	16	22
ZIMBABWE	15	29	20	49	42	29	31	52

Source: EBA database.



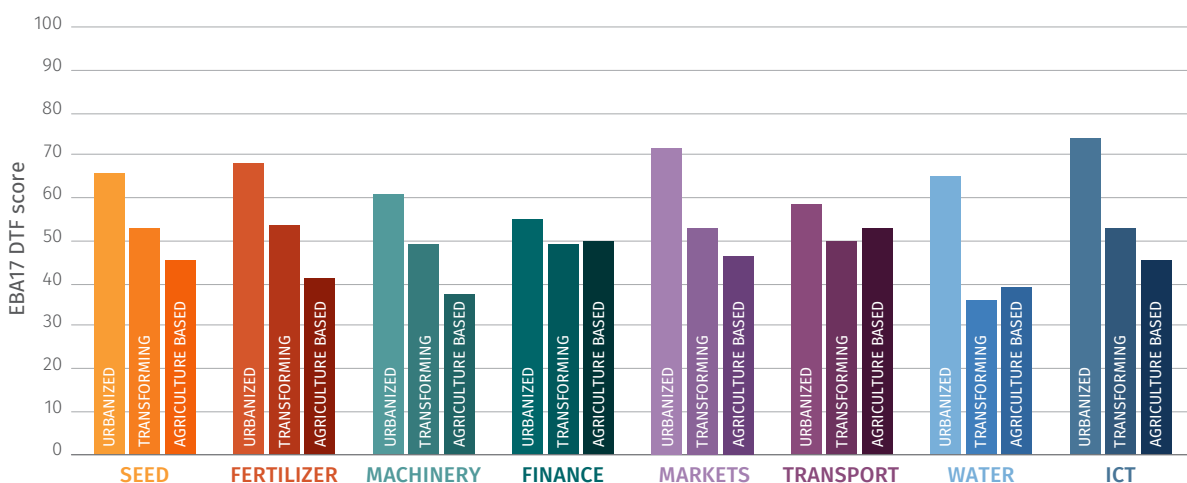
Agriculture's relevance varies significantly across countries. Based on the *World Development Report 2008*¹ and combining data on agriculture's contribution to GDP and the share of active population dedicated to agriculture, EBA categorizes countries into three groups: agriculture-based, transforming and urbanized. Urbanized countries are on average at the frontier of good regulatory practices across all EBA topics (figure 1.1). They are followed by transforming countries. Agriculture-based countries have more room to improve the quality of their regulatory frameworks and decrease transaction costs. However, agriculture-based countries have shown on average a better or similar performance compared to transforming countries in the finance, water and transport topics and are closing the gap on markets. Kenya, Malawi and Mozambique have comprehensive legislation regulating water use permits. Burkina Faso, Côte d'Ivoire and Ethiopia are among the top 10 countries in terms of the efficiency in obtaining a cross-border trucking license.

Countries' regulatory quality is associated with economic growth² and levels of development.³ High-income countries have better agribusiness regulations as measured by EBA,⁴ and this outcome is shown across all topics. However, there are exceptions; some countries perform better on EBA indicators than what their income level may suggest. That is the case of Vietnam

for fertilizer, machinery and transport; Kenya for seed, finance, water and ICT; and Kyrgyz Republic for finance, markets and machinery. On the other hand, despite its very solid regulations on ICT operating licenses and plant protection, Chile does not have a framework for fertilizer registration or tractor type approval.

In terms of regions, OECD high-income countries have on average the most agribusiness-friendly regulation (figure 1.2). They all share regulation that promotes quality control, facilitates trade and enables entry and operations in agricultural markets. Spain ranks among the top six countries globally in all eight EBA-scored topics. However, OECD high-income countries also have room for improvement. Romania is among the top three performers globally in terms of regulations for transport, machinery and ICT, but it takes more than three years to register a new fertilizer product, while the global average is below one year. This performance is mainly due to field testing (not required in best practice countries) and the delays associated with the Gazette notification. Poland has the most comprehensive and efficient regulations on tractor operation, import, testing and standards, but lacks a regulatory framework for warehouse receipts to complement the existing collateral regime to obtain a loan for agricultural production, as well as legislation on deposit-taking microfinance institutions (MFIs).

Figure 1.1 Urbanized countries show better agriculture regulations than transforming and agriculture-based countries



Source: EBA database.

Note: EBA countries are divided into three groups. Urbanized countries have a contribution of agriculture to GDP below 25% and a share of active population in agriculture below 25%; transforming countries have a contribution of agriculture to GDP below 25% and a share of active population in agriculture over 25%; agriculture-based countries have a contribution of agriculture to GDP over 25% and a share of active population in agriculture over 25%. The EBA17 distance-to-frontier (DTF) score is the average of the DTF scores of the following topics: seed, fertilizer, machinery, finance, markets, transport, water and information communication and technology (ICT). The correlation between EBA scores and agricultural transformation phase is 0.61.

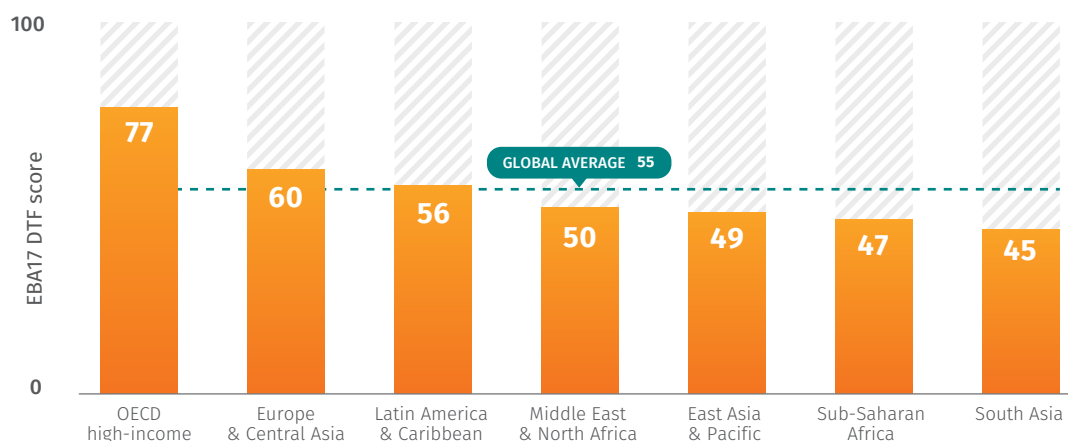
¹ World Bank 2007.

² Eifert 2009; Divanbeigi and Ramalho 2015.

³ Acemoglu, Johnson and Robinson 2005; Aghion and Durlauf 2009.

⁴ The correlation between the EBA17 overall DTF score and income per capita is 0.65.

Figure 1.2 | OECD high-income countries rank highest on EBA, followed by Europe and Central Asia, and Latin America and the Caribbean



Source: EBA database.

Note: The EBA17 distance-to-frontier (DTF) score is the average of the DTF scores of the following topics: seed, fertilizer, machinery, finance, markets, transport, water and information communication and technology.

Following OECD high-income countries, Europe and Central Asia as well as Latin America and the Caribbean regions show a number of good regulatory practices. For example, all countries in Europe and Central Asia have implemented good regulatory practices on tractor imports, not requiring import permits or importers to register in addition to their general business license. In addition, both Bosnia and Herzegovina and Serbia are among the top five countries globally in the fertilizer area, due to best practice regulation on registration and quality control. The fertilizer registration process takes about one month in both countries, and costs only 0.5% and 5.3% income per capita, respectively. The Kyrgyz Republic ranks in the top 15 for markets and machinery, showing efficient processes for exporting agricultural goods and tractor registration, but it is placed in the bottom 10 for seed and transport due to the lack of regulations on seed quality control and trucking licenses. The Russian Federation performs well in EBA's machinery, water, and ICT topics.

Countries from Latin America and the Caribbean have comprehensive regulation on financial inclusion and water management. In fact, Colombia and Mexico score among the top 10 countries globally within these two topics. For example, Colombia has developed comprehensive rules enabling non-bank correspondents to provide financial services on behalf of a commercial bank; Mexico has developed a modern and comprehensive water regulatory framework anchored by the 1992 National Water Law, although some implementation challenges remain. Some countries in the region

lag behind in several areas. Guatemala lacks a general framework for tractor type approval and registration, and trucking licenses, despite solid fertilizer quality control and plant protection regulations.

The regions lagging behind on EBA scores are: South Asia, Sub-Saharan Africa, and East Asia and the Pacific. On average, countries from these regions have less than half of the regulatory good practices promoted by EBA. This situation mainly affects regulations related to quality control and operations in the different agricultural markets that EBA measures. It is most time-consuming to complete the process of exporting agricultural goods in Sub-Saharan African countries, taking 6.0 days on average, and the documents are most expensive in South Asia and Sub-Saharan Africa, costing 2.5% income per capita. The process for obtaining tractor type approval is the lengthiest and most expensive in South Asia (270 days and 604% income per capita, versus 21 days and 7% income per capita in East Asia and Pacific). This year EBA conducted a pilot study in India for all EBA topics to track subnational differences and will build on it for future data collection and analytical work.

In Sub-Saharan Africa, there is great variation across countries and topics. In the region, 7 of the 21 countries measured do not have a clearly designated government agency to conduct pest surveillance, and only Senegal and Tanzania have a publicly available database with information on plant pests and diseases. However, last year Sub-Saharan African countries





Fertilizer in bags, preparing for rice growing in rice field, Bangkok, Thailand. Photo: Shutterstock.

adopted more regulatory reforms in plant protection than in other regions. Kenya is the best performer on EBA indicators in the region. It is among the 5 top performers in the water topic, thanks to a series of regulatory reforms on water resource management and a permit system that started in 2002 with the introduction of a new Water Act. On the other hand, the country still has great potential to improve its regulatory framework on fertilizer registration and plant protection, as well as to streamline the process related to exporting agricultural products. In East Asia and the Pacific, Vietnam shares international best practices in the areas of fertilizer registration (from the legal and efficiency standpoint), efficiency of tractor registration and type approval, as well as trucking licenses both for domestic and cross-border transportation.

Benin, Arab Republic of Egypt, Haiti, Liberia, Myanmar, Sri Lanka and Sudan are the countries with the greatest room for improvement—on average—in all areas that EBA measures. For example, Haiti, Liberia and Myanmar (all conflict-affected countries) do not have any of the good regulatory practices on plant protection and very few in the areas of integrated water resource management, financial inclusion or trucking licenses.

What's next?

Enabling the Business of Agriculture 2017 presents scored indicators for eight topics in 62 countries around the world and introduces initial data collected for livestock, land, gender and environmental sustainability. The team will use the 2017 year to disseminate the data and findings, refine and synthesize indicators, expand topic and country coverage, and hold discussions with various stakeholders on the best ways going forward. The main areas for development identified relate to strengthening the processes for obtaining relevant feedback on: indicator development and refinement; country selection and criteria used for future scale up; identifying countries where subnational analysis would be relevant and developing a subnational methodology.

Future reports will allow the team to monitor progress of countries in each of the topic areas by tracking regulatory reforms that affect the indicators measured. Country coverage is also expected to expand and eventually cover between 80 and 100 countries.

Feedback is welcome on the data, methodology and overall project design to make future *Enabling the Business of Agriculture* reports even more useful. Feedback can be provided on the project website: <http://eba.worldbank.org>.

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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.

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