Indicators for Trade Facilitation: A Handbook

(Version 1.0)

UNITED NATIONS ESCAP
Economic and Social Commission for Asia and the Pacific

OECD

ARTNeT

UNNExT
United Nations Network of Experts for Paperless Trade and Transport in Asia and the Pacific

Preface

This digital Handbook was developed as a follow-up to the Workshop on Trade Facilitation Performance and Monitoring, co-organized on 23 November 2015 by the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), the Organization for Economic Cooperation and Development (OECD) and the Asian Development Bank (ADB), in collaboration with World Bank (WB), International Trade Centre (ITC), World Customs Organization (WCO), United Nations Conference on Trade and Development (UNCTAD), with the support of the United Nations Network of Experts for Paperless Trade and Transport in Asia and the Pacific (UNNExT), the China International Electronic Commerce Center (CIECC) and the New Zealand Ministry of Foreign Affairs and Trade.*

Contributors to and reviewers of the Handbook included Yann Duval (ESCAP), Roberto Maeso (ESCAP), Chorthip Utoktham (ESCAP), Tengfei Wang (ESCAP), Evdokia Moise (OECD), Sylvia Sorescu (OECD), Mohammed Saeed (ITC), Arantzázu Sanchez (UNCTAD), Cecile Ferro (WB) and Christina Busch (WB). Research assistance provided by Praiya Prayongsap as well as Agathe Blanchard, Parisa Bhatararat, Pauline Urruty and Ruben Hernandez during their graduate internships at ESCAP is gratefully acknowledged. Preparation of the handbook was coordinated by Yann Duval, Chief, Trade Facilitation Unit, Trade, Investment and Innovation Division (TIID) of ESCAP, under the overall supervision of Susan Stone, TIID Director.

This Handbook aims to assist readers in accessing currently available Trade Facilitation indicators. All the data and indicators presented remain the property and the responsibility of the organization which developed them. Their inclusion in this Handbook does not necessarily indicate that they have been endorsed by the United Nations or the OECD.

(*) http://www.unescap.org/events/trade-facilitation-performance-and-monitoring-workshop

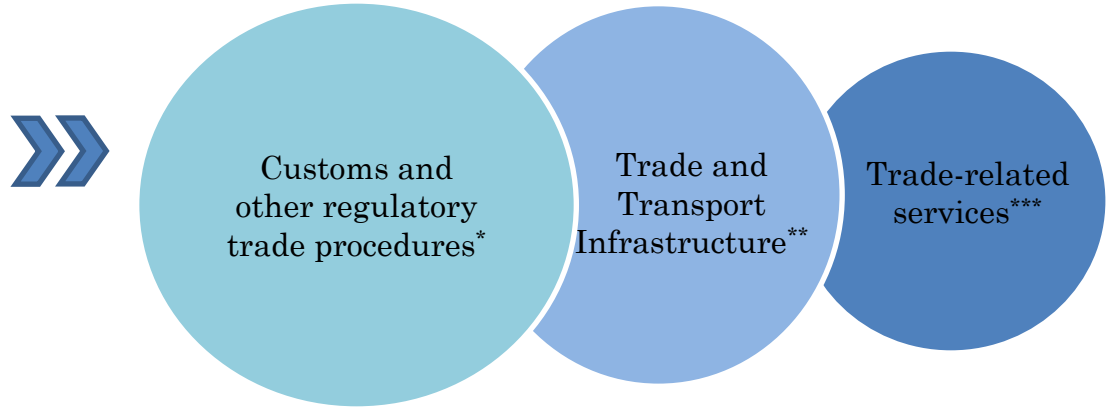
Introduction

There has been growing interest in trade facilitation since the beginning of the new millennium, as evidenced by the successful negotiation of the WTO Trade Facilitation Agreement (TFA) as well the rapid increase in trade facilitation commitments made through regional trade agreements as well as other specialized agreements (e.g., transit agreements or regional single window agreements).

As governments continue their efforts to reduce trade costs by streamlining trade-related procedures and enhancing the quality of related infrastructures and services, it is important that officials in charge of developing future plans in this area be fully cognizant of the available data and indicators they may use to monitor progress.

Accordingly, this Handbook aims at providing a comprehensive source of information on publicly available cross-country databases and indicators relevant to trade facilitation in a format easy to use for both trainers and individual readers alike. Rather than going through the Handbook sequentially, users are encouraged to navigate through it and "dig deeper" by clicking any of the many internal and external links.

What does Trade Facilitation encompass?



The Handbook has put special focus on indicators related to areas (*) and (**). Indicators regarding area (***) can be consulted in the indicator's webpage links provided in this Handbook.

Introduction (cont'ed)

A wide range of indicators related to trade facilitation have been developed over the past 15 years, in part because of the growing importance attached to this issue at the WTO. These indicators are often very different in nature and/or scope, depending on whether a broad or narrow definition of trade facilitation was adopted and their specific purposes. As a result, they often overlap and there is no easy way to classify them.

In its broadest sense, trade facilitation is about reducing international trade costs, and we therefore start by introducing the ESCAP-World Bank Trade Cost Database, which arguably provides the most comprehensive and aggregate data on bilateral trade costs.

We then focus on databases which provide indicators related to customs and other regulatory trade procedures, which form the core of the trade facilitation agenda. The World Bank Doing Business Survey and its Trading Across Borders indicators are introduced, supplemented by relevant indicators from the World Bank Enterprise Surveys, which provide firm-level data for many countries.

Two other databases are then reviewed, both of which focus on implementation of specific trade facilitation measures rather than on providing time or cost performance indicators. The OECD trade facilitation indicators provide a detailed view of the extent of implementation of WTO TFA measures, while the UN Survey on Trade Facilitation and Paperless Trade Implementation also provides information on the state of implementation of various paperless trade measures.

The Handbook then presents indicators that go beyond the relatively narrow WTO TFA definition of trade facilitation to touch upon trade and transport infrastructure as well as services. This includes indicators from the World Bank Logistics Performance Index (LPI), the UNCTAD Liner Shipping Connectivity Index (LSCI), as well as from the World Economic Forum. The Services Trade restrictiveness Indices of both World Bank and OECD are then briefly introduced.

The Handbook ends with a call for countries to develop trade and transport facilitation monitoring mechanisms (TTFMMs), in line with the new UN/CEFACT Recommendation No. 42 adopted in April 2017 in support of the implementation of trade facilitation reforms.

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ESCAP-World Bank Trade Cost Database

ESCAP-World Bank Trade Costs

Overview

- The United Nations ESCAP and the World Bank joined hands in 2011 to develop a common bilateral trade costs database.
- The bilateral measure of trade costs includes all costs involved in trading goods internationally relative to trading goods domestically, including but not limited to cumbersome trade procedures
- The current version includes data from 1995 to 2014 for over 180 countries in agriculture and manufacturing sectors.* It is updated annually, normally in June.
- Trade costs "excluding tariffs" are also available from ESCAP

Why is it useful?

- Standardized measure of bilateral trade costs
- Extensive country and time coverage.
- Based on macro data, not perception
- Possible to find trade costs with each trading partner, or to calculate sub/regional trade costs
- Can be used to evaluate relative importance of different types of costs or TF measures

Limitations

- Data only available with a 2-year lag
- Costs derived from macro-data rather than observed
- Disaggregation within sectors not available

Methodology

- Trade costs are calculated using the "inverse gravity framework " developed by Novy (2009). The resulting trade cost measure captures all direct and indirect costs faced by two countries when trading with each other, including transport and logistics costs, tariffs, as well as costs associated with differences in languages, currencies, geographical barriers, and cumbersome import or export procedures.
- Trade costs are expressed in ad valorem equivalent form, i.e. as a percentage of the (domestic) value of the goods

(*) The UN ESCAP issued in 2015 a Value-Added Trade Costs database which covers the service sector, specifically, total trade, transport and telecoms, and finance and insurance. There are currently 20 developed and developing countries covered for the years: 1995, 2000, 2005 and from 2008 to 2011.

For more information on ESCAP-WB Trade Costs: http://www.unescap.org/resources/escap-world-bank-trade-cost-database

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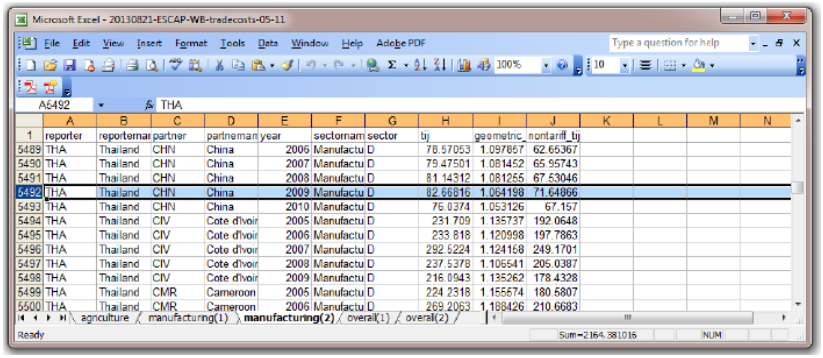
UNESCAP-World Bank Trade Costs Database

Example:

Screen Shot, Thailand- China´s Data



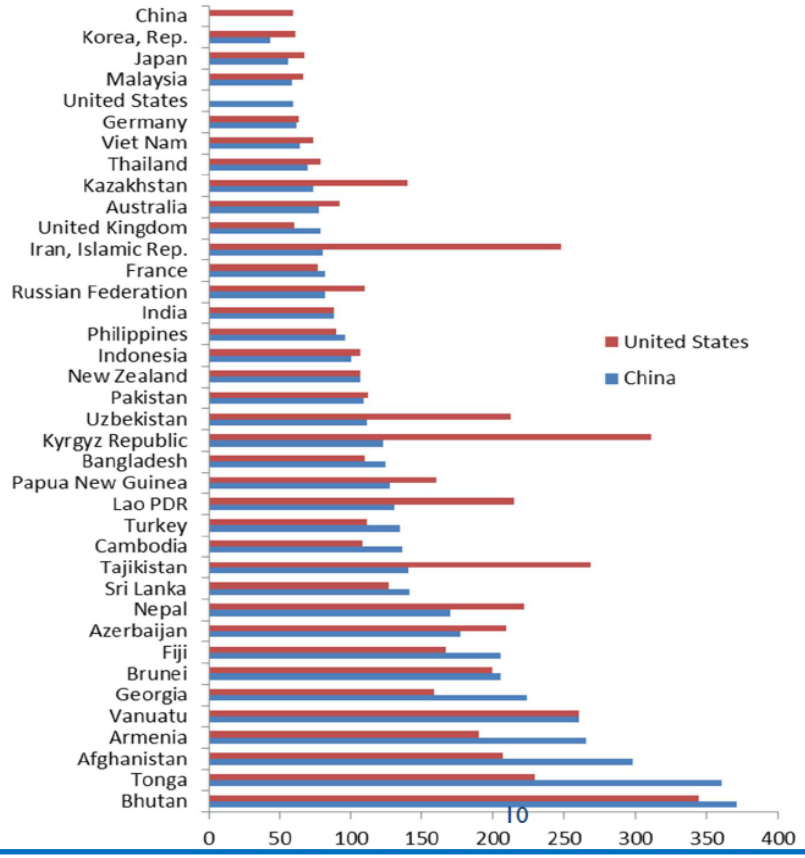
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	reporter	reportenam	partner	partnenam	year	sectornam	sector	tij	geometric_	nontariff_tij				
5489	THA	Thailand	CHN	China	2006	Manufactu	D	78.57053	1.097857	62.65367				
5490	THA	Thailand	CHN	China	2007	Manufactu	D	79.47501	1.081452	65.95743				
5491	THA	Thailand	CHN	China	2008	Manufactu	D	81.14312	1.081255	67.53046				
5492	THA	Thailand	CHN	China	2009	Manufactu	D	82.66816	1.064198	71.64866				
5493	THA	Thailand	CHN	China	2010	Manufactu	D	76.0374	1.053126	67.157				
5494	THA	Thailand	CIV	Cote d'Ivoir	2005	Manufactu	D	231.709	1.135737	192.0648				
5495	THA	Thailand	CIV	Cote d'Ivoir	2006	Manufactu	D	233.818	1.120998	197.7863				
5496	THA	Thailand	CIV	Cote d'Ivoir	2007	Manufactu	D	292.5224	1.124168	249.1701				
5497	THA	Thailand	CIV	Cote d'Ivoir	2008	Manufactu	D	237.5378	1.106541	205.0387				
5498	THA	Thailand	CIV	Cote d'Ivoir	2009	Manufactu	D	216.0943	1.135262	178.4328				
5499	THA	Thailand	CMR	Cameroon	2005	Manufactu	D	224.2318	1.155674	180.5807				
5500	THA	Thailand	CMR	Cameroon	2006	Manufactu	D	269.2063	1.188426	210.6683				

Notes:

The ad valorem equivalent trade cost of Thailand-China for manufacturing good in 2009 was 82.67%. In other words, the data suggest that, on average, trading manufacturing goods between Thailand and China involves, on average for all tradable manufacturing goods, additional costs amounting to approximately 83% of the value of goods- as compared to when the two countries trade within their borders.

Example:

Bilateral Trade costs of China and USA with selected Asia-Pacific countries (excluding tariffs, 2008-2013)



For more information: http://www.unescap.org/resources/escap-world-bank-trade-cost-database

World Bank '*Doing Business*' Trading across borders

Overview

- The *trading across borders* indicator is one of the 11 different areas included in the *Doing Business project*.
- The *Doing Business project*, launched in 2002, provides measures of business regulations and their enforcement across 190 economies.
- The *trading across borders* indicator measures the time and cost associated with the logistical process of exporting and importing goods.
- It covers three sets of procedures: (i) Documentary compliance, (ii) Border compliance, (iii) Domestic transport*.
- The indicator is available annually, the most recent round of data collection was completed in June 2016.

Why is it useful?

- Comparability across countries and over time since 2015
- Extensive country coverage
- Surveys are subjected to numerous rounds of verification
- *Doing Business* study tracks and records reforms in the area of trade such as for example improvement of trade infrastructure or major changes in documentary procedure

Limitations

- Collected data refer only to businesses in the economy´s largest city. For 11 large economies the data is available for the 2 biggest cities.
- Variations in costs depending on trade partners are not considered.
- Time and cost for domestic transport are not taken into account when ranking economies on the ease of trading across borders.
- The measures of time involve an element of judgment by the expert respondents.

Methodology**

- The data on trading across borders are gathered through a questionnaire administered to local freight forwarders, customs brokers and traders.
- Questionnaire responses are verified through several rounds of follow-up communication with respondents as well as by contacting third parties and consulting public sources.
- The questionnaire data are confirmed through teleconference calls or on-site visits in all economies.

(*) Domestic transport is not included in the trading across borders indicator. (**) New methodology introduced in 2015. For more information: http://www.doingbusiness.org/~/media/WBG/DoingBusiness/Documents/Annual-Reports/English/DB17-Chapters/DB17-About-Doing-Business.pdf and http://www.doingbusiness.org/data/exploretopics/trading-across-borders#close

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Trading Across Borders Rank Indicator

Overview:

- The ranking of economies on the ease of trading across borders is determined by sorting their distance to frontier scores.
- The "frontier" is defined by the best performance observed on each *Doing Business* topic across all economies and years since 2005.
- This indicator does not include the time and cost associated with domestic transport.

Methodology:

- The scores are the simple average of the distance to frontier scores for the time and cost for documentary compliance and border compliance to export and import.

- The distance to frontier is indicated on a scale from 0 to 100, where 0 represents the lowest performance and 100 the best performance (frontier). For example, a score of 67.50 means an economy is two-thirds of the way from the worst to the best performance.

For more information: http://www.doingbusiness.org/data/exploretopics/trading-across-borders#close and http://www.doingbusiness.org/data/exploretopics/trading-across-borders/what-measured

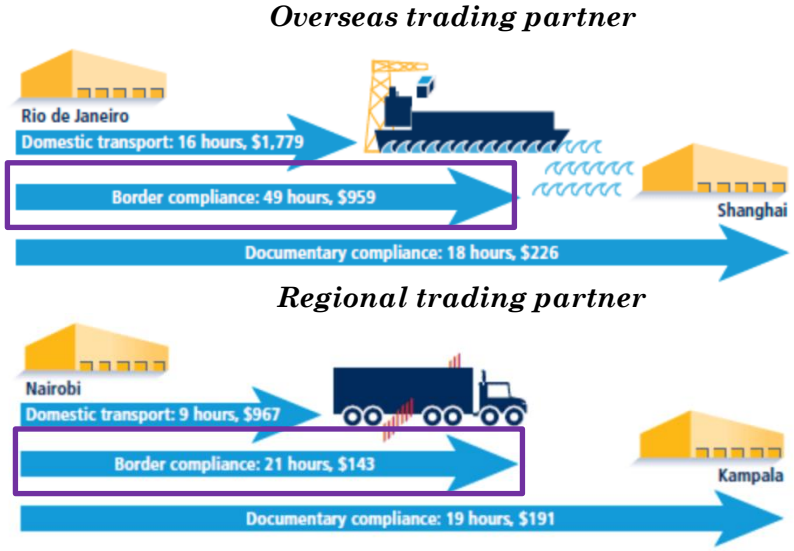
Border compliance: Time and cost to export/import

Overview:

- Border compliance captures the time and cost associated with compliance with economy's customs regulations and with regulations relating to other inspections.
- These inspections are mandatory in order for the shipment to cross the economy´s border, as well as the time and cost for handling that takes place at its port or border.
- The time and cost for this segment include time and cost for customs clearance and inspection procedures conducted by other government agencies.

Methodology:

- Time is measured in hours, and 1 day is 24 hours.
- Costs are reported in U.S. dollars. Insurance cost and informal payments for which no receipt is issued are excluded from the costs recorded.
- Doing Business asks contributors to estimate the time and cost for clearance and inspections by customs and all other government agencies*.
- These estimates account for inspections related to health, safety, phytosanitary standards, conformity and the like, and thus capture the efficiency of agencies that require and conduct these additional inspections.



Example by region:

Time and cost to export: Border compliance

Region	Time to export: Border compliance (hours)	Cost to export: Border compliance (USD)
East Asia & Pacific	57.0	401.7
Europe & Central Asia	28.0	195.0
Latin America & Caribbean	63.5	526.6
Middle East & North Africa	64.4	459.6
OECD high income	12.4	149.9
South Asia	59.4	376.1
Sub-Saharan Africa	103.0	583.4

(*) If inspections by agencies other than customs are conducted in 20% or fewer cases, the border compliance only takes into account inspections by customs. For more information: http://www.doingbusiness.org/data/exploretopics/trading-across-borders#close and http://www.doingbusiness.org/data/exploretopics/trading-across-borders/what-measured

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Documentary Compliance: Time and cost to export/import

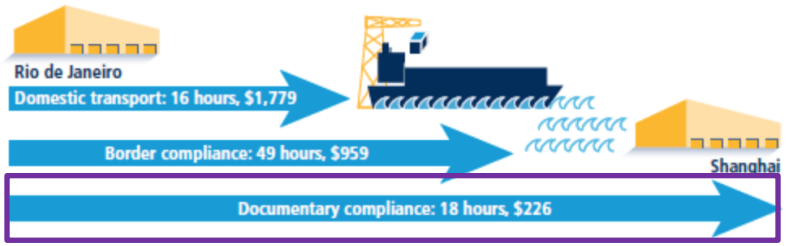
Overview:

- Documentary compliance captures the time and cost associated with compliance with the documentary requirements of all government agencies of the origin economy, the destination economy and any transit economies.
- The aim is to measure the total burden of preparing the bundle of documents that will enable completion of the international trade.

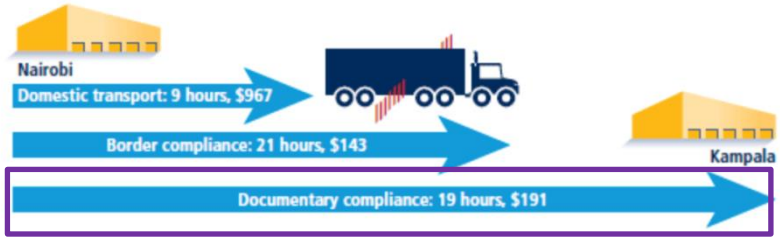
Methodology:

- The time (hours) and cost (U.S. dollars) for documentary compliance include the time and cost for (i) obtaining documents, (ii) preparing documents, (iii) processing documents, (iv) presenting documents, and (v) submitting documents.
- *Doing Business* does not include documents needed to produce and sell in the domestic market unless a government agency needs to see these documents during the export process.

Overseas trading partner



Regional trading partner



Example by region:

Time and cost to export: Documentary compliance

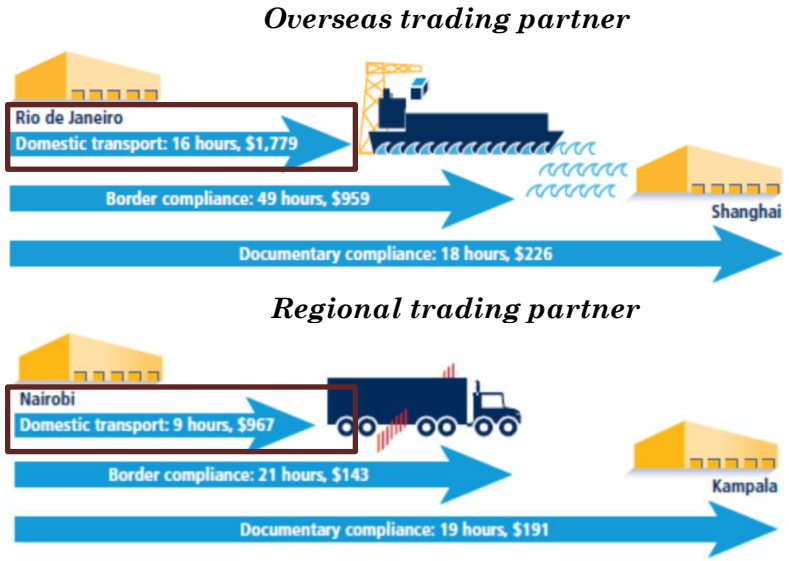
Region	Time to export: Documentary compliance (hours)	Cost to export: Documentary compliance (USD)
East Asia & Pacific	73.3	131.8
Europe & Central Asia	26.9	110.7
Latin America & Caribbean	55.7	110.5
Middle East & North Africa	77.4	261.3
OECD high income	2.6	35.7
South Asia	78.0	182.6
Sub-Saharan Africa	92.6	229.6

For more information: http://www.doingbusiness.org/data/exploretopics/trading-across-borders#close

Domestic transport: Time and cost to export/import

Overview:

- Domestic transport captures the time and cost associated with transporting the shipment from a warehouse in the largest business city of the economy to the most widely used seaport, airport or land border of the economy.
- This area is not included in the trading across borders rank indicator.



Methodology:

- The time (hours) and cost (U.S. dollars) are based on the most widely used mode of transport and the most widely used route as reported by contributors.
- *Doing Business* does not assume a containerized shipment, and time and cost estimates may be based on the transport of 15 tons of non-containerized products.
- The time and cost for clearance or inspections are included in the measures for border compliance, however, not in those for domestic transport.

For more information: http://www.doingbusiness.org/data/exploretopics/trading-across-borders#close

World Bank Enterprise Surveys

Overview

- The Enterprise Surveys began in 2002 and are firm-level surveys that cover a broad focus on the many factors that shape the business environment.
- The World Bank has surveyed over 125,000 firms in 139 countries.
- For most countries, an Enterprise Survey is conducted about every 3-4 years.
- The survey questions related to trade facilitation areas include:
  - Days to clear a direct exports through customs
  - Days to clear imports from customs
  - Percent of firms identifying customs and trade regulations as major constraint

Why is it useful?

- Data available at the firm-level.
- Possible to find information on informal trade regulations (e.g. firms that do not comply with regulations are also included in the survey).

Limitations

- Not possible to track specific firms over time.
- Data collection period may vary across countries.
- Not all emerging economies represented.

Methodology

- The mode of data collection is face-to-face interviews.
- Typically 1200-1800 interviews are conducted in larger economies, 360 interviews are conducted in medium size economies, and for smaller economies, 150 interviews take place*.
- The manufacturing and services sectors are the primary business sectors of interest. This corresponds to firms classified with ISIC codes 15-37, 45, 50-52, 55, 60-64, and 72.
- Only indicators created from surveys following the Enterprise Survey Global methodology are comparable across countries and survey years.

(*) The Sampling note provides the rationale for these sample sizes. For more information: http://www.enterprisesurveys.org/~/media/GIAWB/EnterpriseSurveys/Documents/Misc/Indicator-Descriptions.pdf

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Days to clear a direct exports through customs

Definition:

- Average number of days to clear direct exports through customs. Prompt the respondent to think of all shipments sent to the main point of exit and estimate an average time it took from the time the shipment arrived to the time they left that point of exit.

Clarifications:

- The purpose of this question is to determine the efficiency of customs in clearing goods for export.
- The main point of exit is the last domestic location from which the goods leave the country. Whenever different ports of exit are used this question refers to the port where most goods exit defined in terms of consignment value (not physical units).
- The concept goods cleared customs refers to the time it takes to obtain all clearances required from the moment the goods arrived at their point of exit until the moment they satisfy the requirement of the clearance procedures at the custom office.

D.4	In fiscal year [insert last complete fiscal year], when this establishment exported goods directly, how many days did it take on average from the time this establishment's goods arrived at their main point of exit (e.g., port, airport) until the time these goods cleared customs?

	Days
Average number of days to clear customs	d4
Less than one day	1
Don't know (spontaneous)	-9

Term used to classified this question within the sales and supplies section *.

(*)For more information:
http://www.enterprisesurveys.org/~/media/GIAWB/EnterpriseSurveys/Documents/Methodology/Questionnaire-Manual.pdf
http://www.enterprisesurveys.org/~/media/GIAWB/EnterpriseSurveys/Documents/Misc/Indicator-Descriptions.pdf

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Days to clear imports from customs

Definition:

- Average number of days to clear imports from customs. Prompt respondent to think of various shipments destined to the establishment that originated from abroad, and to estimate an average of the time it took when the shipment arrived to the country´s point of entry to the time the establishment was allowed to claim them and begin domestic transport

Clarifications:

- The purpose of this question is to determine the efficiency of customs clearance imports.
- The concept goods cleared includes all clearances required from the moment the goods arrived at their point of entry until the moment they satisfy the requirement of the clearance procedures at the customs office and can be picked up. It does not include time spent on transportation to reach the point of entry.

D.14	In fiscal year **[insert last complete fiscal year]**, when this establishment imported material inputs or supplies, how many days did it take on average from the time these goods arrived to their point of entry (e.g. port, airport) until the time these goods could be claimed from customs?

	Days
Average number of days to clear customs	d14
Less than one day	1
Don't know (spontaneous)	-9

Term used to classified this question within the sales and supplies section. Manufacturing question *.

(*)For more information:
http://www.enterprisesurveys.org/~/media/GIAWB/EnterpriseSurveys/Documents/Methodology/Questionnaire-Manual.pdf
http://www.enterprisesurveys.org/~/media/GIAWB/EnterpriseSurveys/Documents/Misc/Indicator-Descriptions.pdf

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Percent of firms identifying customs and trade regulations as major constraint

Definition:

- Percentage of firms identifying customs and trade regulations as a "major" or "very severe" obstacle.

Clarifications:

- This is an opinion question that should not be explained.
- The manager should be given a card with the different alternatives for degree of obstacle (from 0 to 4).

D.30	Using the response options on the card; To what degree is **Transport** an obstacle to the current operations of this establishment? SHOW CARD 8 Using the response options on the card; To what degree is **Customs and Trade Regulation** an obstacle to the current operations of this establishment? SHOW CARD 8

	No obstacle	Minor obstacle	Moderate obstacle	Major obstacle	Very Severe Obstacle	Don't Know (spontaneous)	Does Not Apply (spontaneous)
Transport	0	1	2	3	4	-9	-7
Customs and trade regulations d30b	0	1	2	3	4	-9	-7

Term used to classified this question within the sales and supplies section*.

(*)For more information:
http://www.enterprisesurveys.org/~/media/GIAWB/EnterpriseSurveys/Documents/Methodology/Questionnaire-Manual.pdf
http://www.enterprisesurveys.org/~/media/GIAWB/EnterpriseSurveys/Documents/Misc/Indicator-Descriptions.pdf

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OECD Trade Facilitation Indicators

Overview

- The OECD Trade Facilitation Indicators (TFIs) cover the full spectrum of Customs and other regulatory trade procedures at the border included in the WTO Trade Facilitation Agreement (TFA)
- 133 variables, organised by 11 policy dimensions : Information availability ; Consultations; Advance rulings; Appeal procedures; Fees and charges; Documentation requirements; Automation of border procedures; Streamlining of border processes; Domestic border agency co-operation; Cross-border agency co-operation; Governance and Impartiality
- They were first launched in 2013 and are updated every two years. The current (2017) dataset covers 163 countries

Why is it useful?

- Precisely targeted for monitoring and benchmarking country performance on implementation of specific trade facilitation measures
- Can be used for assessing the impact of specific trade facilitation measures on trade flows, trade costs, resource allocation and welfare
- Based on factual information, not perception
- Two interactive tools allow users to compare country performance across the 11 TFIs and to discover the key measures driving the performance of a selected country

Limitations

- Trade and transport infrastructure or trade-related services are not covered
- Because of the level of detail, data on some of the variables are not available for every country in the database

Methodology

- The data on the OECD TFIs are gathered through a questionnaire replied by the relevant administrations and by carriers with worldwide presence, and cross-checked against publicly available sources
- They are then verified through each concerned country's WTO and Customs administrations
- Variables follow a scoring from 0 (lowest performance) to 2 (highest performance) (percentile ranking is used where no "natural" thresholds can be identified, i.e. where variables are numerical in nature)
- The indicators are the simple average of the scores for each variable composing them

For more information: http://www.oecd.org/tad/facilitation/indicators.htm

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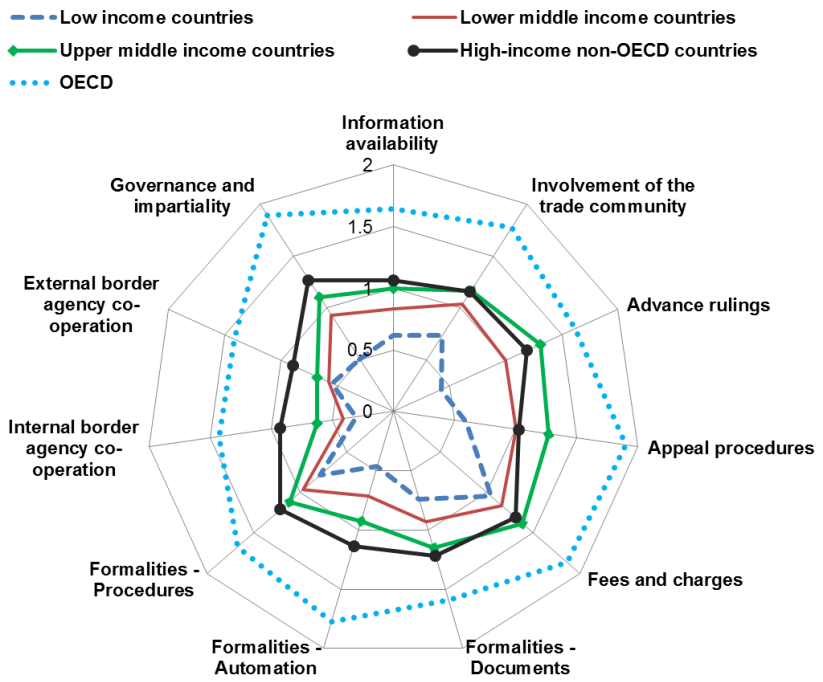
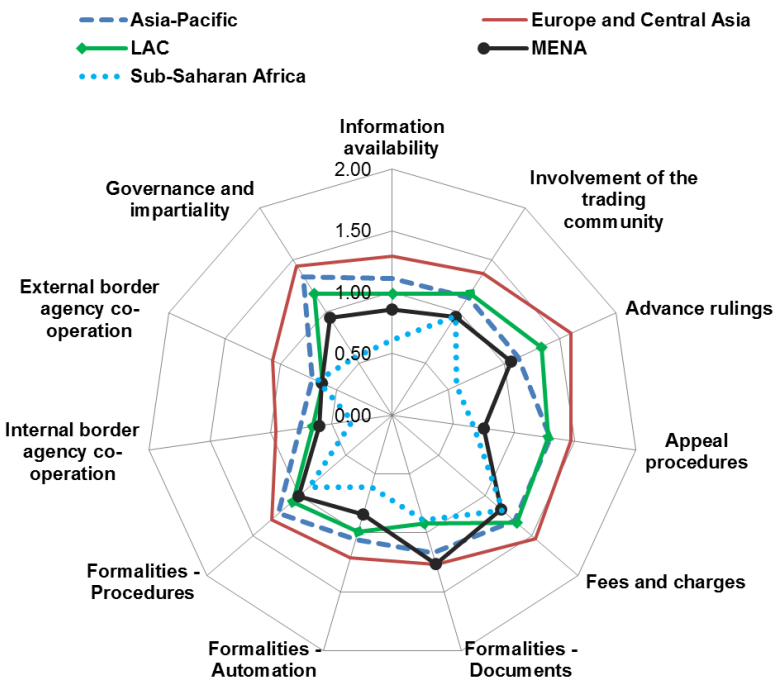
OECD Trade Facilitation Indicators: eleven policy dimensions

Indicator	Description
(a) Information Availability	Enquiry points; publication of trade information, including on Internet; transparency of required documentation; user manuals; available legislation
(b) Involvement of the Trade Community	Structures for consultations; established guidelines for consultations; publications of drafts; existence of notice-and-comment frameworks
(c) Advance Rulings	Prior statements by the administration to requesting traders concerning the classification, origin, valuation method, etc., applied to specific goods at the time of importation; the rules and process applied to such statements
(d) Appeal Procedures	The possibility and modalities to appeal administrative decisions by border agencies
(e) Fees and Charges	Disciplines on the fees and charges imposed on imports and exports; transparency and regular review of fees and charges; disciplines on transparency and implementation of penalties systems
(f) Formalities – Documents	Acceptance of copies, simplification of trade documents; harmonisation in accordance with international standards
(g) Formalities – Automation	Electronic exchange of data; use of automated risk management; automated border procedures; electronic payments; automated pre-arrival processing; digital signatures
(h) Formalities – Procedures	Streamlining of border controls; single submission points for all required documentation (single windows); post-clearance audits; authorised operators; measures on perishable goods; risk management systems; expedited shipments
(i) Internal Co-operation	Control delegation to Customs authorities; co-operation between various border agencies of the country
(j) External Co-operation	Co-operation with neighbouring and third countries
(k) Governance and Impartiality	Customs structures and functions; accountability; ethics policy

For more information: http://www.oecd.org/tad/facilitation/indicators.htm

2017 state of play: a glance at selected income groups and regions





For more information: http://www.oecd.org/tad/facilitation/indicators.htm

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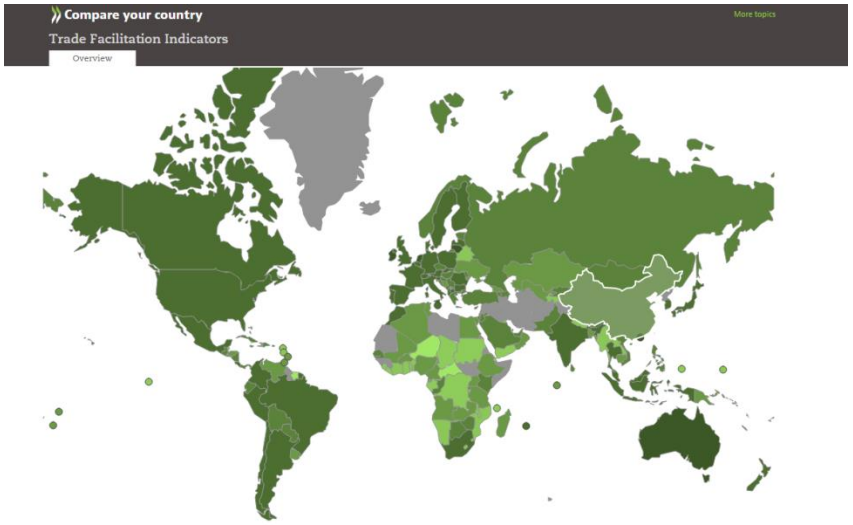
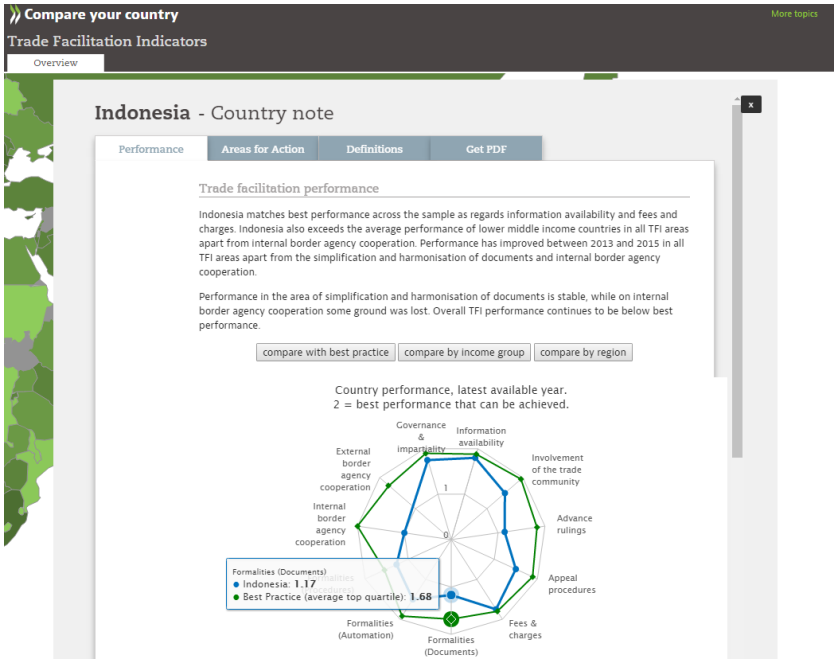
Interactive tools: *Compare your Country*

- Users can access **individual country profiles** which display an overview of trade facilitation performance
- Enables the **comparison**, in a **dynamic** way, of a selected country with other countries belonging to the same income group or region as the selected country
- Visualise **progress** made by the selected country since 2012 across all TFI areas

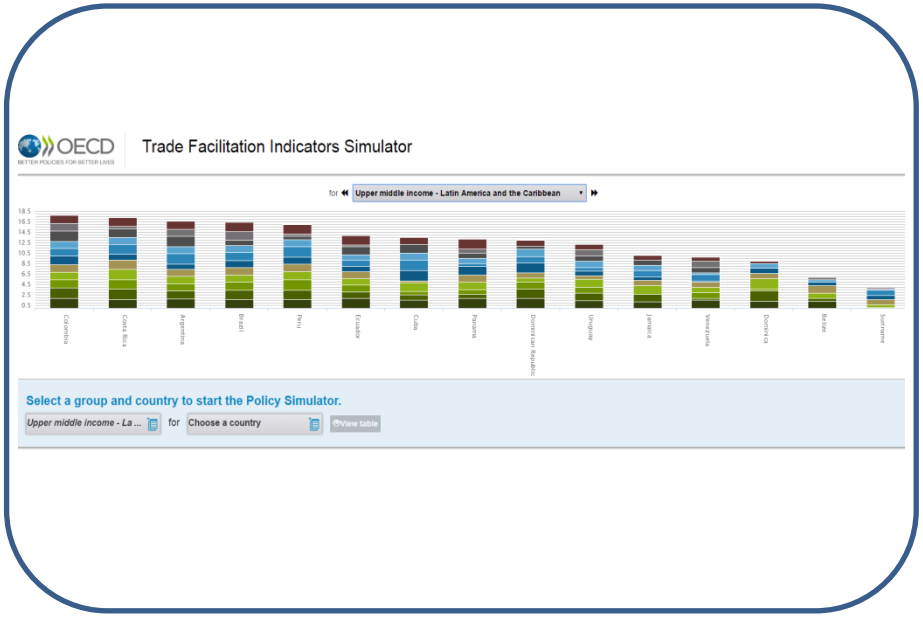


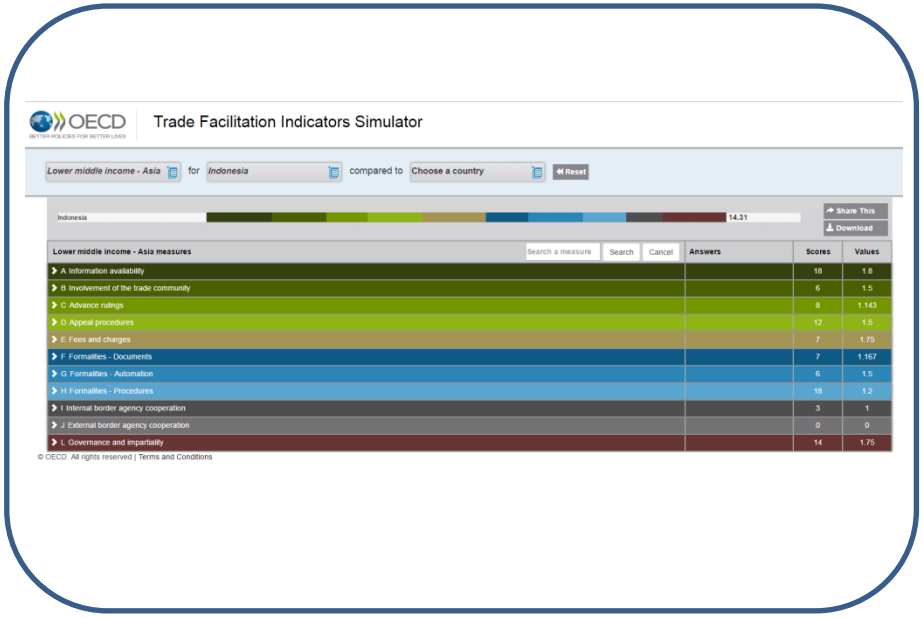


For more information: http://www.oecd.org/tad/facilitation/indicators.htm

Interactive tools: *Policy Simulator*

- Provides an **overview** of the indicators and the **key measures** driving the **performance** of a selected country and allows the comparison of the selected country with other countries
- Allows for the **simulation** of potential **policy reforms**





For more information: http://www.oecd.org/tad/facilitation/indicators.htm

United Nations Global Survey on Trade Facilitation and Paperless Trade Implementation

Overview

- The UNRCs Global Survey on Trade Facilitation and Paperless Trade Implementation is conducted by UN Regional Commissions (UNRCs) in collaboration with sub/regional and global partners
- The survey is forward looking and covers 38 trade facilitation and paperless trade measures categorized into four groups:
  - General Trade Facilitation measures (WTO TFA)
  - Paperless Trade measures
  - Cross-border Paperless Trade measures
  - Transit Facilitation measures
- Conducted every 2 years, it covers more than 119 countries across 8 regions worldwide, including 44 countries from Asia and the Pacific

Why is it useful?

- The Survey covers implementation of paperless trade and digital trade facilitation measures, in addition to key WTO TFA measures
- Based on facts rather than perception
- Also covers implementation of emerging and/or sectorial trade facilitation issues (in 2017: TF for SMEs; TF for agriculture)
- Full dataset available for advanced analysis and benchmarking

Limitations

- Global data only available for 2015 and 2017 (Asia-Pacific data available since 2013)

Methodology

- The data collection is divided into a 3-step process:
  - *Step 1:* Data submission by in-country public and private sector experts through offline and online questionnaires
  - *Step 2:* Data validation based on published and unpublished information (plus face-to-face or telephone interviews as needed), in collaboration with sub/regional and global partners involved in delivery of technical assistance on trade facilitation
  - *Step 3:* Data verification by governments
- For transparency reasons, the full dataset is made available online

For more information: http://www.unescap.org/sites/default/files/Global%20Report%20Final%2020151016.pdf

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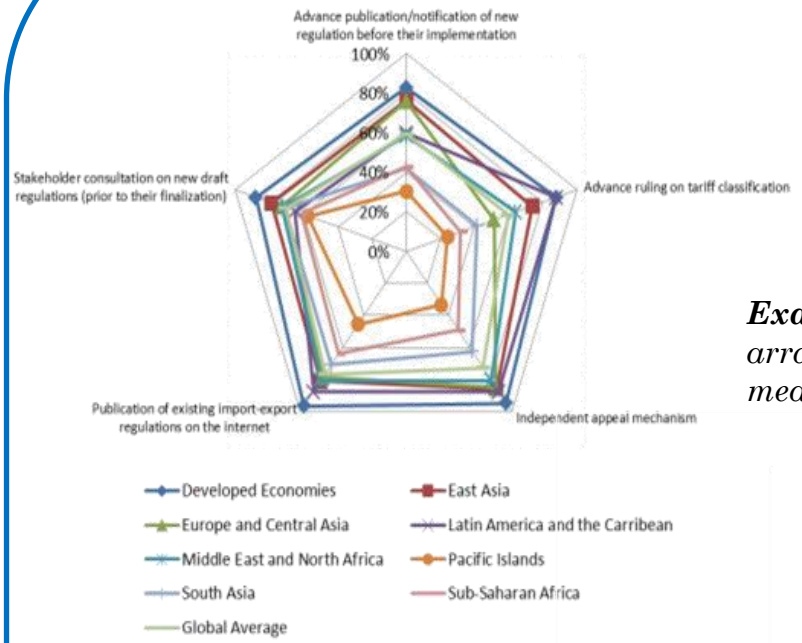
General Trade Facilitation measures

Indicators	Trade facilitation measures (and question No.) in the questionnaire
• Transparency *Five measures related to Articles 1 through 4 of the WTO TFA and GATT X.*	2. Publication of existing import-export regulations on the Internet 3. Stakeholder consultation on new draft regulations (prior to their finalization) 4. Advance publication/notification of new regulation before their implementation (e.g., 30 days prior) 5. Advance ruling (on tariff classification) 9. Independent appeal mechanism (for traders to appeal Customs and other relevant trade control agencies' rulings)
• Formalities *Eight measures related to Articles 6,7,9 and 10 of the WTO TFA and GATT VIII.*	6. Risk management (as a basis for deciding whether a shipment will or will not be physically inspected) 7. Pre-arrival processing 8. Post-clearance audit 10. Separation of Release from final determination of customs duties, taxes, fees and charges 11. Establishment and publication of average release times 12. Trade facilitation measures for authorized operators 13. Expedited shipments 14. Acceptance of paper or electronic copies of supporting documents required for import, export or transit formalities.
• Institutional arrangement and cooperation *Three measures related to Art 8 and 23 of the WTO TFA*	1. Establishment of a national trade facilitation committee or similar body 31. Cooperation between agencies on the ground at the national level 32. Government agencies delegating controls to Customs authorities 33. Alignment of working days and hours with neighboring countries at border crossings 34. Alignment of formalities and procedures with neighboring countries at border crossings

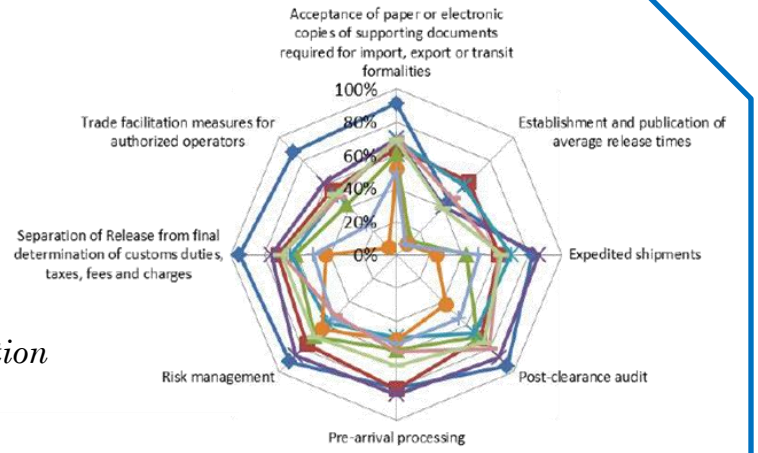
For more information: http://www.unescap.org/sites/default/files/Global%20Report%20Final%2020151016.pdf

General Trade Facilitation measures (II)

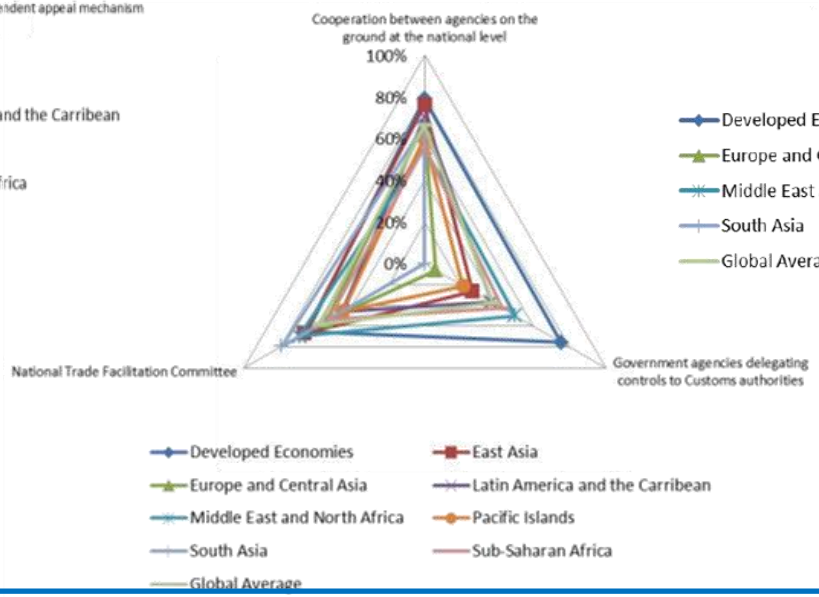
Example 1: *Transparency measures*



Example 2: *Formalities measures*



Example 3: *Institutional arrangement and cooperation measures*



For more information: http://www.unescap.org/sites/default/files/Global%20Report%20Final%2020151016.pdf

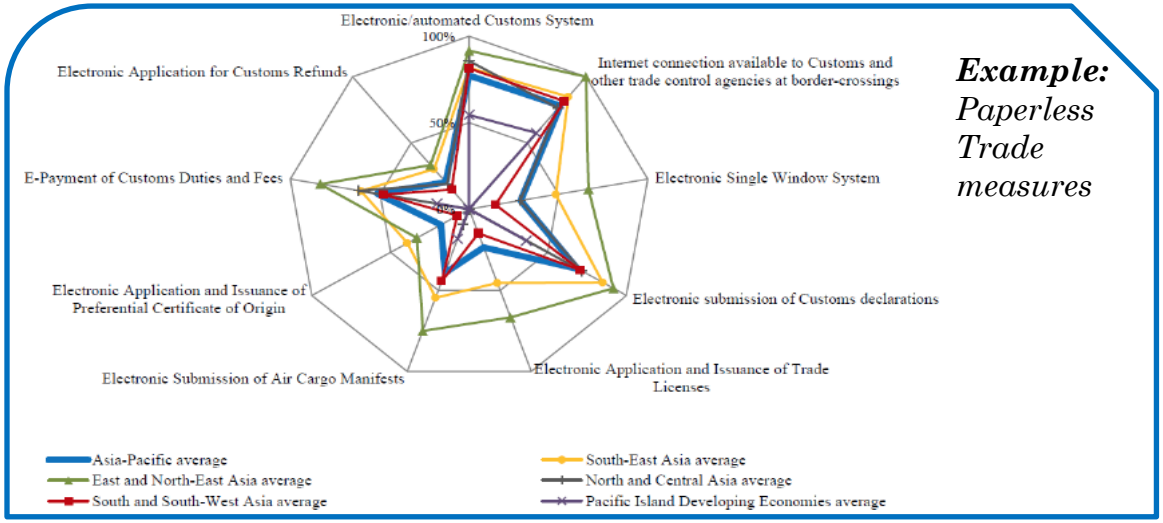
Paperless Trade measures

Overview:

The measures examine the use and application of modern information and communication technologies (ICT) to trade formalities ranging from availability of internet connection at border-crossings and customs automation to full-fledged electronic single window facilities.

Trade facilitation measures (and question No.) in the questionnaire:

15. Electronic/Automated Customs System established (e.g., ASYCUDA)
16. Internet connection available to Customs and other trade control agencies at border-crossings
17. Electronic Single Window System
18. Electronic submission of Customs declarations
19. Electronic Application and Issuance of Trade Licenses
20. Electronic Submission of Sea Cargo Manifests
21. Electronic Submission of Air Cargo Manifests
22. Electronic Application and Issuance of Preferential Certificate of Origin
23. E-Payment of Customs Duties and Fees
24. Electronic Application for Customs Refunds



Example: *Paperless Trade measures*

For more information: http://www.unescap.org/sites/default/files/Global%20Report%20Final%2020151016.pdf

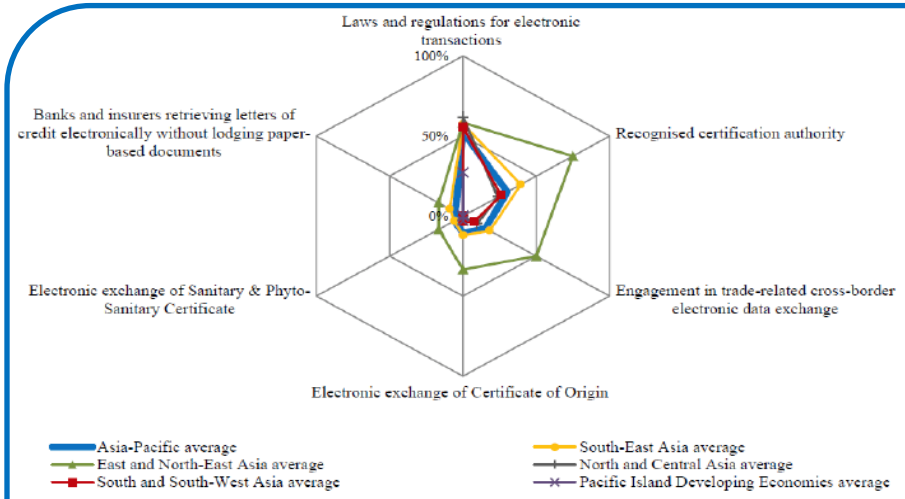
Cross-border Paperless Trade measures

Overview:

Six trade facilitation measures are categorized as cross-border paperless trade measures. Two of the measures are related to laws and regulations for electronic transactions and recognition of trade-related data and documents. The other four measures relate to the implementation of systems enabling the actual exchange of electronic trade-related data and documents across borders.

Trade facilitation measures (and question No.) in the questionnaire:

25. Laws and regulations for electronic transactions are in place (e.g. e-commerce law, e-transaction law)
26. Recognized certification authority issuing digital certificates to traders to conduct electronic transactions
27. Engagement of the country in trade-related cross-border electronic data exchange with other countries
28. Certificate of Origin electronically exchanged between your country and other countries
29. Sanitary and Phytosanitary Certificate electronically exchanged between your country and other countries
30. Banks and insurers in your country retrieving letters of credit electronically without lodging paper-based documents



Example: *Cross-border Paperless Trade measures*

For more information: http://www.unescap.org/sites/default/files/Global%20Report%20Final%2020151016.pdf

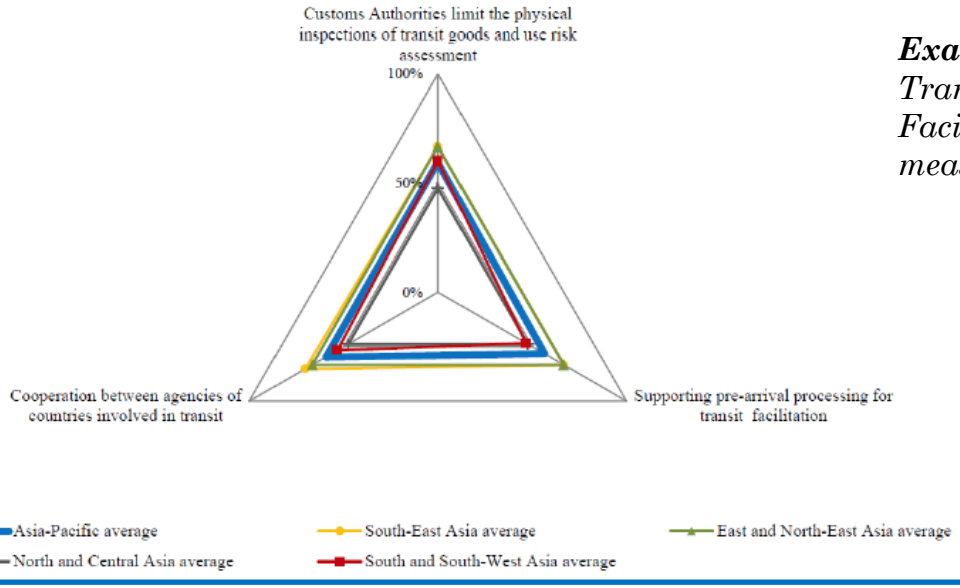
Transit Facilitation measures

Overview:

Three trade facilitation measures relate specifically to transit facilitation and WTO TFA Article 11 on Freedom of Transit. The intent to these measures is to reduce al the formalities associated with traffic in transit.*

Trade facilitation measures (and question No.) in the questionnaire:

35. Transit facilitation agreement(s) with neighboring country (ies)
36. Customs Authorities limit the physical inspections of transit goods and use risk assessment
37. Supporting pre-arrival processing for transit facilitation
38. Cooperation between agencies of countries involved in transit



Example: *Transit Facilitation measures*

(*) These measures are not directly applicable to all countries as some countries are unlikely to see any traffic in transit in their territory. For more information: http://www.unescap.org/sites/default/files/Global%20Report%20Final%2020151016.pdf

World Bank Logistic Performance Index (LPI)

Overview

- The Logistics Performance Index (LPI), launched in 2007, is an interactive benchmarking tool created to help countries identify the challenges and opportunities they face in their performance on trade logistics and what they can do to improve their performance.
- The index is conducted every 2 years and ranks 160 countries on the efficiency of international supply chains.
- The LPI is based on a worldwide survey of logistics professionals on the ground, providing feedback on the logistics friendliness of the countries in which they operate and those with which they trade.
- It offers two different perspectives:
  - International LPI
  - Domestic LPI

Why is it useful?

- Possible to receive feedback from trading partners.
- Both qualitative and quantitative assessments of a country by logistics professionals.
- Easy to identify improvements along the supply chain.

Limitations

- The experience of international freight forwarders might not represent the broader logistics environment in poor countries, which often rely on traditional operators.
- For landlocked countries and small island states, the LPI might reflect access problems outside the country assessed.

Methodology

International LPI:

- Each survey respondent rates eight overseas markets on six core components of logistic performance.
- The index is the weighted average of the country scores on the six key dimensions*.

Domestic LPI:

- Respondents provide qualitative and quantitative information on the logistics environment in the country where they work.
- Country scores are calculated taking a geometric average in levels whereas scores for regions, income groups, and LPI quintiles are simple averages of the relevant country scores.

(*) See methodology and Connecting to Compete 2016 report for more information.

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International Logistic Performance Index (LPI)

Provides qualitative evaluations of a country by its trading partners – logistics professionals working outside the country.

Six dimensions of trade*

Customs

The efficiency of customs and border clearance.

Infrastructure

The quality of trade and transport infrastructure.

International shipments

The ease of arranging competitively priced shipments.

Logistics competence

The competence and quality of logistics services.

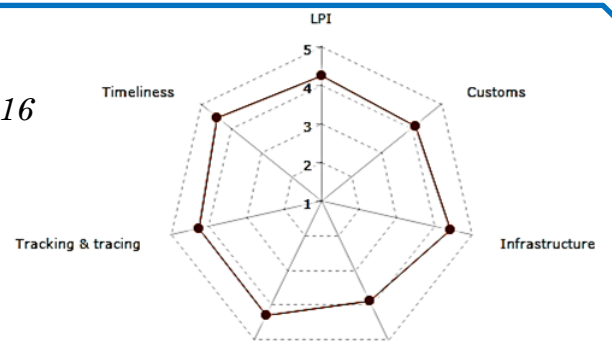
Tracking & tracing

The ability to track and trace consignments.

Timeliness

The frequency with shipments reach consignees within scheduled or excepted delivery times.

Example:
Germany 2016



(*) Rated from "very low" (1) to "very high" (5). For more information: http://lpi.worldbank.org/international and https://lpi.worldbank.org/international/scorecard/column/64/C/DEU/2016/R/EAP/2016/R/ECA/2016/R/LAC/2016/R/MNA/2016/R/SAS/2016/R/SSA/2016

World Bank Domestic Logistic Performance Index (LPI)

Domestic LPI: Environment and institutions

	Questions
• Level of Fees and Charges	*"Based on your experience in international logistics, please select that best describe the operational logistics in your country of work *"*
• Quality of Infrastructure	*"Evaluate the quality of trade and transport related infrastructure (e.g. ports, roads, airports, information technology) in your country of work*"*
• Competence and Quality of Services	*"Evaluate the competence and quality of service delivered by the following in your country of work*"*
• Efficiency of Processes	*"Evaluate the efficiency of the following in your country of work*"*
• Sources of Major Delays	*"How often in your country of work, you experience[…]*"*
• Changes in the Logistics Environments Since 2013	*"Since 2011, have the following factors improved in your country of work**"*
• Availability of Qualified Personnel	Availability (from very high to very low) of qualified personnel in four groups of logistics personnel: (i) Operations staff, (ii) Administrative staff, (iii) Logistics supervisors and (iv) logistics managers.

(*) See questionnaire for specific information about questions. (**) Factors are: customs, other border related procedures, quality of trade and transport related to infrastructure, quality of telecommunications/IT related to infrastructure, quality of private logistics services, regulation related to logistics and solicitation of informal payments.

Domestic LPI: Performance

- Export time and cost/ Port or airport supply chain
- Export time and cost/ Land supply chain
- Import time and cost/ Port or airport supply chain
- Import time and cost/ Land supply chain
- Shipments meeting quality criteria (%)
- Number of agencies – exports
- Number of agencies – imports
- Number of documents – exports
- Number of documents – imports
- Clearance time without physical inspection (days)
- Clearance time with physical inspection (days)
- Physical inspection (%)
- Multiple inspection (%)
- Declarations submitted and processed electronically and on-line (%)
- Importers using a licensed Customs Broker (%)
- Able to choose the location of the final clearance (%)
- Goods released pending customs clearance (%)

For more information: http://lpi.worldbank.org/domestic/performance and https://wb-lpi-media.s3.amazonaws.com/LPI_Report_2016.pdf

UNCTAD Liner Shipping Connectivity Index (LSCI) & Liner Shipping Bilateral Connectivity Index (LSBCI)

WEF GETR-Infrastructure

Overview

Liner Shipping Connectivity Index (LSCI):

- This index captures how well countries are connected to global liner shipping networks. The index base year is 2004.
- Data is available from 2004 to 2016 and for 237 economies.
- The LSCI is derived from five components.

Liner Shipping Bilateral Connectivity Index (LSBCI):

- This index is based on a bilateralization transformation of the LSCI.
- The index presents annual data from 2006 to 2015 and covers 157 economies.
- The LSBCI is generated from five components.

Why is it useful?

- Meaningful data on bilateral trade facilitation for developing economies
- Very detail information on maritime transport

Limitations

- Data on trade facilitation are drawn from research by private and international agencies. Because of different backgrounds, values, and personalities, those surveyed may evaluate the same situation differently.

Methodology

LSCI:

- Step 1: For each of the five components, a country´s value is divided by the maximum value of that component in 2004, and for each country, the average of the five components is calculated.
- Step 2: This average is then divided by the maximum average for 2004 and multiplied by 100.

LSBCI:

- Step 1: Normalization of the five components using a standard formula.
- Step 2: Taking the simple average of the five normalized components.
- The LSBCI can only take values between 0 (minimum) and 1 (maximum).

(*) To know the five components used in the LSCI check here and click on icon "i" for more information.
(**) To know the five components used in the LSBCI check here and click on icon "i" for more information.

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Five components of the LSCI

- **Number of ships**
- **Total container-carrying capacity of those ships**
- **Maximum vessel size**
- **Number of services**
- **Number of companies that deploy container ships on services from and to a country's ports**

Example: *Liner shipping connectivity index (LSCI) per country.*

Liner shipping connectivity index, annual, 2004-2016

Other: MEASURE - Index (Maximum 2004=100)

YEAR / ECONOMY	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
undefined	..	..	..	..	..	..	..	..	..	..	..	..	..
Albania	0.40	0.40	0.40	2.28	1.98	2.30	4.34	4.54	0.53	4.43	4.11	3.88	3.37
Algeria	10.00	9.72	8.70	7.86	7.75	8.37	31.45	31.06	7.80	6.91	6.94	5.92	5.55
American Samoa	5.17	5.30	4.86	6.28	6.44	4.60	4.85	4.56	4.39	4.19	4.42	5.22	5.22
Andorra	..	..	..	..	..	..	..	..	..	..	..	..	..
Angola	9.67	10.46	9.46	9.90	10.22	11.31	10.71	11.27	13.95	13.80	19.28	19.57	29.67
Anguilla	..	..	..	..	..	..	..	..	..	..	..	..	..
Antigua and Barbuda	2.33	2.56	2.43	3.76	3.82	2.66	2.40	2.40	2.41	2.43	4.07	4.07	4.22
Argentina	20.09	24.95	25.58	25.63	25.70	25.99	27.61	30.62	34.21	33.51	37.69	36.72	36.38
Armenia	..	..	..	..	..	..	..	..	..	..	..	..	..
Aruba	7.37	7.52	7.53	5.09	5.09	3.52	5.34	6.21	6.03	6.30	6.14	5.93	6.20
Australia	26.58	28.02	26.96	26.77	38.21	28.80	28.11	28.34	28.81	29.87	31.29	32.02	30.64
Austria	..	..	..	..	..	..	..	..	..	..	..	..	..
Azerbaijan	..	..	..	..	..	..	..	..	..	..	..	..	..
Bahamas	17.49	15.70	16.19	16.45	16.35	19.26	25.71	25.18	27.06	26.41	26.70	27.69	27.67
Bahrain	5.39	4.34	4.44	5.99	5.75	8.04	7.83	9.77	17.86	17.90	27.01	26.72	26.48

For more information: http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=92

Five components of the LSBCI

Transshipments

The minimum number of transshipments required to get from country A to country B.

Common direct connections

The number of direct connections common to both country A and country B.

Geometric mean of direct connections

The geometric mean of the number of direct connections of country A and country B.

Level of competition in shipping services

The level of competition on services that connect country A to country B.

Ships size

The size of the largest ships on the weakest route connecting country A to country B.

Example: *Liner shipping bilateral connectivity index (LSBCI) per country.*

Liner shipping bilateral connectivity index, annual, 2006-2015

Other: MEASURE - Index | YEAR ▼ 2015

PARTNER / ECONOMY	Albania	Algeria	American Samoa	Angola	Antigua and Barbuda	Argentina	Aruba	Australia	Bahamas	Bahrain	Bangladesh	Barbados	Belgium	Belize	Benin	Bermuda	Brazil
Albania	_	0.190	0.105	0.117	0.104	0.187	0.110	0.198	0.183	0.169	0.105	0.113	0.216	0.107	0.186	0.081	0.192
Algeria	0.190	_	0.184	0.231	0.196	0.258	0.203	0.259	0.249	0.195	0.131	0.211	0.378	0.200	0.240	0.150	0.270
American Samoa	0.105	0.184	_	0.197	0.183	0.209	0.189	0.252	0.203	0.190	0.181	0.189	0.249	0.180	0.198	0.150	0.216
Angola	0.117	0.231	0.197	_	0.197	0.360	0.198	0.308	0.297	0.260	0.220	0.206	0.430	0.207	0.368	0.151	0.377
Antigua and Barbuda	0.104	0.196	0.183	0.197	_	0.210	0.208	0.214	0.207	0.183	0.111	0.298	0.253	0.187	0.198	0.150	0.224
Argentina	0.187	0.258	0.209	0.360	0.210	_	0.231	0.363	0.376	0.306	0.252	0.231	0.514	0.229	0.314	0.156	0.519
Aruba	0.110	0.203	0.189	0.198	0.208	0.231	_	0.237	0.229	0.197	0.125	0.228	0.272	0.203	0.199	0.153	0.243
Australia	0.198	0.259	0.252	0.308	0.214	0.363	0.237	_	0.340	0.298	0.264	0.239	0.461	0.239	0.315	0.158	0.384
Bahamas	0.183	0.249	0.203	0.297	0.207	0.376	0.229	0.340	_	0.302	0.214	0.234	0.459	0.234	0.281	0.155	0.395
Bahrain	0.169	0.195	0.190	0.260	0.183	0.306	0.197	0.298	0.302	_	0.223	0.199	0.370	0.183	0.261	0.152	0.322
Bangladesh	0.105	0.131	0.181	0.220	0.111	0.252	0.125	0.264	0.214	0.223	_	0.127	0.289	0.125	0.235	0.082	0.262
Barbados	0.113	0.211	0.189	0.206	0.298	0.231	0.228	0.239	0.234	0.199	0.127	_	0.289	0.203	0.207	0.154	0.249
Belgium	0.216	0.378	0.249	0.430	0.253	0.514	0.272	0.461	0.459	0.370	0.289	0.289	_	0.276	0.391	0.163	0.558
Belize	0.107	0.200	0.180	0.207	0.187	0.229	0.203	0.239	0.234	0.183	0.125	0.203	0.276	_	0.203	0.153	0.237
Benin	0.186	0.240	0.198	0.368	0.198	0.314	0.199	0.315	0.281	0.261	0.235	0.207	0.391	0.203	_	0.151	0.331
Bermuda	0.081	0.150	0.150	0.151	0.150	0.156	0.153	0.158	0.155	0.152	0.082	0.154	0.163	0.153	0.151	_	0.158
Brazil	0.192	0.270	0.216	0.377	0.224	0.519	0.243	0.384	0.395	0.322	0.262	0.249	0.558	0.237	0.331	0.158	_

For more information: http://unctadstat.unctad.org/wds/TableViewer/tableView.aspx?ReportId=96618

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World Economic Forum, The Global Enabling Trade Report

Overview

- Co-published by the World Economic Forum and the Global Alliance for Trade Facilitation, the database features 136 economies based on the capacity to facilitate the flow of goods over borders and to their destination.
- The Global Enabling Trade Report has been published since 2008, initially on an annual basis, and biennially since 2010.
- The database captures the various dimensions of enabling trade, breaking them into four overall areas, the subindexes:
  - Market access*
  - Border administration
  - Infrastructure
  - Operating environment*

Why is it useful?

- The scope of the database is much broader than trade facilitation as conceived by most international organizations, enabling policy makers to find information about related trade facilitation indicators.
- Aggregation of indicators sourced from various organizations.
- Very detail indicators for trade and transport infrastructure.

Limitations

- Comparability of the results (e.g. 2016 results are not fully comparable with the results published in 2014).
- The new data added to the report from the World Economic Forum only represents 36% of the ETI.

Methodology

- In 2014, the Enabling Trade report went through a major revision in order to incorporate newly available data and streamline the structure**.
- The computation of the Enabling Trade Index (ETI) is based on successive aggregations of the scores from the indicator level all the way up to the overall ETI score***.
- The 57 indicators used in the (ETI) 2016 are sourced from various organizations including the Global Express Association, the International Trade Centre, UNCTAD, the World Bank, and the World Trade Organization.
- 22 indicators, accounting for the 36 percent of the ETI, are derived from the World Economic Forum´s Executive Opinion Survey (EOS).

(*) Not discussed in this handbook, for more information see http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf. (**) See changes in methodology. (***) See Appendix B: Composition and computation of the ETI for specific weights (%) within immediate parent category

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Border administration

Overview:

- This *Border administration subindex* assesses the quality, transparency and efficiency of border administration of a country. The subindex is composed of a single pillar:
  - **PILLAR 3: Efficiency and transparency of border administration (13 indicators).** The pillar assesses the efficiency and transparency of border administration, as measured by the availability and quality of information provided by border agencies and the prevalence of corruption.

- Customs services index (1 indicator)
- Efficiency of the clearance process (1 indicator)
- Border compliance: Time and cost to export/import (4 indicators)
- Documentary compliance: Time and cost to export/import (4 indicators)
- Irregular payments and bribes: imports/exports (1 indicator)
- Time predictability of import procedures (1 indicator)
- Customs transparency index (1 indicator)

Example: *Border administration, Pillar 3*

United States

The Enabling Trade Index in detail

	Rank / 136	Value	Trend
Pillar 3: Efficiency and transparency of border administration	17	5.9	
3.01 Customs services index 0–1 (best)	15	0.82	
3.02 Efficiency of the clearance process 1–5 (best)	16	3.8	
3.03 Time to import: Documentary compliance hours	50	7.5	
3.04 Time to import: Border compliance hours	25	1.5	
3.05 Cost to import: Documentary compliance US$	68	100.0	
3.06 Cost to import: Border compliance US$	43	175.0	
3.07 Time to export: Documentary compliance hours	25	1.5	
3.08 Time to export: Border compliance hours	18	1.5	
3.09 Cost to export: Documentary compliance US$	49	60.0	
3.10 Cost to export: Border compliance US$	46	175.0	
3.11 Irregular payments and bribes: imports/exports	29	5.3	
3.12 Time predictability of import procedures	28	4.9	
3.13 Customs transparency index 0–1 (best)	1	1.00	

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Efficiency and transparency of border administration: Customs services index

Customs services index:

- Index of extent of quality and comprehensiveness of services provided by customs authorities and related agencies, (0=worst, 1=best).
- This indicator is based on 17 survey questions taken from the *Global Express Association (GEA) Customs Capabilities Reports*, which evaluate the quality and comprehensiveness of services offered by customs and related agencies.
- The service includes: clearance of shipments via electronic data interchange; separation of physical release of goods from fiscal control; full time (24/7 days a week) automated processing; customs working hours adapted to commercial needs; fee for services conducted during normal service hours; inspection and release of goods arriving by air by the operator´s facility; automated risk assessment as primary basis for physical examination of shipments; multiple inspections (inspections by agencies other than customs) and the promptness of those inspections; exemptions from full customs formalities for shipments of minimal value; exemptions from duties and taxes for shipments of minimal value; clearance of shipments by a third party; appeal of customs decisions to a higher level or an independent tribunal; and use of reference prices or arbitrary uplifts to invoice values.

Example: *Customs services index*

3.01 Customs services index

Index of extent of quality and comprehensiveness of services provided by customs authorities and related agencies, 0–1 (best)

Rank / 117	Country / Economy	Score	Trend	Distance from best
1	Singapore	0.98		
2	United Arab Emirates	0.95		
3	Austria	0.92		
3	Italy	0.92		
3	Netherlands	0.92		
3	Sweden	0.92		

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Border administration: Efficiency and transparency of border administration (II)

Irregular payments and bribes:

- How common is it for companies to make undocumented extra payments or bribes in connection with imports and exports (1=very common, 7=never occurs).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Time predictability of imports:

- How much does the time required for border clearance of imported goods fluctuate? (1=fluctuates significantly, 7=hardly fluctuates at all).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

- The Executive Opinion Survey (EOS) is a survey of a representative sample of business leaders in their respective countries. Two-thirds of the data used in the Global Competitiveness Index are derived from the Executive Opinion Survey and one-third is derived from international sources' statistics. Respondent numbers to the EOS have increased every year and is currently over 13,500 in 142 countries.

Example: *Irregular payments in exports and imports*

3.11 Irregular payments and bribes: imports/exports

▲ Rank / 136	Country / Economy	Score
1	Finland	6.7
2	Singapore	6.6
3	Iceland	6.6
4	New Zealand	6.4
5	Ireland	6.4

Example: *Time predictability of import procedures*

3.12 Time predictability of import procedures

▲ Rank / 136	Country / Economy	Score
1	Singapore	6.1
2	Hong Kong SAR	6.0
3	Finland	6.0
4	Ireland	5.9
5	Sweden	5.8

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Border administration: Efficiency and transparency of border administration (III)

Customs transparency index:

- Index of transparency of procedures and regulations related to customs clearance (0=worst, 1=best).
- This indicator is based on 7 survey questions taken from the *Global Express Association (GEA) Customs Capabilities Reports,* which evaluate the overall transparency of the procedures and regulations related to customs clearance.

Example: *Customs transparency index*

3.13 Customs transparency index

Index of transparency of procedures and regulations related to customs clearance, 0–1 (best)

Rank / 116	Country / Economy	Score	Trend	Distance from best
1	Australia	1.00		
1	Austria	1.00		
1	Belgium	1.00		
1	Brazil	1.00		
1	Chile	1.00		
1	Colombia	1.00		
1	Costa Rica	1.00		
1	Czech Republic	1.00		
1	Denmark	1.00		
1	Ecuador	1.00		

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Infrastructure

Overview:

- This *Infrastructure subindex* assesses the availability and quality of transport infrastructure of a country, associated services, and communication infrastructure, necessary to facilitate the movement of goods within the country and across the border. The Infrastructure subindex is composed of three pillars:

  - **PILLAR 4: Availability and quality of transport infrastructure (7 indicators).** This pillar measures the availability and quality of domestic infrastructures for each of the four main modes of transport: road, air, railroad and sea port infrastructures. Air connectivity and sea line connectivity are also assessed.
  - **PILLAR 5: Availability and quality of transport services (6 indicators).** A necessary complement to the previous one, this pillar assesses the availability and quality of transport services, including the presence and competencies of shipping and logistics companies in the country, and the ease, cost and timeliness of shipment. In addition, this pillar includes a measure of postal efficiency.
  - **PILLAR 6: Availability and use of ICTs (7 indicators).** This pillar evaluates the availability and quality of information and communication technologies (ICTs) in a country, as proxied by the use of mobile telephony and Internet by the population at large, by companies for business transactions, and by the government for interacting with citizens. It also takes into account the quality of Internet access, as broadband access has become the norm to fully leverage the potential of the Internet.

Example: *Infrastructure, Pillars 4-6.*

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Infrastructure: Transport infrastructure

Indicators:

- Available airline seat kilometers
- Quality of air transport infrastructure
- Quality of railroad infrastructure
- Liner Shipping Connectivity Index
- Quality of port infrastructure
- Road quality index
- Quality of roads

Example: *Availability and quality of transport infrastructure*

United States The Enabling Trade Index in detail

	Rank / 136	Value	Trend
Pillar 4: Availability and quality of transport infrastructure	7	6.1	
4.01 Available airline seat kilometres millions	1	13928.6	
4.02 Quality of air transport infrastructure	9	6.1	
4.03 Quality of railroad infrastructure	13	5.1	
4.04 Liner Shipping Connectivity Index 0–157.1 (best)	6	98.7	
4.05 Quality of port infrastructure	10	5.7	
4.06 Road quality index	1	7.0	
4.07 Quality of roads	13	5.6	

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Infrastructure: Transport infrastructure (II)

Available airline seat kilometers:

- Scheduled available international airline seat kilometers per week originating in a country (in millions).
- This indicator is derived from the International Air Transport Association, and measures the total passenger-carrying capacity of all scheduled international flights originating in a country. It is computed by taking the number of seats available on each flight multiplied by the flight distance in kilometers, summing the result across all scheduled flights in a week during January (winter schedule) and July (summer schedule) 2013, and taking the average capacity of the two weeks.

Quality of air transport:

- How is the quality (extensiveness and condition) of transport infrastructure for air transport (1=extremely underdeveloped, among the worst in the world; 7=extensive and efficient, among the best in the world).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Example: *Available airline seat kilometers (millions)*

4.01 Available airline seat kilometres

Rank / 136	Country / Economy	Score
1	United States	13928.6
2	United Kingdom	7148.1
3	United Arab Emirates	5966.1
4	China	5192.5
5	Germany	5052.9

Example: *Quality of air transport infrastructure*

4.02 Quality of air transport infrastructure

Rank / 136	Country / Economy	Score
1	Singapore	6.9
2	United Arab Emirates	6.7
3	Hong Kong SAR	6.6
4	Netherlands	6.5
5	Finland	6.2

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Infrastructure: Transport infrastructure (III)

Quality of railroad infrastructure:

- How is the quality (extensiveness and condition) of transport infrastructure for railroads (1=extremely underdeveloped, among the worst in the world; 7=extensive and efficient, among the best in the world).
- The N/Appl. is used for economies where the railroad network totals less than 50 kilometers. Assessment of the existence of a network was conducted by the World Economic Forum based on various sources.
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Quality of port infrastructure:

- How is the quality (extensiveness and condition) of transport infrastructure for seaports (for landlocked countries - please assess access to seaports) (1=extremely underdeveloped, among the worst in the world; 7=extensive and efficient, among the best in the world).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Example: *Quality of railroad infrastructure*

4.03 Quality of railroad infrastructure

Rank / 106	Country / Economy	Score
1	Japan	6.7
2	Switzerland	6.6
3	Hong Kong SAR	6.4
4	France	5.8
5	Singapore	5.7

Example: *Quality of port infrastructure*

4.05 Quality of port infrastructure

Rank / 135	Country / Economy	Score
1	Netherlands	6.8
2	Singapore	6.7
3	United Arab Emirates	6.4
4	Hong Kong SAR	6.4
5	Panama	6.3

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Infrastructure: Transport infrastructure (IV)

Road Quality Index:

- Average speed and straightness of a driving itinerary connecting the 10 or more largest cities that together account for at least 15 percent of the economy´s total population (1=worst, 7=best)
- The Road Quality Index developed by the World Economic Forum comprises two elements: a measure of the average speed of a driving itinerary connecting the 10 or more largest cities in an economy accounting for at least 15 percent of the economy's total population; and a measure of road straightness. The itinerary was not optimized and connects the cities from the largest to the smallest. Any leg involving a ferry is excluded from the average speed calculation.

Example: *Road Quality Index*

4.06 Road quality index

Rank / 129	Country / Economy	Score
1	United States	7.0
2	Saudi Arabia	7.0
3	Spain	6.9
4	Sweden	6.8
5	South Africa	6.7

Quality of roads:

- In your country, how is the quality (extensiveness and condition) of transport infrastructure for roads(for landlocked countries - please assess access to seaports) (1=extremely underdeveloped, among the worst in the world; 7=extensive and efficient, among the best in the world).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Example: *Quality of roads*

4.07 Quality of roads

Rank / 136	Country / Economy	Score
1	United Arab Emirates	6.5
2	Singapore	6.3
3	Hong Kong SAR	6.2
4	Netherlands	6.1
5	Japan	6.1

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Infrastructure: Transport services

Indicators:

- International Logistic Performance Index (LPI)
  i. Ease and affordability of shipment
  ii. Logistic competence
  iii. Tracking and tracing ability
  iv. Timeliness of shipments to destination
- Postal service efficiency
- Efficiency of transport mode change

Example: *Availability and quality of transport services*

United States The Enabling Trade Index in detail

	Rank / 136	Value	Trend
Pillar 5: Availability and quality of transport services	14	5.5	
5.01 Ease and affordability of shipment 1–5 (best)	19	3.7	
5.02 Logistics competence 1–5 (best)	8	4.0	
5.03 Tracking and tracing ability 1–5 (best)	5	4.2	
5.04 Timeliness of shipments to destination 1–5 (best)	11	4.3	
5.05 Postal service efficiency	33	5.6	
5.06 Efficiency of transport mode change	9	5.5	

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Infrastructure: Transport services

Postal service efficiency:

- How efficient is the postal system?(1=not efficient at all, 7=extremely efficient).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Efficiency of transport mode change:

- How efficient are changes between different modes of transport for cargo (e.g. from port to rail or airport to roads? (1=extremely inefficient, 7=extremely efficient).
- This indicator is derived from the Executive Opinion Survey (EOS), 2015 and 2016 editions.

Example: *Postal service efficiency*

5.05 Postal service efficiency

Rank / 131	Country / Economy	Score
1	Japan	6.8
2	Hong Kong SAR	6.6
3	Switzerland	6.5
4	Finland	6.4
5	Singapore	6.4

Example: *Efficiency of transport mode change*

5.06 Efficiency of transport mode change

Rank / 136	Country / Economy	Score
1	Hong Kong SAR	6.3
2	Singapore	6.3
3	Netherlands	6.0
4	United Arab Emirates	5.9
5	Finland	5.9

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

Infrastructure: Availability and use of ICTs

Indicators:

- Mobile-cellular telephone subscriptions
- Internet users
- Fixed-broadband Internet subscriptions
- Mobile-broadband subscriptions
- ICT use for biz-to-biz transactions
- Internet use for biz-to-consumer transactions
- Government Online Service Index

Example: *Availability and use of ICTs*

United States The Enabling Trade Index in detail

	Pillar 6: Availability and use of ICTs	15	6.2
6.01	Mobile-cellular telephone subscriptions /100 pop.	65	117.6
6.02	Internet users % pop.	35	74.5
6.03	Fixed-broadband Internet subscriptions /100 pop.	18	31.5
6.04	Mobile-broadband subscriptions /100 pop.	13	109.2
6.05	ICT use for biz-to-biz transactions	12	5.8
6.06	Internet use for biz-to-consumer transactions	2	6.4
6.07	Government Online Service Index 0–1 (best)	9	0.93

For more information see Technical Notes and Sources from the Global Enabling Trade Report 2016:
http://www3.weforum.org/docs/WEF_GETR_2016_report.pdf

World Bank Services Trade Restrictions Index (STRI)

Overview

World Bank Services Trade Restrictions Index:

- The database collects information through survey questionnaires on applied services trade policies across 103 countries, 18 services sectors, and key modes of service supply*(mode 1).
- The last update was in 2011 and the periodicity is annual. Coverage is from 2008 to 2011.

Why is it useful?

World Bank:

- Possible to find cross-border information on trade related services such as banking and insurance sector.
- Online access to a summary of the key restrictions in the selected country.

Limitations

World Bank:

- Last year available 2011.

Methodology

World Bank:

- The surveys questionnaire are completed by local law offices.
- After the index assigns a score to a subsector-mode, the scores can be aggregated using modal weights, sector weights and country weights**.
- The index ranges from 0 (open without restrictions) to 100 (completely closed).

(*) Cross-border supply of services (mode 1), the supply of services through commercial presence(mode 3), and the temporary presence of natural persons (mode 4). (**)For more information: http://iresearch.worldbank.org/servicetrade/Annex_Table4&5.pdf

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World Bank Services Trade Restrictions Index

Key mode of service supply related with Trade Facilitation:

- Cross-border supply of services (mode 1)

  This mode is defined as the supply of a service from the territory of one Member into the territory of any other Member. It arises when a service crosses a national border, for example, if a consumer in country A purchases software or insurance from a provider located in country B. It would also include the purchase by a consumer in country A of transportation services – such as a train ride or flight - from a provider located in country B.

Sectors/Sub-sectors related with Trade Facilitation:

- Financial
  - Banking (available mode 1,3)
  - Insurance (available mode 1,3)
- Transport
  - Air passenger domestic (available mode 3)
  - Air passenger international (available mode 1,3)
  - Maritime shipping international (available mode 1,3)
  - Maritime auxiliary services (available mode 3)
  - Road trucking (available mode 3)
  - Railway freight (available mode 3)

Example:
Service Trade Restrictions Index, Albania

Albania	Overall	Mode 1	Mode 3	Mode 4
Overall	19.4	74.76	11.19	50
Financial	17.5	69.39	0	
Banking	7.5	50	0	
Lending by banks	0	0	0	
Acceptance of deposits by banks	15	100	0	
Insurance	33.3	100	0	
Automobile Insurance	10	100	0	
Life Insurance	10	100	0	
Reinsurance	80	100	0	
Telecommunications	0		0	
Fixed-line telecommunications	0		0	
Mobile telecommunications	0		0	
Retail	0		0	
Transportation	27.8	25	27.78	
Air Passenger Domestic			50	
Air Passenger International	50	50	50	
Maritime Shipping International	0	0	0	
Maritime Auxiliary Services	0		0	
Road Freight Domestic	25		25	
Rail Freight Domestic	75		75	
Professional	45	100	25	50
Accounting and Auditing	50	100	25	50
Accounting	50	100	25	50
Auditing	50	100	25	50
Legal	41.7	100	25	50
Legal Advice Foreign Law	50	100	25	50
Legal Advice Domestic Law	37.5		25	50
Legal Representation in Court	37.5		25	50

For more information: http://documents.worldbank.org/curated/en/878251468178764639/pdf/WPS6108.pdf

OECD Services Trade Restrictiveness Index (STRI)

Overview

OECD Service Trade Restrictiveness Index:

- This regulatory database quantifies the degree of trade restrictiveness of existing services regulations.
- The STRI covers 40 economies, 18 service sectors and about 80% of global value trade (last publication 2014).

Why is it useful?

OECD:

- Recent data on cross-border regulation in trade services.
- Three interactive tools available: compare your country, policy simulator and regulatory database.

Limitations

OECD:

- Limited country coverage.

Methodology

OECD:

- The STRI indices takes the value from 0 (completely open) to 1 (completely closed).
- The index is derived by aggregating regulations into a composite measure of restrictiveness. For more information about scoring, weighting and aggregation see V:Methodology for developing the STRI.

(**)For more information: http://qdd.oecd.org/subject.aspx?Subject=063bee63-475f-427c-8b50-c19bffa7392d

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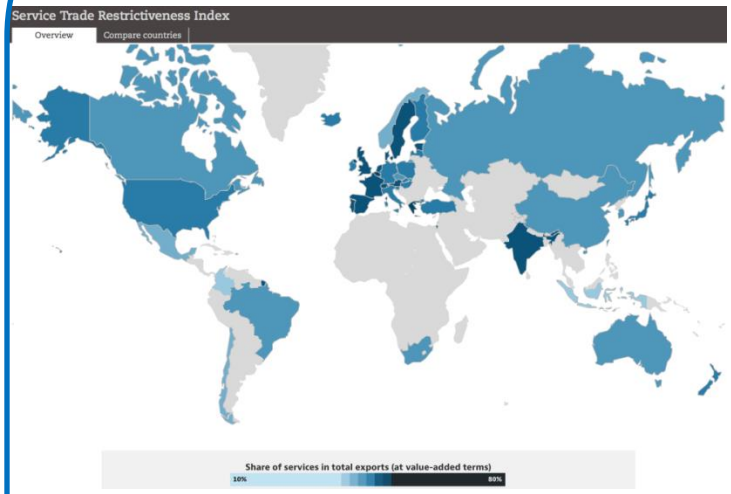
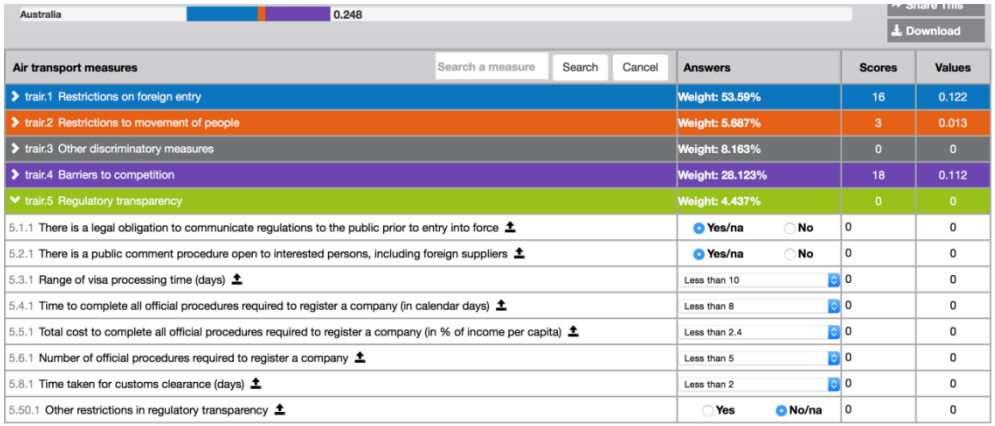
OECD Services Trade Restrictiveness Index

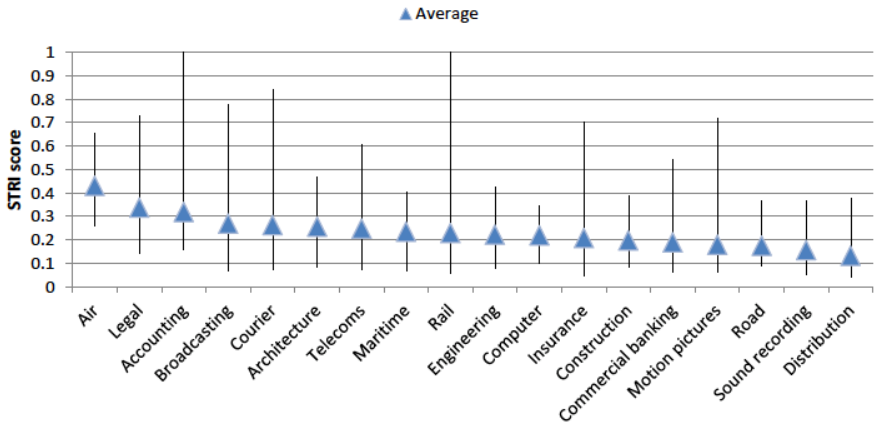
Example 1:
Service Trade Restrictions Index, overview 2015



Example 2:
Australia, Service Trade Restrictiveness Index Simulator



Example 3:
STRI average, maximum and minimum scores by sector, 40 countries (2014)
OECD Policy Brief



For more information: http://qdd.oecd.org/subject.aspx?Subject=063bee63-475f-427c-8b50-c19bffa7392d

Beyond Aggregate Indicators and Cross-country Databases: Trade and Transport Facilitation Monitoring Mechanism (TTFMM)

- Although existing global trade facilitation performance surveys and databases provide useful information on benchmarking and raise awareness, they do not provide sufficiently detailed information to develop or update national trade and transport facilitation action plans.

- In this context, the trade and transport facilitation monitoring mechanism (TTFMM) has two key functions:

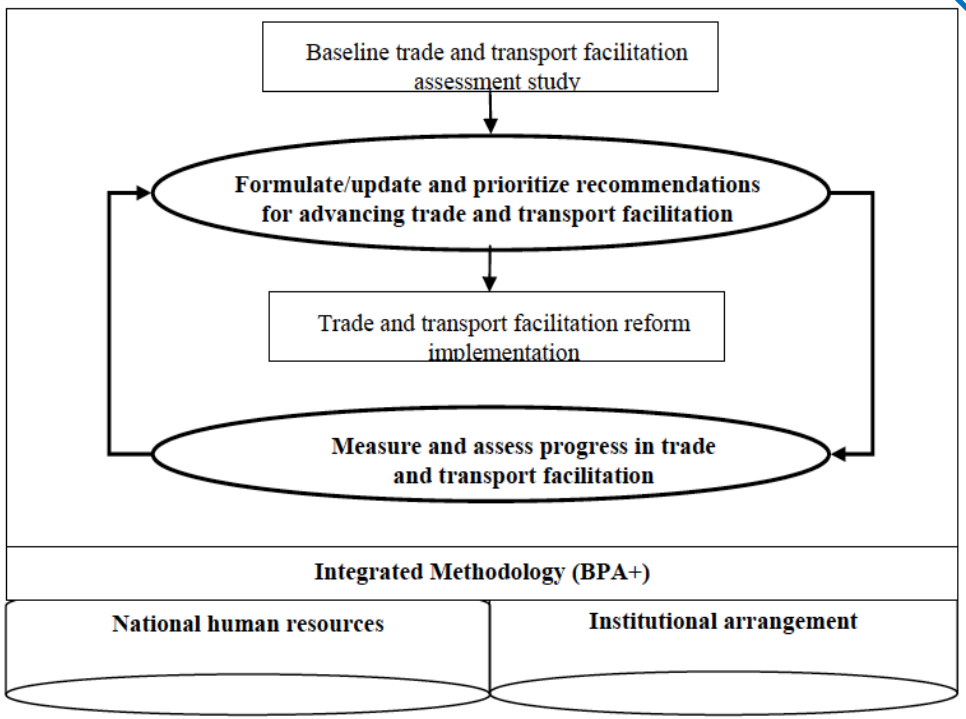
  i. To formulate/update and prioritize recommendations for advancing trade facilitation

  ii. To measure and assess progress in trade facilitation

- Underpinning TTFMM is the methodology called Business Process Analysis Plus (BPA+) which is built on the Business Process Analysis methodology, supplemented by Time Release Studies (WCO TRS) and Time-Cost-Distance (TCD) methodologies.

- It is envisaged that establishment of TTFMM would enable the countries to monitor and enhance trade facilitation on a continuous basis and in a sustainable manner (for more details see the UN/CEFACT Recommendation No. 42).

Example: *Key Functions and Components of TTFMM*



For more information: http://www.unescap.org/resources/towards-national-integrated-and-sustainable-trade-and-transport-facilitation-monitoring

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