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Turku School of Economics, Finland



International Federation for Freight Forwarders Associations



Methodology of Logistics Performance Index



Global Facilitation Partnership for Transportation and Trade

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#### Background - General

The World Bank needed an effective measure of trade facilitation to allow

policymakers, logistics professionals, business stakeholders and researchers to:

benchmark a country's overall performance on several dimensions in trade logistics, and

assess the quality of a country's trade connections to the global market.



## LPI Background

 LPI was built upon the positive results of pilot surveys in 2000 and 2004 carried out by Prof. Ojala at Turku School of Economics, Finland.

 LPI is supported by the members of GFP\*) with active support and participation of FIATA and GEA.

\*) Global Facilitation Partnership for Transportation and Trade http://www.gfptt.org

### Some facts about LPI 2007

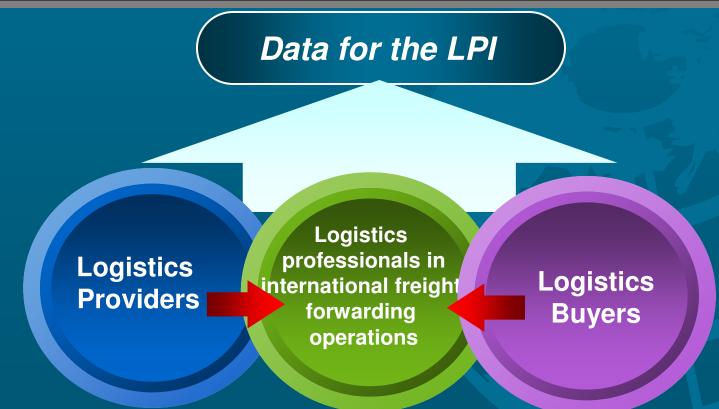
- Survey in English, French, Spanish, Chinese
- Over 5,500 international country evaluations
- Approx. 900 individual respondents from over 100 countries
- New survey conducted in early 2008

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### What is the LPI?

A set of indicators that measure the performance of the logistics environment of countries on several logistics dimensions (e.g. transport cost, trade and transport infrastructure, border formalities ...)





### Who responded in LPI 2007?

A worldwide coverage from a homogenous group of professionals representing large, medium-sized and small firms

Data from over 100 countries

Each evaluate

Approx. 25 % from large worldwide logistics firms

Over 900 Individual respondents eir own country

Approx. 75 % from small & medium sized freight forwarding firms



#### The LPI Survey – Structure



The survey used an anonymous web-based questionnaire asking respondents to evaluate their country of residence and eight countries they are dealing with on several logistics dimensions.

## The 7 Key Dimensions of LPI

General Module

International Performance Domestic Qualitative Performance

Additional Feedback

- International transportation costs;
- Domestic transportation costs;
- Timeliness of shipments;
- Traceability of shipments;
- Transport and IT infrastructure;
- Customs and other border procedures; and
- Logistics competence.



### The LPI Survey – Structure

Trade patterns vary greatly among countries.

To maximize "authorized opinions," LPI uses a tailor-made trade direction format for each group and for each of the <u>150 countries</u> assessed:

Low income landlocked countries
Low income coastal countries
Middle income landlocked countries
Middle income coastal countries
High income countries

#### How to select the 8 countries ?

	Respondents from low income countries	Respondents from middle income countries	Respondents from high income countries
Respondents from coastal countries	Five most important export partner countries ♣ Three most important import partner countries	Three most important export partner countries The most important import partner country Four countries randomly, one from each country group a) Africa b) East Asia + Central Asia c) Latin America d) Europe less Central Asia + OECD	Four countries randomly out of one list of five most important export partner countries and five most important import partner countries Four countries randomly, one
Respondents from landlocked countries	Four most important export partner countries Two most important import partner countries Two landlocked countries	Three most important export partner countries One most important import partner country Two landlocked countries Two countries randomly, one from each country group: a) Africa + East Asia + Central Asia + Latin America and b) Europe less Central Asia + OECD	from each country group: a) Africa b) East Asia + Central Asia c) Latin America d) Europe less Central Asia + OECD



### **Consistency & Robustness**

- LPI very consistent with intuitive knowledge of country performance, very specific ranking.
- Homogeneous respondent population.
- The LPI, on a 1 (worst) to 5 (best) scale) is aggregated by standard techniques (PCA), so as to reduce noise,
  - Confidence interval (+/- 10 %) provided, on average 8 places in the ranking.
  - Strongly associated with and more robust than outcomes in the "domestic" survey such as time to import

Logistics Performance Index 2008

#### LPI 2008 screenshots

#### Welcome Bienvenue Bienvenido K 귀

Begin the survey

English

Logistics Performance Index 2008

In this part of the questionnaire, you are invited to rate eight countries listed below along seven key dimensions in logistics performance.

Based on your experience in <u>international logistics</u>, please provide <u>your assessment</u> of the following countries against the generally accepted industry standards or practices. The countries have been generated based on the trading partners of your selected country of work. Please select the option that <u>best applies</u> to each individual country:

#### A NOTE ON SURVEY NAVIGATION:

You may have to move down each screen in order to see all of the questions. PLEASE DO NOT USE THE BU ON YOUR BROWSER TO MOVE FORWARD OR BACKWARD THROUGH THE SURVEY. Instead, click the P Next, or Resume Later buttons at the bottom of each screen.

You may interrupt your session at any time and resume your answer later. You were provided with a link specif company. This link allows you to enter and re-enter the LPI 2008 Survey website. If you re-enter, you will be re the place in the survey where you stopped. Please make note of it or save it for future reference

If you need any technical help, or have any questions or comments about the Survey, please do not hesitate to us directly at mmustra@worldbank.org.

Thank you for your participation in this important global initiative and for providing your feedback.

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#### LPI 2008 Survey in: English, French, Spanish, Chinese and Russian

9/30. Rate the <u>effectiveness and efficiency of the clearance process</u> by border control agencies, including Customs in ...

	Very low	Low	Average	High	Very high
Country 1					
Country 2					
Country 3					
Country 4					
Country 5					
Country 6					
Country 7					
Country 8					

Previous Resume later Next

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English

U<u>s</u>e



#### Logistics Performance Index 2008

In this part of the questionnaire, you are invited to provide <u>your assessment</u> on the logistics environment <u>in</u> <u>your country of work</u>:\_\_\_\_\_

The questions have been grouped according to the following themes: cost, quality of infrastructure, competence, clearance.

16/30. Based on your experience in <u>international logistics</u>, please select the options that <u>best describe</u> the logistics operational environment <u>in your country of work</u>:

	Very high	High	Average	Low	Very low		
Port charges are							
Airport charges are							
Road transport rates are							
Rail transport rates are							English 🗸 Use
Warehousing service charges are				<u> </u>	Logistics Per	formance Index 2008 —	
Service providers/agent fees are:							
Overall, logistics costs (e.g. domestic transport, agent fees, port charges), are	C		27/30.Es	stimate the	e following time p	arameters for export pre-carriage and i	import on-carriage:
	<u> </u>					- French and and a second and a	Domestic
17/30. Evaluate the quality of infrastructure in use for logi		ns in your	0			Export pre-carriage: Ex Works (shipper)	Domestic Import on-carriage: Free Alongside Ship (port of discharge)
17/30. Evaluate the quality of infrastructure in use for logi	tics operation	ns in your Low	6				Import on-carriage:
		-	0				Import on-carriage:
17/30. Evaluate the quality of infrastructure in use for logic Fixed transport infrastructure (e.g. ports, roads, airports,	Very low	Low	c				Import on-carriage:
17/30. Evaluate the quality of infrastructure in use for logis Fixed transport infrastructure (e.g. ports, roads, airports, border crossings)	Very low	Low		se (up to 1	10% of the	Ex Works (shipper)	Import on-carriage: Free Alongside Ship (port of discharge)
17/30. Evaluate the quality of infrastructure in use for logis Fixed transport infrastructure (e.g. ports, roads, airports, border crossings) Telecommunications infrastructure and services	Very low	Low	Best ca		10% of the carried/oncarrie	Ex Works (shipper)	Import on-carriage: Free Alongside Ship (port of discharge)

2008 screenshots

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# Thank You!



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