

Asia-Pacific Economic Cooperation

APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Infrastructure Facilities

# **Main Report**

15-16 August, 2008 Lima, Peru

APEC Economic Committee October 2008 EC02/2008T





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# Contents

		<u> Pág.</u>
Introd	luction	3
I.	Background	4
II.	Main objectives	6
III.	Assessment	7
IV.	Beneficiaries	8
V.	Initial Development of the Seminar	9
VI.	Attendance and Participation	10
VII.	The Program	10
VIII.	Transport Infrastructure Regulation: Institutional and Economic	12
	Issues Regulation in Transport Infrastructure in the APEC agenda Regulation and Institutional Framework Economic Regulation (Tariffs and Charges)	12 12 19
IX.	Best Practices in Transport Infrastructure Regulation Best Practices in Ports Regulation Best Practices in Airports Regulation Best Practices in Railroads Regulation Best Practices in Roads Regulation	21 21 28 31 32
X.	Multilateral View on Transport Regulation	35
XI.	Concluding Remarks	37
XII.	Policy Recommendations	38
Anne	x 1: List of Participants	42
Anne	x 2: List of seminar's speakers	46

# Introduction

The Asia-Pacific Economic Cooperation (APEC) is an inter-governmental forum whose purpose is to facilitate economic growth and prosperity, cooperation, trade and investment in the Asia-Pacific region, and operates on the basis of non-binding commitments, open dialogue and equal respect for the views of all participants regardless of the size of their economy.

From January to November 2008 Peru is hosting a series of APEC meetings focusing on areas of interest to the nation, with over 100 days of ministerial, officials-level and business-group meetings held across the economy.

The APEC Peru 2008 year will culminate with the APEC Economic Leaders Meeting in November, the most significant international gathering of an economic kind that Peru has hosted. The leaders will address issues of strategic importance that affect the region, and at the conclusion of discussions, leaders will issue the APEC Economic Leaders Declaration, which will contain the shared views of leaders and set the strategic directions for APEC for the next years.

Among the many issues that APEC leaders are going to address, transport and transport regulation is certainly a strategic one, for it is the spinal cord that will allow actual integration among the economy members. In that sense, the Peruvian Authority on Transport Infrastructure Regulation, OSITRAN (Organismo Supervisor de la Inversión en Infraestructura de Transporte de Uso Público), proposed and was granted the organization of the APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Infrastructure Facilities.

# I. Background

In the 1990 more than 120 developing countries introduced private investment in infrastructure schemes in the public utilities. Traditionally, the public utilities –electricity, gas, water services, telecommunications and transport – were reserved to o the State. For more than a century, state ownership of public utilities was the preferred option in most countries, including developing ones. Private monopolies of utilities are not attractive given the possible threat of abuse of market power. More recently, however, in the face of evidence of "state failure", the emphasis in public policy has switched from direct state ownership to private ownership with state regulation.

Public utilities have been associated with economies of scale and scope in production cost that rule out competition in the market. These are characteristics of "natural monopoly", this condition justifies he economic regulation through an independent agency.

In the context, many countries introduced political and economic reforms to define the new role of the State and the access to the private sector in the provision of utilities. The reforms, the independence of the regulatory agency, the regulatory procedures applied to solve regulatory problems in ports, airports, roads and railways in different countries, demand a debate to share experiences.

Whereas big advances have been show, the performance of new regulatory state remains under-researched, especially in the context of developing countries with their own peculiar economic and social problems. Where research has been conducted, a number of regulatory failures have been exposed. Given these conditions, it is important to improve regulatory regimes and to build institutions and skills to supervise regulated utilities.

Efficiency in markets related to transport facilities (ports, airports, railways and roads) is relevant within an international trade context. Many economies have high logistics costs; this context affects competitiveness in the whole region. According to World Bank publications, Latin American economies logistical costs are twice as high in comparison with developed APEC economies. This difference in transport facilities efficiency in the APEC economies in related to institutional and regulatory aspects, among other factors.

The efficient operation in markets regarding transport infrastructure facilities is a field that is closely related to Regulatory Reform and Competition Policy issues; given that in some cases transport infrastructure is operated under competition conditions; while in natural monopoly markets, the application of regulatory tools is necessary in order to guarantee efficiency and quality in the supply of these services. Economic literature regarding regulation of transport infrastructure facilities is relatively scarce compared with other regulated sectors (for example, energy or telecom). The lack of information about compared experience and theoretical developments in this field, justified the promotion of discussions, in which academics, regulators and ministry officers, among others, will have the opportunity to expose case studies related to the institutional setting of transport infrastructure regulating; regulatory experiences on setting tariffs, access, supervision of quality standards, etc.

According to the APEC-OECD Integrated Checklist on Regulatory Reform which was endorsed by APEC Ministers in 2005, regulatory reform refers to changes that improve regulatory quality to enhance the economic performance, cost effectiveness, or legal quality or regulations and related government formalities. Regulatory, competition and market openness policies are key drivers for a successful and coherent regulatory reform.

Said Checklist is meant to serve as a voluntary tool that member economies may use to assess their respective efforts in regulatory reform, competition policy and law implementation as well as market openness policies. It has been endorsed through the political bodies of both APEC and the OECD. In November 2005, the 17th AEC Ministerial Meeting in Busan, Republic of Korea, provided endorsement to the Checklist, and their Joint Statement instructed Officials to continue to explore ways of working with the OECD to disseminate the Checklist as well as to assist economies in utilizing this tool.

The other seminars in Gyeongju, Republic of Korea (2005)<sup>1</sup> and Hoy An, Vietnam (2006)<sup>2</sup> were held for encouraging this checklist. In those events member economies that have extensive experience in applying the Checklist shared the results of their implementation for encouraging its further utilization.

<sup>&</sup>lt;sup>1</sup> APEC-OECD Symposium on Structural and Regulatory Reform.

APEC-OECD Joint Session "Self-Assessment by Member Economies Using the APEC-OECD Integrated Checklist on Regulatory Reform".

Following that, Indonesia as both APEC member economy and an observer of OECD/COMP, held the seminar "APEC Seminar on Utilizing the 'APEC-OECD Integrated Checklist on Regulatory Reform' in the Competition Policy and Deregulation Aspects (CTI 05/2007T)" on June, 2007 in Jakarta, Indonesia. A theme of this seminar was that regulatory reform is a central element in the promotion of open and competitive markets, and as such it is key issue to economic efficiency and consumer welfare.

Later on, Leaders' Agenda to Implement Structural Reform toward 2010 (LAISR 2010) in the Hanoi Declaration of the 14<sup>th</sup> APEC Economic Leaders' Meeting and the joint statement of the 18<sup>th</sup> APEC Ministerial Meeting (AMM) in Hanoi, encouraged APEC member economies to facilitate information sharing on policy direction for market-oriented economic reform through seminars.

While APEC member economies, through the CPDG and EC, have made important progress towards the assessment of regulatory reform impact on a transversal / horizontal basis, including all sectors of the economy, it has been useful to carry this evaluation on a sector by sector basis in order to be able to address specific characteristics of each sector.

Given the importance of transport infrastructure on competitiveness of the economies, this seminar has contributed to the understanding of the main regulatory issues that should be considered in the policy agenda of this sector in APEC economies.

# II. Main objectives

The project was proposed as a two-day seminar which would be held in Lima, Peru, in August, 2008, as a parallel event to the Senior Officers Meeting (SOM III). The purpose of the seminar was to facilitate information sharing on regulatory and competition policy experiences in transport infrastructure among APEC member economies; in order to identify, evaluate, apply, and improve best practices in regulation and promotion of efficiency in transport infrastructure in the region.

The project directly responded to the priorities set by APEC leaders because in the Hanoi Declaration at the 14th APEC Economic Leaders' Meeting, held in Viet Nam in 2006, the leaders stated the "need to intensify work on structural reforms and took note of the progress made in carrying out the Leaders' Agenda to Implement Structural Reform toward 2010 (LAISR 2010)". Furthermore, at SOMI 2007, structural reform was recognized to be a key priority for APEC's agenda.

Additionally, in the joint statement of the 18th APEC Ministerial Meeting, Ministers acknowledged the efforts to implement APEC Work Plan and instructed the Economic Committee to develop a detailed and ambitious work program to continue progressing in the structural reform agenda. Hence, as requested by ministers, the Economic Committee stated in its first meeting in 2007 that they will develop a multi-year work program for each of the 5 priority areas of the LAISR 2010. Lastly, ministers also "encouraged APEC member economies to facilitate information sharing on policy direction for market-oriented economic reform through seminars".

Therefore, in response to the directions from leaders and ministers to contribute to the activities related to progressing on structural reform in APEC, Peru proposed to organize a seminar on "Best Practices on Regulation and Promotion of Efficiency in Transport Infrastructure Facilities". The seminar was aimed to facilitate information sharing on regulatory and competition policy experiences in transport infrastructure among APEC member economies.

The main objectives of the seminar were:

- Exchange experiences and share views and information on regulatory and competition policy issues related to transport infrastructure in APEC Economies.
- Identify best practices on regulatory issues in transport infrastructure.
- Identify possible activities and discuss measures for promoting further improvements in transport infrastructure regulation in the region, including capacity and institutional building activities and trade competitiveness.

# III. Assessment

With reference to each of the aforementioned objectives, OSITRAN provided the current status and expected end-of-project target, so that the success of the project could be measured over the short and medium term.

Efficiency in markets related to transport facilities (ports, airports, railways and roads) is relevant in an international trade context. Many economies have high logistic costs. This context affects the competitiveness of the whole region. According to World Bank publications, Latin American economies have twice as high logistical costs compared to developed APEC economies. This difference in efficiency in transport facilities in the APEC economies is related to institutional and regulatory aspects, among other factors.

The efficient functioning of markets related to transport infrastructure facilities is a field that is closely related to Regulatory Reform and Competition Policy issues; given the fact that in some cases, transport infrastructure is operated under competition conditions; while in others,

given the configuration of the industry structure (natural monopolies), the application of regulatory tools is necessary in order to guarantee efficiency and quality in the supply of these services.

Economic literature about regulation of transport infrastructure facilities is relatively scarce compared to other regulated sectors (for example, energy or telecommunications). The lack of information about compared experience and theoretical developments in this field, justifies the promotion of discussions, in which academics, regulators, ministry officers, among others, have the opportunity to expose case studies related with the institutional setting regarding transport infrastructure regulating, regulatory experiences about setting tariffs, access, supervision of quality standards, etc.

While APEC member economies, through the participation and recommendations of the CPDG and the EC, have made important achievements towards the assessment of regulatory reform impact on a transversal/horizontal basis, including all the sectors of the economy, it may be useful to carry this evaluation on a sector by sector basis in order to be able to address specific characteristics of each sector.

In this case, given the importance of transport infrastructure on competitiveness of the economies, this seminar would contribute to the understanding of the main regulatory issues that should be considered in the policy agenda of this sector in APEC Economies.

# IV. Beneficiaries

The directly benefited from this seminar would be government officials and agencies responsible for regulatory and competition policy in transport infrastructure. Additionally, other participants as experts on regulatory and competition policy, APEC economies' participants (SELI, CPDG and EC members) and academics would benefit from information sharing and discussions. Participants will benefit from information and experience sharing that will take place in the seminar. This will enable them to deepen their understanding on current regulatory practices and learn from other Economies' experiences. Additionally, an output of this seminar would be the identification of best practices on regulatory issues in transport infrastructure.

Also, the seminar was intended to contribute to the APEC Trade and Investment Liberalization and Facilitation. Transport infrastructure (roads, airports, seaports and rails) plays an important role as a part of the logistic chain and international trade. Indeed, the promotion of the efficient design, operation and investment in transport infrastructure facilities constitutes one of the key factors that influence competitiveness of APEC economies.

From the perspective of public policy, the objective of APEC economies' competitiveness and the attraction of investment to this sector can only be achieved by setting a transparent and predictable regulatory framework. In this sense, the seminar will contribute to continue the good efforts that are being carried in the field of transportation and infrastructure specifically commended by the Osaka APEC Economic Leaders' Declaration for Action in 1995, in order to promote investment liberalization and facilitation, to narrow the disparities within the region, and to achieve growth and prosperity for the region as a whole.

Additionally, this seminar will contribute to the competition policy objective of promoting efficient operation of markets, specifically in transport infrastructure, which will help create a competitive environment and increase consumer welfare. This seminar will promote dialogue and exchange of information among APEC Economies with regards to experiences and best practices on regulation and promotion of efficiency in a specific sector: transport infrastructure. Finally, this seminar would contribute to encourage APEC Economies to implement APEC Principles to Enhance Competition and Regulatory Reform.

# V. Initial Development of the Seminar

The project profile was initially presented to the CPDG meeting held in Canberra, Australia, during the first quarter of 2007. The suggestion was to include it in the structural reform agenda and present it at the Economic Committee. The Transport Working Group and Investment Experts Group have also been consulted. (Their comments would be considered for the improvement of the project proposal).

Furthermore, Peru's proposed seminars on "Best Practices in Regulation and Promotion of Efficiency in Transport Infrastructure Facilities" and on "Recent Trends on Investment Liberalization and Facilitation in Transport and Telecommunication Infrastructure", which were held in the margins of the SOM III, were checked in order to ensure that they complemented each other and to avoid any occurrence of duplication; and to coordinate the logistic and timing of the two events. Coordination and contact was maintained during the various stages of development of these projects in order to ensure maximum benefit of APEC Economies.

# VI. Attendance and Participation

The Seminar was attended by government officials in charge or who had an interest in competition and regulatory policies. Additionally, academics also attended the event as well as representatives of private and State owned companies that are working under concession contracts of transport infrastructure and are subjected to the regulation policies applied by OSITRAN in Peru.

A list of participant to the seminar is presented in Annex 1.

# VII. The Program

Selected participants, representing APEC member economies were encouraged to make presentations of their experiences in transport infrastructure regulation. Guest speakers (experts from international institutions, academics, etc.) were also invited to present valuable studies regarding transport infrastructure regulation.

The seminar met 16 speakers: 14 from economies member and two from International Organizations. Each economy selected (developed and developing) will nominee one speaker (academic or government official). Three speakers were from developed economies (Australia, New Zealand and Japan) and the rest from China, Hong Kong, Indonesia, Vietnam, Russia, Thailand, Papua New Guinea, Chile and Peru (2). A list of seminar's speakers is presented in Annex 2.

Discussions were conducted in a case study basis and were aimed to develop best practices in regulatory and competition policy issues for transport infrastructure.

The topics in the program schedule were as follows:

August 15<sup>th</sup>, Day One

Time Table

Topic

#### Main Report

Time Table	Торіс
9:00 - 9:30	Opening remarks
9:30 – 10:30	Why regulate transport infrastructure? During this part there will be a discussion about the previous assessment of economic regulatory intervention, made by authorities, in transport infrastructure sector. Issues related with competition in markets related to transport infrastructure, the evaluation of competition degree in this market, the role of the service over the logistic chain, among others, The panel shall conclude with a set of best practices regarding the previous assessment of introducing economic regulation in transport infrastructure.
	BREAK
11:10 – 12:10	Institutional Framework What are the main characteristics that should be taken into account in the design of the institutional setting of transport infrastructure sector? What type of institutional setting guarantees transparency, accountability and predictability? What is the degree of autonomy that should be awarded to the authority in charge of regulating transport infrastructure?
	LUNCH
3:00 -4:30	The Economic Regulation of Transport Infrastructure (tariffs and charges) What are the main pricing tools used by authorities for the regulation of tariffs and charges in transport infrastructure? What are the strengths and weakness of the mechanisms used, with respect to efficiency goals in the provision of transport infrastructure services? The panel shall conclude with a set of best practices for setting and resetting
	tariffs and charges in transport infrastructure. Additionally, will be reviewing the main experiences of access to essential facilities.
5:10 - 6:00	Conclusions and closing session
5.10-0.00	

# August 16<sup>th</sup>, Day Two

Time Table	Торіс			
9:00 - 9:15	Introductory session			
9:15 – 10:55	<ul> <li>Best Practices in the regulation of ports.</li> <li>In this Panel, the economies will present their experience regarding the use or regulatory tools in order to guarantee efficiency in the provision of ports services. The panel shall conclude with a set of best practices regarding the promotion of investment and the use of regulatory tools in ports</li> </ul>			
	BREAK			
11:40 – 12:40	Best Practices in the regulation of airports. In this Panel, the economies will present its experience regarding the use of regulatory tools in order to guarantee efficiency in the provision of airport services. The panel shall conclude with a set of best practices regarding the promotion of investment and the use of regulatory tools in airports			
	LUNCH			
3:00 -3:30	Best Practices in the regulation of rails. In this Panel, the economies will present its experience regarding the use of regulatory tools in order to guarantee efficiency in the provision of rail services. The panel shall conclude with a set of best practices regarding the promotion of investment and the use of regulatory tools in rails			
3:30 - 4:40	Best Practices in the regulation of roads. In this Panel, the economies will present its experience regarding the use of regulatory tools in order to guarantee efficiency in the provision of road services. The panel shall conclude with a set of best practices regarding the			

Time Table	Торіс			
promotion of investment and the use of regulatory tools in roads				
BREAK				
5:15 - 6:15	Analysis Panel on Best Practices in Regulation in Transport Infrastructure Facilities			
6:15	Concluding remarks			

# VIII. Transport Infrastructure Regulation: Institutional and Economic Issues

#### Regulation in Transport Infrastructure in the APEC agenda

In his opening remarks, Mr. Lincoln Flor, Project Overseer and official at OSITRAN, Peru's authority in transport regulation, emphasized that regulation and efficiency in transport infrastructure for trade is becoming a major issue in the bilateral and multilateral relations among nations. He added that APEC members have placed regulatory reform, including transport infrastructure, as a priority and strategic agenda in the coming years, in the spirit of regulatory reform from the Agenda of APEC leaders (as stated in the Leaders Agenda in Implementing Structural Reform – LAISR).

Based on the agenda agreed by the APEC Leaders on regulatory reform, Mr. Flor said that it is clear that economic policy reform is becoming a global agenda to improve people's welfare. Therefore, it will become a duty as APEC stakeholders to promote the process of economic regulatory reform within the Asia Pacific area.

#### **Regulation and Institutional Framework**

During the seminar, key issues related to regulatory reform in transport facilities were discussed, and the institutional cooperation was set up. The main topics on the first day included: Why regulate transport facilities; institutional framework and the importance of the degree of autonomy of the regulatory agency; and the institutional setting guarantees transparency, accountability and predictability; and, economic regulation for setting are resetting tariffs and charges, what are the main pricing tools used by authorities. On the second day, four panels of experts presented their experiences in the use of regulatory tools in order to guarantee efficiency in the provision of ports, airports, railways and road services. The panels concluded providing a set of best practices and lessons learned.

The first presentation was delivered by Ms. Hae Kyong Holdaway of the Australian Treasury, who provided an overview of Australia's recent experience in the regulation of transport infrastructure, explaining that infrastructure policy in Australia has broadly shifted away from government provision of almost all nationally significant infrastructure assets and towards facilitating competitive markets where competing public and private suppliers can efficiently provide infrastructure services. Her presentation covered a range of regulatory and structural issues on Australia's airports, ports, road, and rail infrastructure sectors.

Ms. Holdaway started by explaining that the recent strength of Australia's economic performance represents a marked turnaround from a lengthy period of relatively poor performance during the 1970s and 1980s. Since the 1980s, Australian governments embarked on a program of trade liberalization and other structural reforms, commencing with a lowering of barriers to foreign competition in goods and financial markets. Furthermore, in 1995, Australian governments agreed to a new National Competition Policy (NCP), with an aim to achieve efficient provision of goods and services through reforms designed to promote competition within markets and competitive neutrality across markets. NCP was based on an explicit recognition that competitive markets will generally serve the interests of consumers and the wider community, by providing strong incentives for suppliers to operate efficiently, be price competitive and innovate.

Ms. Holdaway informed that the Australian Government is currently developing a new integrated National Transport Plan that ensures Australia's road, rail, air and sea transport systems operate as an integrated network. Among a range of initiatives, the aforementioned plan will comprise an expanded road pricing reform program and measures to tackle urban congestion. The policy will be underpinned by a number of guiding principles which include encouraging competitive national transport markets (supported by nationally consistent regulation), efficient infrastructure pricing, appropriate private sector involvement in transport provision, and equitable access for users.

The Australian representative also stressed that regulation serves a vital role because transport services play a pivotal role that is essential for economic performance and quality of life. She added that regulating transport can have various public interest objectives such as safety (speed limits, air safety requirements); social objectives (airport curfews); environmental (fuel efficiency standards); and efficiency (price regulation, third party access).

After presenting a set of examples on how the Australian government is carrying out the reform of the transport regulation, the Australian representative concluded her presentation by stating that transport regulation can be useful but needs careful consideration; also that cost and benefits need to be evaluated to determine whether there is a net community benefit; and that regulation must be compatible with the market and must adapt with changes in the market.

The second and third speeches were dedicated to the Institutional Framework and were delivered by Mr. Bambang Susantono of Indonesia and Mr. Juan Carlos Zevallos of Peru.

Mr. Susantono, Ph.D., Deputy Minister for Infrastructure and Regional Development Coordinating Ministry for Economic Affairs of Indonesia, presented the reforms that are being carried by his government in the legal and institutional transport framework in order to modernize the sector and attract new investments (see Figure No.1). The presenter pointed out the vital role that transport plays in his economy, especially by air and sea, given the fact that Indonesia is an archipelago (there are 560 seaports and 187 airports). Since the financial crisis of 1997 which primarily affected the East Asian economies, investment in transport in Indonesia has fast declining and has half-reduced in nominal terms, compared to pre-crisis conditions.

As a result, Mr. Susantono added, the competitiveness of the economy is low. According to the Global Competitiveness Report 2007-2008 of the World Bank, Indonesia ranks 91 out of 131 countries in overall infrastructure, and by type of transport, it ranks 62 in both railway and airport infrastructure quality, and 113 both in roads and port infrastructure quality. To improve this situation, the government has increased its investment in infrastructure. Nonetheless, there is an annual funding gap of 4% to 5% of the GDP and a budgetary constraint that has led to understand the need to resort to private participation. The aforementioned reform has set a series of new rules in the transport sector such as the responsibility sharing with local governments, the separation of the regulator and operator functions, the prohibition of monopoly practices, the tariff adjustment is part of the concession agreements, and the participation of the private sector as part of the investment policy. The reform also includes the sanctioning of new laws on each transport activity, and the ones corresponding to road, railway and sea transport have already being revised, while land and air transport are still pending and it is expected that they will be in effect this year (they are currently under discussion with the Parliament).





**Source**: Susantono, Bang. Reshaping Transport Institutional Framework – Indonesia. Presented in APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Facilities Lima, Peru – August 15, 2008.

The reform has also established a number of agencies which are aimed to facilitate the coordination between the sectors involved in transport development. Such are the National Committee for Acceleration of Infrastructure Provision (chaired by Coordinating Minister for Economic Affairs), the Project Development Facility to prepare the Private-Public Partnership Project in Infrastructure, the Risk Management Unit (under the Ministry of Finance), the Guarantee Fund, and the Indonesia Infrastructure Fund.

Mr. Zevallos, Chairman of the Board of OSITRAN, explained how the aggressive institutional reforms, also on regulatory issues, helped to

reshape the transport framework in Peru throughout the 90's. These reforms provided a new set of rules and roles for the State, which could not be both a player and a referee anymore, as well as a new legal framework aimed to prompt private participation, including the sanctioning of the Law of Foreign Investment Promotion (no discrimination for foreign and local capitals); the Law for the Promotion of Private Investment in State Companies, which helped the launching of a successful privatization process; a free market regime; and private initiatives and investment were promoted and guaranteed. Those reforms were written into the new Constitution approved by a nationwide vote back in 1993.

Furthermore, the State also sanctioned the creation and implementation of market regulatory bodies. To date, five of those institutions operate as regulators in their respective sectors (See Figure No.2): The Competition Agency (INDECOPI); OSIPTEL (telecommunications); OSINERGMIN (energy and mining); SUNASS (water and sanitation); and OSITRAN (public transport infrastructure).

Figure No.2 Time-Line: Regulatory Reform Events in Peru (1990 – 1998)



**Source**: Zevallos, Juan Carlos. OSITRAN's Institutional Framework. Presented in APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Facilities Lima, Peru – August 15, 2008.

As for the latter, Mr. Zevallos described its role as the agency in charge of supervising the fulfillment of concession contracts, ensuring the calculation and establishment of efficient tariffs (in economic and social terms), and limiting the exercise of monopolistic power. That way, OSITRAN strives to protect impartially and objectively the interests of the State, the operators, and the users and consumers. While OSITRAN is in charge of economic regulation, that is, tariffs and access regulation to transport infrastructure; sector users of regulation (licenses. authorizations, security and environmental laws) is under the scope of the Ministry of Transport and Communications. OSITRAN's specific goals are the following: to guarantee users' access to the transport infrastructure; to guarantee guality and continuity of the service; to watch for the fulfillment of concession contracts; to guarantee balance among users, concessionaires and the State; to facilitate the development, modernization and efficient use of the service; and to promote competition in the services supply (see Figure No.3).



Figure No.3Concession Process for Transport Infrastructure in Peru

**Source**: Zevallos, Juan Carlos. OSITRAN's Institutional Framework. Presented in APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Facilities Lima, Peru – August 15, 2008.

In this context, OSITRAN has some challenges:

- The estimated investments for incoming concessions in the next two years (2008-2009) are about US\$ 1.0 billion.
- There are some bottlenecks such as dramatic increase in the number of concession contracts (issued by PROINVERSION and MTC).
- To increase regulatory culture in society; the recent Journal of Transport Infrastructure Regulation published by OSITRAN I a very good example.
- To improve regulation knowledge by key State Offices such as the Judiciary, Contralor's Office, etc.

• To enforce regulatory autonomy and enforce regulatory rule of law.

Among the achievements reached by OSITRAN, Mr. Zevallos mentioned the increase of productivity, investment and improved infrastructure in the Matarani seaport (which is operated by a private company under a concession contract with the Peruvian State); an improvement in the service quality in the infrastructure operated by private companies (railroads and roads); more than US\$ 1 billion of private investment; profitable investment in highways – economically and socially; and fees reduction in seaport infrastructure. Figure No.4 shows the increase of the investment in transport infrastructure in Peru for the last three years.

#### Figure No.4 Executed and recognized investment on transport infrastructure in Peru (US\$ million)



**Source**: Zevallos, Juan Carlos. OSITRAN's Institutional Framework. Presented in APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Facilities Lima, Peru – August 15, 2008.

Mr. Zevallos concluded his remarks by stating the convenience of the creation of OSITRAN and its role for the Peruvian case, for one single agency for the transport sector (based on a multimodal approach), led to specialization and the formation of economies of scale because of the generation of transversal specialization (for instance, regulatory mechanism in seaports can be transferred to airports). He pointed out the independence of the directing body on the basis of the Board, which consists of professionals who are elected for a five-year term, as well as commissioners, who are selected under high standards in a public participation process; and on the fact that elections timing are independent of political terms. Autonomy in administrative and budget management as well as transparency (public information, public hearings, publications), accountability and predictability, are also key parts of the good functioning of the regulatory framework in the Peruvian transport sector, according to Mr. Zevallos.

# Conclusions on Why Regulate Transport Infrastructure and Institutional Framework

- Regulation serves a vital role because transport services play a pivotal role that is essential for economic performance.
- Australia's new integrated National Transport Plan ensures that roads, rail, air and sea transport systems operate as an integrated network.
- The plan's guiding principles include encouraging competitive transport markets, efficient infrastructure pricing, appropriate private sector involvement, and equitable access for users.
- Indonesia is carrying reforms in the legal and institutional transport framework to modernize the sector and attract new investments, including the sanctioning of new laws on each transport activity.
- In Peru, the State sanctioned the creation and implementation of market regulatory bodies. To date, five of those institutions operate as regulators in their respective sectors, including OSITRAN.

#### Economic Regulation (Tariffs and Charges)

The afternoon session of Day 1 focused on Transport Infrastructure Economic Regulation, that is, the regulation on tariffs and other charges. The speeches were delivered by Mr. Gregory Ignatiev of the Russian Federation and Mr. Bui Hong Duong of Viet Nam. Mr. Ignatiev recognized that despite a general adaptation of the Russian transport sector to market conditions, its current status cannot be dimed optimal and the level of its development cannot be considered adequate. The representative addressed that the Russian transport sector as a whole and its individual segments are still facing a number of pending internal issues against the background of a growing demand for transport services and a still higher projected growth in the domestic demand.

The presenter also emphasized that the problems that the Russian transport sector development faces enhance infrastructure limitations, and threaten to inhibit the social development of the economy, and added that their prompt resolution acquires a special importance given the fact that the Russian economy is moving into a sustainable growing phase.

Mr. Ignatiev informed that the development of basic transport infrastructure in his economy is determined by the Russian Federation Energy Strategy and that the financial instruments for said strategy are proposed based on the private-public partnership principals. While elaborating about the topic, Mr. Ignatiev explained that different principals to develop transport infrastructure will be adopted for different Russian regions. Thus, the transport sector will be supported by the government, especially in the international sphere of activity.

Next, Mr. Hong Duong presented an overview of the major issues and policies implemented in the Viet Nam's transport sector. Transport is a major component of Viet Nam's economy with estimates indicating that up to 10% of GDP are associated with the sector. Improving transport sector efficiency can therefore have a significant impact on the whole economy. Recognizing this fact, the government of Viet Nam has prioritized the sector as a central element of its efforts to promote growth and poverty reduction. The presenter pointed out that recent studies have demonstrated the importance of transport services in promoting foreign direct investment and trade at the macro level and the link between improved rural access and poverty reduction in rural areas.

Mr. Hong Duong stated that in order for Viet Nam to achieve the general efficiency in transport infrastructure development as well as the equality between urban and rural areas, a set of objectives aimed to support the sector's efficiency as well as to assess the needs of the rural transport sector should be taken into account. Those initiatives include harmonizing both donor and government inputs into the sector and defining a planning framework that better identifies and addresses the needs of poor communities; exploring the use of new aid mechanisms and international donors; enhancing dialogue mechanisms among the Ministry of Transport, the Ministry of Public Investment and the Ministry of Finance on road maintenance funding approaches; improving the enabling environment for private sector contractors and transport service

providers; and increasing allocations to the rural transport sector in response to evidence of the significant pro-poor growth impacts of rural roads.

#### **Conclusions on Transport Infrastructure Economic Regulation**

- In Russia, the transport sector is still facing a number of pending internal issues against the background of a growing demand for transport services.
- The development of basic transport infrastructure in this economy is determined by the Russian Federation Energy Strategy. The financial instruments for the strategy are based on the private-public partnership principals.
- In Viet Nam, the government has prioritized the transport sector as a central element to promote growth and poverty reduction.
- The objectives set to achieve that goal include improving the enabling environment for private sector contractors and transport service providers.

# IX. Best Practices in Transport Infrastructure Regulation

Day 2 of the seminar was dedicated to the advances implemented by a number of selected APEC economies that have been aimed to enhance the Best Practices in Regulation in Transport Infrastructure Facilities in the different types of transport: ports, airports, railroads, and roads. The presentations were delivered by analysts, researchers and scholars from Chile, Hong Kong China, Japan, New Zealand, Papua New Guinea, the People's Republic of China, Thailand, and Peru, as well as representatives of the United Nations Economic Commission for Latin America and the Caribbean (ECLAC) and the Inter-American Development Bank (IADB), who gave the view of the multilateral agencies on transport regulation.

#### Best Practices in Ports Regulation

The first session focused on the Best Practices in Ports Regulation and the presentations were delivered by Mr. Roberto Urrunaga of Peru, Mr. Titus Mengi of Papua New Guinea, and a shared presentation by Mr. John J. Liu and Mr. T.L. Yip of Hong Kong China.

The Peruvian case was presented by Mr. Urrunaga, a professor and researcher from the Universidad del Pacífico in Lima, who gave an overview of the seaport regulation framework which is conducted by OSITRAN. This entity has two sets of rules that guide its actions concerning the regulation of tariffs and the access to infrastructure:

- (i) Access regulation throughout the regulatory framework regarding the access to public transport infrastructure, and
- (ii) Tariff regulation throughout its respective framework.

The principles on which tariff regulation is based are basically the same as in the case of charges for access, with the addition of equity, benefitcost analysis, predictability, consistency and transparency. More important are the methodologies to determine tariffs.

OSITRAN regulates tariffs in two different types of facilities, the first one being all the ports infrastructure that is under the State management through ENAPU, which to date are all but one port (Matarani), which is managed by a private company under a concession contract. Also, OSITRAN is in charge of the regulation of the new container terminal in the Callao's dock terminal which was granted in concession in July, 2006, for a period of 30 years to Dubai Ports World. The concession includes the designing, construction, financing, operation, administration and maintenance of a new container terminal, located south of the dock terminal of Callao. Regarding the tariffs, it was established that until the fifth year the maximum tariffs will not exceed the ones stated in the contract. After this period an onwards, OSITRAN will make its first tariff revision applying the price cap mechanism (RPI-X).

Figure No.5	Institutional and Regulatory Framework in Ports in Peru
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Institution	Functions	
Ministerio de Transportes y Comunicaciones (MTC)	Define the transport policy, and execute the investments not included in the scope of transport public firms.	
Organismo Supervisor de la Inversión en Infraestructura de Transporte de Uso Público (OSITRAN)	Regulate, norm, supervise and control the transport infrastructure of public use at a national level.	
Empresa Nacional de Puertos (ENAPU)	Administrate, operate and maintain port terminals under its jurisdiction.	
Agencia de Promoción de la Inversión Privada (Proinversión)	Design and develop the process of concessions and privatizations of infrastructure of public use at a national level.	
Autoridad Portuaria Nacional (APN)	Develop the national port system, promote the private investment in ports, and coordinate with the different private and public actors that participate in port activities and services.	

**Source**: Urrunaga, Roberto. Best Practices in the Regulation of Ports: The Peruvian Experience. Presented in APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Facilities Lima, Peru – August 15, 2008.

Mr. Urrunaga concluded that the regulatory framework created during the last decade regarding the ports sector gave a starting point for the new role of the State, but also noticed that the reform was incomplete and this has been causing some trouble in the industry. The researcher recommended that in order to diminish the problems faced in the regulation of public companies, it will be useful that those firms sign operation contracts trying to simulate a concession contract, including the main rights and obligations.

Also, Mr. Urrunaga acknowledged that the regulation of ports under ENAPU's administration has not been completely successful because regulated tariffs have not been applied and there has not been much progress regarding the subject of access. It is necessary that tariffs will not consider costs not related to the provision of regulated services, and also not consider inefficient costs. On the other hand, as long as the government will develop new concessions and they will be under a landlord scheme, it will reduce the scope for the access model. An initial analysis conducted by the researcher of the situation of Callao's new container terminal indicates that it will become at least as equally successful as the port of Matarani. Additionally, the fact that it can enjoy the exclusive provision of most services in this dock can generate an incentive to provide more service quality. Moreover, both the international experience of the operator and the experience obtained by the regulator can be important advantages for this regulatory process, and can lead to competitive tariffs and services within the region.

Mr. Mengi, who is the Principal Analyst of the Independent Consumer & Competition Commission of Papua New Guinea (ICCC), presented an overview of the port infrastructure regulation in his economy. The geography of Papua New Guinea and the population concentration in the smaller coral islands and archipelagos give prominence to the need for port services; thus, adequate port infrastructure is particularly important to the economy's social and economic development because of the lack of viable transport substitutes to provide access to coastal and island regions.

Papua New Guinea port facilities are operated and managed by PNG Port Corporation Limited (PNG Ports). Since 2002, regulatory reforms have subject the ports industry to economic regulation by the ICCC. The services regulated and classified as essential are: (i) Berth reservation services; (ii) Berthing services; and (iii) Wharfage. Mr. Mengi explained that the regulatory framework is guided by the tariff order commonly known as the PNG Ports Regulatory Contract established in December 2002. The regulatory contract outlines the price path, capital expenditure requirements and services standard that PNG Ports is required to meet.

PNG Ports must ensure that a minimum service standard specified in the regulatory contract is satisfied in respect of each port. ICCC reviews PNG Ports middle term capital expenditure in order to examine to what extent PNG Ports has undertaken the level of capital expenditure projected and included in the price path, and its services are reviewed annually against an agreed level of performance as specified in the regulatory contract. ICCC publishes the result of this review and notes where PNG Ports may have fallen short of the standards and what actions is proposed to address

Main Report

The presenter shared some lessons learned from the regulatory framework implemented in Papua New Guinea, stating that it provides greater degree of certainty for PNG Ports, as well as the adoption of incentive based regulation which provides confidence and certainty to PNG Ports and consumers in terms of service delivery and industry performance. Thus, it contributed significantly towards strengthening PNG Ports commercial activities. As a conclusion, Mr. Mengi mentioned that further investment is required as a matter of urgency in many of the ports that serve the coastal trade in the economy, and that given that the tariff adjustment being tied to service standards has to some extent enabled PNG Ports to increase port efficiency in such services.

Mr. John J. Liu and Mr. T. L. Yip are researchers from the Department of Logistics and Maritime Studies, Faculty of Business, at the The Hong Kong Polytechnic University in Hong Kong, China. They presented a port benchmarking project which was conducted to study the port productivity for major container ports in the world. The project addresses one fundamental question: what are the best practices to improve port efficiency (productivity)? By collecting data from ports around the world, empirical models have been developed to compare port performance different (regulation) scenarios. The results from under this benchmarking project will be the foundation for a port to design appropriate regulatory tools. The findings of the research are summarized as follows:

- (i) Port facility operators with deeper water terminals and larger numbers of calling liners are more efficient;
- (ii) More terminals in a port reduce the efficiency;
- (iii) Port groups are more efficient; and
- (iv) Ports in Far East Asia are more efficient in general.

From the port benchmarking study, Asian ports groups are found more efficient compared against ports in other continents. The estimates of container flows on the three major containerized routes are illustrated in Figure No.6. For the port sector, this trade pattern has resulted in three major effects. Firstly, terminals in Asia have to cope with the severe imbalance of trades and large volumes of empty containers have created an inventory problem. Secondly, terminals have to handle more containers than their counterparties in Europe and the United States. Thirdly, terminals in the Far East attract more port investments.



**Source**: John J. Liu and T.L. Yip. Regulation and Port Productivity. Overview of Global Port Benchmarking. (A Focus on Hong Kong and South China Region). Presented in APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Facilities Lima, Peru – August 15, 2008.

What the study could not find was that port efficiency depends on ownership structure. Thus, ownership has little impact on technical efficiency for there is little evidence that port privatization has significantly enhanced growth. On the other hand, though, the study points out that given that the port industry is by nature capitalistic, because it requires expensive infrastructure and huge capital to be completed, the government has to promote port investment so as to secure sources of funding for port projects and developments. In addition, an appropriate financing scheme not only determines the approach for investments but also enhance a competitive advantage for port development.

Thus, in order to provide alternatives to port privatization as a way to promote port investments, the researchers refer to the World Bank's approach on a large variety of funding schemes. The most prominent of these schemes are the various forms of "leasing" and "concession arrangements". Leasing is a method by which an agreement is made for the right to use an asset over an agreed period of time in return for payment. Payment can be a single one-off transaction or made in a series of installments. In a concession arrangement, the government maintains the ownership, but grants the concessionaire the right to finance, build and operate a facility or some equipment, for public use, for a stated period of time. The concessionaire not only covers the costs of investment but assumes all commercial risks. The major advantage of a concession arrangement is to increase private financial participation in the development of the port without changing the structure of the port status. Other private participation schemes are management contracts, joint ventures, and BOT (build, operate, transfer) agreements. Also, an alternative financing scheme is the Initial Public Offer (IPO) in which the liquidity of the stock exchange offers a better debt position and raise equity for future expansions.

To conclude, the researchers summarized the main characteristics of China's port policy: (i) The government (national or province) does not manage the terminals directly; (ii) Foreign direct investment is conducted in the form of joint venture (foreign companies are restricted to holding less than 50% share of joint venture); and (iii) Foreign companies act as both investors and managers while local authorities act as mainly landlord of the terminals. The joint venture offers easier access to new technologies (for the benefits of China) and to new markets (in favor of foreign companies).

#### **Conclusions on Ports Regulation**

- Ownership has little impact on technical efficiency for there is little evidence that port privatization has significantly enhanced growth.
- On the other hand, though, given that the port industry is by nature capitalistic, governments have to promote port investment to secure sources of funding for projects and developments.
- In Peru, the regulatory framework regarding the ports sector gave a starting point for the new role of the State, but the reform is incomplete and this has been causing some trouble in the industry.
- Peruvian port infrastructure under private management has been successful in contrast with the ports under State control.
- In Papua New Guinea, the regulatory framework outlines the price path, capital expenditure requirements and services standard that the regulatory agency is required to meet.

#### Best Practices in Airports Regulation

The best practices in airport regulation were appointed by Mr. Phillip Gerard Barry of New Zealand and Mr. Li Guoyong of the People's Republic of China. Mr. Barry, a partner at the consulting firm Taylor Duignan Barry of New Zealand, presented the experience of airport ownership and regulation that has been implemented in his economy as part of the economic reforms carried out by the government during the 90's. Prior to that, airports in New Zealand were owned and managed by the State, and the main consequences of that model were an inadequate return on investment as well as a lack of commercial development.

The presenter commented that the privatization of the most important airports in New Zealand in the late 90's, located in Auckland and Wellington, proved to be successful: the operating efficiency improved; unnecessary investment was avoided; the quality of service was enhanced; shareholders enjoyed better return on their capital; and as a result, there has been no public calls to re-nationalize them. The role of the government moved from ownership to regulatory and as stated by Mr. Barry, during the first years this new framework was light-handed and sector-specific, adding among its highlights the fact that airports were required to consult users on pricing and major capital investment for aeronautical activities (non-retail), the obligation of airports to disclose financial statements and forecasts for aeronautical activities, and the establishing of a distinction between aeronautical and retail activities ("dual till" approach).

Mr. Barry informed that a more heavy-handed regulation has been proposed this year for 3 main international airports through the Commerce Amendment Bill (including Auckland and Wellington). The new measures propose a financial disclosure, based on mandated methodology including on asset valuation and cost allocation; also, pricing and cost of capital guidelines are to be set, and the creation of a commission to monitor and report on airports is under consideration. These new policies follow the more interventionist approach across infrastructure generally brought by the new government in the economy (led by the Labour's Party), which has also prevented foreign control of airports – in contrast with the Australian approach –, and according to Mr. Barry, in contrast with APEC principles, too.

As a conclusion, the consultant stated that the model applied by New Zealand has proved that the airports privatization in the economy has been successful. In the case of regulation, he stressed that a gradual approach to deregulation may prove more sustainable, because it would avoid the risk of "regulatory creep".

Mr. Li Guoyong, who serves at the National Development and Reform Commission, gave a brief introduction on the airport development in China and shared some of their practical experience. From the status quo and the developing characteristics of the civil airport system in China, the presenter provided some remarks. First, on the whole, the airport layout is suitable with the level of economic and social development. In China, the construction and development of most airports is based on the demand of aviation transport market, and they have played an important role in promoting and guiding the economic and social development. Second, in the civil airport system, the airports of different class or for different function are appearing, and it shows that airports are forming several regional groups gradually. On the whole, a basic pattern has come into being. The hub airports such as Beijing, Shanghai, Guangzhou airport, etc. play the role of center.

The third highlighted remark is that civil aviation keeps in rapid growth. During the past decade, the civil aviation transport in China keeps a steady growth on two-digit rate. Fourth, the civil aviation transport plays a steadily more important role in the integrated transport system in China. And lastly, the management system of the airports in China is being continuously improved. The management scheme of civil airports in China has changed from the central management mode to the comanagement by central and local government. Furthermore, as the major manager and administrator of the airport, the local government has the ownership of the airport. The Civil Aviation Administration of China is responsible for making the standards, criterions, rules of the industry, monitoring the marketplace, and balancing the development of different regions, as well as regulating the airport industry.

The representative also presented the highlights of the future development plan of the civil airport in China. The principle of the plan is to take the responsibility of promoting and guiding the integration and the optimized allocation of the aviation resource. On the basis of the principles, considering the status quo of the airport development, the characteristics of civil aviation transport, and the economic and social development strategy in China, a five-large-airport-group scheme is put forward. They are the north group, the east group, the south central group, the southwest group and the northwest group.

The plan contemplates the development of international hub airports, regional centers and portal airports, the improvement of the functions of trunk airports, the building of more regional airports, and the formation of a strategic pattern of the airport group coordination development and the good connections between all the transport modes (including urban traffic).

The Chinese government has outlined a set of policies aimed to encourage the construction and the development of civil airports in the economy. Those policies comprise four main areas:

- A high-priority industrial policy in civil aviation development (transportation industry is regarded as a high-priority development industry by the government);
- (ii) Policy of opening and encouragement, by which private capital and foreign capital are encouraged to invest in airport construction and management. The airports are encouraged to transform into joint-stock system, so to date, there are some listed companies such as Shenzhen Airport and Shanghai Pudong Airport;
- (iii) Positive policy of financial support which in the construction of hub airports and trunk airports, the central and local government will provide some financial assistance, while for the construction of regional airports, the investment is mainly from the central and local government; and
- (iv) Preferential policies in land and tax. For instance, the preferential tax policies in China are given for the airport construction and management, such as the reduced or free business tax, the threeyear preferential tax for new airport, and the reduced tariff for some imported equipments of airport.

As for the effects after the implementation of the plan, Mr. Li Guoyong announced that China expects that by 2020, there will be at least one airport in each of the provincial capital cities, major opening cities, important tourist cities, and small and medium-size cities of inconvenient traffic. A better airport network, optimal airport system and rational layout will be formed, and five large airport groups will also come in being. Also, the integrated developing potential and the international competitive strength of the aviation transport in China will be improved remarkably.

#### **Conclusions on Airports Regulation**

- In New Zealand, the privatization of airports has been successful for it enabled the improvement of operating efficiency, avoided unnecessary investment and enhanced the quality of service.
- In the People's Republic of China, the Civil Aviation Administration is responsible for making the standards, criterions, rules of the industry, monitoring the marketplace, balancing the development of different regions, and regulating the airport industry.
- The Chinese government has outlined a set of policies aimed to encourage the construction and the development of civil airports in the economy, both international (hub airports) and regional.

#### Best Practices in Railroads Regulation

An overview of the best practices in the Japanese railroad regulation was provided by Mr. Hitoshi Uchiyama of the Railway Bureau at the Ministry of Land, Infrastructure, Transport and Tourism of Japan (MLIT). The Japanese National Railroad (JNR) was reformed in 1987 and the new scheme contemplated the abolition of the national ownership rule, the division of the JNR into six regional companies and one freight private company, and the enactment of the Law for Railway Business Enterprise as a basic rule applicable to the new railroad companies (see Figure No.7).

The scheme comprises six phases aimed to achieve the development of railroads:

- Planning, in which the MLIT formulates the master plan and any company interested (the "would-be railway operator") prepare the business plan;
- (ii) Market entry, in which the MLIT reviews the ability of the applicant previous to issue the respective license;
- (iii) Opening preparation and arrangement of business assets, in which would-be railway operators procure rolling stock and equipment, and also construct necessary infrastructure. However, considering the huge initial cost for the railway infrastructural construction, government provides various policy menu including subsidies;
- Offering railway transport service, and prior to starting operation, the fare/fee must be approved by MLIT. In addition, the railway operator must submit their operating plan and establish a safety management system;
- (v) Revitalizing ailing railway company, in case a railway operator finds the continuation of the business financially difficult due to the downturn of demand. Given such case, local community and operators may jointly set up a local conference for railway revitalization; and
- (vi) Termination of the operation when the local conference decides it.

Mr. Uchiyama's conclusions focused of the roles that private railway companies and the government have. Private railway companies take initiative of railway construction, own infrastructure, rolling stocks and other equipment and have the primary responsibility of finance, while the government supports and supervises the private railway company, provides with the master plan for the development of the railways; as well as various policy menu to facilitate railway construction, and supervises the railway company to ensure a safe, secure and user-friendly railway system.



Figure No.7 Overview of Japan's "Law for Railway Business Enterprises"

**Source**: Uchiyama, Hitoshi. Railway regulation in Japan . Presented in APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Facilities Lima, Peru – August 15, 2008.

#### Best Practices in Roads Regulation

The best practices in road regulation were appointed by Mr. Patricio Mansilla of the consulting firm Chemonics del Peru, and Mr. Kriengsak Rabilwongse of the Infrastructure Project Office at the National Economic and Social Development Board of Thailand.

Mr. Mansilla presented the roads regulatory strategy in Chile, which focuses on the regulation of private-public partnership (PPP) in the development and improvement of the road network (both highways and urban roads). Figure No.8 illustrates the PPP design implemented in Chile. According to his remarks, some lessons have been learned from the Chilean experience, the first one being the fact that competition is an important first step for road regulation and prequalification is an important strategy to mitigate the adverse selection (of the concessionaire) problem. Also, the presenter warned that competition is not able to solve the incomplete contract problems, so that every risk must be carefully studied via the conducting of technical studies to estimate the official investment cost of the PPP project.



**Source**: Mansilla, Patricio. Chilean Experience in Regulation of Roads PPP. Presented in APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Facilities Lima, Peru – August 15, 2008.

Another lesson mentioned by Mr. Mansilla was that the regulation strategy must be included in early stages of the project cycle and that economic variables must be taken into consideration to define the bidding winner. Also, transport and financial models must be considered in the regulatory studies in order to have a consistent PPP model, and that incomplete contracts must include in an easy way the potential conflict resolution issues like easy buy out or way out, negotiation mechanisms, as well as new investments treatment.

On his turn, Mr. Rabilwongse gave an overview of the regulatory framework for transport infrastructure in Thailand. This framework is based on a three-level system: policy generation, regulatory bodies, and operating agencies, be they state-owned enterprises (SOEs) or private companies through a concession (see Figure No.9). Formal policy proposals are reviewed and approved at the national government level throughout a process that works as follows: proposed acts are submitted for legal review by the department that manages a particular sector within the government of Thailand, in this case, the Ministry of Transport (MOT). Upon successful legal review, the governing department then submits the act before Thailand's House of Representatives. If an act is approved here, it is then submitted to the nation's Senate for final review and passage. These political bodies utilize the strategic advice of government policy-review bodies like the National Economic and Social Development Board.

Mr. Rabilwongse explained that there are two main applications of regulatory tools that are relevant in the recent-era development of Thailand's transport sector. They are committees, created within the MOT by the national government to regulate pricing and safety practices, and regulatory acts, most notably the Act on Private Participation in State Undertakings. There are 3 total regulatory committees within the MOT, and their organization is in three categories: Air, Land, and Maritime. The committee serves to regulate safety standards and regulations, as well as concerns of physical development, which consists of licensing issues and pricing regulation. In addition to ensuring that the above standards are up-to-date and functional, the committees play a key role in determining budget allotments within the MOT and the Ministry of Finance (MOF) when major financing decisions are made.

Figure No. 9 Ideal Outcome for Thailand's Three-Level Institutional Setup for Transport



**Source**: Rabilwongse, Kriengsak. Transport Infrastructure Regulation. The Experience of Thailand. Presented in APEC Seminar on Best Practices in Regulation and Promotion of Efficiency in Transport Facilities Lima, Peru – August 15, 2008.

The presenter also stressed that Thailand's experience in regulating its transport sector has exposed some institutional and regulatory weaknesses such as the lack of legal framework for clear separation of regulatory and operational capacities within the institutional hierarchy governing the transport sector, most primarily, the separation between the regulatory arm and the operating arm of the transport sector's regulation is not clearly defined in the national legal framework. As a result, the PPP projects that have been developed and implemented since 1992 have been able to use several different interpretations of the law as the legal framework for their projects. In conclusion, the presenter assured that the legal framework for PPP projects in Thailand requires either significant reform or a new act altogether for modernization.

#### **Conclusions on Railroads and Roads Regulation**

- In Japan, private companies take initiative of railway construction, own the infrastructure, and have the primary responsibility of finance, while the government supports and supervises the private companies to ensure a safe and user-friendly railway system.
- In Chile, the roads regulatory strategy focuses on the regulation of private-public partnership (PPP) in the development and improvement of the road network.
- The Chilean model enhances competition as a first step for road regulation and prequalification.
- In Thailand, the regulatory framework for transport infrastructure is based on a three-level system: policy generation, regulatory bodies, and operating agencies, be they state-owned enterprises or private companies through a concession.

# X. Multilateral View on Transport Regulation

The seminar also focused on the views of multilateral institutions on transport regulation in Latin America. The presenters were Mr. Patricio Rozas, Economic Affairs Official at the Natural Resources and Infrastructure Division of the United Nations Economic Commission for Latin America and the Caribbean (ECLAC), and Mr. Miguel Almeyda, Project Leader and Specialist at the Multilateral Investment Fund (MIF) of the Inter-American Development Bank (IADB).

The problems and challenges of developing infrastructure in Latin America took center stage in Mr. Rozas's presentation. The specialist listed a series of infrastructure issues in the countries of Latin America and the Caribbean that should be addressed by their respective governments:

- In the past two decades, infrastructure in the region grew at a lower rate than in other regions, and in the present, investments in the sector account for only 2% of the GDP, and amount that allows only the conservation of the existing base, but not its expansion and improvement;
- (ii) Private investment has not offset the drop in public investment. This demands a re-thinking of financial modalities for infrastructure in the region;
- (iii) Private participation is not popular in all countries;
- (iv) Not only availability, but also access, quality and prices of infrastructure services are critical elements of competitiveness;
- (v) Countries need to improve their services performance to recover costs and the efficiency of expenses.
- (vi) Governments are at the center of the challenges that must be faced to expand infrastructure services.
- (vii) WTO estimates that LAC needs additional investment of 2% to 4% of the GDP yearly to prevent the gap with Southeastern Asia countries from continuing increasing.

Mr. Rozas summed his presentation up by stating that the countries in the region that succeeded in increasing their investment rate are those that have maintained high public investment levels as well as simultaneously opening forums for private investment, and in contrast, the countries that show a greater lag are those that have lowered public investment more significantly. So in order to help shift that trend, multilateral organizations must support the generation of infrastructure in Latin America and the Caribbean.

Mr. Almeyda's presentation centered on the strengths and weaknesses of the public-private partnership (PPP) implementation process in Mexico through the Programa para el Impulso de Asociaciones Público-Privadas en Estados Mexicanos (PIAPPEM), which is sponsored by the MIF and whose objective is to strengthen the legal, institutional and technical capacity of Mexican states to develop PPP projects, thereby enabling an increase in the provision of infrastructure and public services through private participation. The PPP process in Mexico started with a failed experience in the concessions of highways at the beginning of the Nineties, due to both the financial crisis of 1994 and errors made in the mechanisms of the process. The second experience was launched in the middle Nineties and entailed the concession of airports grouped into four regional networks (Center-North, Pacific, South-East and Mexico City). A National Infrastructure Program (PNI) for the period 2007-2012 is under way and to date has identified over 300 projects and their respective likely sources of financing. It is anticipated that several of these projects may be implemented under PPP schemes, including a new highway concession scheme.

Mr. Almeyda mentioned some weaknesses that still prevail in said scheme. For instance, there have been tenders that have been declared deserted for lack of clarity in the bidding terms. Also, the time to prepare complex proposals is reduced and clarification of doubts to the bidders has been inadequate. Problems have also been detected in the timely release of rights of way, which leads to modifications to the original tracts, and therefore to the executive project, thus affecting construction times and raising the costs. Other weaknesses include requests for additional works made by communities because they modify the original design, affecting times and increasing costs, as well as the poor quality in engineering studies impact on the delivery of executive projects by the public sector executives. Finally, the lack of specialized technical project teams at federal, state and municipal levels are part of the problem, too, according to Mr. Almeyda.

# XI. Concluding Remarks

The concluding remarks of the seminar were provided by Mr. Lincoln Flor, who pointed out that as was learned during the event, there is not one way of regulating transport and there are many ways to manage it. He added that what is important is to assess regulation in a way that ensures efficiency. Secondly, he recalled that the cases presented on the different frameworks of privatization and concession applied in ports, roads, airports and railroads, have been successful, and when there were failures, they have been assessed and solved. Third, it is a challenge to achieve an optimal level of regulated prices, and it would be of an important value to pay attention to price monitoring. The fourth remark stressed that in many APEC economy members, the regulatory framework regarding the infrastructure for each type of means of transportation is being subjected to a constant revision so that it can be adapted to the changes of the market. Finally, Mr. Flor mentioned that the experiences in ports and railroads show that vertical integration is not a key factor to ensure the success of the process (it is not a matter of white or black, but a "shades of grey" approach).

APEC's Economic Committee Chair, Mr. Bob Buckle, provided closing remarks at the seminar. He said that the Economic Committee focuses on trying to encourage infrastructure guality improvement to make markets work well and in doing so, contribute to economic integration in the APEC region, a goal in which transport has a critical role to play because it can contribute to production efficiency, facilitate specialization, and contribute to enhance competition. Mr. Buckle asserted that these aspects are very relevant to the objectives of APEC. The speaker also summarized the special challenges in transport across the region: One is geographical, which is a remarkable and challenging contrast, and the second being the rapid growth of APEC economies, which translates into the need of important investment in transport to be made. Mr. Buckle remarked that there is a number of APEC economies that have designed institutions to deal with said challenge, applying different degrees of regulation, and assured that those experiences will be taken into consideration by the Economic Committee in order to evaluate policy recommendations.

The last speaker of the seminar was Mr. Juan Carlos Zevallos, Chairman of the Board of OSITRAN, who said that he was satisfied with the event's conclusions on the first place because the main objectives that were set for the event had been achieved, and second because he believed that a common working agenda on regulatory issues for the years to come had been generated, which is a challenge that the seminar has left to the next meetings for the following APEC forums. Mr. Zevallos closed his speech and the seminar by acknowledging and especially thanking the attendants, the presenters and special guests, as well as the staff involved in the seminar success on the achievement of its goals.

# XII. Policy Recommendations

From the experiences of selected APEC member economies that were shared during the Seminar through the presentations and conclusions provided by the presenters, as well as the participation of the attendees, OSITRAN has been able to elaborate a set of recommendations regarding regulatory policy on transport infrastructure. This contribution can be viewed as a starting point to a broader and deeper discussion on the issue at the governmental level as well as within the APEC Economic Committee. 1. The regulatory framework applied by Australia, which shifted from the exclusively State-provided infrastructure to the promotion of competition between public and private entities could be included in the debate regarding the competition framework that could be adopted in the Peruvian case. The National Transport Plan that the Australian Government is implementing will contribute to development of an integrated transport network in all its types (road, rail, air, and sea) which will be supported by a regulatory system aimed to secure competition and equal access.

The Peruvian regulatory system has some similarities compared to the Australian system because the role of OSITRAN is also based on a minimal intervention which is oriented to secure efficiency in the services provided by the concessionaires of transport infrastructure. It is also important to continue with the efforts to put into practice a **feed-back mechanism** aimed to allow that the experience gained in the regulation of one type of transport can be extended to another one so that an integrated regulatory framework will be achieved.

2. The presentation provided by the Hong Kong, China researchers summed up a port benchmarking model that among other interesting conclusions pointed out that ports under State control can compete with others managed by private companies. The recommendation from this remark is that guidelines aimed to allow the comparison of the performance of both public and private entities competing among them should be established. The challenge OSITRAN faces is to be able to have the capacity of properly measuring the efficiency improvements reached by infrastructure concessions and compare them to the ones reached by the infrastructure that is still managed by the State.

Moreover, it is needed to look for mechanisms that allow regulation to be more effective on State-owned companies managing transport infrastructure or either to define a special regulatory framework for these cases if the Government decides that there is infrastructure that will not be given to concession but that definitively will have to be managed under a private-sector efficiency scheme.

3. In the case of airport regulation, the experience of New Zealand is interesting in that it has shifted from a flexible approach to a less-lighted one, but that still maintains the management of the main airports in private hands. In that sense, it is recommendable to evaluate what is the position OSITRAN holds with respect to airport regulation in particular and transport infrastructure in general, that is, if the agency is over-regulating or under-regulating these activities, so that corrective measures can be taken, given the case.

4. Regarding roads, the best practices applied by Chile, both in highways and urban roads show a shift in its focus that deserves to be taken into account. Regulation there is now focusing on the users and this implies the implementation of tools aimed to secure a better benefit including service improvement, faster claims reception, and the measurement of the users' satisfaction. This experience opens up a new challenge for OSITRAN and the transport sector authorities for it demands the **search** of mechanisms enticed to emphasize the cultura of regulation and, at the same time, make the general public to understand the convenience of concessions as a way to improve transport infrastructure services, provided that there is a regulatory framework whose major objective is to bring benefits to users.

#### What do to next?

- OSITRAN has gained a broad experience over its first decade of existence since its creation in 1998, which deserves to be shared with the rest of APEC economies. The best practices discussed in this Chapter – as well as those presented in this document that are able to be adapted to the Peruvian case – will add up to the experience of OSITRAN and in doing so, will make it possible for the regulation of transport infrastructure in Peru to gain strength and to noticeably improve its efficiency.
- 2. In order to spread out these experiences to the general public in the APEC economies, the **publishing of working papers** has to be considered. These documents will present both the successful experiences in transport infrastructure regulation, and those that did not function properly since they could not fulfill the objectives for which they were implemented. Said publications will allow governments, users, concessionaires, analysts, and scholars to identify the success factors or failure factors, given the case–, the roles that the public and private sectors played, and to evaluate the convenience of implementing them in order to enhance their own regulatory schemes. The suggested format for the working papers will be that of the case studies that business schools use in their research.
- 3. It will also be of a key relevance to incorporate in the APEC agenda the need to discuss the importance that transport infrastructure regulation has as a key tool to prompt trade and integration among APEC members. The challenge that Peru faces in that sense is to introduce the regulation issue as one of the axis that will lead to the consolidation of APEC as a group of developed economies functioning under global and modern standards.

- 4. A strategy of public information of the experiences and best practices in transport infrastructure regulation also has to include the organizing of training courses for government officials, regulatory agencies commissioners, and executives of regulated entities. These courses would focus on bringing information regarding the regulatory frameworks in the APEC economies, which will certainly contribute for the APEC members to work in designing regulatory policies on a coherent and homogeneous approach. The support of multilateral agencies aimed to promote development will be of a key importance to make these courses be carried.
- 5. Lastly, it will also be fundamental to implement a **database containing** and supplying updated information on the regulation approaches of the APEC economies. This database, which will have to be periodically updated in order to maximize its usefulness, will have to contain statistical information regarding the existing infrastructure, traffic, tariffs and charges, among other data. This will allow the database to act both as a source of information and as a tool to make comparisons aimed to improve the provision of infrastructure facilities. The financing of this inventory of the transport infrastructure within APEC will be crucial to make its implementation possible.

### Annex 1 List de participants

# **APEC Delegates**

N°	Name	Last Name	Organization	Economy
1	Susan J	Coles	APEC Secretariat	APEC Secretariat
2	Shih-Meng	Hsu	Council for Economic Planning and Development	Chinese Taipei
3	Hsing-Feng	Tu	Fair Trade Commission	Chinese Taipei
4	Chin-Tung	Tsai	Ministry of Transportation and Communications	Chinese Taipei
5	Hendrawan	Tri Susilo	Ministry of Finance	Indonesia
6	Osamu	Nagahara	Cabinet office	Japan
7	Yoichi	Tahara	Embassy of Japan	Japan
8	Junji	Kimura	Ministry of foreign Affairs	Japan
9	Amy	Cruickshank	The Treasury	New Zealand
10	Brian	Mcculloch	The Treasury	New Zealand
11	Ryan Francis	Gener	Department of foreign Affairs	Philippines, Republic of The
12	Konstantin	Dorokhin	Embassy of The Russian Federation in Peru	Russian Federation
13	Dmitry	Grigoriev	Embassy of The Russian Federation in Peru	Russian Federation
14	Morakot	Sriswasdi	Ministry of foreign Affairs	Thailand
15	Suthirat	Vanasrisawasd	National Economic and Social Development Board	Thailand
16	Ryohei	Tamura	Japan Fair Trade Commission	Japan
17	Toshiyuki	Igarastiz	Japan Fair Trade Commission	Japan
18	Corrine	Chi	Competition of Singapore	Singapore
19	Ow Yone	Tuck Leone		Singapore
20	Tunaidi			Indonesia
21	Rory	Mclead		New Zealand
22	Tan	Junynan	Ministry of Trade of Industry	Singapore
23	Cheong	Weitang	Ministry of Trade of Industry	Singapore
24	Pham Lan	Hijong	Ministry of Planning of Investment	Vietnam
25	Philip	Gaet Jents	APEC Secretary	
26	Farid Fanzi			Indonesia
27	Widhiastono			
28	Michael Karf			
29	Jonathan	Scanlon	Department of State	United States
30	Stephen	Wong	APEC Secretariat	Singapore
31	Jason	Martinez	Secretaria de Economía	Mexico
32	Emilio	Fernandez	Department of foreign Affairs	Philippines
33	Salin Hasha	Sumarahaja	Mo Finance	Indonesia
34	Toru	Aizeki	CPDG Chair	Japan
35	Bob	Buckle	The Treasury EC Chair	New Zealand

#### National Invited Guests

Nº	Name	Last Name	Organization
1	Edmundo Antonio	Lizarzaburu Gómez	ADEX - Asociación de Exportadores
2	Paola	Avalos	Aeropuertos del Peru S.A.
3	Fredi	Gambini Jara	Aeropuertos del Peru S.A.
4	Lucy	Henderson	Agencia de Promoción de La Inversión Privada - PROINVERSIÓN
5	María Isabel	Mendoza	Ароуо
6	Cassock	Geoffrey	APOYO
7	Carlos	Gutiérrez Laguna	Asociación de Empresas de Transporte Aéreo Internacional - AETAI
8	Juan Jose	Salmon Balestra	Asociación Marítima del Peru
9	Guillermo Emilio	Acosta Rodriguez	Asociación Marítima del Peru
10	Carlos	Reynafarje	Asociación Para El Fomento de La Infraestructura Nacional - AFIN
11	Juan	Pacheco	Association for the Promotion of National Infrastructure-AFIN

#### Main Report

N٥	Name	Last Name	Organization
12	Manuel	Quiroga	Autoridad Portuaria Nacional
13	Alejandro	Falla	Bullard, Falla & Ezcurra Abogados
14	José	Rueda	CONFIEP
15	Javier Benjamin	Hurtado Gutierrez	Corporación Peruana de Aeropuertos -CORPAC
16	Jaime Daniel	Gonzales Zúñiga Sañudo	Corporación Peruana de Aeropuertos -CORPAC
17	Eduardo	Chappuis	DP World Callao S.A.
18	Maciek	Kwiatkowski	DP World Callao S.A.
19	Francisco	Román	DP World Callao S.A.
20	Mario	Arbulú	Empresa Nacional de Puertos S.A ENAPU
21	Héctor	Figari	Estudio Muñiz
22	Ronald Alfredo	Fernández-Dávila Rivero	Estudio Rosselló
23	Sergio	Salinas	Estudio Sergio Salinas Rivas Abogados SCRL
24	Raúl	Galdo	Ferrocarril Transandino S.A.
25	Rómulo	Guidino	Ferrocarril Transandino S.A.
26	Carlos	Scarneo	Freight Forwarders Peruvian Association - APACIT
27	Milan Fernando	Rossi	IATA Sucursal del Peru
28	Roxana	Arellano	INDECOPI
29	José	Tavera	INDECOPI
30	Roxana	Barrantes	Instituto de Estudios Peruanos
31	Enzo	Defilippi	Inteligencia Financiera SAC
32	Ezequiel	Ayllón	Lima Airport Partners S.R.L.
33	Lucio	Benavente Durand	Lima Airport Partners S.R.L.
34	Jaime Luis Gonzalo	Daly Arbulú	Lima Airport Partners S.R.L.
35	Gustavo Enrique	Morales Valentín	Lima Airport Partners S.R.L.
36	Oscar	Ponce de León Salas	Lima Airport Partners S.R.L.
37	Juan Marcos	Venegas Ratto	Lima Airport Partners S.R.L.
38	Claudia	Vivanco Calderón	Lima Airport Partners S.R.L.
39	Maria del Pilar	Vizcarra Albarracin	Lima Airport Partners S.R.L.
40	Juan Ramón	Flor Rojas	Ministerio de Transportes Y Comunicaciones
41	Silvana	Huanqui Valcárcel	Ministry of Foreign Affairs
42	Mariella	Amemiya	MINISTRY OF FOREIGN TRADE AND TOURISM
43	Alejandro	Trelles	MINISTRY OF FOREIGN TRADE AND TOURISM
44	Carmen Rosa	Zeña Acosta	Ministry Of Foreign Trade And Tourism
45	Alvaro	Salazar	Neptunia S.A.
46	Jorge	Bustamante Rodriguez	Norvial S.A.
47	Jose	Amezaga	Norvial S.A.
48	Maria Teresa	Quiñones Alayza	Rodrigo, Elias & Medrano Abogados
49	Veronica	Sattler	Rodrigo, Elìas & Medrano Abogados
50	José	Salazar	Superintendencia Nacional de Servicios de Saneamiento -
			SUNASS
51	Rubén	Cáceres	Universidad del Pacífico
52	Fritz Mautil	Kohne Fulchi	Congreso
53	Miguel D.	Barzola	Asistente
54	Lucy	Henderson	PROINVERSION
55	Sandra	Herrera	MINCETUR
56	Erika	Lopez	Diario Expreso
57	Candice	Suarez	Media
58	Edward	Cruz	Ministerio de Salud
59	Eldda	Bravo	PROINVERSION
60	Victor	Paredes	Comisión de Competencia
61	José Antonio	Pejovés	Estudio Pejovés
62	Alberto	Pereira Rios	Diario Expreso
63	Juan Carlos	León Siles	ADEX - Asociación de Exportadores

# **OSITRAN's Participants**

N٥	Name	Last Name
1	Elizabeth	Acuña Huamán
2	Jose Carlos	Aguilar Málaga
3	Julio Cesar	Aguirre Montoya
4	Pia	Alarcón Flores
5	Roxana	Altuna
6	Renzo	Alvarado
7	Jose Joel	Alvarez Cunya
8	Ana Teresa	Amézaga
9	Juliana Del Carmen	Araujo Grados
10	Juana Luisa	Barrera Chávez
11	Kathia	Becerra Nuñez
12	Patricia	Benavente Donayre
13	Rossmery	Calle Espinoza
14	Felix	Canales García
15	Manuel	Carrillo Barnuevo
16	Maria Olga	De La Cruz Bances
17	Lincoln	Flor
18	Christy	García Godos Naveda
19	Manuel Alejandro	González Heredia
20	Oscar	Herrera
21	Doris	Hinojosa Nazario
22	Julio Cesar	Jiménez Matute
23	Hector Martín	Kuang Salas
24	Benjamín	La Torre
25	Rosario	Laupa Tenorio
26	Jorge Francisco	Li Ning Chaman
27	Fernando	Llanos Correa
28	Wilder Tomás	Lozano Vizcarra
29	Carlos Anibal	Malca Maurolagoitia
30	Luis Aquilino	Manzo Cadela
31	Sofia	Masía
32	Wilians Roberto	Mertz Villa
33	Javier Humberto	Miro Quesada Ponce
34	Alfonso	Montagne
35	Jorge Luis	Montesinos Córdova
36	Benjamin Carlos	Nemuche Revollar
37	Elizabeth Monica	Ortega Matute
38	Maria Del Carmen	Osores Francia
39	Jose Joel	Pariasca Mansilla
40	Manuel	Portugal Bermejo
41	Carlos	Quevedo Burneo
42	Fernando Rafael	Rodriguez Alegría
43	Antonio Michael	Rodriguez Martinez
44	Jose Carlos	Rojas Zeballos
45	Carlos Alberto	Salazar Vargas Machuca
46	Alberto	Sevilla
47	Gian Carlos	Silva Ancco
48	Jesús	Tamayo
49	Santos	Tarrillo
50	Arturo	Tolmos Bustamante
51	Fiorella	Vasquez
52	Ximena	Velit
53	Michelle	Vivas Zolozzi Artoogo
54	Renzo	Zolezzi Arteaga

# Support Personnel

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3	Rossmery	Calle	OSITRAN
4	Carlos	Salazar	OSITRAN
5	Felix	Canales	OSITRAN
6	Juliana	Araujo	OSITRAN
7	Luis	Manzo	OSITRAN
9	José Joel	Alvarez	OSITRAN
10	Doris	Hinojosa	OSITRAN
11	Renzo	Alvarado	OSITRAN
12	Roxana	Altuna	OSITRAN
13	Fiorella	Vásquez	OSITRAN
14	Juana	Barrera	OSITRAN
15	Kathia	Becerra	OSITRAN
16	Gian Carlos	Silva	OSITRAN
17	José Carlos	Aguilar Malaga	OSITRAN
18	Rosario	Laupa	OSITRAN
19	María	De la Cruz	OSITRAN
20	Fernando	Rodríguez	OSITRAN
21	María del Carmen	Osores	OSITRAN
22	Manuel	Gonzáles	OSITRAN
23	José	Pariasca	OSITRAN
24	Carlos	Quevedo	OSITRAN
25	María Pía	Alarcón	OSITRAN
26	Julio	Jiménez	OSITRAN
27	Wilder	Lozano	OSITRAN

# Post of Seminar Reporters

Cecilia Balcázar Suárez, Consultant. Antornio Yonz Martínez, Consultant.

### Annex 2 List of seminar's speakers

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Economy	Name	Торіс
Australia	Ms Hae-Kyong HOLDAWAY	Why regulate transport infrastructure
Chile (Santiago)	Mr Patricio ROZAS	International Organization panel
Chile (Santiago)	Mr. Patricio Mansilla	Roads Regulation
China (Beijing)	GUO Yong Li	Airport Development in China
Hong Kong, China	Mr John J. LIU	Regulation and Port Productivity
Hong Kong, China	Mr T. L YIP	Overview of Global Port Benchmarking
Indonesia (Jakarta)	Bambang Susantono	Reshaping Institutional Framework
Japan (Tokyo)	Mr Hitoshi UCHIYAMA	Railway regulation in Japan
Mexico (Mex City) - IADB	Mr Miguel ALMEYDA	International Organization panel
New Zealand (Wellington)	Mr Phillip Gerard BARRY	Airports Regulation
Papua New Guinea (Port Moresby)	Mr Titus MENJI	Regulation of Ports, Papuas experience
Peru	Mr. Roberto urrunaga	Ports regulation
Peru	Mr. Juan Carlos Zevallos	Institutional Framework
Russia (Moscow)	Mr Georgy Ignatiev	Regulation Policy
Thailand (Bangkok)	Mr Kriengsak RABILWONGSE	Regulatory Framework
Viet Nam (Hanoi)	Mr BUI Hong Duong	Economic Regulation