

# Non-tariff measures (NTMs) overview



Project "Supporting Equitable Economic Development in ASEAN: Impact of Regional Integration (AEC) on Cambodia, Lao PDR, Myanmar and Viet Nam (CLMV countries)"

# Objective of the project

- Supporting Equitable Economic Development in ASEAN: Impact of Regional Integration (AEC) on Cambodia, Lao PDR, Myanmar and Viet Nam (CLMV countries).
- Reflecting the challenges posed by the AEC, the objective of the project was to strengthen the technical and analytical skills of researchers and officials from CLMV countries to manage and assess the impacts of:
  - (a) non-tariff measures, and
  - (b) protection of intellectual property rights (IPR) (e.g., through geographical indications for food products exports).

# Preface

Three events were organized as part of the project under the project "Supporting Equitable Economic Development in ASEAN: Impact of Regional Integration (AEC) on Cambodia, Lao PDR, Myanmar and Viet Nam (CLMV countries)" under phase four of ARTNeT and supported by Agence Française de Développement ([AFD](#)).

1.	06-10 JUN 2016	ARTNeT-AFD Research Capacity Building Workshop on ASEAN Integration	<a href="#">Link</a>
2.	12-16 DEC 2016	WTO/ESCAP-ARTNeT Capacity Building Workshop on "Empirical methods in trade: Analyzing non-tariff measures"	<a href="#">Link</a>
3.	26-27 APR 2017	ARTNeT dialogue on “Analyzing non-tariff measures: collating evidence and setting research agenda”	<a href="#">Link</a>

- The presentations that were used in the project-related events can be found within the event links in the last page.
- Complementing the materials, to maximize dissemination and use of knowledge products created under this project, ARTNeT secretariat is making available this **composite presentation**, along with a glossary, for anyone interested in a non-technical but comprehensive overview of issues related to non-tariff measures (NTMs).
- This presentation used training materials prepared for the ARTNeT project and other reference (listed herein)

# Review questions

After going through the presentation, you should be able to know:

- The definition and trends of NTMs
- NTM classification
- What is NTMs' impact on trade
- International agreements on NTMs
- The brief history of NTMs
- Three different types of data of NTMs
- The links between NTM, trade facilitation and trade costs
- The links between NTM and sustainable development
- Where to find the NTM datasets
- The current NTM research trends
- The publication list on NTMs for further research and studies

# The presentation is structured into the following topics

1. Introduction: definition and facts
2. NTM classification
3. NTM's impacts
4. International agreements on NTM
5. NTMs and trade costs
6. Information and datasets of NTMs
7. NTMs and sustainable development goals
8. Current NTMs research trends
9. References

# 1. INTRODUCTION: DEFINITION AND FACTS



# Definition of non-tariff measures (NTMs)

- NTMs are generally defined as policy measures other than ordinary customs tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded, or prices, or both ([UNCTAD/DITC/TAB/2012/2/Rev.1](https://unctad.org/Document/Trade/2012/2/Rev.1)).
- NTMs are often seen as all policy-related trade costs incurred from production to the final consumer, with the exclusion of tariffs.
- WTO rules allow countries to use NTMs (with conditions) to regulate their imports and exports in order to achieve legitimate non-trade objectives.

# Objectives for using NTMs

- NTMs can be used to:
  - Correct various market failures such as informational asymmetries, externalities and monopoly power (price ceiling)
  - Protect consumer health (standards, certification or labelling)
  - Safeguard the environment (import ban)
  - Protection of national industries or infant industries (bailouts or subsidy)

# NTMs vs. non tariff barriers (NTBs)

- NTMs can be trade and/or welfare enhancing
- No judgment over legitimacy or lawfulness
- Transparency is paramount
- Different from concept of “procedural obstacles”



# NTM history

- Expert meeting of NTMs (2005)
  - Methodology, classification, quantification and impact on development of NTM
  - Set up of Group of Eminent Persons
  - MAST (Multi-Agency Support Team) in charge of technical work
  - FAO, IMF, ITC, OECD, UNIDO, UNCTAD, WB and WTO
- Pilot Project of NTMs (2007-2009)
  - Test data collection method and validate classification
  - Brazil, Chile, Philippines, India, Thailand, Tunisia and Uganda
- Agreed International NTM Classification, Version 2012
- Official NTM data are collected jointly with partners - International effort is coordinated by UNCTAD
- UNCTAD TRAINS is most comprehensive NTM database

## 2. NTMs CLASSIFICATION

# NTM classification by chapter (UNCTAD-WTO, 2012)

<b>Imports</b>	<b>Technical measures</b>	<b>A</b> SANITARY AND PHYTOSANITARY MEASURES <b>B</b> TECHNICAL BARRIERS TO TRADE <b>C</b> PRE-SHIPMENT INSPECTION AND OTHER FORMALITIES
	<b>Non technical measures</b>	<b>D</b> CONTINGENT TRADE-PROTECTIVE MEASURES <b>E</b> NON-AUTOMATIC LICENSING, QUOTAS, PROHIBITIONS AND QUANTITY-CONTROL MEASURES OTHER THAN FOR SPS OR TBT REASONS <b>F</b> PRICE-CONTROL MEASURES, INCLUDING ADDITIONAL TAXES AND CHARGES <b>G</b> FINANCE MEASURES <b>H</b> MEASURES AFFECTING COMPETITION <b>I</b> TRADE-RELATED INVESTMENT MEASURES <b>J</b> DISTRIBUTION RESTRICTIONS <b>K</b> RESTRICTIONS ON POST-SALES SERVICES <b>L</b> SUBSIDIES (EXCLUDING EXPORT SUBSIDIES UNDER P7) <b>M</b> GOVERNMENT PROCUREMENT RESTRICTIONS <b>N</b> INTELLECTUAL PROPERTY <b>O</b> RULES OF ORIGIN
	<b>Exports</b>	<b>P</b> EXPORT-RELATED MEASURES

# Multi-Agency Support Team (MAST)

## 2012 classification of NTMs

- The latest (2012) version of the classification of NTMs prepared by the MAST group (Multi-Agency Support Team) encompasses 16 chapters (A to P), where each individual chapter is divided into groupings with depth up to three levels (one, two and three digits).

# Multi-Agency Support Team (MAST)

## 2012 classification of NTMs

- Tree branch structure
- Each of the 16 chapters (A-P) is further divided into sub-groups (up to three digits) to allow a finer classification of the regulations affecting trade.
- All chapters (except chapter P, which deals with exports) reflect the requirements of the importing country with regard to its imports.



# NTM classification by chapter: technical measures

- A. SPS. Measures ensuring food safety and measures for preventing dissemination of disease or pests. Conformity-assessment measures related to food safety, such as certification, testing and inspection, and quarantine.
  - B. TBT. Measures such as labelling, standards on technical specifications and quality requirements, and other measures protecting the environment. Conformity-assessment measures related to technical requirements, such as certification, testing and inspection.
  - C. Measures related to preshipment inspections and other customs formalities.
- See [World Trade Report 2012](#) for further details

# NTM classification by chapter: non technical measures

- D. Measures implemented to counteract particular adverse effects of imports in the market of the importing country, including measures aimed at unfair foreign trade practices. They include antidumping, countervailing, and safeguard measures
- See [World Trade Report 2009](#)

# NTM classification by chapter: non technical measures

- Hard trade policy measures
  - E. Licensing, quotas and other quantity control measures, including tariff rate quotas (TRQs)
  - F. Price-control measures implemented to control or affect the prices of imported goods. Examples include measures to support the domestic price of certain products when the import prices of these goods are lower
    - Traditionally used in trade policy

# NTM classification by chapter: non technical measures

- G. Measures restricting the payments of imports, for example when the access and cost of foreign exchange is regulated. Measures imposing restrictions on the terms of payment
- H. Measures affecting competition. Mainly monopolistic measures, such as State trading, sole importing agencies or compulsory national insurance or transport
- I. Trade-related investment measures, including local content requirements or measures requesting that investment be related to export in order to balance imports

# NTM classification by chapter: non technical measures

- Marketing after imports

- J. Restrictive measures related to the internal distribution of imported products
- K. Restrictions on post-sales services, for example, restrictions on the provision of accessory services

# NTM classification by chapter: non technical measures

- Behind-the-border policies
  - L. Measures that relate to the subsidies that affect trade
  - M. Restrictions bidders may find when trying to sell their products to a foreign government
  - N. Restrictions related to intellectual property measures and intellectual property rights
  - O. Measures that restrict the origin of products or its inputs

# NTM classification by chapter: non technical measures

- Export measures

P. Measures a country applies to its exports: export taxes, export quotas and export prohibitions

– See World Trade Report 2010 ([section D](#)) and World Trade Report 2014 ([section D](#))

## Similarities



### SPS and TBT. Regulations

- Prohibitions, tolerance limits, labeling, safety or security requirements

### SPS and TBT. Conformity assessment

- Certification, lab tests, inspection

## and Differences



### SPS. Measures to ensure that:

- food is safe for consumers, and
- to prevent the spread of pests/diseases among animals and plants, or carried on to humans

### TBT

- The rest of technical measures (e.g. quality and product harmonization, consumer protection -deception, security)

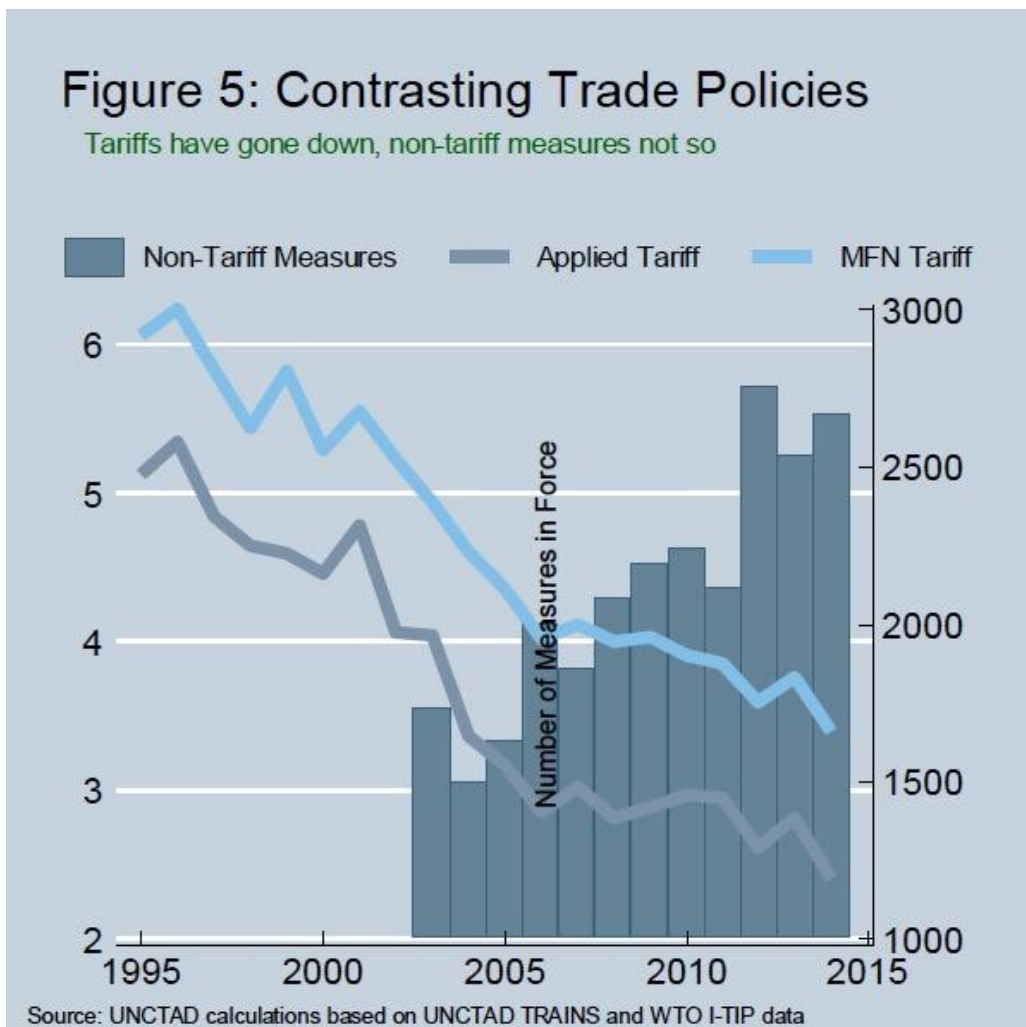


### 3. NTMs' IMPACTS

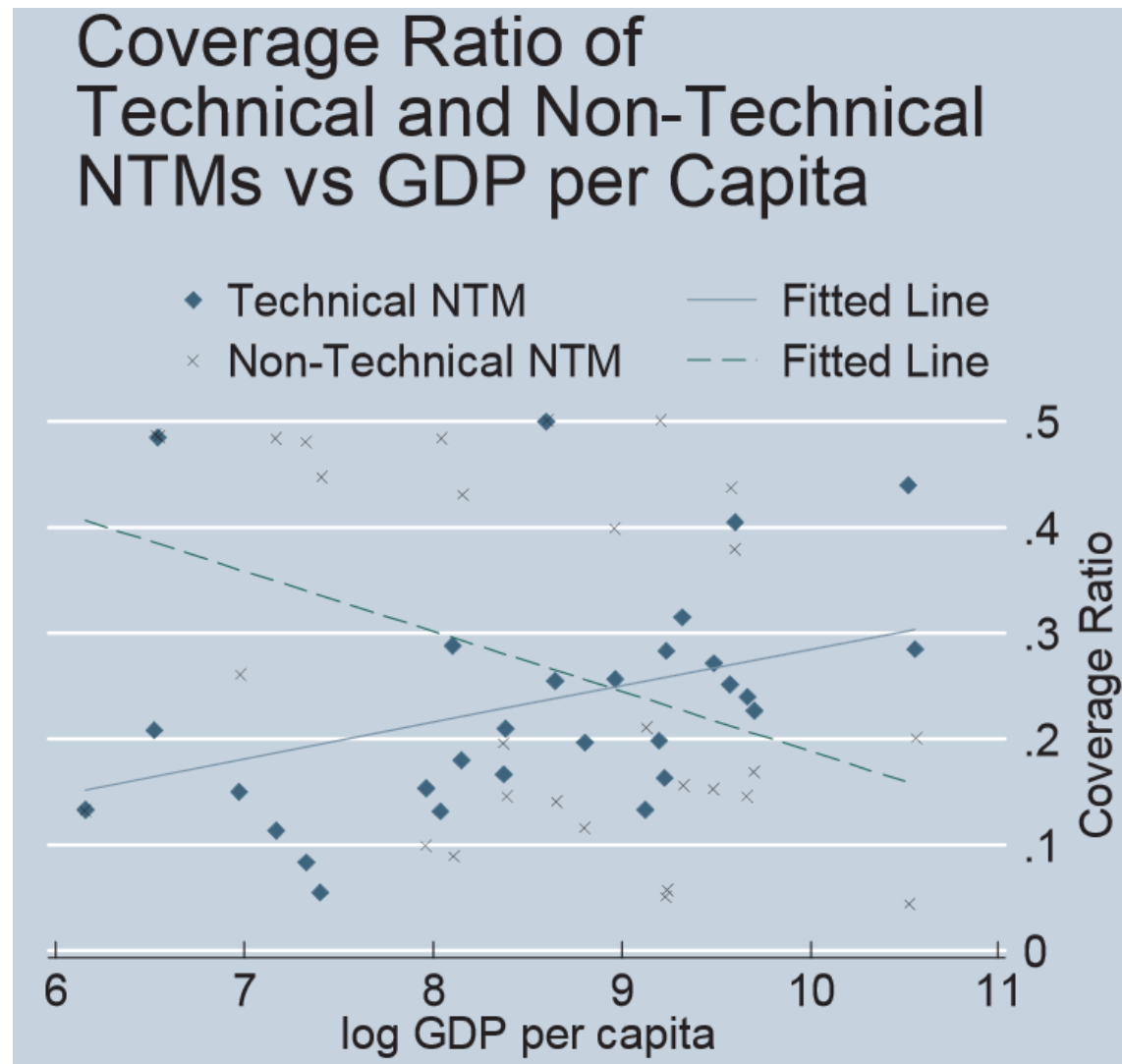
# Ways of looking at NTMs

- Incidence
  - One-by-one, looking at individual measures
  - Incidence statistics like coverage/frequency ratio
- Impact
  - Direct economic (on trade, prices)
  - Indirect economic (employment, poverty, ...)
  - Non-economic! Environment, health...
- Different contexts:
  - Multilateral
  - Regional
  - Bilateral
  - Unilateral
- Import / export / both
- Value chains
- Economy-wide
  - Sector- or product-specific
  - Measure-specific

# Trend: tariffs vs. non-tariffs measures



# Use of technical measures increases with GDP, use of non-technical NTMs decreases



# Certain stylised facts on NTMs

- They can affect prices and quantities, or both.
- Even though applied indiscriminately, they can be discriminatory.
- Among the different types of NTMs, sanitary and phytosanitary (SPS) and technical barriers to trade (TBTs) are most predominant.

# Certain stylised facts on NTMs

- On the whole, TBTs are more prevalent than SPS measures, but SPS more prevalent on agri-food products than TBTs.
- The exact extent of burden imposed by NTMs differ among export markets.
- Mixed results on whether NTMs are complements or substitutes to tariffs (differs by country and product groups).

# What is NTMs' impact on trade?

- Trade may increase or decrease. NTMs are very diverse and so is their impact on trade
  - **Add costs to trade (Exclusion of those not able to comply: small companies)**
    - Standards require information and compliance
  - **Preclude trade**
    - Prohibitions/ stringent requirements
  - **Divert Trade (Erode preferences granted)**
    - Quotas/ standards
  - **Create Trade**
    - SPS and TBT (guarantee quality, single those safe, and unify markets) increase demand for foreign products

# Multiple impacts

- Impact on trade, welfare and even income distribution
- Possible impact on market structure
  - *On the imposing country*
    - NTMs can segment market and generate market power
  - *On the exporting country*
    - If only big companies succeed to export



# Multiple impacts

- If liberalization reduces trading costs, then what is “liberalization” for NTM?
  - Harmonization
  - Mutual recognition; Cooperation in conformity assessment procedures (CAP)

# Two different challenges

## Measures that directly or indirectly affect trade

### a) Traditional non-tariff “*barriers*”

...Quotas, price mechanisms, contingent protection, etc.  
(Regulated by WTO) → economic objectives  
→ *Usually imposed by ministries responsible for trade/economy/industry*

### b) *Technical measures* to trade

...SPS and TBT (Partially addressed by WTO)  
→ protection of health or environment → *no elimination!*  
→ *Usually regulated as domestic market policy by ministries responsible for agriculture/health/...*

# **4. INTERNATIONAL AGREEMENTS ON NTMs – WITH THE CASE OF TBT**

# International agreements on NTMs: SPS

- The SPS Agreement
  - It entered into force in 1995.
  - It allows countries to adopt scientifically based measures in order to protect human, animal and plant life or health.
  - It recognizes the sovereign rights of WTO Members to provide the level of health protection they deem appropriate and it tries to ensure that NTMs are not disguised restrictions on international trade.
  - It encourages Members to base their measures on international standards (such as FAO or WHO).

# International agreements on NTMs:

## TBT

- The TBT Agreement
  - It was signed in 1980 and superseded by the 1995 WTO Agreement.
  - It deals with technical requirements not covered by the SPS Agreement.
  - It promotes the use of international standards and the mutual recognition of requirements and of conformity assessment procedures between WTO Members.
- Developing countries were granted delays in implementation, technical assistance and other special treatment with regard to SPS & TBT.

# TBT Agreement

- Evolved from the “Standards Code” agreed in the Tokyo Round, and became a multilateral agreement in 1994.
- Covers three types of measures:
  - Technical regulations
  - Standards
  - Conformity assessment procedures
- Objectives
  - Ensure that technical regulations, standards and conformity assessment procedures do not create unnecessary obstacles to international trade
  - Allow members to pursue other legitimate policy objectives

# TBT Agreement

- Principles in the TBT Agreement
  - Non discrimination
  - Avoidance of unnecessary obstacle
  - Using international standards
  - Accepting equivalence
  - Performance-based regulations
  - Accepting conformity assessment results
  - [Suppliers' declarations]
- Harmonisation
  - the establishment, recognition and application of common measures by different countries
- Transparency requirement

# TBT Provisions in RTAs

- TBT inclusion into RTAs has become more systematic since 1997.
- All RTAs after 2010 have TBT provisions.
- Until 2002, the majority of RTA included single articles on TBT.
- Since 2003, on average 72% of the RTA signed each year, TBT provisions were provided in a separate chapter/section.
- A TBT chapter/section cannot be used as a proxy to characterize the “depth” of the provisions in the agreement .



# TBT Provisions in RTAs

- Few RTAs with commitments going beyond the TBT Agreement.
- 88% (150) of the RTAs covered all three measures in TBT Agreement
  - 40 RTAs covered metrology
  - 12 RTAs also covered authorization procedures to sell goods
- Only 8% (14) of the RTA covered less measures than those of the TBT Agreement.

# TBT Provisions in RTAs

- 85% of the 171 RTAs with TBT provisions refer to the TBT Agreement.
- Language used for referring the TBT Agreement varies:
  - Affirmation of the TBT Agreement
  - TBT Agreement governs
  - TBT Agreement incorporated into the RTA
  - TBT Agreement applies in addition to RTA
- All WTO Members are bound by the TBT Agreement

# TBT Provisions in RTAs

- Whether commitments to harmonization and accepting equivalence differ and are broader than those under the TBT Agreement
  - Technical regulations
  - Conformity assessment procedures
- TBT Agreement encourages harmonization and accepting equivalence.
  - Harmonization: requires a common legislative framework
  - Equivalence: complementary approach to harmonization

# Technical regulations harmonisation

- 21 per cent (51 of 238) of RTAs have this provision, but the wording and depth vary.
- In some cases, (e.g. agreements concluded by the EU), they specify that the harmonization of technical regulations is to be based on the regulations of one of the parties.
- Language varies:
  - the parties commit to harmonize or align their respective technical regulations;
  - the parties commit when possible to harmonize technical regulations among them;
  - the parties are encouraged to harmonize their technical regulations.

# Technical regulations - harmonisation

- The parties commit to harmonize or align their respective technical regulations
  - RTAs involve mainly those concluded in recent years by the EU with candidates or potential candidates for accession to the EU (e.g. EU-Georgia or EU-Moldova), and RTAs aiming to establish a customs union.
  - The parties agree to establish a common policy for technical regulations, but do not specify whether harmonization must follow international standards or regional standards.

# Technical regulations - harmonisation

- The parties commit when possible to harmonize technical regulations among them.
  - reinforce the commitment by the parties to use international standards to develop their rules and reach a certain level of harmonization among them
  - reinforce the commitment by the parties to use international standards to develop their rules and reach a certain level of harmonization among them
  - EU – Korea FTA has stronger commitment to harmonization

# Technical regulations - harmonisation

- The parties are encouraged to harmonize their technical regulations.
  - encouraged to harmonize, reduce differences or cooperate through the harmonization of their respective technical regulations, using international standards, and in certain cases using the respective legislation of the other parties.
  - Some RTAs refer explicitly to international standards, others promote European standards

# Technical regulation equivalence

- 41 RTAs explicitly replicate or mirror the commitment in the TBT agreement.
- 13 RTAs (5%) go beyond the TBT Agreement
  - Parties agree to accept as equivalent the technical regulations of the other party when the same policy objectives are met.
  - RTAs are the same, to a large extent, as the ones in Group 2 of previous section.
- 47 RTAs (20%) provides that the importing party must explain the reasons for not accepting as equivalent a technical regulation of the other party



# Competent authority (CA) - harmonisation

- The TBT Agreement encourages to use international guidelines or recommendations.
- Differing from the TBT Agreement implies that RTA parties harmonize their CA procedures.

# Recognition of CA results

- The TBT Agreement encourages to accept equivalence. Mutual recognitions of CA results go beyond the TBT Agreement.
- 11 RTAs contain provision on mutual recognition of CA results.
  - Except for the customs union RTAs, other RTAs containing mutual recognition provision were signed after 2000 and involve mainly agreements in the Asia-Pacific region.
  - Japan – Thailand (2007), Japan – Philippines (2006), Korea – Singapore (2005), India – Singapore (2005), Singapore – Australia (2003), Japan – Singapore (2002), New Zealand – Singapore (2000).

# TBT Transparency

- Transparency is one of the key principles of the TBT Agreement, and also one of the more frequent types of TBT provisions found in RTAs.
- About half (121) of all RTAs contain at least one related provision.

# TBT Transparency

- Transparency provisions include:
  - Notifications (to the WTO and under the RTA)
  - Comment on draft regulations
  - Publication of answers to comments from third parties
    - 25 RTAs specify that the answers (or a summary) to significant comments have to be made available publicly.
    - Some RTAs (e.g. China – New Zealand) include provisions that specify that the parties must explain the reasons for not accepting the comments.
  - Period between adoption date and date of application

# TBT in numbers

- Only a minority of RTAs differ from the TBT Agreement by using more stringent wording and imposing broader commitments seeking to facilitate trade between the parties.
  - Only 6% of all RTAs require the harmonization of technical regulations and conformity assessment procedures among the parties.
  - Only 5% of all RTAs require that a party recognizes as equivalent the technical regulations of the other party.
  - Only 5% of all RTAs make commitments with respect to the recognition of conformity assessment results.

# 5. NTMs AND TRADE COSTS

# Trade and investment are interrelated – Main engine for economic growth and development

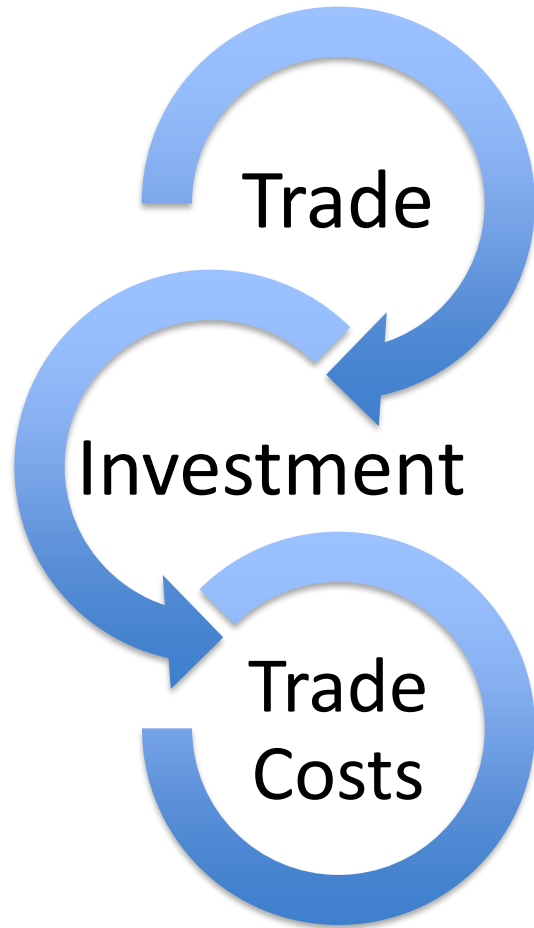


Economic literature has shown and trade and investment are self-reinforcing

- Trade induces FDI
- FDI induces trade

- FDI substitute to trade
  - Supply domestic market of host country
- FDI complement to trade
  - Efficiency seeking firms to look for the best location
- Export platform
- Cross-border mergers
  - The rise of GVC has made the link between trade & investment closer than before
  - Especially with intra-firm trade

# Reduce trade costs as an objective



- TF
- NTM

- Reduce compliance costs of regulatory and administrative procedures
- Reduce uncertainty and unpredictability
- Improve transparency
- Consult



# Policies in trade (and investment) are inextricably interlinked

- Direct cost: Transport cost, insurance, etc.
- Market access – at the border and beyond the border
  - Tariff
  - Non-tariff (NTM  $\neq$  NTB)
  - Trade Facilitation
- Tax, subsidies (import and export)
- Infrastructure
- Macroeconomic and political stability
- Human resources and labour
- Competition policy
- Other: price support measures, income transfers, production subsidies, investment grants etc.

# NTM

Inputs  
& Processes



Transport  
& other

Production stage

The Product itself

Post Production stage

On the  
commercial  
transaction  
& adm

Regulations on the  
quality or safety of  
inputs used

Follow certain safety  
processes in production.  
The producer to have  
Authorizations to produce,  
or have Certifications for  
producer (not for the  
product). Registration

Quality or safety  
requirements.  
Testing, inspection.  
Authorizations or  
Certifications needed for  
the product, Labelling,  
Traceability info,  
Registration

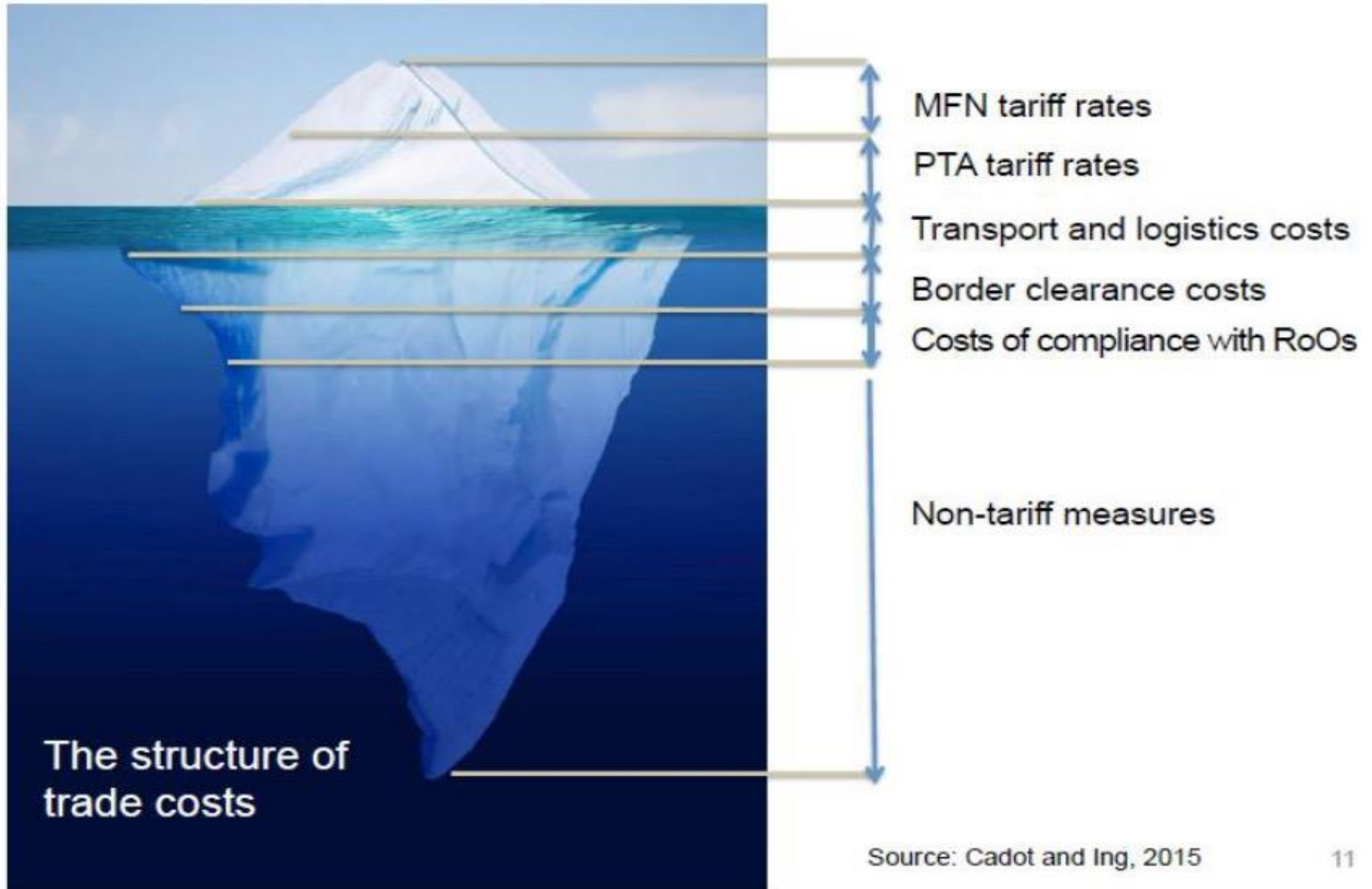
Transport, storage

Taxes, Quotas,  
Any price limitation,  
Regulations on the  
mode of payment,  
financial.

# Public vs. private NTMs

- Rapid rise of private NTMs in the last decade
- Adopted by individual firms or by national organizations of producers and retailers or by international NGOs/organizations
- Main reasons for expansion:
  - Spread of global value chains and supply chains
  - Increase in consumer concerns
  - Slow process of public standardization
- Standardized data unavailability is a huge issue in assessing impact of private NTMs

# NTMs and trade costs



# NTMs and trade costs

- Ongoing WTO project on trade costs in the global economy
  - How do trade policy measures, including NTMs, contribute to trade costs along value chains?
  - See also [Ghodsi and Stehrer \(2016\)](#)
- Tariff equivalents: example with services NTMs ([Fontagné et al., 2016](#))

# NTM is different from trade facilitation, even both use the word “measure”

## Trade facilitation

- **Measures** are 30+ different provisions contained in the Trade Facilitation Agreement (TFA). If applied, would permit country to solve number of issues
- ‘Issues to solve’
- Commitments to undertake
- Improving border procedures

## NTM

- **Measures** are legal requirements to be met
- Product characteristics, production requirements, connected taxes or services, etc.
- Go beyond the border. (sometimes to be checked at customs at the time of crossing)

# Ways in which trade facilitation can help reduce cost of NTMs

Few example:

- Single window, including IT interagency connection
  - Facilitate access to info (you still need to comply)
- Pre-arrival processing, risk assessment → not to check everything, post-clearance audit –also automated procedures
  - Can lead to less time to comply (you still need to comply)
- NTFC and focal points, regular review of documents → avoid duplications or excessive. Also coordinate within government
  - Help get rid of what you did not intend to check (hidden costs)  
Means better competitiveness (Ensure compliance with regulations but with lower cost)
- Built in transparency and predictability



# 6. INFORMATION AND DATASETS OF NTMs



# Official NTM data collection

- From here....

...to here

## The Gazette of the Democratic Socialist Republic of Sri Lanka EXTRAORDINARY

අංක 1376/9 - 2005 ජනවාරි 19 වැනි බදාදා - 2005.01.19  
No. 1376/9 - WEDNESDAY, JANUARY 19, 2005

(Published by Authority)

### PART I : SECTION (I) — GENERAL Government Notifications

L.D. - B. 11/80 II

#### FOOD ACT, No. 26 OF 1980

REGULATIONS made by the Minister of Health in consultation with the Food Advisory Committee under No. 26 of 1980.

NIMAL SIR  
Minister of Health  
Uva Weillas

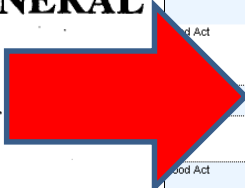
Colombo.  
17th January, 2005.

#### Regulations

01. These Regulations may be cited as "Food (Labelling and Advertising) Regulations 2005."

02. No person shall sell, offer for sale, expose or keep for sale, transport or advertise for sale, any food in a container unless such package or container is labelled in accordance with these regulations.

Provided however that, these regulations shall not apply to any package of food if the food is of the national brand requested by the purchaser and is weighed, counted or measured in the presence of the purchaser.



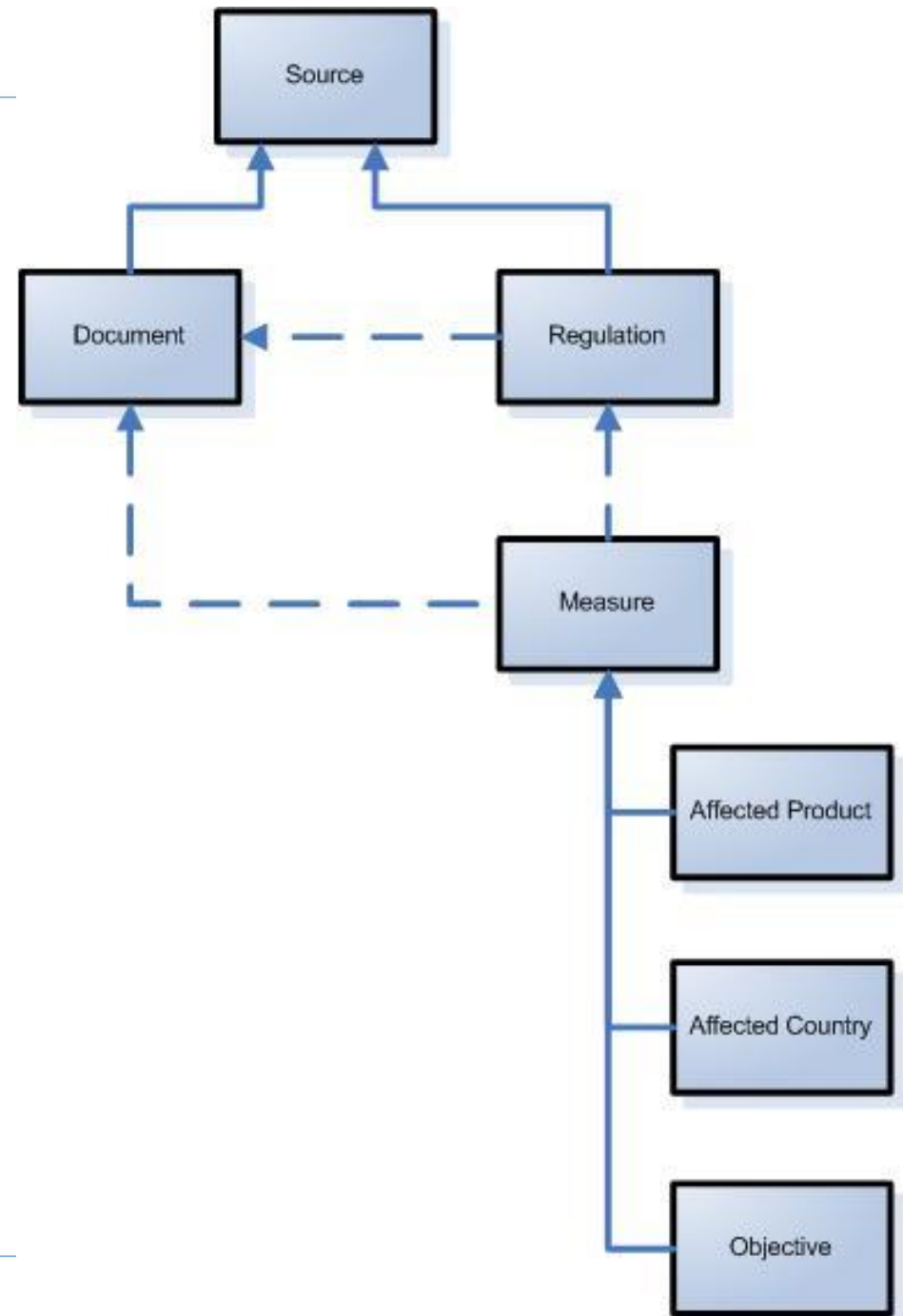
Document Title	Regulation Title_Short	NTM Code	Measure Implementation Date	Measure Repeated	Measure Description	Affected Products_Description	Affected Countries
Food Act	Food (Control of import, labelling, and sale of genetically modified foods) Regulation 2006	B14	01/01/2007		Needs to get approval of the Chief Food Authority in order to import	Food products	All countries
Food Act	Food (Control of import, labelling, and sale of genetically modified foods) Regulation 2006	B31	01/01/2007		Labelling Requirements	Food products	All countries
Food Act	Food (Irradiation) Regulations 2005	A31	01/05/2006		Labelling Requirements	Food products that had been treated with irradiation	All countries
Food Act	Food (Irradiation) Regulations 2005	A83	01/05/2006		Certification by the competent authorities of the country of origin that the food has been inspected	Food products that had been treated with irradiation	All countries
Food Act	Food (Irradiation) Regulations 2005	A89	01/05/2006		Documentation that the Food Irradiation Facility concerned is approved, licensed, authorised by the competent national authority of food irradiation	Food products that had been treated with irradiation	All countries
Food Act	Food (Irradiation) Regulations 2005	P62	01/05/2006		Certification by the competent authorities of the country of origin that the food has been inspected	Food products that had been treated with irradiation	All countries
Food Act	Food (Melamine in Milk and Milk Products) Regulations 2010	A22	01/01/2011		Specifying permitted ppm levels of melamine in milk and milk products	Milk and Milk Products	All countries
Food Act	Food (Melamine in Milk and Milk Products) Regulations 2010	A83	01/01/2011		A health certificate required from the National Food Safety Authority of the country of origin that the products conform to the levels of melamine specified	Milk and Milk Products	All countries
Food Act	Food (Packaging materials and articles) Regulation 2010	A32	01/06/2011		Marking requirements - need to print the words "FOR FOOD USE" or any other relevant words or symbols as indicated in the regulation	Food packaging material	All countries
Food Act	Food (Packaging materials and articles) Regulation 2010	A83	01/06/2011		Certification by the manufacturer that the material meets required quality standards	Food packaging material	All countries
Food Act	Food (Packaging materials and articles) Regulation 2010	A22	01/06/2011		Restricted use of certain substances in food packaging material	Food packaging material	All countries
Food Act	Food (Preservations) Regulations	A19	01/01/1991		Prohibited to import, manufacture, sell or distribute food preservatives other than those specified in the regulation & food which has in or upon it any preservative that is permitted by the regulation	Food preservatives	All countries

# Ministries and agencies that may be responsible for regulating trade

NTM Chapter		Potential responsible Government Bodies
A	Sanitary and Phytosanitary Measures (SPS)	Ministry of Agriculture; Standardization Agency, Ministry of Health
B	Technical Barriers to Trade (TBT)	Standardization Agency; Ministry of Health; Ministry of Ecology; Ministry of Industry
C	Pre-shipment Inspection and other formalities	Customs Agency, Standardization Agency
D	Contingent Trade Protective Measures	Ministry of Finance; Ministry of Economy, Industry or Trade; Customs Agency
E	Non-Automatic Licensing, Quotas, Prohibitions and Other Quantity Control Measures	Ministry of Economy, Industry or Trade; Customs Agency
F	Price Control Measures Including Additional Taxes and Charges	Ministry of Economy, Industry or Trade; Customs Agency
G	Finance measures	Ministry of Finance; National Bank
H	Measures Affecting Competition	Ministry of Economy, Industry or Trade
I	Trade-related investment measures	Ministry of Economy, Industry or Trade
P	Export-related measures	Ministry of Economy, Industry or Trade; Standardization Agency; Ministry of Agriculture; Customs Agency

# Data Model used in data collection

- Comparable data structure across countries
- Detailed registration of sources facilitates updates
- Multiple entry-points for users





AFRICAN DEVELOPMENT  
BANK GROUP



UNITED NATIONS  
UNCTAD



The World Bank



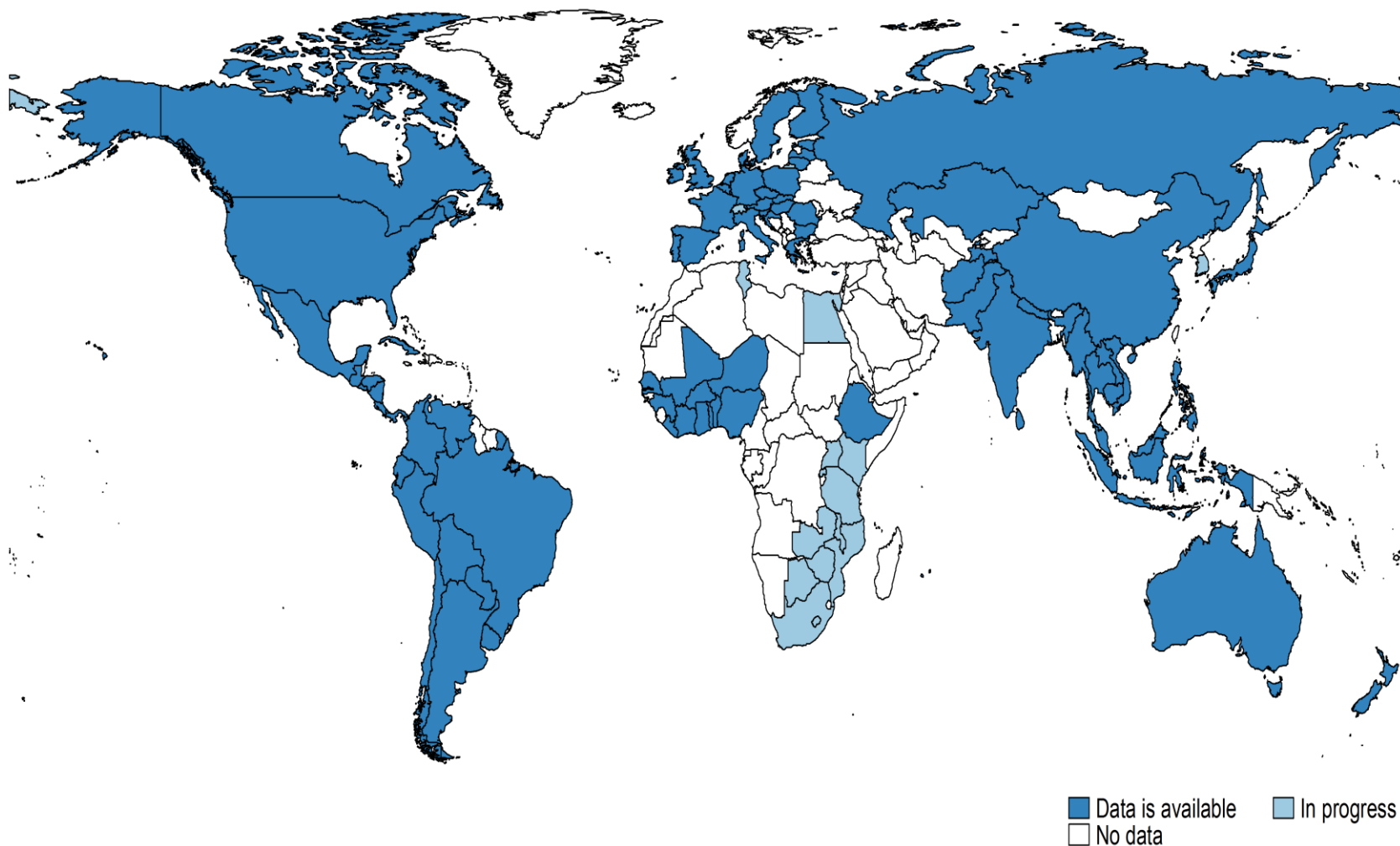
International  
Trade  
Centre



- UNCTAD: official NTM data
  - Partnership with ERIA in ASEAN
- ITC: tariff data (+ NTM private sector surveys)
- World Bank: services data
- AfDB: support of data collection in Africa



# Map of Data Availability – A global initiative



# Main sources of information on NTMs

- Due to the diverse nature of NTMs, NTM data are naturally patchy
- Each data source typically sheds light on a small part of the NTM universe
- The light it sheds depends, among others:
  - On the specific purpose for which the data have been collected
  - On how they have been collected, i.e. whether a measure is simply reported/notified or whether there is a complaint relating to the measure

# Trade facilitation data

1. World Bank – Trading Across Border Indicators In Doing Business Report
  - <http://www.doingbusiness.org/data/exploretopics/trading-across-borders>
2. World Bank – Logistics Performance Index (LPI)
  - <https://lpi.worldbank.org/>
3. World Economic Forum – The Enabling Trade Index (ETI)
  - <http://reports.weforum.org/global-enabling-trade-report-2016/>
4. OECD – Trade Facilitation Indicators
  - <http://www.oecd.org/trade/facilitation/indicators.htm>

# Three types of data NOT to be mixed or mistaken

## 1. Official measures

- Requirements enacted within a legal text or regulation issued officially by a country
- Actively read all regulations from **official journal** and register in the database those that are trade related
- All regulations that affects trade
  - Currently applied
  - Affecting trade
  - Official and mandatory
  - Detailed and specific

## 2. Survey data

- Complaints from exporters could be compiled by governments

## 3. Voluntary

- Private standards or international standards

Note: Notification to WTO are based on regulations but are not consistently or systematically reported



# Other data apart from official measures

- WTO SPS & TBT notifications (1995-2010)
- Inspections & food/feed alerts
  - Inspections
    - Check compliance of products with standards
  - Data available for the US and EU
  - **EU Rapid Alert System for Food and Feed (RASFF)**
    - Large set of European countries (EU Members but also Switzerland, etc.)
    - Started in 1979. Annual alerts available online:  
[http://ec.europa.eu/food/safety/rasff/index\\_en.htm](http://ec.europa.eu/food/safety/rasff/index_en.htm)
    - Database provided information on unsafe product, country of origin

# Other data apart from official measures

- Info from surveys (private sector) - a note
  - The information provided by companies directly, may not be what we need to know
  - Knowing what has been problematic just recently. Especially new regulations
  - Businesses tend to 'adapt' to bureaucracies and do not consider that a barrier
  - It also depends
    - Who has the information, and it may be that it is scattered across departments
    - If it is a big or a small company
    - If it has recently start to export, or has long experience

# Other data apart from official measures

- The information one can expect is on procedural obstacles
- And asking the Private Sector is the only way on knowing
  - High fees
  - Delays
  - Many documents
  - Problems with laboratories and other testing facilities
  - Non recognition of certificates

# “Comprehensive” dataset: WITS catalogue

- Example
- Advantages
  - Wide country availability
  - Measures can be followed over time (since 2010)
  - Easily accessible and downloadable
- Disadvantages
  - Measures other than contingent trade protective measures (D) only available since 2010
  - Only “extensive margin” information on whether the measure is in place, and on whether coverage is full or partial

# Other “comprehensive” datasets

- ITC [MACMAP](#)
- ITC [business surveys](#)
- [PRONTO](#)'s NTM-MAP
  - Three indexes as proxies for NTMs occurrence: i) frequency index; ii) coverage ratio; and iii) prevalence score
  - Those indices are computed for five different categories of NTMs: i) SPS; ii) TBT; iii) PSI; iv) Price Control; and v) Quantitative restrictions
  - Coverage: 63 countries for one year over the period 2010-2012 at the country level and two different product disaggregation levels (HS-2 and HS-Section)
  - Description [here](#) and data [here](#)

# Specific datasets: WTO sources of information

- WTO notifications (A, B, D, E, P of MAST classification)
  - Available on [I-TIP Goods](#)
  - Available at IMS for [SPS](#) and [TBT](#)
- Specific Trade Concerns (STCs; [SPS](#) and [TBT](#))
  - Advantage of STCs over notifications or traditional information on the existence of regulations is that they identify measures that are perceived by exporters and/or governments as major obstacles to trade (i.e. they are important enough that countries whose exports are affected raise a concern in the WTO committees)
  - As such, the information they provide relates to restrictive trade measures only
  - As Beghin et al. (2014) show, almost 40% of the product lines affected by NTMs in WITS database are actually trade-facilitating measures rather than trade-restrictive ones

# Specific datasets: other sources

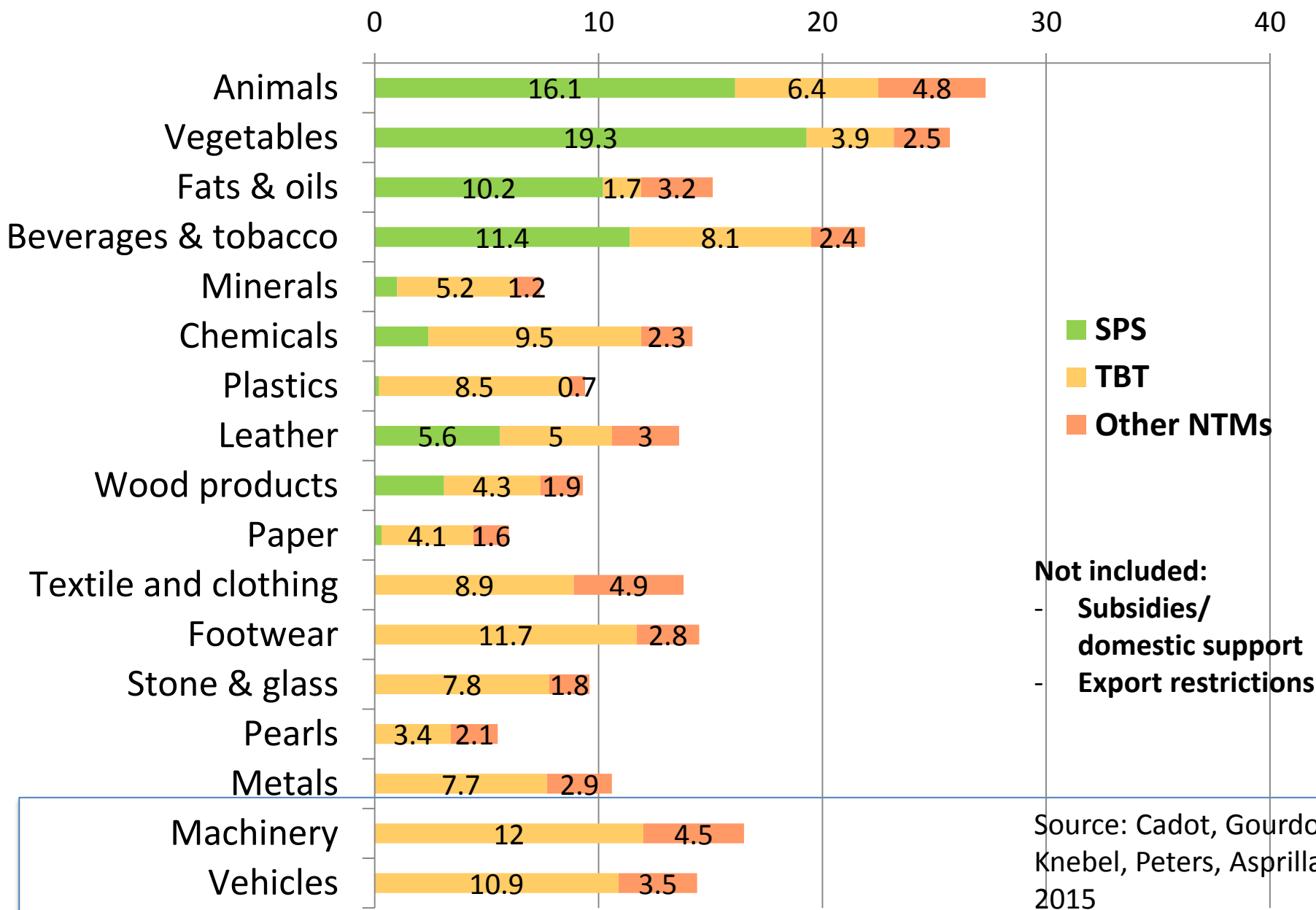
- Other PRONTO NTM [databases](#)
  - Special tax treatment as trade policy
  - Domestic Environmental Taxes Database
- ITC [standards map](#)
- OECD raw materials export restrictions [database](#)
  - Inventory containing information on export regulations in the raw materials sector, namely minerals, metals and wood
  - It records measures known to restrain export activity from 2009-2014 at the 6-digit level of HS2007 classification
- WTO [Trade monitoring database](#)
  - Monitoring exercise was launched in 2008. Awake of the crisis, Members were concerned about the increasing application of non-tariff measures, for instance, contingency measures.

# How about services?

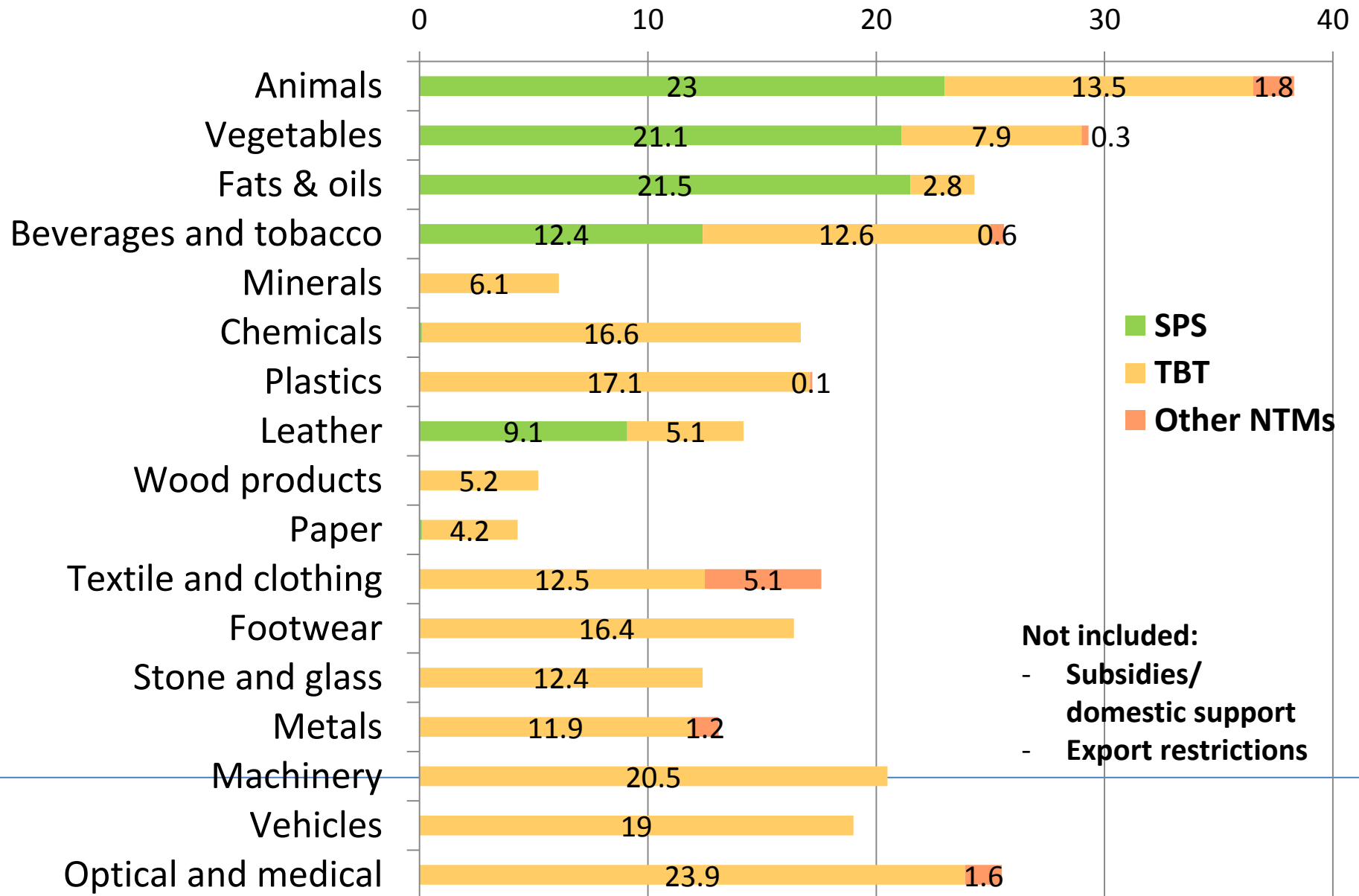
- In services, from an economic perspective, every measure can be considered an NTM
- WTO & World Bank [services I-TIP](#)
- OECD STRI
  - Services trade restrictiveness across 19 sectors in 44 OECD and partner countries for 3 years (2014-2016)
  - [Methodology](#) and [data](#)
- World Bank [STRI](#)
  - Services trade restrictiveness across 19 sectors in 103 OECD and non OECD countries in the mid 2000's



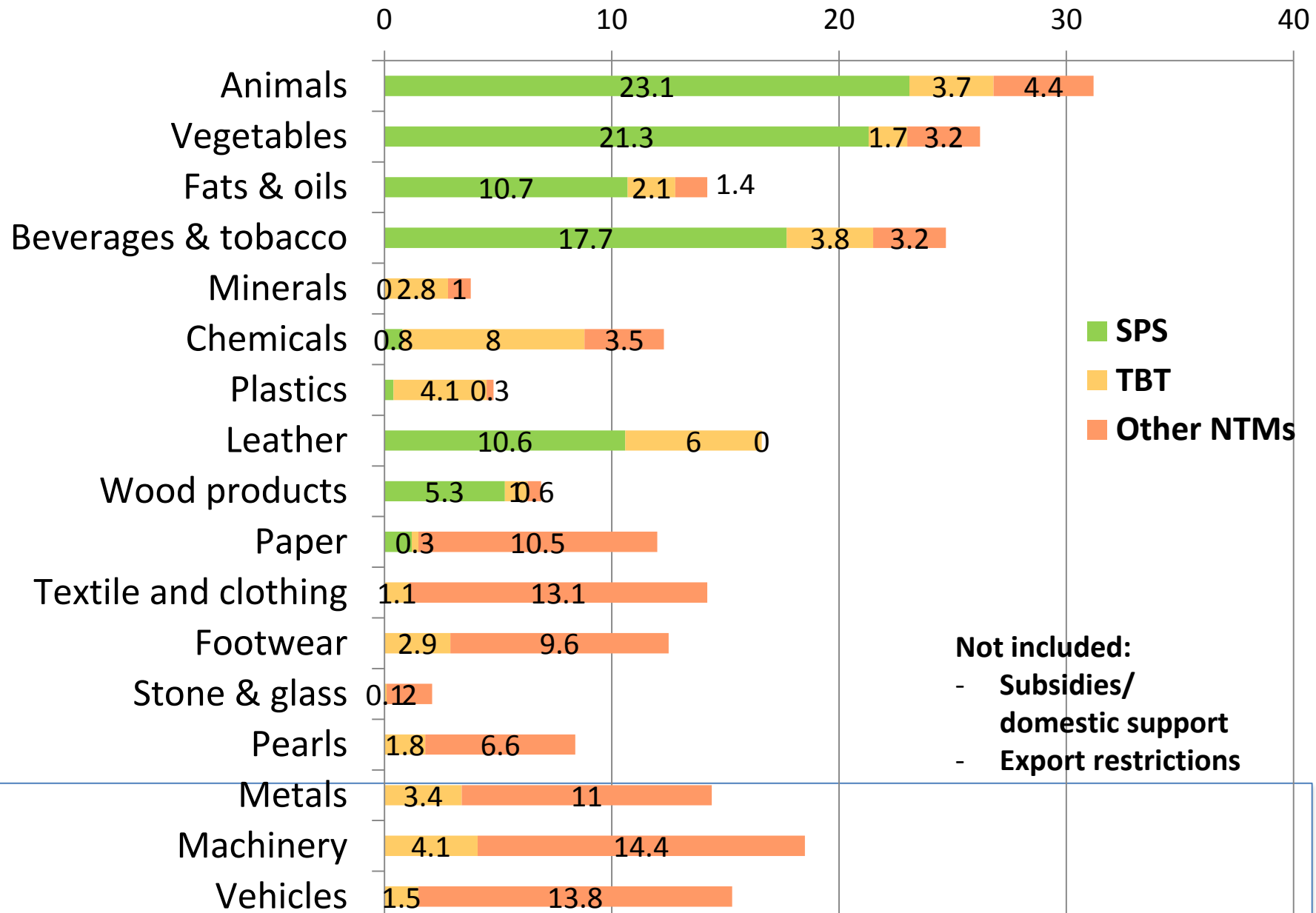
# World average ad-valorem equivalent of NTMs



# EU import NTMs



# "Asia" import NTMs → need to improve estimates



# Policymakers' perspective(s):

Two ways of looking at NTMs:

- NTMs applied **abroad**: *Trade perspective partners*:
  - Effects on exports and trade diversion
- NTMs applied **at home**: *Domestic perspective*:
  - NTMs **costs** (domestic prices!) and **benefits**

# Cost benefit analysis

- Protect consumers, quality, safety (food or other), protect environment
  - Address market failures
- Overregulate, unnecessary burden, protectionist
  - Unintended bureaucracy
  - Protection of national industries
- Affect competition, efficiency, welfare
- Coordination mechanism among several ministries
- Particularly important for SME

# Costs and benefits of “barriers”: E.g. quantitative restrictions (licenses/quotas)

## Effect of *domestic* “barriers”

- *Costs*
  - Higher domestic prices
  - Possible shortages
- *Benefits*
  - Domestic industry protection

## Effect of *foreign* “barriers”

- *Costs*
  - Reduced exports and income generation
- *Benefits*
  - none

# Case analysis: Trade consumer goods

## Restrictions/red tape on imported consumer goods

- High import cost consumer good
- Who pays for this higher price?
  - Protection of domestic producers, but...
  - Pass-through of higher prices to consumers  
= wide population
  - Costs of compliance included in the foreign exporter's price → low motivation for exporters to push for policy change

# Costs and benefits of “measures”: Sanitary, phytosanitary and technical measures

## Effect of *domestic* “measures”

- *Costs*
  - Higher domestic prices
  - Possible shortages
- *Benefits*
  - Health and environment protection!

## Effect of *foreign* “measures”

- *Costs*
  - Reduced exports and income generation
- *Benefits*
  - None, but regulatory convergence can be a comparative advantage



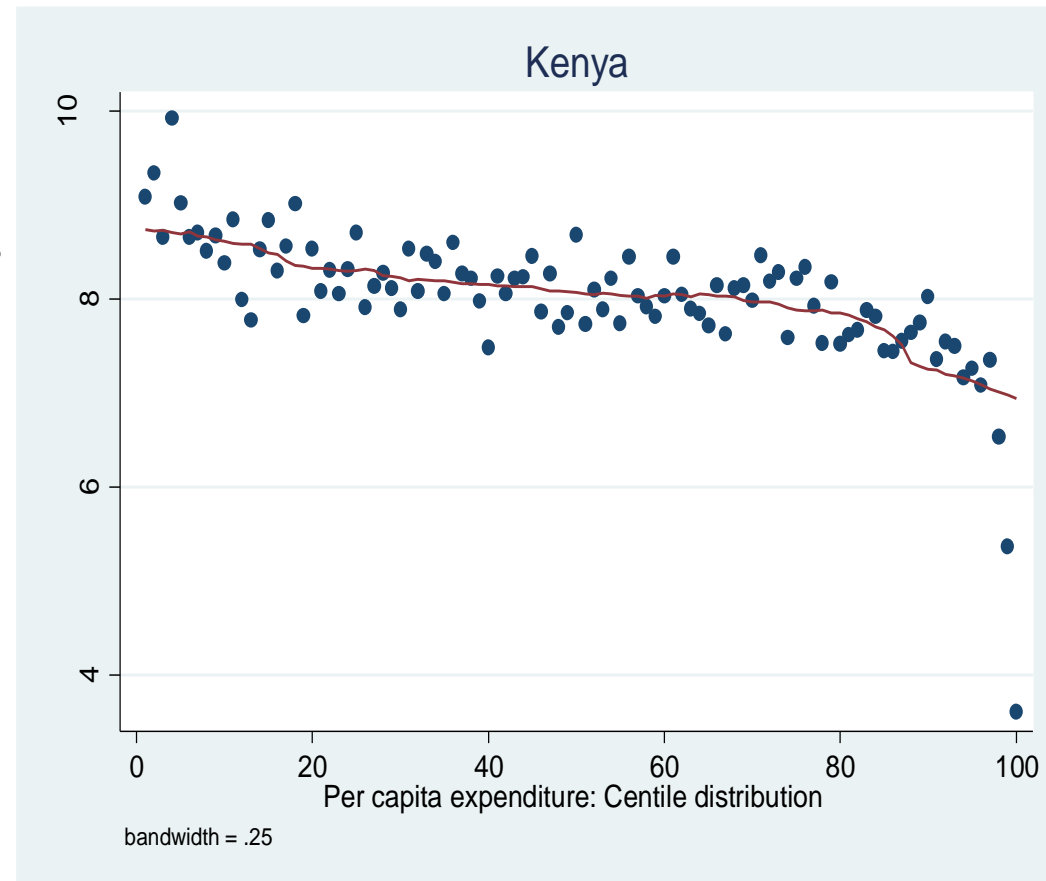
# Case analysis: Trade of intermediates

## Restrictions/red tape on importer motor engines

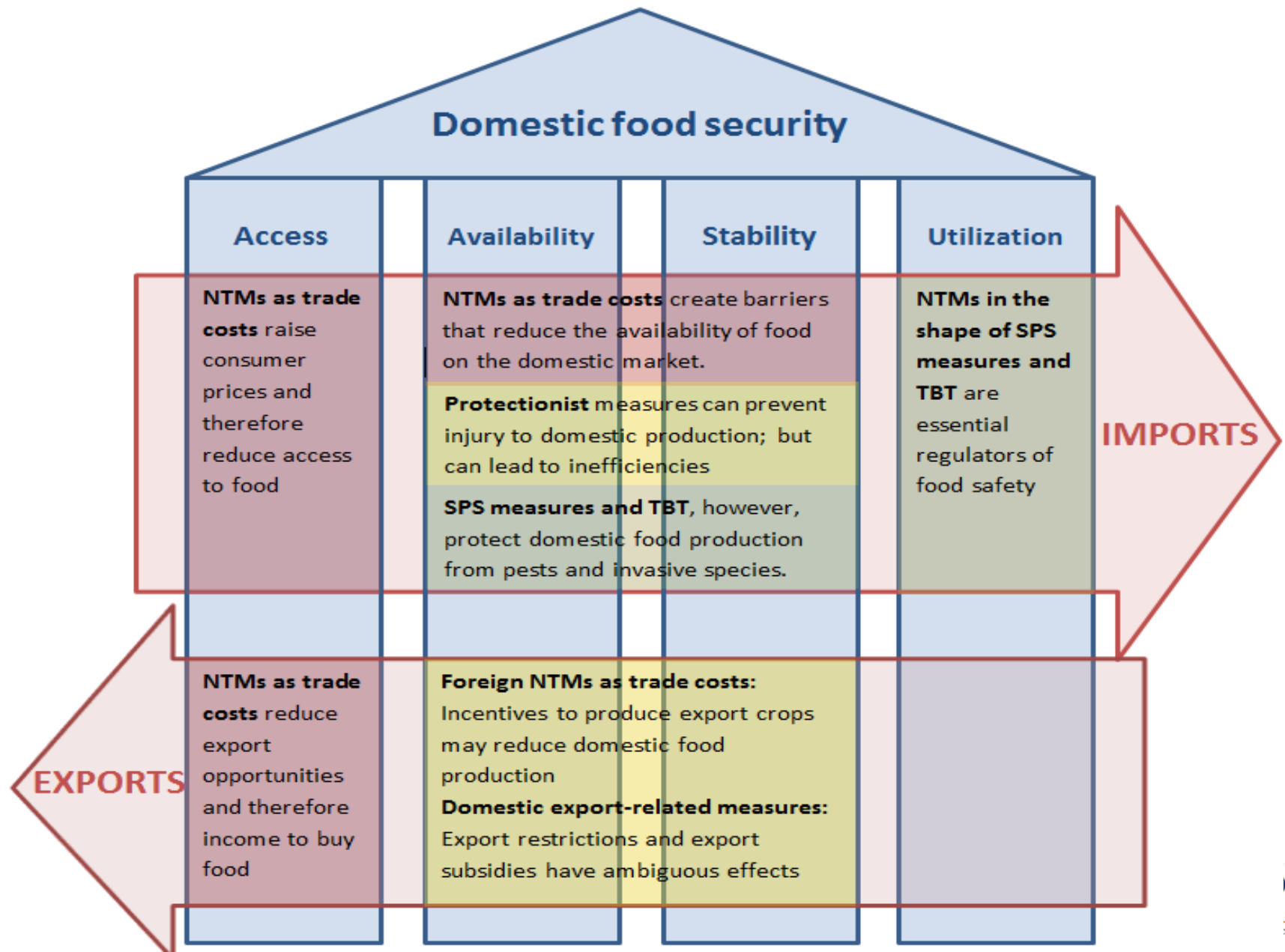
- High import cost of engines
  - Who pays for this higher price?
    - Protection of domestic engine producers, but...
    - Pass-through of higher prices to consumers  
= (infant) car producers at home  
→ *regional value chain and industrialization is weakened*
    - Costs of compliance included in the foreign exporter's price → low motivation for exporters to push for policy change
- Take value chain into account when trying to resolve NTBs

# Domestic application of NTMs raises consumer prices and has distributional effect

- Analytical approach based on household surveys and NTM data
  - Effect of NTM measures on total expenditure of households:
    - Richest 5%: 7%
    - Poorest 5%: 9%
- Distributional effect
- ***BUT important benefits of SPS remain...***

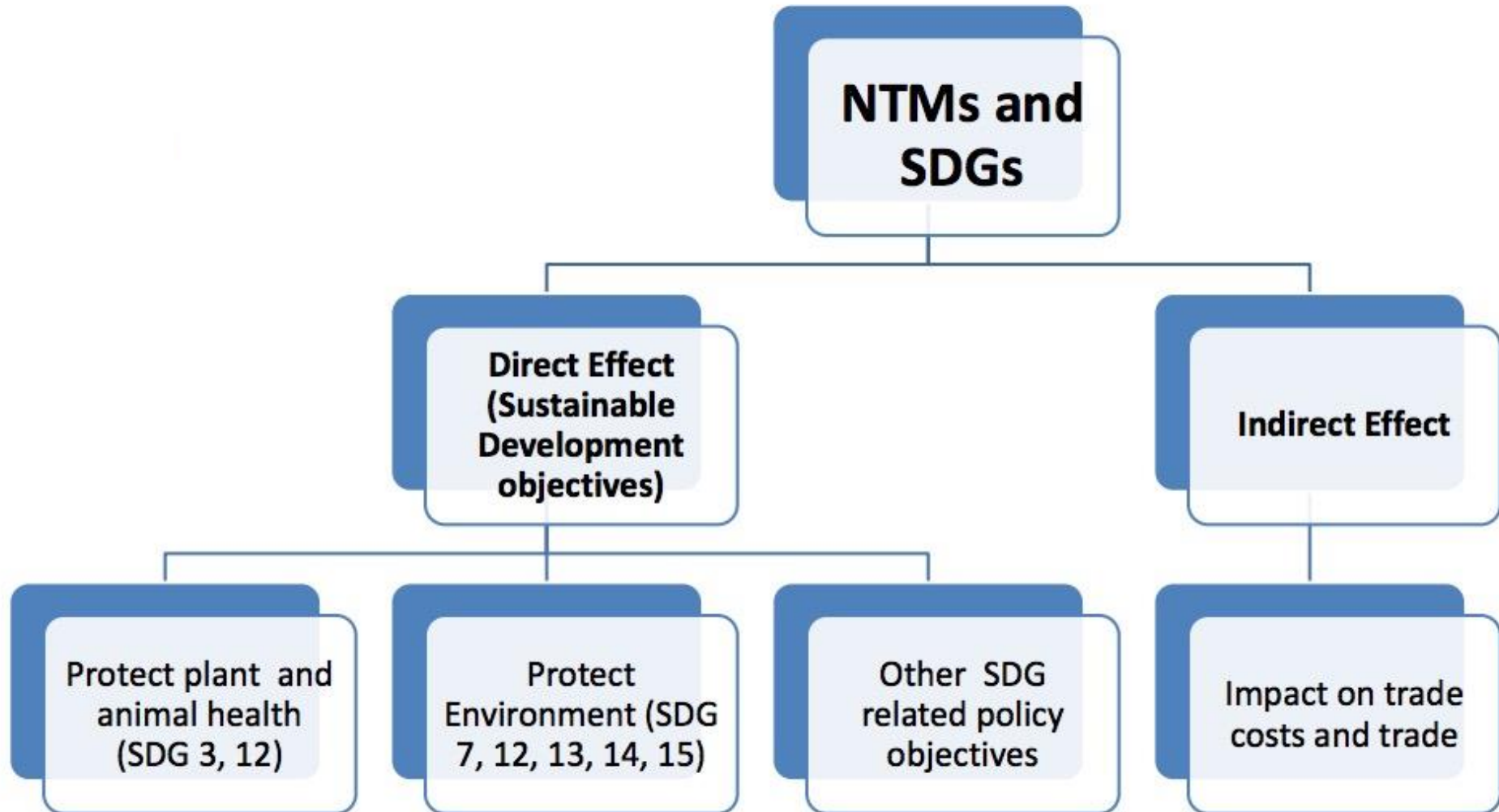


# Example of multi-dimensional assessment: Food security



# 7. NTMs AND SUSTAINABLE DEVELOPMENT GOALS

# The deeper policy challenges: Links between NTMs and sustainable development



# Indirect linkages between NTMs and SDGs

- NTMs seen as trade costs → import + export perspectives are relevant!
  - Trade costs reduce trade opportunities
  - And therefore reduce trade's potential to
    - generate income
    - create employment
    - reduce poverty
    - create financial resources to promote social and environmental sustainability
- “Trade – growth nexus” or “export led growth”

# Direct linkages between NTMs and SDGs

- SPS measures and TBT are policies to protect human, animal and plant health, or to protect the environment → elimination *not* an option
- Usually, applied equally to domestic producers
- They ***directly*** impact on sustainability
  - food security (SDG 2),
  - nutrition and health (SDG 3),
  - protect endangered species and the environment (SDGs 14&15),
  - ensure sustainable production, consumption (SDG 12) and energy (SDG 7),
  - combat climate change (SDG 13).

# 8. CURRENT NTMs RESEARCH TRENDS



# NTMs research frontier

- NTMs and trade costs
  - Tariff equivalent of NTMs
- Trade policy substitution
- How NTMs affect firm level outcomes
- NTM transparency
- Determinants of export restrictions

# Trade policy substitution

- There is some literature on the substitution between tariffs and anti-dumping (AD) duties (Falvey and Reed, 2002; Feinberg and Reynolds, 2007; Moore and Zanardi, 2011; Bown and Tovar, 2011). The consensus among the studies is that trade liberalization increases the likelihood of AD filings...
- ...and some literature on the more general relationship between tariff reduction and the imposition of NTMs (Goldberg and Pavcnik, 2005; Kee et al., 2009; Broda et al., 2008; Limão and Tovar, 2011; Aisbett and Pearson, 2012)

# Trade policy substitution

- Beverelli et al. (under review, old WP [here](#)) look at product standards
- They present theoretical evidence that the extent of trade policy substitution depends on the cost differential between domestic and foreign firms in complying with product standards
  - The model suggests the prevalence of trade policy substitution in developed economies, where the costs of compliance are relatively low
- They test and validate this prediction using TBT STCs database on NTMs that identifies actual trade restrictions
- They further examine the protectionist use of trade policy substitution matching STC data with notification data

# How NTMs affect firm level outcomes

- How NTMs affect firm participation in international trade
  - [Fontagné et al. \(2015\)](#)
  - [Fontagné and Orefice \(2016\)](#)
- How services trade restrictions affect firm outcomes
  - [Arnold et al. \(2011\)](#) among others

# NTM transparency

- [Ing et al. \(2016\)](#)
  - Index of NTM transparency based on notifications to the WTO under the SPS and TBT agreements, the existence of a trade portal giving ready access to trade-relevant regulations, the existence of NTM data collected under the MAST classification, and the results of an experiment conducted between 2015 and 2016

# Determinants of export restrictions

- Beverelli et al. (in progress)
  - Are export restrictions to industrial raw materials used as tools of active industrial policy for economic development or as a response to tariff escalation?
  - We aim at showing – theoretically and empirically – the importance of input-output linkages between downstream manufacturing sectors and upstream natural resources sectors for the imposition of export restrictions upstream

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