

# Developing integrated and sustainable policies on infrastructure, logistics and mobility in Mesoamerica

#### Introduction

On 14 November 2012, the regional workshop on developing integrated and sustainable policies on infrastructure, logistics and mobility in Mesoamerica was held at the Ministry of Foreign Affairs in Costa Rica. The event was organized by the Infrastructure Services Unit of the Natural Resources and Infrastructure Division of the Economic Commission for Latin America and the Caribbean (ECLAC) and the Executive Board of the Mesoamerica Project, in fulfilment of the mandates emanating from the presidential summits of the Tuxtla mechanism and the plan of action on transport and infrastructure agreed by both institutions. The workshop was funded by the Spanish Agency for International Development Cooperation (AECID), in the framework of its cooperation programme with ECLAC.

The objective of the workshop was to present and analyse a number of proposals for designing a regional strategy on logistics and mobility. The participants in the discussions included the Minister of Public Works and Transport, Pedro Castro Fernández, and the Deputy Minister of Infrastructure and Concessions of Costa Rica, José Chacón Laurito; the Minister of Public Works and Transport of Belize, Edmond George Castro; the Minister of Public Works, Transport, Housing and Urban Development of El Salvador, Gerson Martínez, and the Deputy Minister of Transport, Nelson García; the Deputy Minister of Transport of Nicaragua, Franklin Sequeira; the Deputy Minister of Public Works of the Dominican Republic, Enrique Agustín Lied

This issue of the *FAL Bulletin* summarizes the main outcomes of a regional workshop held in Costa Rica in November 2012 that brought together ministers and high-level authorities from the member countries of the Mesoamerica Project.

This workshop is one of the activities being organized by the Infrastructure Services Unit under the project "Strategies for environmental sustainability: climate change and energy", an initiative funded by the Spanish Agency for International Development Cooperation (AECID). This bulletin was preparated by Jorge Lupano, consultant for the Infrastructure Services Unit of ECLAC. For more information please contact trans@cepal.org.

The opinions expressed in this document are those of the author and do not necessarily reflect the views of the organization.



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Guerrero, and Víctor Ventura of the Ministry of Economic Affairs, Planning and Development; the Superintendent for Ports and Transport of Colombia, Juan Miguel Durán Prieto; the Coordinator of Concessions of Mexico, Salvador Lucio Hernández; and Daisy López and Iris Patricia Zaldívar of the Ministry of Public Works of Honduras.

Also in attendance were the Deputy Minister of Foreign Affairs and the Presidential Commissioner of Costa Rica for the Mesoamerica Project, Carlos Roverssi, and the Deputy Presidential Commissioner, Gabriela Castillo; and the Executive Director of the Mesoamerica Project, Elayne Whyte. ECLAC was represented by Hugo Altomonte, Chief of the Natural Resources and Infrastructure Division, Ricardo Sánchez, Chief of the Infrastructures Services Unit, Jorge Mario Martínez Piva, Chief of the International Trade and Industry Unit, Gabriel Pérez Salas of the Infrastructure Services Unit, and Jorge Lupano, ECLAC consultant. Luis Suárez Carreño, General Coordinator of AECID in Costa Rica and representatives of the Inter-American Development Bank (IDB) and the Central American Bank for Economic Integration (CABEI) also participated in the event.

#### Opening of the workshop

The Minister of Foreign Affairs and Worship of Costa Rica, José Enrique Castillo Barrantes, opened the session and recalled that physical connectivity was essential to the integration process. He highlighted that regional cooperation was crucial to trade, investment and economic growth, and that infrastructure must be strengthened to that end. Outlining the achievements of the Mesoamerica Project, he called on member countries to become more involved in efforts to promote the wide portfolio of existing projects.

José Chacón Laurito, Deputy Minister of Infrastructure of Costa Rica, confirmed that there was an urgent need for new investments in infrastructure in order to increase trade via land and maritime routes. He highlighted the follow-up efforts that had been made in relation to the technical studies that had been carried out with ECLAC assistance. The workshop represented another step towards enhancing regional public policies, with its ambitious aim of designing a consensus-based strategy for infrastructure development.

After thanking the host authorities and ECLAC as coorganizer of the event, Elayne Whyte, Executive Director of the Mesoamerica Project, explained that the Project's strategic objectives consisted in the pursuit of the region's physical integration and social development because economic growth would lead to improved social-welfare opportunities. The region had seen significant growth in trade, but that had to go hand in hand with the development of infrastructure, and the priority projects in that regard included those in connection with the Pacific Corridor. She concluded by saying that the workshop aimed to examine the most recent developments in transport policies, emphasizing the regional perspective, and would call on decision makers in Mesoamerica to actively participate in those efforts.

Luis Suárez Carreño, General Coordinator of AECID in Costa Rica, reiterated his Agency's support for Mesoamerican integration and highlighted its successful technical cooperation with the host country and with ECLAC. He agreed that transport infrastructure had become a barrier not only to economic competitiveness, but also to social cohesion at the regional level, since mobility undoubtedly helped to reduce social and territorial inequalities.

During the last intervention of the opening session, Hugo Altomonte, Chief of the Natural Resources and Infrastructure Division of ECLAC, recalled that the workshop was the follow-up to previous meetings organized by ECLAC and the Division, which had sought to analyse integrated and sustainable mobility policies in the region. He acknowledged the Mesoamerica Project and AECID, stating that the event was very important for ECLAC and for promoting an integrated approach to economic development, equality and environmental quality. He said that the proposals being put forward were underpinned by a new political and social commitment, promoting greater integration and convergence of the State, market and society.

Those lines of action had been confirmed at the thirty- fourth session of ECLAC, held in El Salvador in 2012, which had called for structural change for equality. That integrated approach to development meant shifting from a policy design structure based on static comparative advantages to one that emphasized dynamic competitive advantages, promoting technological innovation, scientific development and, above all, environmental sustainability.

Lastly, he said that inequality in the region could be seen in productivity, income, territorial and social gaps, among many others. Well planned investments in infrastructure, particularly those linked with the mobility of goods and people, would promote sound, socially inclusive and environmentally friendly development. He concluded by saying that the workshop would analyse the most appropriate policies for Mesoamerica, which was in keeping with the Commission's overall aims and strategy.

### II. Technical presentations

The presentations described below were given by ECLAC specialists.

## A. Integrated and sustainable policies: towards safe, efficient and competitive logistics

Gabriel Pérez Salas, Associate Economic Affairs Officer of the Infrastructure Services Unit of ECLAC, began by highlighting that how well an economy's logistics functioned directly influenced its level of development and the revenue it could generate. He said that logistics costs (including transport and handling, transfer times, level of inventories, customs services and other procedures, and damage caused during handling) were the principal challenge to regional competitiveness since they had a greater impact on the final price of a product than import tariffs.

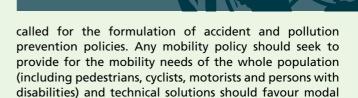
In the case of Central America, intraregional trade would double if appropriate measures were taken to facilitate trade and transport and therefore increasing investments in transport infrastructure was a major challenge for the region. What was more, limited connectivity meant longer transfer times, more stages involved in transportation and excessive inventories of supplies and products. He said that not only did that damage the economy, but it also restricted access to employment and basic services, such as education and health care, and increased pollutant emissions at the local and global levels.

Lastly, he explained that economic growth had increased demand for both business and private travel, which added to the existing congestion on roads and had led to an alarming surge in accident rates and the number of road victims in Latin America and the Caribbean.

He said that road safety was a serious issue which must be addressed with coherent, long-term policies, for example:

- (i) New legislative, regulatory and monitoring frameworks;
- (ii) Comprehensive road safety education and better vehicles; and
- (iii) Appropriate standards for road infrastructure (with regard, for example, to lighting, redesigning crossings and pedestrian segregation).

According to Mr. Pérez, one of the key characteristics of *modal shift* was reducing the share of road traffic in total transportation and encouraging the use of mass public transport instead of private cars in the case of passenger transport. Economic growth had also resulted in an accelerated process of urbanization, which placed new demands on transport infrastructure in cities, and



He went on to explain that co-modality meant planning and combining all the technically and economically feasible alternatives for meeting mobility needs in a socially sustainable fashion. New regional undertakings designed to expand and improve mass transit systems such as subways, light rail, streetcars and integrated bus rapid transit systems were a step towards co-modality.

integration and co-modality.

Lastly, hesaid that thanks to information and communication technologies, intelligent transport systems (ITS) had been developed specifically for planning and managing integrated and co-modal logistics networks. Such systems captured, processed and transmitted information regarding freight, traffic and vehicles, which helped to optimize the number of journeys, thus improving the quality and efficiency of the service. Systematic integration of ITS and subsequent freight traceability would optimize the use of infrastructure, fostering co-modality and reducing congestion, emissions and accidents.

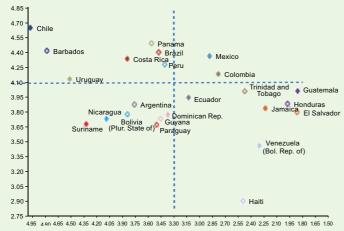
The second part of his presentation focused on a study on the security of inland logistics chains and their impact on competitiveness in Latin America. The report, which had been recently compiled by ECLAC, was based on interviews with stakeholders from the logistics and insurance industries in the region, and identified common characteristics of such chains and their implications for Latin America. In the region, the countries could be sorted into four groups on the basis of the intersection of their scores on the global competitiveness index (GCI) and in relation to the impact of crime and violence on the costs of businesses (see figure 1).

The figure showed that the countries of Latin America and the Caribbean which performed the best in terms of security (x-axis) also tended to be the most competitive (y-axis). He explained that it was easier to see the relationship between the two factors by drawing a vertical line for the average cost of crime and violence for businesses in the region (3.29 on the x-axis) and a horizontal line for the average performance in terms of competitiveness (3.97 on the y-axis), thus creating four quadrants. The most competitive (according to the World Economic Forum (2012-2013)) countries where violence and crime took the least toll on businesses were found in the upper-left quadrant. Seven of the ten most competitive countries in Latin America and the Caribbean were in that quadrant, and those countries also scored above average for the



region in terms of security (crime and violence exacted a lower-than-average cost on businesses compared with other countries in the region). The upper-right quadrant comprised countries that were among the top eleven most competitive at the regional level, but their poor performance in terms of security detracted from their competitive potential. That was the case for Mexico, which stood in fifth place in terms of regional competitiveness and fifty-third at the international level; however, in terms of the business costs of crime and violence, it was 135th out of 144 countries studied. That was also the situation in Colombia (136th at the international level), Trinidad and Tobago (139th) and Guatemala (144th), which had highest business costs associated with crime and violence in the world. The lower-right quadrant comprised the least competitive countries at the international level where crime and violence exacted a heavy toll on businesses, for instance, the Bolivarian Republic of Venezuela, Haiti, El Salvador, Jamaica and Honduras. The final quadrant, on the lower right included countries with a below- average level of competitiveness, but where the impact on businesses of crime and violence was also lower than the regional average.

#### Figure 1 LATIN AMERICA AND THE CARIBBEAN: GLOBAL **COMPETITIVENESS INDEX (Y-AXIS) AND THE IMPACT** OF CRIME AND VIOLENCE ON BUSINESSES (X-AXIS), 2012-2013



Source: Gabriel Pérez Salas, "Seguridad de la cadena logística terrestre en América Latina" Natural Resources and Infrastructure Series No. 161, ECLAC, United Nations.

Note: The scores range between one and seven, with seven representing the best performance

Mr. Pérez explained that the auxiliary lines forming the quadrants were based on the regional averages. Had the global averages been used, only Chile and Barbados would have been in the upper-left quadrant because the business costs of crime and violence in all of the other countries in the region were higher than the global average (World Economic Forum, 2012-2013). The level of security in the Latin American and Caribbean region was therefore the lowest in the world. The first step towards addressing that situation was to raise the awareness of governments in the region and encourage them, as part of their integration processes, to consider the seriousness of the problem and the negative effects that the lack of security in the logistics chain could have on competitiveness.

He said that an integrated approach was needed to deal with increasingly powerful criminal groups and drug traffickers. Methods taken by individual companies, such as hiring private security guards, had proven ineffective and expensive, and had heightened the sense of insecurity among the population. He stressed that supply chain risk management was crucial to competitiveness, not only because of the effect it had on company operating costs, but also owing to its overall impact on the national economy, since it lowered tax revenues, discouraged investment and damaged the image of the countries affected.

According to the approach on integrated and sustainable policies proposed by ECLAC:

- Transport and mobility policies should comprehensive and in line with a sustainable and equitable economic and social development model.
- Transport policies should not differentiate between passenger and freight transport or the geographical context.
- Transport policies must address the mobility needs of all individuals and businesses, regardless of the main mode of transport.

#### B. Policy lines for mobility and logistics

The presentation given by Ricardo Sánchez, Chief of the Infrastructure Services Unit of ECLAC, and Jorge Lupano, ECLAC consultant, was based on a document prepared by José Barbero, also a consultant to the Unit. The aim was to present a general framework for developing integrated and sustainable policies on infrastructure, logistics and transport services, which should be co-modal and systematic. The speakers said that it was an empirical approach that they were putting forward, not an untested theoretical notion or intellectual fancy, and that it was based on successful international experiences that



would lower companies' logistics costs by approximately 40% on average between 2008 and 2020 and lead to a considerable rise in the region's external competitiveness.

Mr. Sánchez stated that, from an ECLAC perspective, transport and logistics policies were an important instrument, above all, for development. Improvements in the movement of passengers and freight had sparked market expansion and productivity, improving economic efficiency considerably and having a significant impact on productive diversification and technological innovation. The rise in revenue and new employment opportunities had increased social inclusion and reduced regional and territorial disparities.

If such policies were to have a positive impact, an integrated and sustainable approach must be adopted during the formulation and implementation process. An integrated approach meant that transport infrastructure and services were interconnected, regardless of whether it was passengers or freight being transported and the mode of transport. However, with multiple jurisdictions and institutional competencies involved, divergent opinions were a major barrier to improving access to and the efficiency of transport services in the region (with divisions between passenger or public service transportation and freight or trade-related transport, and with independent agencies for each mode of transport).

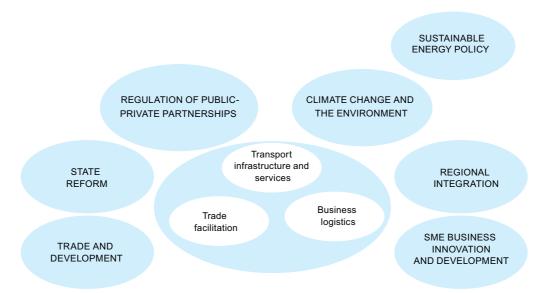
In economic terms, the transport sector was truly a single market. It provided mobility services through various different modes (technical alternatives) which competed against one other to meet the demand for passenger and freight transport. That gave an insight into the logistics of the segment, since users would opt for the cheapest option that met their needs, including the best inventory management and the most efficient combination of modes of transport available.

In his view, the sustainability of policies was linked with the arrangement of the transport system, with the best option being a joint venture. The perspectives of private-sector stakeholders, including users, freight administrators and handlers were essential in such a context. However, since transport was a public good, governments were responsible for providing the infrastructure for the service, as well as regulating access and use by private stakeholders, and planning and funding investments. It was therefore down to the governments to prevent some of the negative externalities associated with increased mobility, such as an increase in energy consumption, environmental damage, crowding, traffic congestion and accidents.

He said that public intervention should result in the alignment of the many existing fragmented policies in order to create a cross-cutting and multidisciplinary agenda (see diagram 1).

He then provided a brief overview of the situation in Mesoamerica on the basis of several international indicators, which were organized into the key dimensions of logistics performance, as shown in diagram 2.

Diagram 1
LOGISTICS, COMPETITIVENESS AND SUSTAINABLE DEVELOPMENT AGENDAS



#### Diagram 2 KEY DIMENSIONS OF LOGISTICS PERFORMANCE IN MESOAMERICA

#### Roads

- Roads underperform as many routes are unpaved and existing infrastructure is not adequately maintained.
- · There are two challenges: raising the capacity on certain routes to deal with increasing traffic flows and solving infrastructure deficit problems (quality of infrastructure and service provision in rural areas).

#### Airports

- · Concessions in airports have shown good results interms of performance.
- · Air transport's share in export freight is low. Limited market scope pushes rates up considerably.
- · The region's export potential for highly perishable goods (fruits, flowers) has led to the creation of stores and cold rooms at airports.

#### Ports

- With the exception of Panamá, the region has several small-scale ports, most of which are run by public operators with low performance levels.
- · The fragmented structure of the sector at the regional level, in addition to dredging problems and the lack of modern facilities, means that the area can only receive certain vessels. usually feeder services for other ports.

#### Management of borders and crossing points

- Several studies on border control in the region highlight that while progress has been made in terms of integration agreements, there are still challenges in terms of the effective implementation of improvements.
- The growth of intraregional trade and the rise of international traffic have led to congestion at border crossing points which do not have the appropiate infrastructure to support the current flows of traffic.

#### Land transport services

- · Trucks play a leading role in the domestic and intraregional flow of freight
- There are no hard data on performance but the overall levels of efficiency are estimated to be low.
- · Freight security is a region-wide problem that has a major impact on the costs of transport. resulting in a preference for air or maritime transport to prevent theft.

#### **Business logistics**

- There are marked contrasts in the logistics management of the value chains in the region.
- · Major domestic or foreign-owned corporations (for example in the maquila industry or the trade in bulk agricultural commodities) practise integrated logistics chain management, achieving high levels of efficiency.
- Small-scale producers and businesses do not have the scale or know-how needed to achieve efficient logistics management.

Source: Infrastzructure Services Unit, ECLAC, 2012.

In that context, Jorge Lupano stated that having an overall vision of the national economy's potential opportunities and selecting an appropriate development model was the starting point for policymaking since mobility, logistics and the associated infrastructure were not an objective in themselves. He said that the national vision for development, as well as an understanding of the current situation and projections for the future, should be carefully analysed to establish sectoral rather than independent goals, which tended to be based on static projections of demand. Diagram 3 gave examples of how the main pillars of policy could give rise to specific programmes and projects.

#### Diagram 3 MAIN PILLARS OF POLICIES ON INFRASTRUCTURE, LOGISTICS AND MOBILITY

infrastructure networks

- -Complete trunk-road and rail networks
- -Improve rural roads
- -Create physical connections for co-modality

Adapt regulations for sustainable transport

- -Favour social efficiency in modal assignment: charge users according to the total cost, formalization documentation, etc
- -Develop public-private partnerships (PPP) where appropriate: ports, airports, some roads
- -Allocate funding with care

Support the development of private stakeholders

- -Support small and medium-sized enterprises (SMEs) in organizing the supply chain -Support the professional development of operators and modernization of fleets.
- encourage better operational management -Develop a network of logistics platforms

Improve the performance of institutions

- -Make further improvements to border management
- -Introduce road safety programmes
- -Review the performance of public institutions in terms of their role in value chains
- -Facilitate transport
- -Implement intelligent transport systems

Source: Infrastructure Services Unit, ECLAC, 2012

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According to Mr. Lupano, the proposals could be sorted according to their impact, use of public resources and the complexities involved in implementation, grouping activities into projects under a single agenda.

He said that the regional perspective being presented at the workshop should be taken into account. The workshop was a great opportunity to consider how a wider market would make national projects more attractive in terms of their social returns because they would increase competitiveness. Moreover, reaching consensus on a regional strategy could give rise to new national projects.

From an ECLAC perspective, the key to success lay in designing projects in the light of the new paradigm for integrated and sustainable logistics and mobility infrastructure services.

# III. Presentation and discussion of ideas proposed by the ministers and high-level representatives present at the workshop

The discussion that followed the presentations was moderated by Jorge Mario Martínez Piva, Chief of the International Trade and Industry Unit of ECLAC. Elayne Whyte, Executive Director of the Mesoamerica Project, said that the workshop was an opportunity for participants to exchange opinions without taking stances and encouraged participants to explore the possibilities and scope of logistics and mobility policies from a regional perspective.

Mr. Lied Guerrero of the Dominican Republic said that the large number of stakeholders involved made things particularly complicated in his country. He highlighted operators' market power, particularly in the maritime transport sector, as a specific factor in logistics costs. Mr. Chacón Laurito of Costa Rica described the difficulties regarding coordination between institutions in following up on policies; however, he confirmed his country's willingness to participate in all regional coordination initiatives, as it had previously, for example, by providing technical specifications for building roads in the case of the Pacific Corridor.

The Minister of Public Works, Transport, Housing and Urban Development of El Salvador, Gerson Martínez, stressed the complementarities between the economies of the region, stating that no nation could develop in isolation. He called on the region to move from theory to practice, by entering a new phase in which it would formulate and implement a regional policy framework with guaranteed long-term funding. He stressed that technical cooperation agencies and international lending institutions, and not only governments, should be involved in that process.

Mr. Hernández of Mexico explained that the pace and destination of investments in logistics infrastructure in his country had been established by the economic integration process with the United States, and that the private sector had been involved in a broad consultation process. The representatives of Honduras described the progress made with respect to their national plan and the advantages of some of the changes that had been

made to the legal framework.

Mr. Durán Prieto of Colombia said that institutional committees and the main stakeholders in logistics chains were responsible for encouraging multimodal transport. Mr. Sequeira of Nicaragua said that the transport plan in his country, which integrated all modes of transport, was the second priority on the national agenda after the human development plan. Minister Edmond Castro of Belize described some of the difficulties facing the transport sector in his country.

Ricardo Sánchez of ECLAC noted that several participants had expressed a desire to turn words into actions and to create a clearly-defined, targeted policy framework. He proposed asking the Council of Ministers to task ECLAC with drafting a tentative framework for regional policies on mobility and logistics, which would be coordinated by the Executive Board of the Mesoamerica Project, with the participation of its Inter-Agency Commission. That proposal was approved unanimously by the country representatives present.

# IV. San José Declaration and planned follow-up to the workshop

At the end of the workshop, all of the country authorities present thanked the Ministry of Foreign Affairs of Costa Rica for its hospitality and the organizers of the event. The workshop culminated with the adoption of the San José Declaration, which defined the following strategic actions as follow-up to the regional workshop on developing integrated and sustainable policies on infrastructure, logistics and mobility in Mesoamerica:

- 1. A document would be prepared containing the policy lines on logistics analysed at the meeting, highlighting, in particular, the implications for member countries and Mesoamerican integration.
- 2. ECLAC, in coordination with the Inter-agency Task Force, would design a regional policy framework on logistics and mobility. ECLAC, in collaboration with the Executive Board of the Mesoamerica Project and the Council of Ministers, would prepare a special document on the above-mentioned framework, to be shared with all of the country authorities.