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TRADE IMPACT
FOR GOOD

Export Potential Map

Spot opportunities for trade development



Dr. Julia Spies

Trade & Market Intelligence section (ITC)

ARTNeT Conference, Bangkok, 27 November 2018



What is ITC?



UNCTAD

The UN body for design of policy recommendations to achieve economic and social development through trade and investment.



WTO OMC

The forum to negotiate multilateral trade rules, monitor their implementation and handle trade disputes



ITC works with local and regional institutions and business people to build trade capacity.

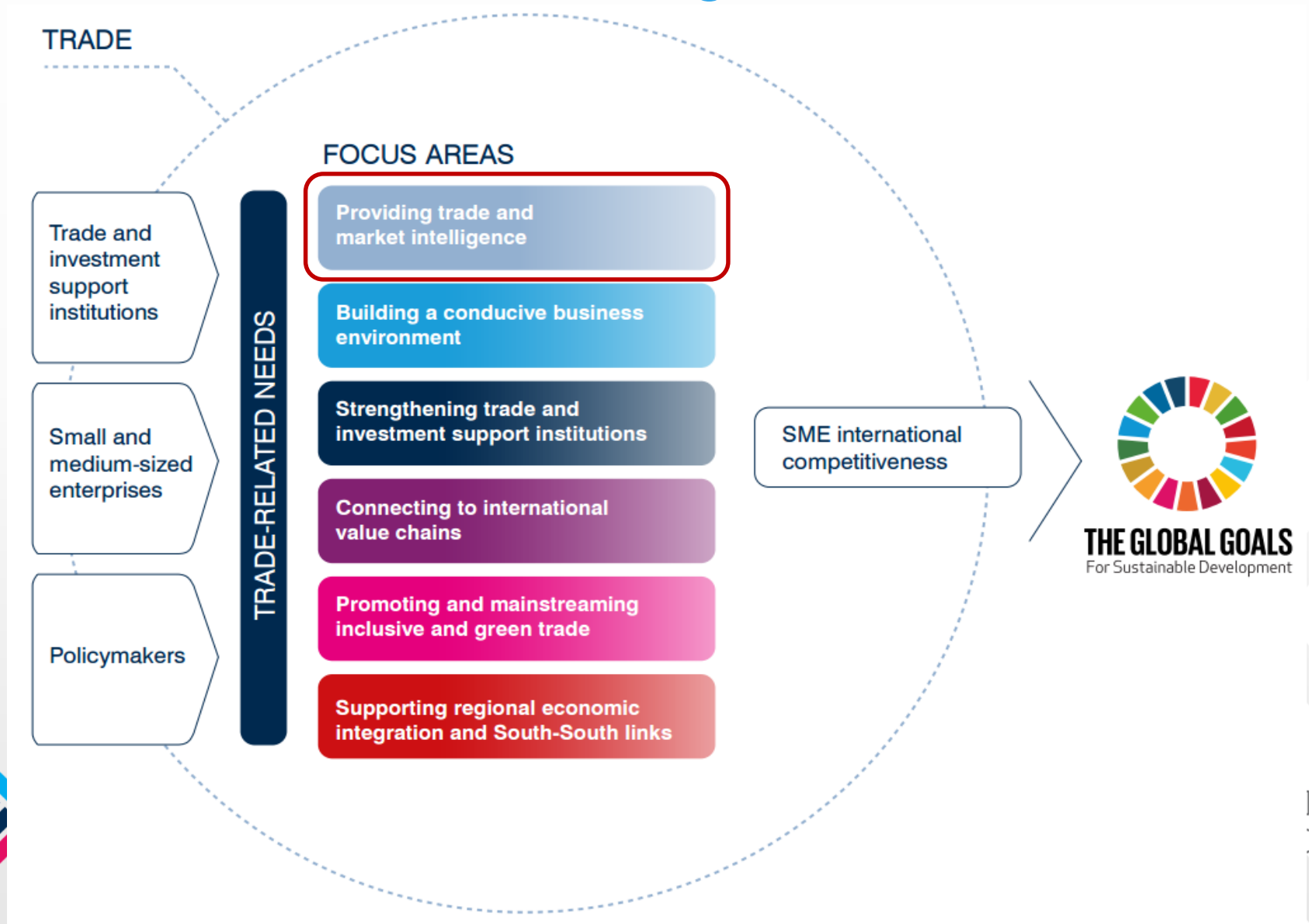
Our mission

To foster inclusive and sustainable growth and development through trade and international business development.



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ITC's 6 focus areas and goals towards SDGs



ITC's Trade and Market Intelligence section

OUR AREAS OF WORK

GLOBAL PUBLIC GOODS

Trade Map
Market Access Map
Investment Map
Sustainability Map
Procurement Map
Export Potential Map

COUNTRY & REGIONAL DIAGNOSTICS

Country surveys
+
Studies of trade
potential & market
access issues

CAPACITY BUILDING

Using tools &
research methods
to analyse markets

Part 1. ITC's export potential analysis and web tool

Part 2. Looking beyond: using export potential data to inform trade policy negotiations

Part 3. Other customized analyses



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Purpose



Challenge

Optimising resources, achieving results and impact

Which sectors should I prioritize when helping countries connect to international markets?

How can I strategically select products and partners for trade policy negotiations?

How can I best guide the private sector in identifying and entering new markets?

Where can I find competitive suppliers to my industries?



Trade Map: information on exports & imports

ITC **TRADE MAP**
Trade statistics for international business development
Monthly, quarterly and yearly trade data. Import & export values, volumes, growth rates, market shares, etc.

Home & Search Data Availability Reference Material Other ITC Tools More Ms. Julia Spies English

Products **Value** **Growth rates** **Global market share** **Competition**

Table Graph Map Download: Rows per page: Default (25 per page)

HS8	Code	Product label	Exported value 2014 (USD thousand)	Trade balance 2014 (USD thousand)	Annual growth in value between 2010-2014 (% p.a.)	Annual growth in quantity between 2010-2014 (% p.a.)	Annual growth in value between 2013-2014 (% p.a.)	Annual growth of world imports between 2010-2014 (% p.a.)	Share in world exports (%)	Ranking in world exports	Average distance of importing countries (km)	Concentration of importing countries
	TOTAL	All products	176,036,194	-143,146	1		-4	5	0.9	27	6,273	0.06
	151190	Palm oil and its fractions refined but not chemically modified	13,258,163	13,257,770	21	27	22	5	53.5	1	7,215	0.06
	271111	Natural gas, liquefied	11,704,464	11,704,464	-1	-11	-9	13	5.9	4	4,960	0.32
	270112	Bituminous coal, whether or not pulverised but not agglomerated	9,404,300	9,139,739	-7	-4	-24	-3	11.7	3	4,401	0.13
	270119	Coal nes, whether or not pulverised but not agglomerated	9,289,576	9,280,626	9	17	-11	2	80	1	4,369	0.22
	270900	Petroleum oils and oils obtained from bituminous minerals, crude	9,271,214	-3,801,215	-5	-10	-9	4				
	271121	Natural gas in gaseous state	5,471,346	5,471,344	15	4	5	7				
	400122	Technically specified natural rubber (TSNR)	4,595,062	4,579,626	13	2	-31	-8	39.2	1	9,549	0.11
	151110	Palm oil, crude	4,206,741	4,206,741			-16	0	43.7	1	6,379	0.3
	271390	Residues of petroleum oils/ of oils obtained from bituminous minerals nes	2,262,429	2,262,429			-13	14	76.7	1	1,317	0.84
	270210	Lignite, whether or not pulverised, but not agglomerated	2,121,529	2,121,438	45	52	22	20	82	1	4,558	0.92
	711319	Articles of jewellery&pt therof of/o prec met w/n plat/clad w prec met	1,882,231	1,881,119	70	52	2139	12	1.5	13	5,626	0.19
	470329	Chemical wood pulp,soda/sulphate,non-coniferous,semi-bl/bleachd,nes	1,718,325	1,670,327	5	9	-7	0	14.4	2	4,706	0.43

Trade Balance **Average distance**

Market Access Map: information on tariffs



MARKET ACCESS MAP

Improving transparency in international trade and market access



Quick search ▾ Advanced analysis ▾ Raw data download ▾ Country analysis ▾ Options ▾ Support materials ▾

Home > Quick search > Find tariffs > Find a Tariff Results

Find tariffs

Step 2/2

Tariffs applied by **Algeria**

Product: **100119 - Durum wheat (excl. seed for sowing)**

Partner: **all partners**

Data source: **ITC (MAcMap)**

Year: **2015**

Nomenclature: **HS Rev.2012**

AVE Methodology: **AVE based on the World Tariff Profile (WTP)**

<< New search

<< Modify search

Tariff regimes

**Applied tariffs and
ad valorem
equivalent**

Selected national tariff line (NTL) code:

10011900 - Froment (blé) et méteil: Froment (blé) dur:Autr. ▾

Tariff regime	Applied tariff (as reported)	Applied tariff (converted)	Total ad valorem equivalent tariff	Tariff quota details
General tariff	5.00%	5.00%	5.00%	Details
Preferential tariff for the League of Arab States	0%	0%	0%	

Page size: 50 ▾

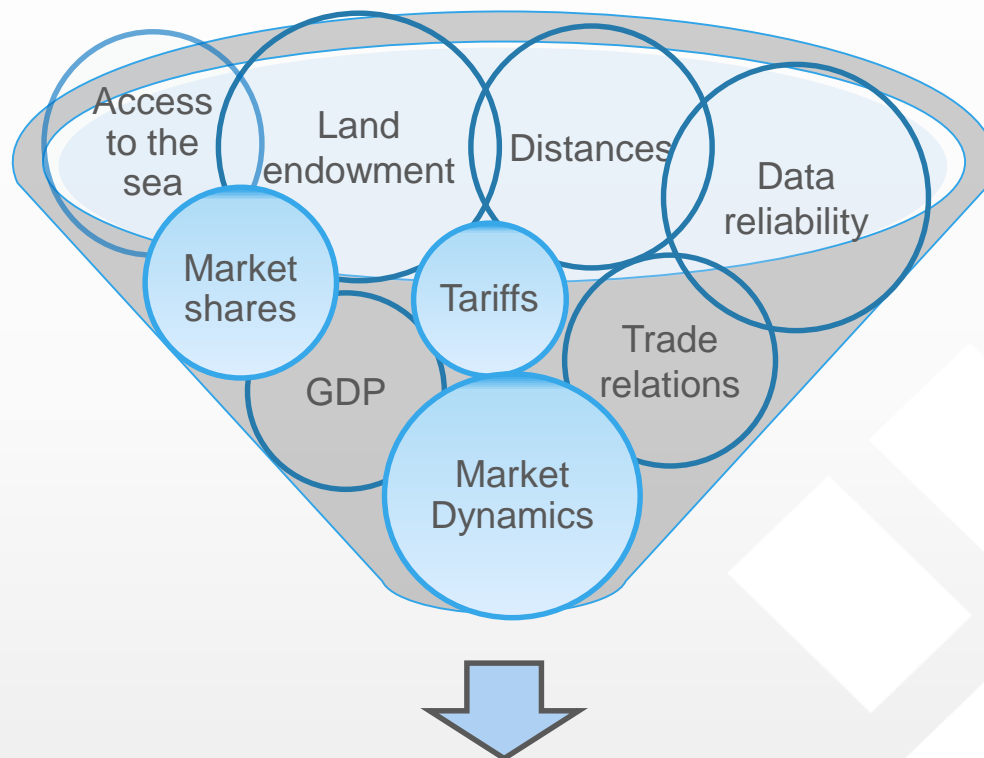
2 items in 1 page

Example: which product(s) should Malawi prioritize?

Product	Export value 2017 (\$ thousand)	Trade balance 2017 (\$ thousand)	Annual export growth 2013-2017 (%, p.a.)	Annual import growth 2013-2017 (%, p.a.)	Share in world exports (%)
Unmanufactured Tobacco	530,399	331,331	-3	-4	4.6
Tea	71,561	61,830	-4	0	0.9
Oilcake	62,033	34,681	305	-9	0.3
Cane or beet sugar	34,743	34,681	-24	-1	0.1
Groundnuts	19,725	19,725	-32	4	0.7
Soya beans	19,410	11,975	11	-2	0
Dried leguminous vegetables	18,254	9,975	-10	7	0.2
Other nuts	14,904	14,800	0	2	0.1
Self-propelled bulldozers etc.	6,683	-6,300	-4	-4	0
Maize	6,569	-11,600	33	-5	0

Solution

Export Potential Assessments: evidence-based decision making



Unique ranking of most promising **suppliers, sectors** and **markets** for targeted trade support interventions

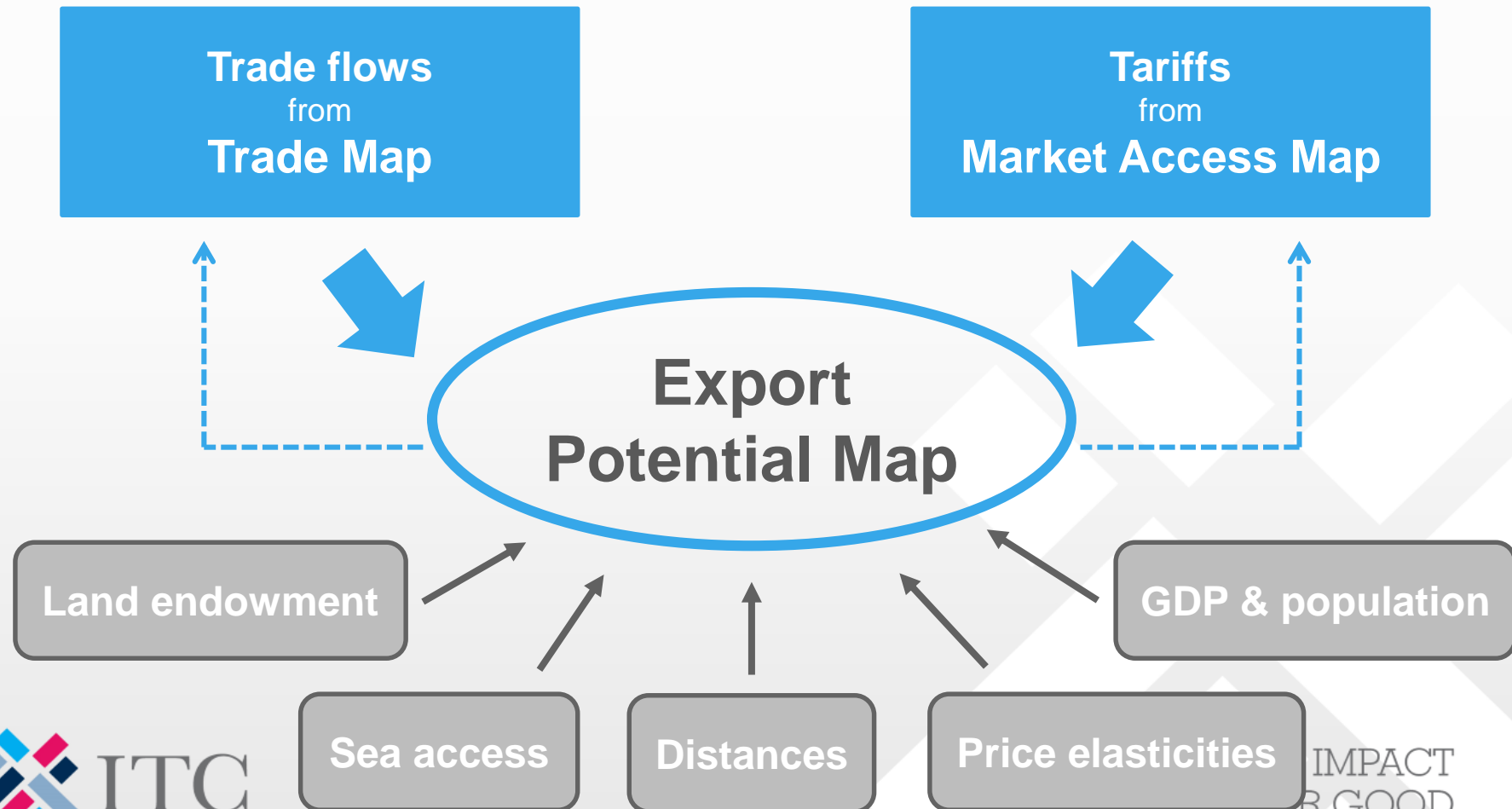
Export growth and diversification

Trade advisors seek information which products and markets to prioritize for their trade development activities. ITC's Export Potential Map helps **spot and realize export opportunities**:

- 1. Export Potential Indicator** for traditional export products
 - ✓ Potential export value in dollar terms for any exporter × product × market combination
 - ✓ Unrealized potential (“gap”)
- 2. Product Diversification Indicator** for new export products
 - ✓ Product Diversification Rank (ranking of horizontal diversification opportunities in a given target market)

Data

Export Potential Map fits into the suite of ITC Market Analysis tools



Scope

Country coverage

- 226 countries and territories
- Computation at country × product × market level → any type of aggregation possible

Sector coverage

- Starting point is the **6-digit level of the Harmonized System (HS) classification** of products, but:
 - **Few products excluded** products covered by international conventions on waste, pollutants, arms and ammunitions, tobacco, extractive industries, products that cannot be produced (e.g. antiques) or are irrelevant for market intelligence (e.g. commodities n.e.s.)
 - **ITC product groups** to account for revision changes of the HS:
 - E.g. product code 030212 (salmon, Pacific, Atlantic and Danube) has been split into 030213 (Pacific) and 030214 (Atlantic and Danube) in the 2012 revision of the HS
 - New product group code: 0302Xa

→ Assessments of 4,000+ product groups merged to 16 sectors and 73 sub-sectors



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Data treatment & limitations

- Several **measures ensure** that results are (from a quantitative perspective) **reliable** and not distorted by “bad” **data** reports
 - Combination of ‘reliable’ direct and mirror reports
 - Weighted averages over five years (currently 2013-17 with projections for 2022)
- Fully **automated methodology** to identify export opportunities on a global scale that does not account for
 - Intangible (or for other reasons, unmeasurable) aspects
 - Synergies to existing development plans or export strategies
 - Possibilities of marketing and branding
 - Very recent events like pests, export bans, etc.
 - Sustainability concerns related to deforestation, child labour, etc.
 - Misreported data by presumably reliable reporters

→ **Export potential assessments are the starting point in a decision-making process** and need to be complemented with further research and stakeholder consultations



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The Export Potential Indicator



EPI: simplified framework

The Export Potential Indicator combines measures of export performance, market demand and ease of trade with a given market

Formally

$$EPI_{ijk} = MShare_{ik} \times \frac{x_{ij}}{\sum_k MShare_{ik} \times m_{jk}} \times m_{jk}$$

↑ Supply ↑ Ease ↑ Demand

where x = exports (m = imports) of a country i (market j) in product k .

? Quiz: what is country A's export potential in country B?

	Product 1	Product 2
A exports to B (x_{ij})	500,000	500,000
A's world market share ($MShare_{ik}$)	1%	2%
B's imports (m_{jk})	10,000,000	20,000,000

- What is the ease to trade between country A and country B?
- What is country A's export potential for product 1? And for product 2?

EPI: complete framework

Dynamics and market access

$$EPI_{ijk} = \text{Exp.} \cdot MShare_{ik} \times \frac{x_{ij}}{\sum_k MShare_{ik} \times MA_{ijk} \times m_{jk}} \times MA_{ijk} \times \text{Exp.} \cdot m_{jk}$$

- $MShare_{ik}$: world market share; world tariff preference; X/M ratio; $Exp.$: relative expected growth of exporter GDP.
- $Ease_{ij}$: bilateral trade corrected to account for complementarity of supply and demand.
- MA_{ijk} : market access: tariff preference in target market and product-specific sensitivity to distance.
- m_{jk} : demand in value; $Exp.$: estimated import demand resulting from expected GDP per capita growth.

EPI: unrealized potential

- Combining **Supply**, **Demand** and **Ease** gives a potential export value in \$ terms
- Potential exports are compared to actual exports to identify suppliers, products and markets with room for export growth.

$$\text{Untapped potential}_{ijk} = \max(EPI_{ijk} - x_{ijk}; 0)$$

- Untapped export potential may be due to:

- Expected supply and demand growth

- Non-tariff measure affecting this particular exporter and product (including rules of origin!)
- Price / quality positioning not in line with market demand
- Lack of market intelligence
- Any other friction that affects the exporter's ability to export a *specific product to a specific market*



Dynamic effect

Static effect



The Product Diversification Indicator

PDI: diversification opportunities cannot be inferred from market shares

No information about historic supply performance
→ must be estimated differently

Formally

$$PDI_{ijk} = \cancel{MShare_{ik}} \times \frac{x_{ij}}{\sum_k MShare_{ik} \times m_{jk}} \times m_{jk}$$

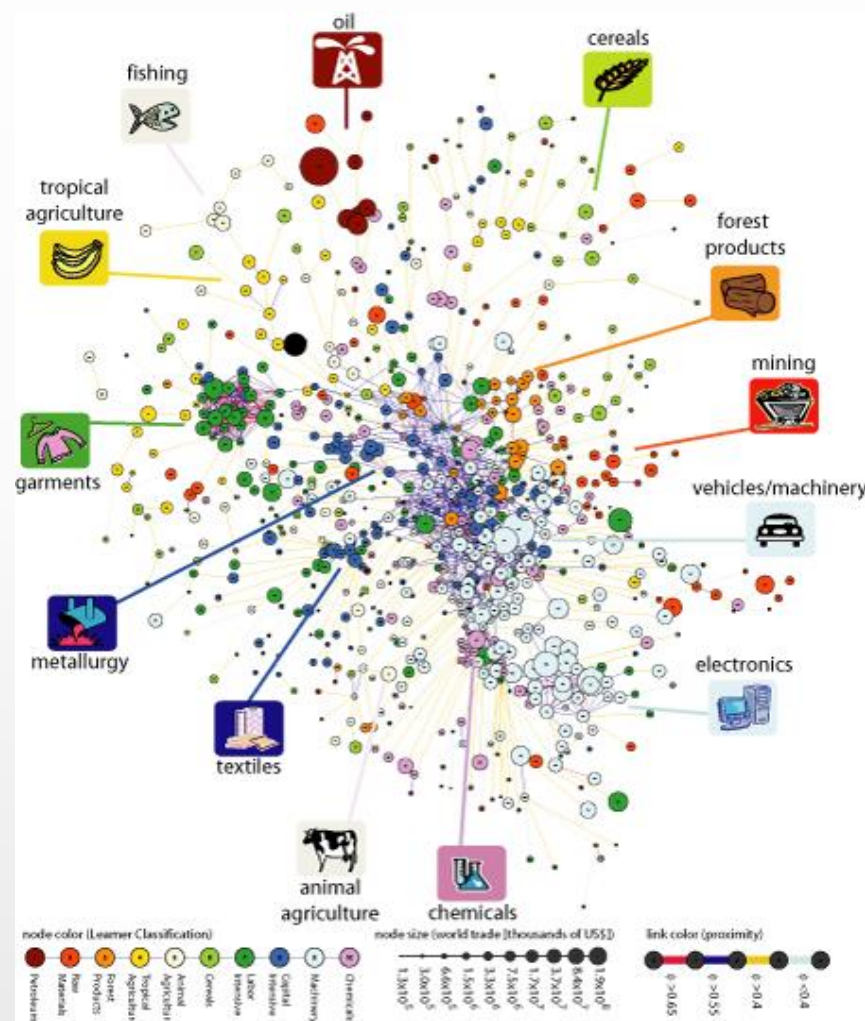
↑ Supply ↑ Ease ↑ Demand

where x = exports (m = imports) of a country i (market j) in product k .

Product space

(by R. Hausmann, C. Hidalgo)



- Each country exports a set of products with **comparative advantage** → **Set of (country × product) links**
- **Conditional probabilities** describe the likelihood of moving from one product to another
- ‘Close’ products require similar capabilities:
 - Climate conditions, soil, natural resources
 - Infrastructure
 - Specialists, existing firms
 - Legislation framework, institutions, associations & chambers
 - Traditions, know-how
 - ...
- Network of products based on how often they are exported jointly by countries
- The **Density** indicator describes how close the country is to a new product considered for diversification



Example: simplified Product Space

high 'density' around pears, low 'density' around transformed products



-  Product with comparative advantage
-  Potential product for export diversification

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PDI: complete framework

$$PDI_{ijk} = \text{Density}_{ik} \times \frac{x_{ij}}{\sum_k \text{MShare}_{ik} \times \text{MA}_{ijk} \times m_{jk}} \times \text{MA}_{ijk} \times \text{Exp. } m_{jk}$$

- *Density_{ik}*: average proximity to new export product (subject to filters!).
- *Ease_{ij}*: bilateral trade corrected to account for complementarity of supply and demand.
- *MA_{ijk}*: market access: tariff preference and product-specific sensitivity to distance.
- *m_{jk}*: demand in value; *Exp.*: + expected GDP per capita growth.

Same for EPI
and PDI



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Results



Online tool: Export Potential Map



exportpotential.intracen.org

- Opportunities with **export potential** and for **export diversification**
- Export potential, realized potential and product diversification ranks with sorting options according to sub-indicators:
 - Supply
 - Demand
 - Ease
- Results for **226 countries/territories**, 16 sub-regions and 5 regions
- Results for **4,000+ products**, 73 sub-sectors, and 16 sectors
- Deep links to other Market Analysis tools
- ...and many other features

Laos' products with export growth potential

Looking beyond energy and wood

Export potential
Export potential

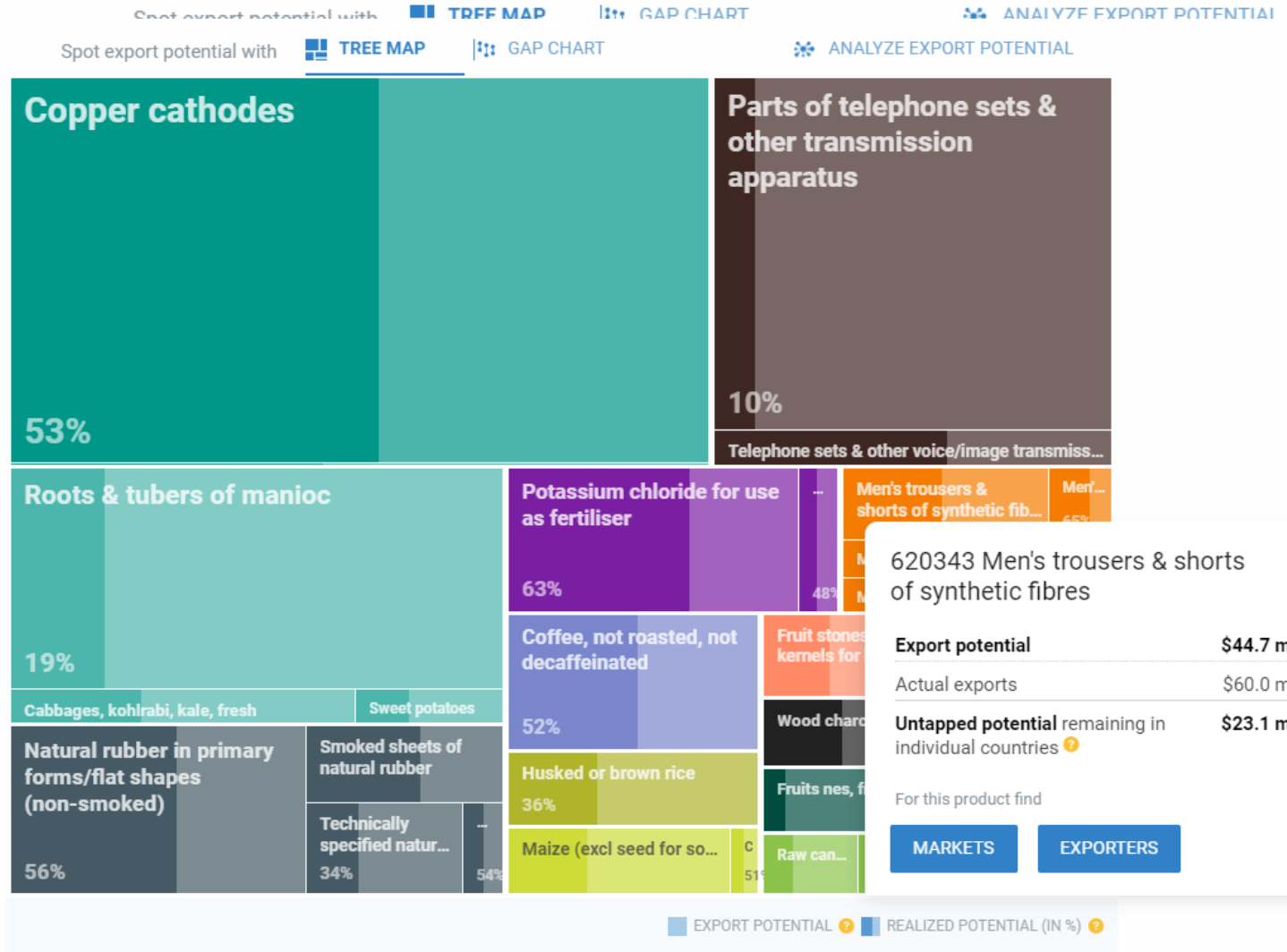
FOR EXPORTER
Lao People's Democratic Republic

IN MARKET
World

PRODUCTS SUB-SECTORS

Search a product by name/code...

- Chemicals
- Fertilizers
- Mineral products
- Other metals
- Metal products
- Jewellery & precious metal arti...
- Wood & vegetable material
- Wood products
- Natural latex & rubber
- Footwear
- Apparel
- Machinery
- Top 50
- Fertilizers
- Top 50



...across different target markets

Export potential

FOR EXPORTER

Lao People's Democratic Republic

IN PRODUCT

620343 Men's trousers & shorts of synthetic fibres

COUNTRIES SUB-REGIONS

Search a country...

- ASEAN
- EU & West Europe
- East Asia
- North America
- Pacific
- Caribbean
- Central Africa
- East Africa
- East Europe & Central Asia
- Latin America
- Middle East

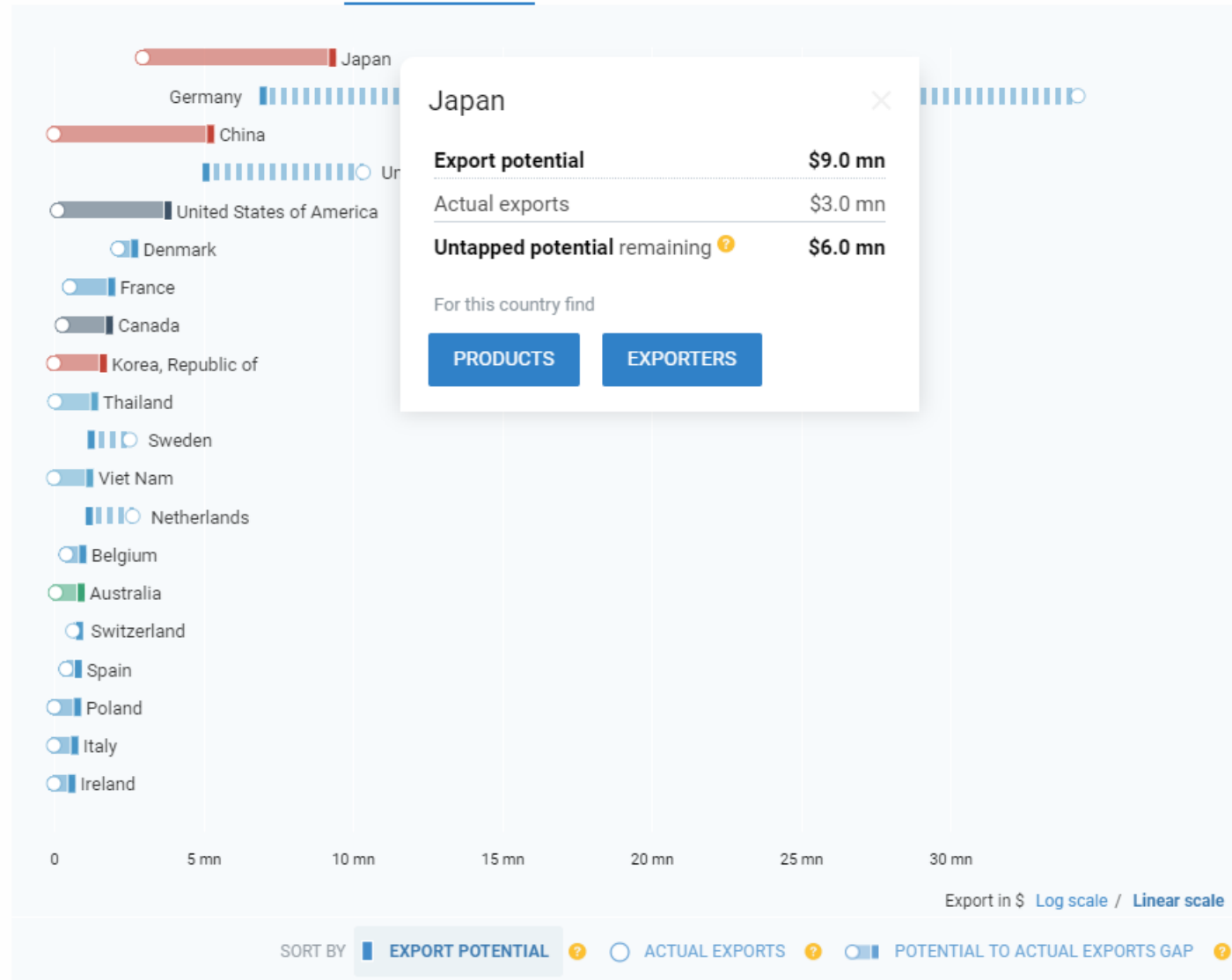
Top 20

Spot export potential with

GAP CHART

GEO MAP

ANALYZE EXPORT POTENTIAL



SORT BY EXPORT POTENTIAL ACTUAL EXPORTS POTENTIAL TO ACTUAL EXPORTS GAP

→ PRODUCT DIVERSIFICATION: FIND NEW OPPORTUNITIES

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Part 1. ITC's export potential analysis and web tool

Part 2. Looking beyond: using export potential data to inform trade policy negotiations

Part 3. Other customized analyses



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How can export potential data inform trade policy negotiations after LDC graduation?

1st element

Set up partial equilibrium model to compute **trade loss** associated with move to non-LDC tariffs



2nd element

Use ITC export potential methodology to compute **remaining export potential** (proxy for market frictions)

Seek tariff reduction through more advantageous trade regimes

How can export potential data inform trade policy negotiations after LDC graduation?

1st element

Set up partial equilibrium model to compute **trade loss** associated with move to non-LDC tariffs



2nd element

Use ITC export potential methodology to compute **remaining export potential** (proxy for market frictions)

Focus on targeted trade advisory / promotion for realization of export potential in new and existing markets

Alternative regimes after Laos' graduation from LDC status

CURRENT

AS OF 2024

LDC preferences

EU
Turkey

GSP/GSP+

Australia
India
Japan
Korea, Republic of
New Zealand
Sri Lanka
Thailand

Regional trade agreement

Armenia
Belarus
Canada
Switzerland
Kazakhstan
Kyrgyzstan
Norway
Russian Federation
Tajikistan

GSP

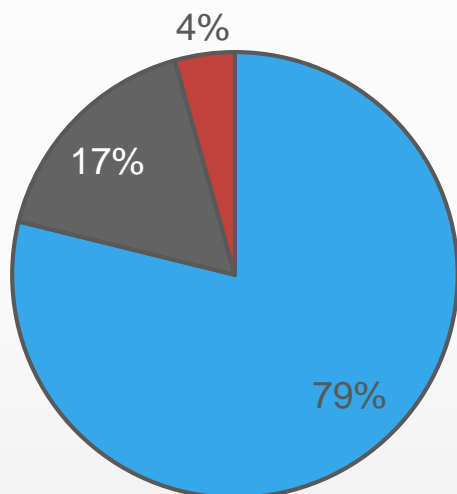
Chile
Iceland
Taipei, Chinese

MFN

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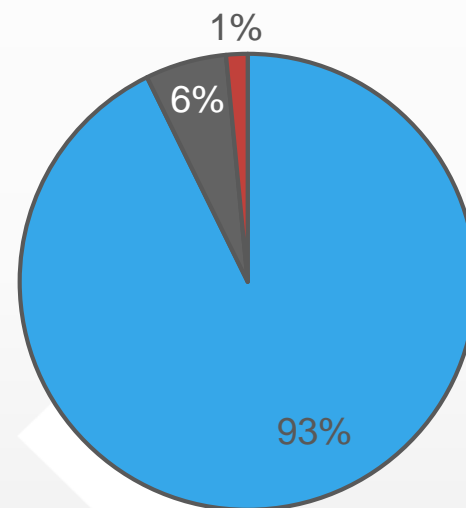
Tariff implications of LDC graduation

Share of existing product x market pairs, by tariff change
(total no. = 1,310)



- No change
- Moderate increase (<10 pp)
- Significant increase (≥ 10 pp)

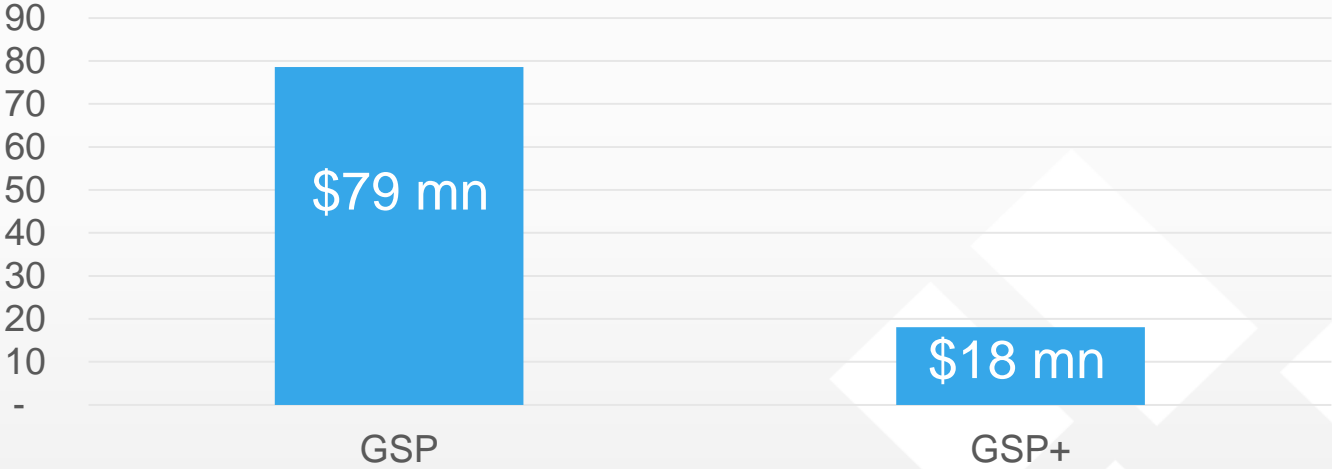
Share of exports, by tariff change



- No change
- Moderate increase (<10 pp)
- Significant increase (≥ 10 pp)

Trade losses following LDC graduation

Trade loss, by scheme



Impact of Lao's graduation from LDC status

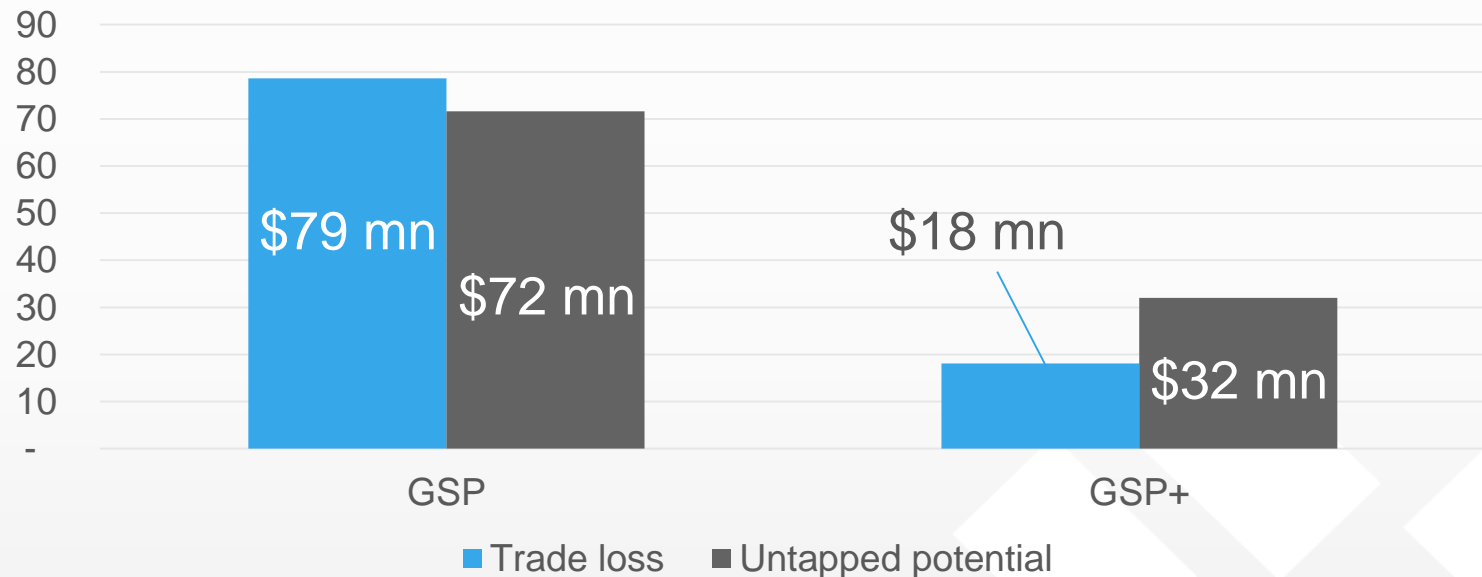
Trade loss vs. total untapped potential



→ Overall, targeted trade advisory to remove market frictions and measures to leverage expected supply and demand growth are more important than the potential trade losses!

Impact of Lao's graduation from LDC status

Trade loss vs. untapped potential in affected products and markets



→ In affected products and markets, the trade losses however are larger than the untapped potential (when moving to EU GSP rather than GSP+).

Strategy for affected products and markets

Case 1: trade loss < untapped potential

Product	Market	Non-LDC tariff	Trade loss (in \$ mn)	Untapped potential (in \$ mn)	Untapped potential other markets (in \$ mn)
Trousers	EU	10%	1.1	1.2	1.8
Footwear (leather)	EU	4%	0.9	2.9	4.6
Silicon	EU	5%	0.6	3.4	10.1
Brassieres	EU	5%	0.2	0.5	0.9
Trousers	Canada	18%	0.1	0.7	20.8
Fruit stones	Japan	16%	0.1	2.9	17.6

Note: only product x market combinations with export potential > \$ 1 million

Strategy for affected products and markets

Case 2: trade loss > untapped potential

Product	Market	Non-LDC tariff	Trade loss (in \$ mn)	Untapped potential (in \$ mn)	Untapped potential other markets (in \$ mn)	Alternative markets
18 apparel products	EU	10%	43.2	12.3	1.8	Canada, USA, Japan, China, Korea
Raw cane sugar	EU	40%	16.1	0.4	10.4	Indonesia, Viet Nam, Japan, China
Footwear (leather)	Japan	12%	4.5	0.0	7.5	EU, China, USA
Footwear (plastics)	EU	12%	0.8	0.4	0.5	China, USA

Strategy for affected products and markets

Case 2: trade loss > untapped potential

Product	Market	Non-LDC tariff (GSP+)	Trade loss (in \$ mn) (GSP+)	Untapped potential (in \$ mn)	Untapped potential other markets (in \$ mn)	Alternative markets
18 apparel products	EU	0%	0 ↓	12.3	1.8	Canada, USA, Japan, China, Korea
Raw cane sugar	EU	40%	16.1 ↔	0.4	10.4	Indonesia, Viet Nam, Japan, China
Footwear (leather)	Japan	12%	4.5	0.0	7.5	EU, China, USA
Footwear (plastics)	EU	0%	0 ↓	0.4	0.5	China, USA

Key take-aways



Lao's untapped export opportunities exceed potential trade losses following LDC graduation

Lao's has an export growth potential across all products and markets worth \$6.3 billion as compared to trade losses worth \$78 million.

Put trade facilitation / promotion programmes in place to better exhaust export growth opportunities

Targeted trade advisory helps overcome frictions in existing markets and diversify into new markets to compensate trade losses associated with graduation, for instance in leather footwear exports to Japan.

Target GSP+ for key export sectors to the EU

Under GSP preferences, apparel exports to the EU would account for 55% of the total trade loss. Sugar accounts for another 20%. GSP+ covers apparel, but not sugar.

Part 1. ITC's export potential analysis and web tool

Part 2. Looking beyond: using export potential data to inform trade policy negotiations

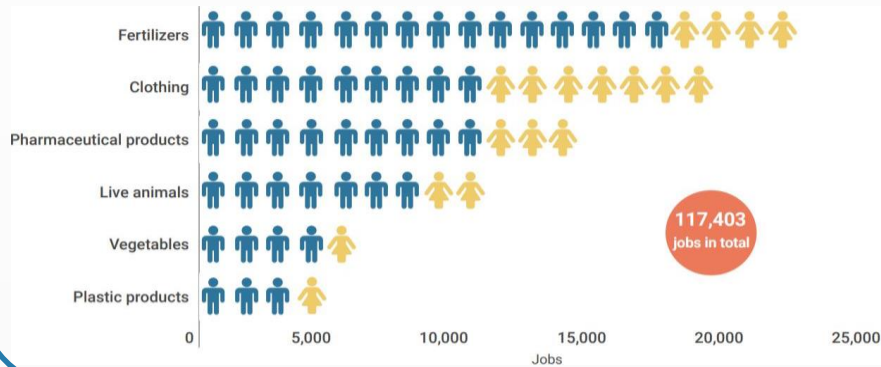
Part 3. Other customized analyses



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Customized studies

Jordan has \$4.2 billion of unrealized export potential.
How many **jobs** could this generate?



What are strategic products for Sri Lanka's **trade policy negotiations** with China?



More than \$17 million additional exports* possible across these three products

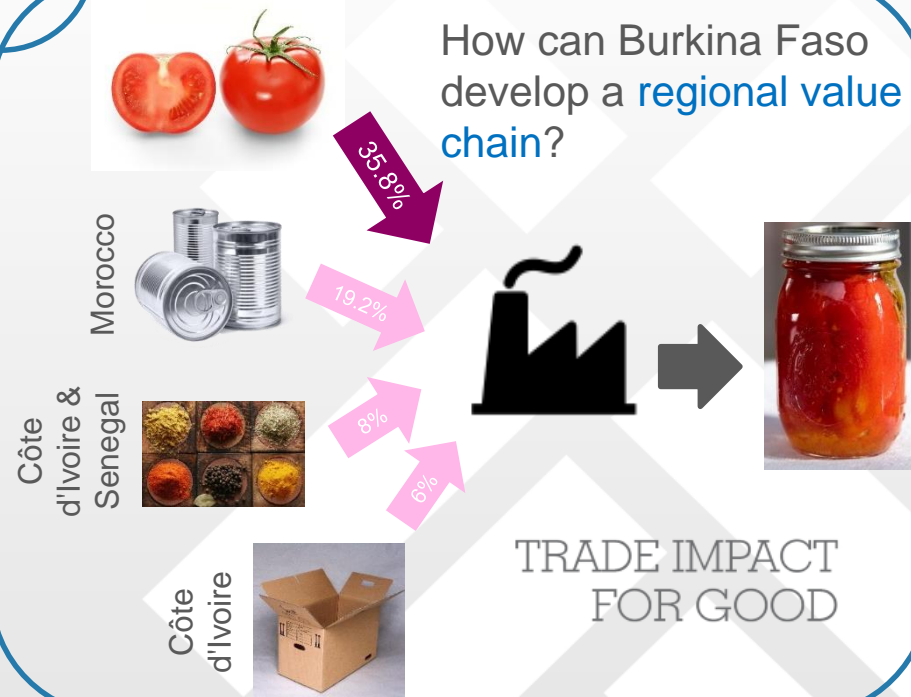
* based on 2015 data

What are the best opportunities for Greece's **services exports**?

Greek exporters of personal travel services have \$1.3 million of untapped export potential in the Turkish market.



How can Burkina Faso develop a **regional value chain**?



Export Potential Map • MALAWI

malawi.exportpotential.intracen.org



Export Potential

Spot export potential with **TREE MAP** | GAP CHART

ANALYZE EXPORT POTENTIAL

FOR EXPORTER

Malawi

IN MARKET

World

PRODUCTS SUB-SECTORS

Search products by name/code...

- Live animals (poultry)
 - Other animal products (edible)
 - Fish & shellfish
 - Other cereals
 - Pulses
 - Nuts
 - Spices
 - Flowers
 - Oil seeds
 - Sugar
 - Other food products
 - Vegetal residues & animal feed
- Top 45



071310 Peas, dried & shelled

Export potential	\$21.4 mn
Actual exports	\$13.9 mn
Untapped potential remaining in individual countries	\$10.1 mn

- For this product find
- Markets →
 - Exporters (on Export Potential Map) →
 - Opportunities for value chain development**
 - Peas "Pisum sativum", frozen →
 - Flour, meal & powder of dried legumes →
 - Peas "Pisum Sativum" →
 - Preparations used in animal feeding →

Want to know more?

Export Potential Map

Julia Spies
Yvan Decreux
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Sylvain Périllat
Julia Seiermann
Anna Jankowska

Website:

<http://exportpotential.intracen.org>
<http://malawi.exportpotential.org>

Contact us:

marketanalysis@intracen.org

Follow us on Twitter, Facebook, LinkedIn

Publications

ITC (2018) Realizing Export Potential for Employment and Inclusive Development

ITC (2018) Exploring Malawi's export potential (with an application of the Value Chain Indicator)

ITC (2016) Export Potential Assessments – a methodology to identify export opportunities for trade development

Export potential assessments are featured in the ITC SME Competitiveness Outlook:
<http://www.intracen.org/SMEOutlook/>