

# PROSPECTIVE OF A NEW LOGISTICS PLATFORM NETWORK FOR MEXICO'S PLANNING MESOREGIONS

Juan Pablo Antún & Angélica Lozano

# PROSPECTIVE OF A NEW LOGISTICS PLATFORM NETWORK FOR MEXICO'S PLANNING MESOREGIONS A methodology and some results

Juan Pablo Antún & Angélica Lozano

Laboratorio de Transporte, Logística, Tráfico y Sistemas Territoriales  
Instituto de Ingeniería, Universidad Nacional Autónoma de México  
Apdo Postal 70-347, Ciudad Universitaria, México DF (04510), México  
jantunc@iingen.unam.mx  
alozanoc@iingen.unam.mx

## ABSTRACT

We present results of a study that identifies Strategic Logistics Nodes (SLN) in different planning Meso-regions in Mexico, and proposes different types of Logistics Platforms (LP) in order to set this SLN. The methodology<sup>1</sup> was designed at the Institute of Engineering of the National Autonomous University of Mexico, who lead the Technical Oversight Committee (CTS) of the study, that was funded by the Inter-American Development Bank (IDB) and conducted by an international consultant in the frame of the IDB Technical Assistance to the Ministry of Communications and Transport and the Ministry of Economics of the Federal Government of Mexico

Keywords: Logistics Platform, Logistics Facilities Location, Territorial Logistics Land Planning

## 1. OBJECTIVES

The prospective design of a new Logistics Platform network is being presented for the planning mesoregions of Mexico. This is a result from a Study with a methodological design that was produced at the Transportation, Logistics & Territorial Systems Lab of the Engineering Institute in the National Autonomous University of Mexico by request from the Ministry of Communications and Transportation and the Ministry of Economics of Mexico's Federal Government, financed within the technical assistance framework of the Interamerican Development Bank.

The Mexico Logistics Platform Network has as its general objectives:

1. To promote competitiveness within the infrastructure logistics in Mexico, in accordance with the *Programa Nacional de Infraestructura (2007-2012)* [National

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<sup>1</sup> Antún, JP; Alarcón, R (2011) *Términos de Referencia del Estudio Sistema Nacional de Plataformas Logísticas para México*, LTLST-IIUNAM para Secretaría de Comunicaciones y Transporte-Secretaría de Economía-Banco Interamericano de Desarrollo (BID), México DF

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Infraestructure Program 2007-2012] of the Ministry of Communications and Transportation.

2. To be innovative in the competitiveness of the supplying chains in Mexico, linked to the internal market as well as to the foreign commerce, according to the guidelines of the *Agenda de Competitividad en Logística (2008-2012)* [Competitiveness in Logistics Agenda 2008-2012] of the Ministry of Economics
3. To establish a competitive logistic land planning in Mexico
4. To impulse the development of the infrastructure and logistic services necessary to facilitate the industrial and commercial activities of the internal market as well as the foreign commerce.

## 2. METHODOLOGY

The methodology includes the development of 8 activities:

1. Characterization of the transportation infrastructure and existent and planned logistics and evaluation of the logistics-infrastructure relation.

### 1.1. Inventory and Logistics Platforms prospective-diagnosis in Mexico

Based on reference studies, such as the National Infrastructure Program (NIP) Corridor Master Plan (CMP)<sup>2</sup>, Optimization of Logistics Processes for Import and Export (OLP)<sup>3</sup>, Studies on Prospective Logistics for the Mesoregions (SPLM)<sup>4</sup>, and others, will review the information available and the main results related to the transport and logistics infrastructure in Mexico, and will integrate a georeferenced inventory for every mesoregion with:

- a) Clusters with logistics activities
- b) Logistics Centers, Logistics Parks and other formal real estate developments specialized on logistics activities.
- c) Corporate Distribution Center.
- d) Industrial Areas undergoing restructuring with opportunities for the development of logistics activities.

<sup>2</sup> SCT (2007b) *Plan Maestro de Corredores Intermodales 2008-2012*, Secretaría de Comunicaciones y Transportes, Gobierno Federal de México, México DF

<sup>3</sup> SE (2009) *Optimización de los procesos logísticos de importación y exportación*, Secretaría de Economía, Gobierno Federal de México, México DF

SE (2008) *Agenda de Competitividad en Logística 2008-2012*, Secretaría de Economía, Gobierno Federal de México, México DF

SE (2011) *Indicadores de desempeño de la Logística en México*, Secretaría de Economía, Gobierno Federal de México, México DF

<sup>4</sup> Antún, JP; Lozano, JP.; Alarcon, R; Granados F, et al (2009) *Estrategias para el Ordenamiento Territorial Logístico competitivo de la Región Centro*, Proy 8134, realizado por convenio con la Secretaría de Economía del Gobierno Federal de México (Fondo PROLOGYCA) y Fideicomiso para el Desarrollo de la Región Centro País (FIDCENTRO), Instituto de Ingeniería, Universidad Nacional Autónoma de México, México DF; 1235p

FIDENORESTE (2009) *Estudio sobre el Desarrollo Estratégico de la Infraestructura Logística*, Fideicomiso para el desarrollo de la Región Noreste, Monterrey, NL

FIDERCO (2010) *Programa de Transporte y Logística de la región Centro Occidente*, Fideicomiso para el desarrollo de la región Centro Occidente, Guadalajara, Jal

FIDESUR (2010) *Estudio para la creación de un Corredor Logístico, Industrial y Económico de la Frontera Sur*, Fideicomiso para el Desarrollo de la Región Sur-Sureste, Mérida, Yuc.

México (2006) *Mesoregiones de Planeación en México* (Planning meso-regions): *Centro, Noreste, Noroeste, Centro-occidente, y Sur-Sureste*, Presidencia de México, Mexico

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The inventory contain the basic information available on the characteristics of each facility inventoried: total area, urban area, industrial area, occupancy, incumbents, sector they belong, core business capabilities, potential area of influence and served market segments.

## 1.2. Inventory and prospective diagnosis of logistical impact of transport infrastructure

Based on available information, we build an integrate georeferenced inventory of existing transport infrastructure and programmed in the NIP. The inventory contain basic information on the characteristics of each inventoried infrastructure..

Based on previous studies and georeferenced inventory we made a prospective diagnosis of logistical impact of transport infrastructure, contemplating motorways, railways, intermodal terminals and air cargo centers; that prospective diagnosis have a strong analytical component, and that is not limited exclusively to the collection and processing of secondary data.

## 1.3. Assessment of the logistics-infrastructure relationship

Based on the prospective diagnoses made and the information collected we did:

a) a comprehensive assessment of the relationship logistics - infrastructure, presenting major system constraints.

b) an evaluation of the effect of short, medium and long term used and planned infrastructure and development trends of the offer value-added logistics.

c) an analysis of the infrastructure limitations on the logistics and the immediate actions to be implemented for the provision of logistics services and operators

d) a conceptual model in order to establish a scenario for the hierarchy of existing logistics platforms and its radius of influence

## 2. Creation of study cases on the logistics performance in the supplying chains of competitive segments in priority sectors in Mexico in order to identify infrastructure and services needs that will improve the operations performance in logistic processes that may be provided in Logistic Platforms (LP).

### 2.1 Review and analysis of previous studies on priority sectors and competitive segments

Under baseline studies previously conducted, including Corridor Master Plan (CMP), the Strategy to Promote Investment and Transfer of Operations to Mexico (PITO) and the study Performance Evaluation of Supply Chains in Mexico (PESC ) we build:

a) A review of the general characteristics of Mexican production system

b) An identification of priority sectors in public policy

c) An Identification of the competitive segments in the productive sectors prioritized in public policy

d) A preliminary identification of the requirements of transport and logistics services in the priority sectors, and in particular its competitive segments, which can be served in logistics platforms at national and regional levels, identifying market trends, in particular, the demand of value-added logistics services

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2.2. Identification of key logistics families supply chains of the priority sectors, with emphasis on their competitive segments

Based on the priority sectors in public policy, with particular reference to the competitive segments in them, we undertook the following activities:

- a) Identification of the major chains where logistics services represent a significant component of the cost structure of the final price of the physical distribution of products, with a focus on the competitiveness of those engaged in foreign trade and domestic market, such as consumer goods, electrical / electronic equipment, automotive, retail and pharmaceutical.
- b) Identification of the supply chains associated with the competitive segments.
- c) Characterization of supply chains and aggregating them into families that share similar patterns logistics.

2.3. Segmentation of logistics chains and selection of key players

We worked on:

- a) The identification of segments of logistics chains, which are susceptible to qualitative improvements in the performance of the respective chains, in the event value-added logistics services on logistics platforms will be introduced
- b) The identification of representatives of public institutions and players associated with logistics chains identified to conduct interviews aimed to define precisely the structure of the chains and the potential demand of Logistics Platforms
- c) The preparation and conduct of interviews and concentration information record sheets

2.4. Flow Estimation

Based on information available,

- a) we build an estimation of flow along the production-logistics chains identified (including the steps of input supply, production, distribution and sale of products)
- b) we performed the Case Studies and interviews, in order to know an estimation of future demand for a 10-year horizon

2.5. Case Studies in Supply Chain Logistics identified in competitive segments of priority sectors

- a) Selection of Case Studies: five for each competitive segment, in each mesoregion, for each priority sector.

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b) Based on the results of the case studies, we made the following analysis:

- i. Identification of the characteristics of the typical structure of supply chains and distribution
- ii. Characterization of practices in logistics operations
- iii. Identification of the infrastructure used (distribution centers, load centers of orders, cross-docking, warehouse network, modal and intermodal nodes, most used links on transport infrastructure, etc..).
- iv. Identification of needs for added value logistics services
- v. Identification of the infrastructure requirements for logistics services.

## 1.6. Audit of logistics chains

For each competitive segment of each priority sector we undertook the following activities:

- a. Evaluation of the performance of structured supply chains.
- b. Identification of the opportunities and the weaknesses found in the development of logistics practices.
- c. Formalization of the key features, at short and medium term, to promote a successful system of logistics platforms nationwide.

## 3. Identification of Strategic Logistics Nodes (SLN) to set up them with logistics platforms.

### 3.1. Identification of the Strategic Logistics Node (SLN)

Based on the results of the analysis in the logistics nodes we identified the SLN as relevant for the development of logistics platforms, with the following activities:

- a) Identification of logistics nodes considered the results of baseline studies previously conducted, including National Infrastructure Program (NIP), Corridors Master Plan (CMP) and the Studies on Prospective Logistics for the Mesoregions (SPLM)
- b) Definition a methodology under clear criteria for ranking logistics nodes.
- c) Identify Strategic Logistics Nodes (SLN) to set the National System of Logistics Platforms (NSLP).

### 3.2. Characterization of Logistics Platforms to outfit Strategic Logistics Nodes (NLE)

In order to set the characteristics of the different logistics platforms, we build

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- a) The profile of logistics platforms for each of the NLE, in particular vocation, impact on modal and intermodal transport services production and market target
- b) The territorial reserves for Logistics Activities (ARAL) for each of the NLE, by the analysis of the land use and the land available.
- c) For each SLN, the identification of the new transport infrastructure for connectivity, as well as changes in the regulation of infrastructure operation
- d) For each SLN also the identification of actions to improve accessibility between logistics operators, particularly operators of intercity transport articulate with urban physical distribution operators and modal operators in a joint intermodal interface (for example: i) RFS or "air cargo" trucks, ii) transfers shipping containers between railways operators, iii) modal links between domestic and foreign transports operators in a cross-border operation).

### 3.3. Integration of a National System of Logistics Platforms (NSLP)

In order to set a NSLP,

- a) we set a specialized network of Logistics Platforms (LP) in SLN, considering specialized LP, because they are associated with: i) a mode of transport as Integrated Centers of Goods (ICG) in trucking, ii) a modal interchange: with rail in Intermodal Platforms (Interpuertos), with air freight in Air Cargo Logistics Centers (CLCA), with maritime cargo in Port Logistics Activities Zone (ZALP), iii ) a physical distribution logistics strategy as Urban Logistics Microplatforms (mPLU), as Distribution Centers (DCs), and as the Centers for Transportation and Logistics (CSTYL) for urban physical distribution in a specific sector.
  - b) we outlooked a methodology under clear criteria for ranking the specialized network of LP, and establish a hierarchical system.
  - c) we analyzed feasible relationships between LP in specialized networks.
4. A SWOT -Strengths, Weaknesses, Opportunities and Threats- Analysis in each SLN to promote the development of the LP.

#### 4.1 In the analysis of Strengths:

- i. territorial size and market concentration
- ii. use by logistics operators in mega-distribution
- iii. recent accomplishments of infrastructure and logistics equipment for industrial and commercial leaders
- iv. existence of leading logistics operators.

#### 4.2 In the analysis of Opportunities:

- i. market segmentation and new territorial accessibility induced by new transport infrastructure,
- iii. developing strategies for mega-distribution
- iv. development of specialized logistics platforms in priority sectors

*13<sup>th</sup> WCTR, July 15-18, 2013 – Rio, Brazil*

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- v. development of innovations in urban physical distribution logistics
- vi. development of intermodal terminals with Rail (Interpuertos), air cargo (Air Cargo Logistics Centers) and ocean going freight (Port Logistics Activities Zone)

## 4.3 In the analysis of Weaknesses

- i. road infrastructure with geometric deficiencies, low maintenance, high levels of congestion throughout the day and inadequate management of vehicular traffic load
- ii. depletion of strategically located land available for the development of logistics activities
- iii. negative interactions between operations for logistics processes and activities related to residential use by housing development close to transport infrastructure
- iv. existence of transport logistics operators with a traditional business model with little or no practical innovations in distribution logistics (physical distribution with multiple stops, lack of cross-docking operations without dedicated services, etc..).

## 4.4 In the analysis of Threats:

- i. lack of territorial planning logistics approach, to risk control land use in areas designated as areas reserved for logistics activities (ARAL)
- ii. informal development cluster inserted logistics facilities in a former suburban roads with little chance of development and limited capacity to generate congestion and loss of competitiveness,
- iii. conversion of land for industrial use with proper road network to transport cargo to popular residential uses and / or shopping centers,
- iv. trivialization of an oversupply of real estate projects logistics platforms, promoted by states with tax incentives and other concurrent
- v. potential migration infrastructure for logistics activities to other areas.

## 5. Construction of a Management Model of the National System of Logistics Platforms

- a) Review of the different management models existing international benchmarks, from fully public schemes to fully private, with particular attention to those of public-private participation. The review will conclude with an assessment to establish the most appropriate management model for the SNPL of Mexico, clearly defining the role of the public and private sectors in the different phases of planning, development, implementation, operation and monitoring of projects.
- b) Propose an organizational structure based on a model of trust, public body or decentralized and sectorized, or a specialized fund in the Development Bank, or a public company for the promotion, development and management of SNPL.
- c) Establish the characteristics of the proposed management scheme for the development of logistics platforms projects, including:
  - i. Legal and institutional organization
  - ii. Financial scheme
  - iii. Schemes for land acquisition of the reserve areas for logistics activities (ARAL)

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- iv. Environmental aspects.
  - v. Information Technology and Communications
  - vi. Human Resources
  - vii. Design Services
  - viii. Set of incentives
  - ix. Treatment of small and medium enterprises, in order to improve access to the Logistics Platforms.
6. Business Models for LP projects.
  7. Definition of a set of Quantitative Performance Indicators to establish a periodical benchmarking between the various LP.
  8. Formulation of the political public bases to promote the National Logistics Platform Systems in a private-public participation scheme: the federal government, the governments of the states and various municipalities with: i) the professional logistics sector (Mexican Logistics Counsel, Council of Supply Chain Management Professionals, ASELDYT), ii) the transportation and logistics services production companies (carriers, transportation infrastructure concessionaries, logistics operators), iii) associations of users of transportation and logistics services (ANTP, etc), iv) executives of logistics companies in the competitive segments of the priority sectors, v) real state promoters in the logistics sector, and vi) the financial sector.

## 3. SOME RESULTS<sup>5</sup>

### 3. 1 Typology of Logistics Platforms

1. Logistics Platform for Urban & Metropolitan Distribution of Goods and LTL interurban/cross docking operation ("PLADIS Metropolitana", "PLADIS Regional")
2. Logistics Platform for International Cross-Border ("PLADIS Internacional", "PLF")
3. Logistics Agro-center ("AGROLOG")
4. Multiclient Cluster Logistics Platform (automotive industry, apparels, handcraft, higt tech, tourism supply chains, international subcontract export industry operation) ("PLC")
5. Logistics Port Activity Platform ("ZAL")
6. Logistics Platform for Inland Dry Port ("PS")
7. Air Freight Logistics Center ("CCA")
8. Logistics Platform for Central Wholesale Food Markets ("CLA")

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<sup>5</sup> ALG Global (2012) *Definición de un Sistema Nacional de Plataformas Logísticas y Plan de Implementación*, Actividad 4. Definición del Sistema Nacional de Plataformas Logísticas de México, para Banco Interamericano de Desarrollo-Secretaría de Comunicaciones y Transportes y Secretaría de Economía, México DF, Alarcón, R (2012) *Competitividad Logística Territorial: Caso de estudio Sistema Urbano-Regional de la Región Centro País*, Tesis Doctoral, Programa de Posgrado en Urbanismo, Facultad de Arquitectura-Instituto de Ingeniería-Instituto de Geografía, Universidad Nacional Autónoma de México (UNAM), México DF. Antún, JP; Lozano, A; Hernández, R; Alarcón, R; Muñoz, MA; Vargas, F; Romero, E; Lobo, J; Gómez, H (2008) *Centros Logísticos*, SD-50, Series del Instituto de Ingeniería, Abril, México DF; 185 p.; ISBN 970-32-0710-3/ISBN 978-607-2-00042-1. Lozano, A; Antun, JP; Santos, C; Alarcón, R ; Guzmán, LA; Hernández, R (2008) *Propuestas de Centros Logísticos para el Valle de México*, SD-51, Series del Instituto de Ingeniería, Julio, México DF; 119 p.; ISBN 970-32-0710-3/ISBN 978-607-2-00043-8.



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## 3.2 Findings

(1) the study identified a set of Strategic Logistics Nodes in each planning Mesoregions (see Fig: 1, 4, 6, 8, 10).

(2) based on the innovative methodology, the study proposed a set of strategies in order to improve the logistics competitiveness in each of the five planning meso-regions (see fig 2, 5, 7, 9, 11).

(3) different types of Logistic Platforms (LP) the study proposed in each Strategic Logistics Node identified in each of the five planning meso-regions for a National System of Logistics Platforms (see Fig 14).

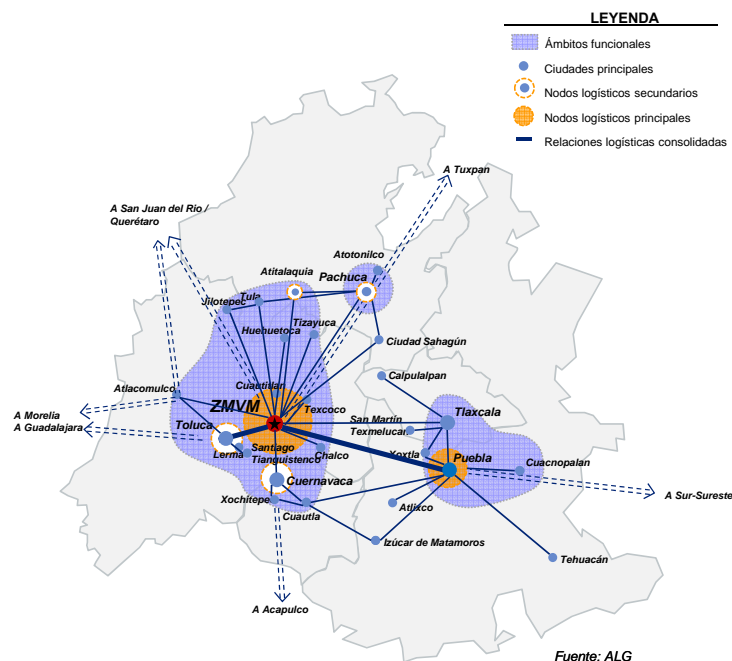
(4) based on satellite images and field exploration, the study proposed alternatives microlocation for each LP in each SLN (for examples, see fig 3, 12, 13)

(5) alternative business models are in process in order to stimulate doing the LP projects based on a public-private participation scheme (PPP).

## 3.1 Central Meso-region

The Central mesoregion comprising the Federal District and the states of Mexico, Hidalgo, Tlaxcala, Puebla and Morelos, contains the Metropolitan Area of Mexico City, with more than 40 million people and generates more than 36% of GNP.

The main Strategic Logistics Nodes are Mexico City and Puebla, and the secondary Strategic Logistics Nodes are Toluca, Pachuca and Cuernavaca.



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Fig 1 Strategic Logistics Nodes related to the Central Meso Region of Mexico  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

Strategies to improve logistics competitiveness in the Central mesoregion are:

- 1) Improving urban distribution patterns
- 2) Support the development of air cargo at airports in Mexico City and Toluca
- 3) Replace the pattern of the Wholesale Central Markets strengthening logistics operations of the food chain
- 4) Improve regional distribution patterns between central Mexico and the Bajío
- 5) Extending the hinterland of the ports of Veracruz, Tuxpan and Lazaro Cardenas

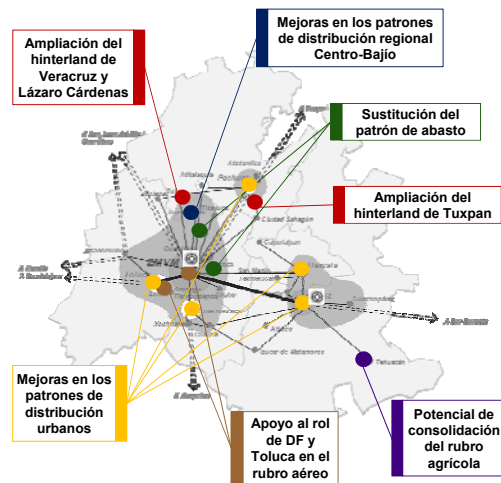


Fig 2 Proposed Strategies for the Central Meso Region of Mexico  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

For each of the main and secondary strategic logistic nodes in the Central mesoregion, a survey was conducted to microlocalization LP. The figure shows an example for the northern metropolitan area of Mexico City.

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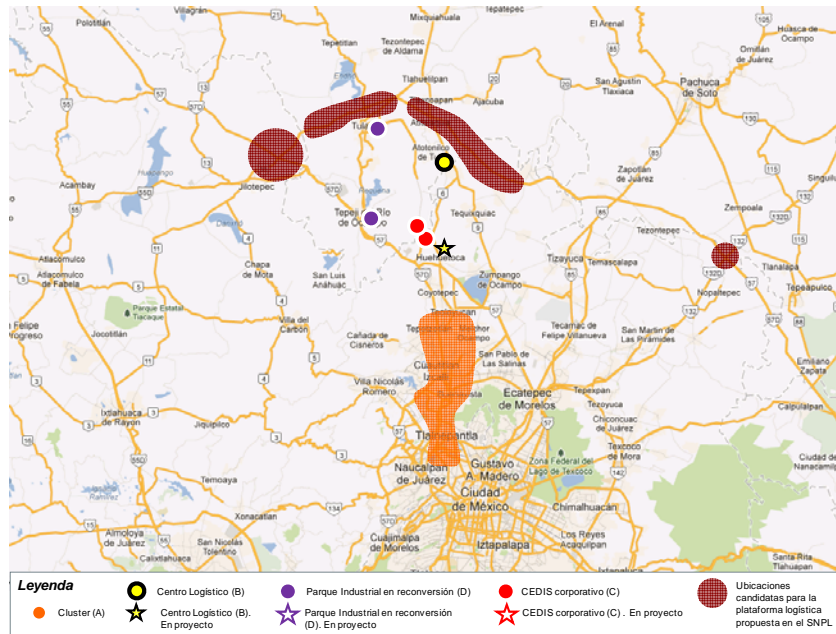


Fig 3 Proposed LP at north of the Mexico City Metropolitan Area in the Central Meso Region of Mexico

Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

## 3.2 North East Meso-region

The North East mesoregion, comprising the states of Nuevo Leon, Coahuila, Tamaulipas, Chihuahua and Durango, contains de Metropolitan Area of Monterrey City.

Strategies to improve logistics competitiveness in the North East mesoregion are:

- 1) Build a Logistics Support for textile industry cluster in Torreon-Gomez Palacio
- 2) Consolidate the aerospace industry cluster in Chihuahua
- 3) Support air cargo at airport in Monterrey
- 4) Supporting trucks companies operating in the border
- 5) Develop value-added activities in the Port of Altamira
- 6) Extending the hinterland of the Port of Mazatlan

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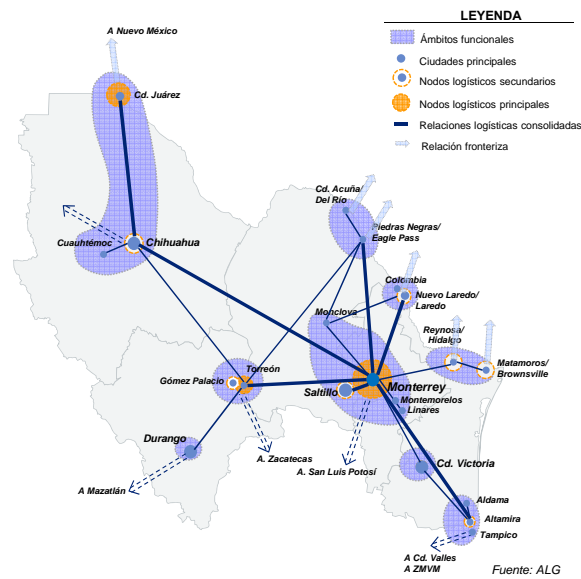


Fig 4 Strategic Logistics Nodes related to the North East Meso Region of Mexico  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

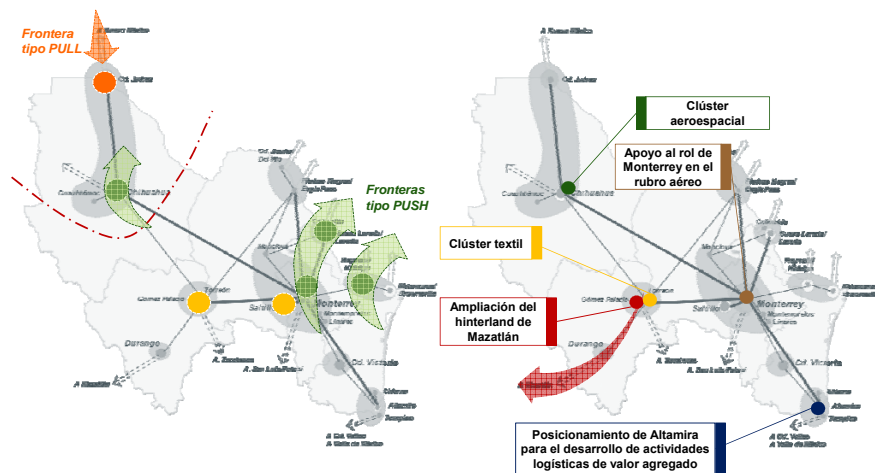


Fig 5 Proposed Strategies for the North East Meso Region of Mexico  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

### 3.3 North West Region

The North East mesoregion, comprising the states of Sonora, Sinaloa, Baja California, Baja California Sur.

Strategies to improve logistics competitiveness in the North West mesoregion are:

- 1) Build a Logistics support for the automotive industry cluster in Hermosillo
- 2) Perform value added activities in the port of Ensenada
- 3) Improve Logistics services in order to support exports of agricultural products
- 4) Support air cargo at the Tijuana airport

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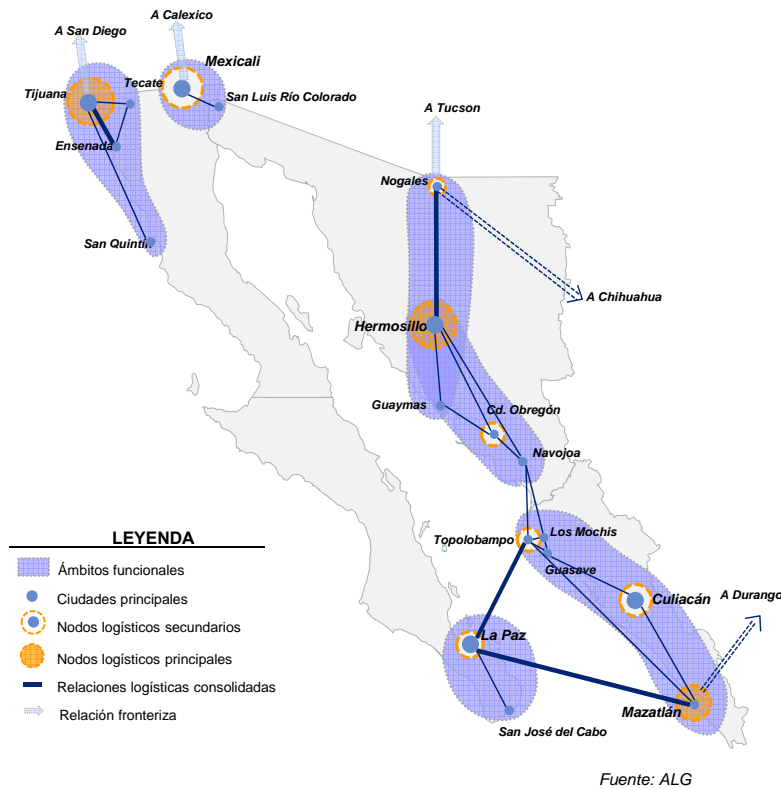


Fig 6 Strategic Logistics Nodes related to the North West Meso Region of Mexico  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

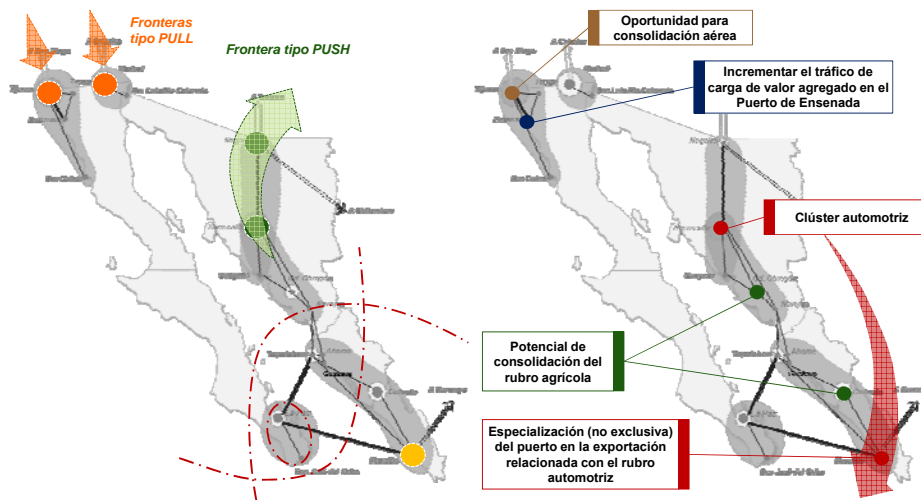


Fig 7 Proposed Strategies for the North West Meso Region of Mexico  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

## 3.4 South-South East Region

The South-South East mesoregion, is an extensive region, comprising the states of Yucatan, Campeche, Quintana Roo, Tabasco, Veracruz, Chiapas, Oaxaca y Guerrero.

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Strategies to improve logistics competitiveness in the South-South East mesoregion are:

- 1) Set logistics support for the urban distribution in the cities of Puebla and Veracruz
- 2) Build Logistics platforms in order to improve regional distribution in the city of Oaxaca, Villahermosa and Merida
- 3) Improving the logistics for supply chains at tourist centers: Cancun and the Riviera Maya, Bays of Huatulco in Oaxaca, and Ixtapa-Zihuatanejo in Guerrero
- 4) Support cluster of artisanal textile industry in Oaxaca
- 5) Support the air cargo at the airport in Cancun
- 6) Improve the logistics at the cross-border to Central America by Ciudad Hidalgo-Tapachula
- 7) Development of value-added activities in the ports of Veracruz and Progreso

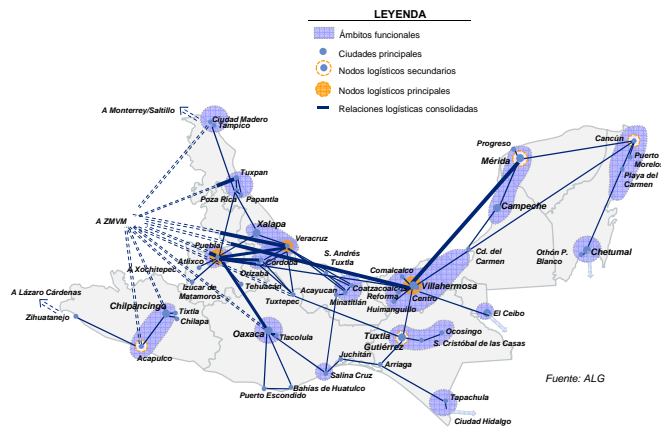


Fig 8 Strategic Logistics Nodes related to the South-South East Meso Region of Mexico  
Source: Comité Técnico de Supervisión (CID) by ALG-Global (2012)

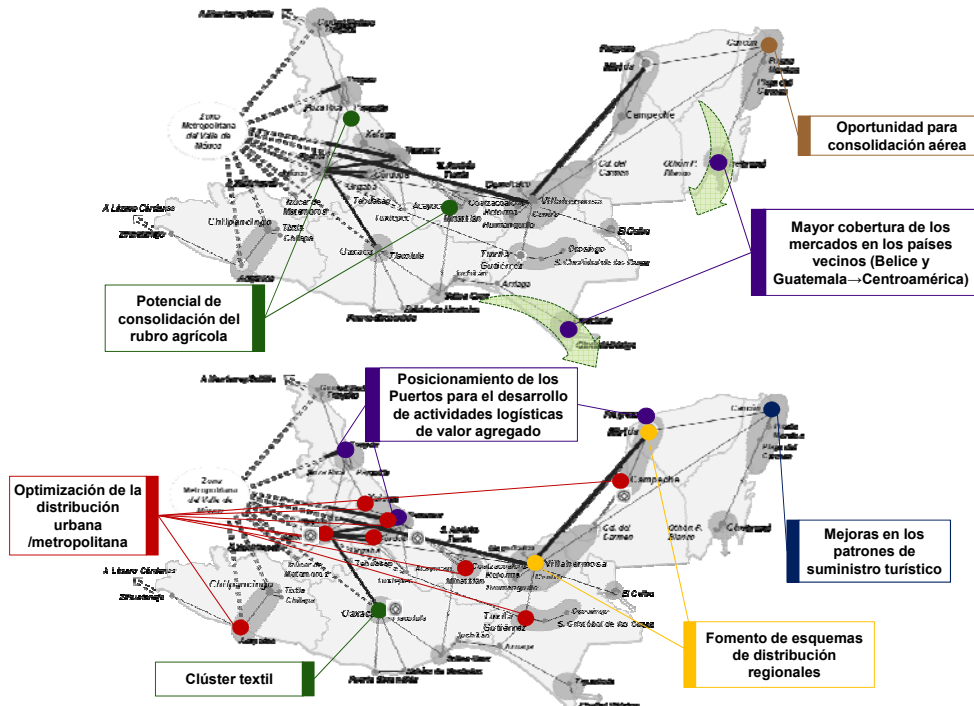


Fig 9 Proposed Strategies for the North West Meso Region of Mexico  
Source: Comité Técnico de Supervisión (CID) by ALG-Global (2012)

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## 3.5 Central West Region

The Central West mesoregion, is an another extensive region, comprising the states of Jalisco, Nayarit, Michoacan, Zacatecas Aguascalientes, Guanajuato, San Luis Potosí and Queretaro.

Strategies to improve logistics competitiveness in the Central West mesoregion are:

- 1) Improve logistics for the Guadalajara metropolitan urban distribution of goods
- 2) Optimization of urban metropolitan and regional distribution in Morelia, Queretaro and the Bajío
- 3) Improving supply chain for tourism in Puerto Vallarta
- 4) Support air cargo at the airports in Guadalajara, Queretaro, Guanajuato and San Luis Potosi
- 5) Transformation of the logistics in the Central Market in Guadalajara
- 6) Build a logistics support for the aerospace industry cluster in Queretaro
- 7) Build a logistics support for the high tech industry cluster in Guadalajara
- 8) Build a logistics support for the automotive and auto parts industry in Aguascalientes, the Bajío and Queretaro
- 9) Support logistics for the export of agricultural products in the Bajío

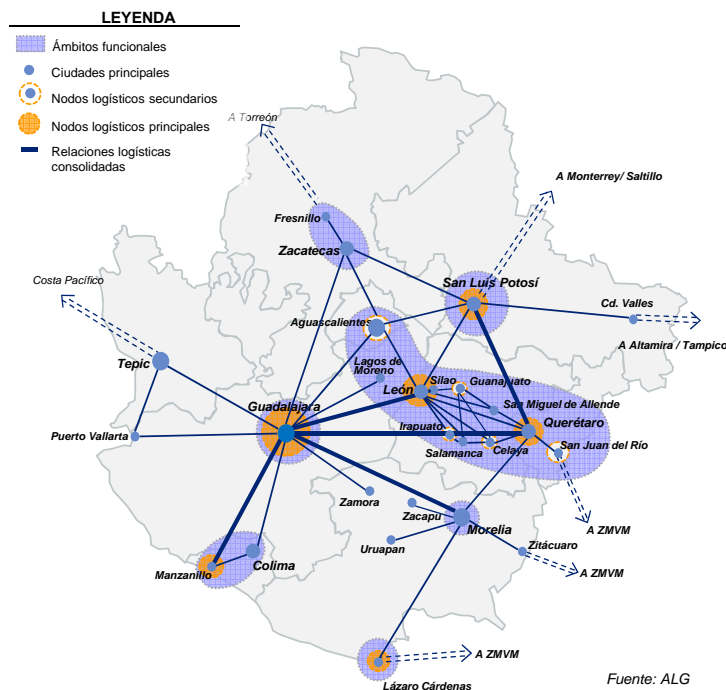


Fig 10 Strategic Logistics Nodes related to the Central West Meso Region of Mexico  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

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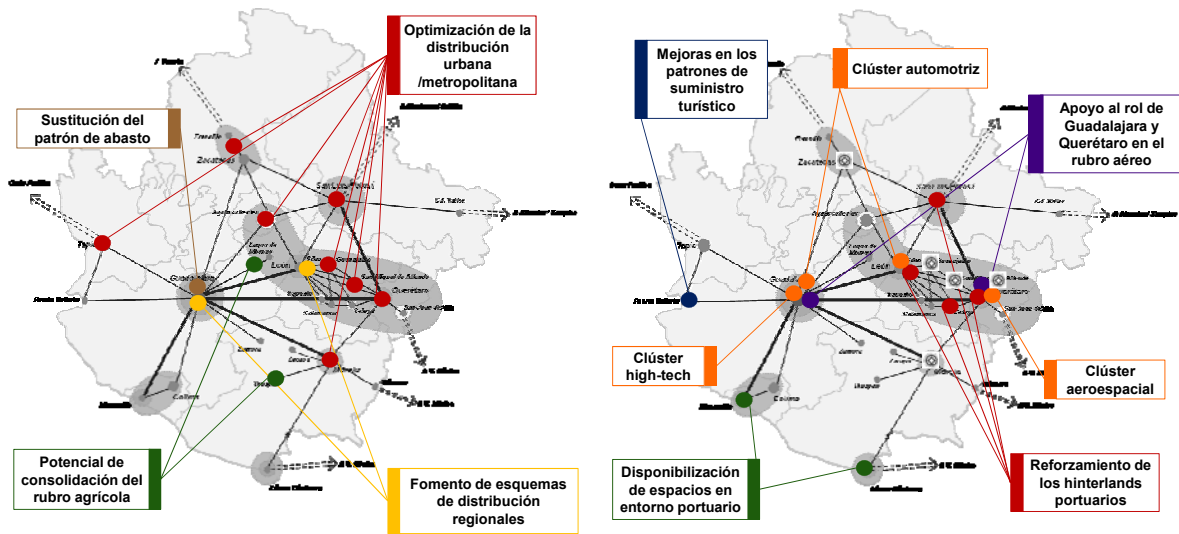


Fig 11 Proposed Strategies for the Central West Meso Region of Mexico  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

For each of the main and secondary strategic logistic nodes in the Central West mesoregion, a survey was conducted to microlocalization LP. The Fig 12 shows an example for the metropolitan area of Guadalajara City, and the Fig 13 shows exploration for a Logistics Port Activity Platform (“ZAL”) at Lazaro Cardenas Port.



Fig 12 Proposed LP in Guadalajara Metropolitan Area in the Central West Meso Region of Mexico  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)



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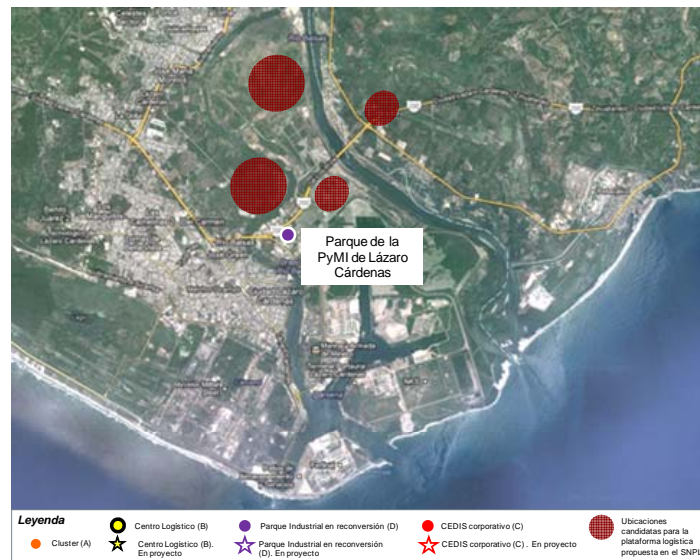


Fig 13 Proposed micro locations for the Logistics Port Activity Platform Lázaro Cárdenas in the Central West Meso Region of Mexico  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

## 4. CONCLUSIONS: IMPLICATIONS FOR RESEARCH & POLICY

### 4.1 Implications for Research

Based on an innovative methodology, different types of Logistic Platforms were proposed in each Strategic Logistics Node identified in each of the planning mesoregions. Research findings look a feasible profile of compatible supply chains, improving logistic competitiveness.



Fig 14 Proposed Mexico National Systems of Logistics Platform  
Source: Comité Técnico de Supervisión (BID) by ALG-Global (2012)

13<sup>th</sup> WCTR, July 15-18, 2013 – Rio, Brazil

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## 4.2 Implications for Policy

The challenge is the formulation of the bases of new public policies to promote the Mexico National Logistics Platform System, in a public-private participation scheme: the federal government, the state governments and the various municipalities with: i) the professional logistics sector (Mexican Logistics Counsel, Council of Supply Chain Management Professionals, ASELDYT), ii) the transportation and logistics services production companies (carriers, transportation infrastructure concessionaries, logistics operators), iii) associations of users of transportation and logistics services (ANTP, etc), iv) executives of logistics companies in the competitive segments of the priority sectors, v) real state promoters in the logistics sector, and vi) the financial sector.

## ACKNOWLEDGES

The authors thank Rodrigo Alarcon (Laboratorio de Transporte, Logística, Tráfico y Sistemas territoriales, Instituto de Ingeniería, UNAM), Rodolfo Hernández (Director of Logistics Competitiveness Agenda at the Ministry of Economy) and David Carrillo (Director of Multimodal Transportation at the Ministry of Transportation and Communications) for the discussion on policy issues, and the ALG-Global technical staff assigned to the Study *Definición de un Sistema Nacional de Plataformas Logísticas y Plan de Implementación*.