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PERFORMANCE STANDARDS AND INDICATORS FOR BORDER CROSSINGS

Hilda María Gómez V

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E-mail: hildamariag@gmail.com
Telephones: (571) 318 – 254 58 56, (571) 61 000 61
Carrera 5 No. 86 – 42 (201) Bogotá, Colombia

This document presents a methodology for establishing performance standards and indicators for the South American border crossings, focusing on those included in the Integration Priority Project Agenda (API) of the Strategic Action Plan 2012-2022 established by the South American Infrastructure and Planning Council (COSIPLAN) of UNASUR.

This document has been prepared on the basis of the conclusions of the Meeting of the COSIPLAN/IIRSA Executive Technical Group (GTE) on Border Crossings held in November 2011, whereby it was agreed that it was necessary to identify performance standards and indicators to evaluate the South American border crossings and hold a workshop with the participation of representatives from the control agencies to exchange experiences in the bilateral integration of control procedures and create a network of border control agencies.

Such workshop was held in December 2012 in Tumbes, taking advantage of the recent opening of the first operational Binational Border Service Center (CEBAF) in the Andean Community, located on Road Axis No. 1 (Huaquillas-Aguas Verdes). Officials from several South American countries' control agencies participated actively in the workshop, during which the foundations for this methodology were presented in order to gather comments.[1]

In April 2013, the city of Buenos Aires hosted an Executive Technical Group Meeting (GTE) during which this proposal on performance standards and indicators was also presented.

An outline of the methodology incorporating the suggestions and comments from the control agencies' and other officials present at the workshop and at the GTE meeting follows below.

1. BACKGROUND

One of the sectoral processes defined by the Initiative for the Integration of Regional Infrastructure in South America (IIRSA) was that of Border Crossings, due to their significance in physical integration, foreign trade, and tourism. Hence, several studies have

[1] http://www.iirsa.org/BancoEvento/P/pfr_tumbes12_taller_regional_pasos_frontera/pfr_tumbes12_taller_regional_pasos_frontera.asp?CodIdioma=ENG

E-mail: hildamariag@gmail.com
Telephones: (571) 318 – 254 58 56, (571) 61 000 61
Carrera 5 No. 86 – 42 (201) Bogotá, Colombia

been conducted since 2004 to improve their operations, in the understanding that this was essential to make international transportation more dynamic and foreign trade among the countries in the region more competitive.

The implementation of border crossing-related projects calls for a strong political will of the neighboring countries to ensure their completion; it is also a rather time-consuming process, as it involves the participation of several entities from both countries and the resources required to train relevant officials, coordinate actions towards the execution of the projects, and undertake the works needed to refurbish existing facilities or building new infrastructure for the border centers as well as their access roads.

Consequently, it was decided that the COSIPLAN/UNASUR Strategic Action Plan 2012-2022 should include the issue of border crossing facilitation as a priority. Thus, thirteen (13) projects were identified for their inclusion in the Integration Priority Project Agenda, as listed in Table 1.

Table 1. List of Border Crossings Included in the COSIPLAN/UNASUR Integration Priority Project Agenda (API)

API STRUCTURED PROJECT	INDIVIDUAL PROJECT	PROJECT STAGE
Colombia - Ecuador Border Interconnection	Binational Border Service Center (CEBAF) at San Miguel	Execution
	Implementation of the Binational Border Service Center (CEBAF) at the Tulcán - Ipiales (Rumichaca) Border Crossing	Pre-execution
Colombia - Venezuela Border Crossings Connectivity System	Improvement of the Border Crossings in the Northern Department of Santander and the Táchira State	Profiling
	Binational Border Service Center (CEBAF) at Paraguachón	Execution
	Puerto Carreño Border Crossing	Profiling
Desaguadero Binational Border Service Center (CEBAF)	Desaguadero Binational Border Service Center (CEBAF)	Pre-execution
Construction of the Salvador Mazza - Yacuiba Binational Bridge and Border Center	Construction of the Salvador Mazza - Yacuiba Binational Bridge and Border Center	Pre-execution
Argentina - Bolivia West Connection	La Quiaca - Villazón Bridge and Border Center	Profiling
Foz do Iguaçu - Ciudad del Este - Asunción - Clorinda Road Connection	Optimization of the Clorinda - Asunción Node	Pre-execution
	New Puerto Presidente Franco - Porto Meira Bridge, with a Paraguay - Brazil Border Center	Pre-execution

Improvement of Road Connectivity in the Central Interoceanic Hub	Puerto Suárez - Corumbá Integrated Control Area	Profiling
Infante Rivarola - Cañada Oruro Border Crossing	Infante Rivarola - Cañada Oruro Border Crossing	Execution
Optimization of the Cristo Redentor Border Crossing System	Optimization of the Cristo Redentor Border Crossing System	Pre-execution

2. OBJECTIVE OF THE STANDARDS AND INDICATORS

The purpose of the performance standards for South American border crossings is to have a benchmark for their optimal operation, in line with the global trends in this field.

Compliance with such standards is assessed using indicators to measure the efficiency of different operational aspects of border crossings, especially but not limited to those included in API.

These indicators will help assess the impact of the projects aimed at improving the border crossings incorporated into the COSIPLAN/IIRSA API.

The purpose is to measure the efficiency of the border crossings as a whole so that it results in time and cost savings concerning international transport by land in the region as well as in high quality user service and harmonious coexistence with neighboring populated areas.

3. CONCEPTUAL FRAMEWORK

3.1.The Conceptualization of Border Crossings

When IIRSA began its planning process, a study[2] was conducted with the participation of several agents from the Technical Coordination Committee (CCT)[3] and officials from the countries' control agencies, which defined a border crossing as a "a set of physical, organizational and procedural elements needed so that people moving and/or goods

[2] IIRSA (various authors). 2002. "Facilitación del Transporte en los Pasos de Frontera de Suramérica."

[3] The CCT is made up of the Inter-American Development Bank (IDB), the Development Bank of Latin America (CAF), and the Financial Fund for the Development of the River Plate Basin (FONPLATA).

being moved by road can cross the border dividing two countries in compliance with the requirements and controls imposed by their respective national authorities."

It also defined the concept of a feasible, "desirable border crossing" for the region as one having infrastructure, equipment, safety, operational, and organizational features that help attain the following goals:

- Control agencies provide their services in an integrated, high-quality, wide-scope, and efficient manner.
- Private agents are provided with adequate space and services.
- Users have the necessary facilities and services at their disposal.
- Offices for customs procedures and circuits are clearly signposted.

Furthermore, a desirable border crossing should result in reduced generalized transport and time costs, for which the study specified the necessary characteristics of its infrastructure, equipment, border services, IT systems, and administrative and operational aspects.

Over the last years, the growth in international transactions triggered by globalization and the resulting need to ease border formalities, while ensuring safety against the threats posed by international terrorism, illegal drug trafficking, and human trafficking, have made it necessary to increase cooperation at all levels and to change the role of border control officers, i.e. to strike a balance between facilitation and safety.

New global trends have caused a paradigm shift in border crossing management (OSCE-UNECE, 2012).[4] Prominent among them are the following:

1. Integrated Border Management (IBM)

This concept was developed by the European Commission for the Western Balkans in 2004 and updated in 2007 (EC, 2007).[5]

It covers coordination and cooperation among all the relevant authorities and agencies involved in border security and trade facilitation to establish effective, efficient and

[4] *Handbook of Best Practices at Border Crossings – A Trade and Transport Facilitation Perspective*, published in 2012 by the Organization for Security and Co-operation in Europe (OSCE) and the United Nations Economic Commission for Europe (UNECE).
[5] European Commission (EC). 2007. *Guidelines for Integrated Border Management in the Western Balkans.* PDF version available at: http://ec.europa.eu/enlargement/pdf/financial_assistance/cards/publications/ibm_guidelines_en.pdf

integrated border management systems, in order to reach the common goal of open, but controlled and secure borders.

The implementation of IBM requires an agency to lead domestic and international coordination.

This concept is based on three pillars:

a. **Intra-service Cooperation.** It refers to the cooperation and coordination that must exist among the officials within a control body or agency both at the border and at the central level, and includes coordination of the different levels of hierarchy within an agency (vertical relation) and between different units at the same level (horizontal relation).
b. **Inter-agency Cooperation.** It deals with cooperation and coordination between the different control agencies of a country, and includes processes and their sequence at border crossings, the integration of IT and risk assessment systems, and shared responsibilities between agencies.
c. **International Cooperation.** It involves cooperation and coordination between States in order to achieve: i) cooperation at the local level between officers on both sides of a border in day-to-day operations; ii) cooperation between neighboring States in border management, border demarcation, and/or the organization of joint patrols; iii) cooperation at the multinational level to fight against transnational threats such as illegal migration, trafficking in human beings, terrorism, and smuggling. It may also include cooperation and information-sharing to combat transnational organized crime trafficking in narcotics and weapons.

2. Coordinated Border Management (CBM)

Coordinated border management refers to a coordinated approach by domestic and international border control agencies, seeking efficiencies over managing trade and travel flows, while maintaining a balance with compliance requirements. This approach is promoted by the World Customs Organization (WCO).

Like the IBM methodology, it takes into account different dimensions of intra-service, inter-agency, and international coordination.

The key elements of a CBM system are the following:

- E-payment agreements

- Risk assessment rules
- Time release studies
- A single window model for handling data
- Agreements on the transmission of data between control bodies or agencies
- Juxtaposed offices

3. Collaborative Border Management (CBM)

Collaborative border management is a proposal by the World Bank (Doyle, 2010) based on the premise that globalization requires that control agencies and the international trading community must work together to achieve an aim that benefits both parties.

CBM introduces the concept of a "virtual border," according to which the passengers and goods transport and supply chain can be assessed in advance of arrival at the physical border.

It also mentions the concept of "trusted clients," who are entitled to facilitated formalities, so that controls can focus on the few risk customers, and applies the presumption of innocence principle to most travelers and traders.

The key aspects of CBM are as follows:

- **Processes** should be designed on the assumption that the vast majority of trade and travel is legitimate.
- **Outcome-based indicators**, rather than indicators of the volume of transactions, are used to conduct processes in order to enhance the level of customs compliance and international trade competitiveness.
- **Staff** should have the skills, knowledge, and behavior necessary for the new process.
- **IT systems** are recommended to be used in order to meet increased levels of interaction and information exchange between national and international agencies.
- **Infrastructure and facilities** should be upgraded in accordance with the requirements and processes of the new system.

These new trends as well as the concept and characteristics of the desirable border crossing will be taken into consideration in designing the performance standards and indicators.

4. PERFORMANCE STANDARDS AND INDICATORS FOR BORDER CROSSINGS

For the formulation of the proposed performance standards and indicators, experiences in this topic developed in South America and other regions of the world have been consulted.

References on performance standards for border crossings are few, as opposed to the plenty of material available on performance indicators. The closest to standards are the characteristics suggested for the "desirable border crossing" concept developed by IIRSA.

The *WCO Framework of Standards to Secure and Facilitate Global Trade*,[6] adopted by the World Customs Organization in 2007, is a set of voluntary, comprehensive standards for customs with emphasis on risk assessment of goods. More than 156 WCO member countries have adhered to them.

4.1.Performance Indicators: Measurement Methodologies

Different measurement methodologies related to performance indicators for border crossings have been analyzed, and they are presented here by way of reference.

1. **LPI.** Logistics Performance Index

Border crossings form part of the logistics of transportation within a country and between it and its neighbors. Therefore, their efficiency is related to the measurement of the overall logistics of the country concerned. This is why efficient border crossing management is one of the variables analyzed to determine the LPI, which is calculated annually by the World Bank.[7] The LPI is assessed for each country, cannot be used to identify specific border crossings, and refers to goods only.

2. **Doing Business**

[6] Ireland, Robert. 2009. "The WCO SAFE Framework of Standards: Avoiding Excess in Global Supply Chain Security Policy," in: *Global Trade and Customs Journal* 4 (11/12), WCO Research Paper No. 3.

[7] http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTTRANSPORT/EXTTLF/0,,contentMDK:21514122~menuPK:3875957~pagePK:210058~piPK:210062~theSitePK:515434,00.html

The World Bank measures the countries' ease of doing business on an annual basis.[8] Among the variables analyzed are the procedures for conducting foreign trade in general, not only across borders but also through maritime ports.

3. **UNESCAP.** United Nations Economic and Social Commission for Asia and the Pacific

UNESCAP has a methodology based on time and cost studies on corridors in Central and Eastern Asia.[9] Time and costs are assessed via questionnaires with truck drivers and freight forwarders. The methodology measures travel times and costs from a point of origin to a point of destination, identifying travel times and the time spent at transfer points —whether they are sea ports or border crossings—, and estimating the costs incurred in each segment of the route. Thus, users can analyze different transport routes between the same places of origin and destination based on the detailed costs and times associated with each segment of the journey.

4. **World Customs Organization.** *Time Release Study (TRS)*

The *Time Release Study Guide* is a tool developed by the WCO to assess customs practices in detail, and it has been expanded to provide analysis of all the agencies present at border crossings, airports, and sea ports where it can be used. Its development goes back to the 1990s, and a second version was released in 2011.[10]

The objective of the TRS Guide is to identify bottlenecks in the international supply chain and/or constraints in customs procedures, as well as to assess newly introduced technologies, procedures, and infrastructure. It also helps identify opportunities for trade facilitation improvement.

It focuses on measuring the time required to complete the customs formalities for the release of goods and the processing of in-transit movements. Online software is available to all WCO members so that they can carry out these time studies, which requires previous preparation, work team organization, and formulation of suggestions.

5. **IRU.** International Road Transport Union

[8] http://www.doingbusiness.org/data/exploretopics/trading-across-borders/what%20measured
[9] http://www.unescap.org/ttdw/index.asp?MenuName=RouteStudiesWelcome
[10] World Customs Organization (WCO). 2011. *Guide to Measure the Time Required for the Release of Goods, Version 2*.

The International Road Transport Union developed the Border Waiting Times Observatory for the countries of Eastern Europe and part of Asia, which is available at http://www.iru.org/bwt-app.

The information offered is highly schematic, as border crossings are shown on an interactive map from which one can select a border crossing to see the average waiting times. This data, however, is not very detailed, and is incomplete for many pairs of countries.

6. The Trade and Transport Facilitation in Southeast Europe Project (TTFSE) Methodology

The TTFSE program, funded by a World Bank loan, was devised to assess progress at the border crossings in the Balkans. The World Bank also supported its design and subsequent use.

- It was based on a "black box" concept, whereby the time between a vehicle joining the queue in the country of exit and leaving for the other country after completing the formalities was measured.
- Data on whether the vehicle had been inspected was collected by observers (off-duty staff).
- Measurements were done monthly over 72-hour periods, on differed days each month.
- Occasionally, more detailed data collection and analysis was made.
- The reports were entered in a single database.
- A data series on 30 border crossings was compiled using monthly measurements made over a period of 4 to 5 years.

The variables measured were the following:

- Goods clearance time
- Physical examinations compared to the number of declarations checked (%)
- Number of trucks cleared in less than 15 minutes
- Irregularities found compared to the number of trucks examined (%)
- Surveyed occurrence of corruption (%)
- Customs cost/Revenue collected

- Revenue collected/Customs staff
- Trade volume/Number of staff
- Annual number of declarations/Customs staff
- Value of imports
- Value of exports

Comments on the Implementation of the TTFSE Project:

- Once established, the indicators were accepted.
- Initially, there was some reluctance by the control agencies as they felt that national security was being violated, and that there was an intrusion in their operations. Furthermore, those that were not financed by the World Bank thought that there was no reason for them to participate in these measurements.
- The main problems detected were as follows:
  - The notion of global performance indicators for all border crossings was in contradiction to the general habit of blaming other agencies for delays.
  - All the agencies were opposed to measuring queuing times, with the argument that many delays were the consequence of the inefficient role played by the private sector.
  - There was a feeling of resentment at having control measures imposed by outsiders.

Outcomes:

Usually, processing time targets were met.

Processes and the percentage of physical examination were redesigned, and pre-arrival notification and other procedures were introduced, which contributed to improving border crossing efficiency.

There was an increase in customs revenues.

Delays caused by private sector users were identified as, among other reasons, drivers preferred to rest in the safe environment of the border crossings rather than to park on the verge of the road.

4.2. Standardization of Indicators Proposed by the OSCE-UNECE Document Based on its Analysis

As a result of its analysis of performance measurement experiences and methodologies, the *Handbook of Best Practices* (OSCE-UNECE, 2012) remarks that each indicator group provides multiple outputs and must serve a primary purpose.

Four (4) categories of indicators are proposed:

1. Indicators of time
2. Indicator of facilitation
3. Indicators of procedures
4. Indicators of effectiveness

1. Indicators of Time

- They show average, maximum, and minimum times at border crossings for completing formalities. An example is the measurement of total time between arrival at and departure from a border station in the case of a truck. They can be broken down to measure the time taken by each procedural stage.
- They measure times in minutes.
- They can be aggregated or broken down between different procedural steps, and they also measure waiting times.
- They provide useful information for both control agencies and the private sector.

Use:

- They show the evolution of waiting and processing times.
- They help assess improvements in border crossing infrastructure and operations.
- They serve to evaluate peak and off-peak performance.

Combined use:

- With indicators of facilitation, to analyze and validate results

- With indicators of procedures, to evaluate procedural impact after a procedural reform
- With indicators of effectiveness, to benchmark a particular border crossing

2. Indicators of Facilitation

- They focus on formalities (licenses, permits) and their associated costs. An example is the measurement of the time it takes to obtain a permit or license. Both the LPI and *Doing business* are regarded as indicators of facilitation.
- They are good at showing the incidence of back office review and simplification procedures, but not at measuring real-time performance in the field.
- They are expensive to collect, and cannot be used monthly or daily.
- They rely on user feedback, and may be inconsistent with administrative performance.

Use:

- International ranking
- Pressure on agencies
- Curbing corruption

Combined use:

- With quantitative indicators, to validate them
- With indicators of procedures, to validate them as well as user comments

3. Indicators of Procedures

- They are normally used for customs procedures, and also identify non customs-related processes. They break the control process down into steps.
- They analyze inputs and outputs of the successive steps of customs procedures in detail.

Use:

- Review procedures.
- Identify possibilities of consolidating customs and non-customs checks and procedures.

Combined use:

- WCO's benchmarking manual
- Analysis, from the customs perspective, of statistical data obtained through indicators

4. Indicators of Effectiveness

- They cover a very wide range of statistical data available at the national, regional or local level, and compute ratios that can be compared between border crossings or from one period of time to another.
- Examples of these indicators can be found in the TTFSE program: customs cost/revenue collected, revenue collected/customs staff, trade volume/number of staff.
- The indicator of effectiveness most frequently used is the one that measures revenue performance and achievement of target collection, although many more —focused on cost-effectiveness— are used.
- They are easily collected, and can be used with any periodicity.

Use:

- Measurement of cost-effectiveness
- Evaluation of practical tasks by combining ratios
- Benchmarking

Combined use:

- With quantitative indicators, to extrapolate ground operations
- With indicators of facilitation

4.3.Performance Indicators for the Transport Sector

In 2012, the IDB commissioned a study to define indicators for the transport sector.[11] It was deemed important to take it into consideration as it offers an up-to-date outline of performance measures that is in accordance with the COSIPLAN/IIRSA requirements.

The study includes a review of the best practices for selecting performance indicators for the transport sector, and suggests that they should be:

- **Assessment-driven:** Capable of assessing transport, investment policy, and other decision-making measures.
- **Simple:** Easy to understand by decision makers, employees, and the public in general. The information should be made available in a clear manner and through a not too complex method.
- **Significant:** Reflecting the most important aspects of performance.
- **Practical:** Outcome-oriented.
- **Realistic:** Not requiring excessive efforts to collect them.
- **Time efficient:** Capable of changing and of measuring within a reasonable time.

Three levels of indicators are proposed:

Level 1: They meet two basic criteria:

- The indicators are useful for the IDB, and the measures used have a standard definition.
- The measures are currently applied in most Latin American countries, and the data for arriving at them are generally available.

Level 2: They would be highly useful for the IDB, but involve one of the following limitations:

- At present, data are collected or available only in a reduced number of countries.
- The measures are not consistently used in all the countries.

[11] Conducted by the consortium made up of Cambridge Systematics, the Texas Transportation Institute (TTI), Sigma, and ACYA.

Level 3: They would be very helpful to the IDB, but at present they are only feasible for those Latin American countries with the most developed institutions due to:

- The data required; and/or
- The level of analysis required for estimating them; and/or
- The characteristics of the transport system of the countries that use them.

5. Proposed Performance Standards for UNASUR/IIRSA

The purpose of the performance standards for border crossings required by UNASUR/IIRSA is to have a uniform benchmark for assessing the performance of border crossings and measuring the impact of their improvement.

Such standards are the optimal performance levels that border crossings should strive to achieve.

These proposed performance standards for South American border crossings are based on the description of the "desirable border crossing," and include some features of the new global trends, such as IBM and CBM.

The standards must cover the aspects of a border crossing listed in Table 2.

Table 2. List of Standards with which Border Crossings should Comply

ASPECT	SCOPE OF THE STANDARD
1. ROAD NETWORK	
Condition and level of service of the roads	This includes the border crossing access roads in both countries as well as international bridges. They are in good conditions and provide an adequate level of service.
Inhabitant's activities not hindering or obstructing the flow of vehicles across the border crossing	No activities carried out in adjacent populated places (such as markets) affect international freight traffic.
2. INFRASTRUCTURE	

ASPECT	SCOPE OF THE STANDARD
Facilities for freight users	Infrastructure is designed to cater for control procedures as well as for the services required by freight users, including basic facilities such as restrooms, money exchange, telephones, and Internet connection.
Facilities for passengers	Infrastructure is designed to cater for control procedures as well as for the services required by passengers, including basic facilities such as restrooms, money exchange, telephones, and Internet connection.
Facilities for freight forwarders	Infrastructure is designed to cater for control procedures as well as for the services required by freight forwarders, including basic facilities such as restrooms, money exchange, telephones, and Internet connection.
Sufficient number of clearly separate lanes for all users inside border crossings	Lanes inside border crossings are well designed, with clear indicator signs and laminar traffic flows for each type of vehicle, including pedestrian lanes for security and safety reasons.
Sufficient and adequate parking areas	There are sufficient, well designed and maintained inside parking areas to cater for the demand.
Sufficient infrastructure in good condition	The buildings at the border crossing point are in a good state of maintenance and enough to house all the control agencies. The premises are properly designed and equipped for control procedures and physical integration (bays for specific purposes, laboratories, etc.), and they house all the services required for the whole procedure, such as banking facilities and the services of other bodies involved in the controls.
Fenced perimeter and access control	Border crossing facilities are fenced to avoid access of anyone other than individuals involved in the control procedures.
Housing for staff members (where required)	Housing for staff members who must spend the night at the border crossing is sufficient and well maintained.
3. IT SYSTEMS AND EQUIPMENT	
Integrated IT systems (national)	The IT systems of the different control agencies of a country are integrated.
Integrated IT systems (bilateral)	The IT systems of the different control agencies from both countries are integrated to facilitate completion of formalities by users.
Adequate control equipment	Control equipment (weighing scales, incinerators, fumigation facilities, scanning machines) is suited to the risk profiles and types of users.

E-mail: hildamariag@gmail.com
Telephones: (571) 318 – 254 58 56, (571) 61 000 61
Carrera 5 No. 86 – 42 (201) Bogotá, Colombia

ASPECT	SCOPE OF THE STANDARD
4. OPERATION AND ADMINISTRATION	
A single administration for the border center with control over performance	There is one administration for the border center duly authorized to coordinate all border crossing procedures and having a performance control system in place.
Integrated national control procedures	All the national control agencies coordinate their control procedures.
Integrated bilateral control procedures	Control procedures are coordinated on a two-country basis.
5. SERVICES PROVIDED	
Immigration, customs, phytosanitary, transport, and other control procedures required	All the required control procedures and formalities are provided at the border crossing.
Sanitary services aligned with international standards	There are sanitary service facilities and processes aligned with international standards.
Information services on requirements	Information on the steps to be followed and the documents required is provided through means of communication such as the Internet, brochures, leaflets, and telephone lines.
6. INTER-AGENCY COOPERATION	
Intra-service cooperation	There is internal coordination and cooperation between the officials of each control agency.
Inter-agency cooperation	There is coordination and cooperation between the control agencies of a country.
7. SOCIAL AND ENVIRONMENTAL ASPECTS	
The border crossing point and its surroundings: Coordination of border crossing activities with local authorities and other local stakeholders	The activities carried out at the border crossing are coordinated with the public and private bodies of the area of influence. The activities performed in the area of influence do not interfere with the border crossing operations.
Border crossing activities and international traffic causing no conflict with the population	The flow of international freight vehicles and the overall activities associated with the border crossing do not create land use conflict with adjacent areas, road safety issues, or congestion.
Border crossing activities causing no noise, solid waste, or black water pollution, or invasion of public space	Black water and solid waste are properly disposed of at the border crossing, and border crossing activities do not cause unlawful parking or invade public spaces (international and local roads).

6. Proposed Performance Indicators for UNASUR/IIRSA

In designing the COSPILAN/IIRSA indicators, it was sought to answer the following questions:

What is trying to be measured?

In principle, the aim is to measure the improved performance of the border crossings included in the COSIPLAN/IIRSA Integration Priority Project Agenda upon implementation of the projects. This improvement can be assessed through:

- Quality of user service
- Degree of bilateral integration of the control procedures
- Quality of infrastructure and approach roads
- Level of improvement in border crossing operations
- Coexistence of the border crossing and its surroundings
- Comparison of different border crossings
- Efficiency of border crossings in the transport chain

Who will carry out the measurements?

- The authorities responsible for the border crossings in each country, with the participation of exporters, importers, passenger carriers, and direct users of the border crossings.

How will the measurements be conducted?

- User surveys
- Statistical data from the control agencies
- Statistical data specifically designed for these indicators
- Qualitative information on the border crossings

How often will measurements be taken?

- Constantly
- Monthly
- Annually

In addition, the design of the proposed indicators took the following into account:

- South American border crossings differ very much: some are well developed and use modern technology, while others are rudimentary.
- Border center regulation and control is not within the scope of a single agency, but is rather performed by pairs of countries, taking into consideration whether a border crossing forms part of the MERCOSUR, the Andean Community, or other regional blocs.
- Priority is given to the border crossings included in API, but the indicators are sought to be used on a broader basis.
- There is little and poorly detailed information available on border crossing management and on the difficulties encountered in setting up control systems.

Both qualitative and quantitative indicators are proposed, some of them associated with the standards already defined and others related to border crossing performance.

Performance indicators are proposed to be grouped into the following two blocks:

1. **Regional Descriptive Indicators.** They are meant to analyze the overall status of South American border crossings, and encompass variables that are easily estimated. They are deemed adequate in terms of the level of information and analysis that they can provide to COSIPLAN/IIRSA.

   These indicators are suggested for COSIPLAN/IIRSA to have an overview of the current status of the border crossings included in API and to monitor progress, which will provide more specific details to supplement the information contained in the existing project database.

2. **Border Crossing Indicators.** They are proposed to gain insight into the performance of the border crossings and to measure the impact of any improvements made. They are planned to be used by individual countries or pairs of countries in order to measure the performance of one or more of their border crossings.

REGIONAL DESCRIPTIVE INDICATORS

These indicators assess the basic requirements that a border crossing must fulfill, and the data they provide is of a qualitative nature, which contributes to easily quantifying them.

Table 2 shows a list of basic performance standards and the suggested ways to analyze whether they are met, so that they may serve as basic indicators for the COSIPLAN to monitor the performance of the border crossings included in IIRSA Project Portfolio.

Table 3. Performance Indicators for UNASUR/IIRSA Border Crossings

ASPECT	MEASURE		
1. ROAD NETWORK			
Condition and level of service of the roads	Good	Fair	Poor
Inhabitants' activities not hindering or obstructing the flow of vehicles across the border crossing	Yes	No	
2. INFRASTRUCTURE			
Facilities for freight users	Restrooms	Yes	No
	Money Exchange	Yes	No
	Telephones	Yes	No
	Internet connection	Yes	No
Facilities for passengers	Restrooms	Yes	No
	Money Exchange	Yes	No
	Telephones	Yes	No
	Internet connection	Yes	No
	Tourist office	Yes	No
	Cafeteria	Yes	No
Facilities for freight forwarders	Restrooms	Yes	No
	Money Exchange	Yes	No
	Telephones	Yes	No
	Internet connection	Yes	No

E-mail: hildamariag@gmail.com
Telephones: (571) 318 – 254 58 56, (571) 61 000 61
Carrera 5 No. 86 – 42 (201) Bogotá, Colombia

	Tourist office	Yes	No
	Cafeteria	Yes	No
Sufficient number of clearly separate lanes for all users inside border crossings	Sufficient number of lanes	Yes	No
	Separate lanes for different types of users (pedestrians, trucks, buses, and cars)	Yes	No
Sufficient and adequate parking areas	Enough parking space	Yes	No
Sufficient infrastructure in good condition	Is building space enough for conducting control procedures? (Availability of power outlets for refrigerated goods, dedicated physical inspection bays, weighing scales, etc.)	Yes	No
	Are all the services required provided at the border crossing?	Yes	No
Fenced perimeter and access control	Fenced perimeter and access control	Yes	No
Housing for staff members (where required)	Is sufficient housing provided for staff members, when necessary?	Yes	No
	Is it well maintained?	Yes	No
3. IT SYSTEMS AND EQUIPMENT			
Integrated IT systems (national)	Yes	No	Partially
Integrated IT systems (bilateral)	Yes	No	Partially
Adequate control equipment	Is it enough?	Yes	No
Times measured by performance controls	Total time	Partial time	

E-mail: hildamariag@gmail.com
Telephones: (571) 318 – 254 58 56, (571) 61 000 61
Carrera 5 No. 86 – 42 (201) Bogotá, Colombia

4. OPERATION AND ADMINISTRATION			
A single administration for the border center with control over performance	Yes	No	
Integrated national control procedures	Yes	No	Partially
Integrated bilateral control procedures	Yes	No	Partially
5. BORDER CROSSING POINT AND ITS SURROUNDINGS			
Coordination of border crossing activities with local authorities	Do border crossing operations interfere with neighboring inhabitants' activities?	Yes	No
	Do neighboring inhabitants' activities interfere with border crossing operations?	Yes	No
6. INTER-AGENCY COOPERATION			
Intra-service cooperation	Yes	No	Partial
Inter-agency cooperation	Yes	No	Partial
7. SOCIAL AND ENVIRONMENTAL ASPECTS			
The border crossing point and its surroundings: Coordination of border crossing activities with local authorities and other local stakeholders	Do border crossing operations interfere with neighboring inhabitants' activities?	Yes	No
	Do border crossing operations interfere with neighboring inhabitants' activities?	Yes	No
Border crossing activities causing no noise, solid waste, or black water pollution, or invasion of public space	Do border crossing operations cause unlawful parking or invade public spaces (international and local roads)?	Yes	No

E-mail: hildamariag@gmail.com
Telephones: (571) 318 – 254 58 56, (571) 61 000 61
Carrera 5 No. 86 – 42 (201) Bogotá, Colombia

	Is solid waste properly disposed of?	Yes	No
	Is black water properly disposed of?	Yes	No
	Do border crossing operations invade public spaces?	Yes	No

BORDER CROSSING PERFORMANCE INDICATORS FOR SPECIFIC PROJECTS (more detailed, providing quantitative information)

These indicators are regarded as appropriate measures to be implemented in those border crossings that want to be monitored in detail in terms of their performance. Several types of indicators are listed so as to offer the possibility of choosing the ones that are more in line with the objectives intended to be attained.

The types of indicators proposed are the following:

1. **Indicators of Time**

They show the duration of control procedures at border crossings, including waiting times and idle time, among others, and their associated costs for users.

2. **Indicators of Facilitation (Simplification)**

They measure how users perceive the services provided at border crossings, and are useful to compare different border crossings.

3. **Indicators of Procedures**

They assess how procedures are conducted, whether they are integrated and, if so, the kind of integration, among other issues.

4. **Indicators of Effectiveness**

They measure the efficiency of the control procedures at border crossings for the sake of the public administration.

Table 4 Performance Indicators for Specific Border Crossings

INDICATOR	USE	DESCRIPTION	MEASUREMENT METHOD	FREQUENCY
1. TIME				
1.1 Global time	Assesses improvements in border crossing operations, and identifies peak days and months.	Measures the time between arrival at the border crossing in the country of exit and departure after completion of the procedures in the country of entry.	Using manual or computer-based methods to record the time of arrival and check it against the time of departure.	Collected on a constant basis if automated systems are used, which helps compute daily and monthly averages, peak hours, and other data. If manually collected, a random criterion may be used.
1.2 Specific times	Identifies bottlenecks attributable to the control agencies or the private sector.	Measures the control time by agency: customs, immigrations, phytosanitary service.	Using statistical data from the control agencies, manual methods, or automated systems.	Collected on a constant or random basis, depending on the methods used by each agency.

INDICATOR	USE	DESCRIPTION	MEASUREMENT METHOD	FREQUENCY
2. FACILITATION				
2.1 Passenger service quality	Assesses improvements in the simplification of all procedures, evaluates the quality of service, and identifies room for improvement.	Measures service quality as good, fair, or poor, taking into account factors such as ease for completing formalities, user service quality, corruption, and other factors perceived by users.	Through user surveys	The recommended frequency is once a year, as user surveys are involved.
2.1 Freight service quality				

INDICATOR	USE	DESCRIPTION	MEASUREMENT METHOD	FREQUENCY
3. PROCEDURES				
3.1 Bilateral integration of control procedures	Assesses the level of integration of the control procedures.	Measures the degree of integration of control procedures within a country and between two neighboring countries.	Using information supplied by the control agencies.	Annual
3.2 Control procedures by agency	Helps review the procedures of the control agencies to propose improvements.	Measures the procedures of each control agency, identifying requirements and inputs and outputs of successive steps.	Using information supplied by the control agencies.	Given its complexity, the recommended frequency is every 2 years.

INDICATOR	USE	DESCRIPTION	MEASUREMENT METHOD	FREQUENCY
4. EFFECTIVENESS				
4.1 Physical inspections / No. of declarations checked (%)	Assesses the customs' level of confidence in traders.	Measures the number of physical examinations compared to the total number of customs procedures at the border crossing in a given period of time.	Using customs statistical data.	Annual
4.2 Irregularities found / No. of trucks examined (%)	Assesses the level of corruption or error in the formalities completed by truck drivers.	Measures the percentage of irregularities found versus the total number of procedures.	Using customs statistical data.	Annual

4.3 Border center operational costs / Value of foreign trade across the border center	Analyzes the cost of the control procedures versus the value of the trade operations controlled at the border crossing.	Adds up the border center operational costs, and divides such total by the value of foreign trade that passed through the border crossing.	Dividing the operational costs of each control agency present at the border center by the total declared value of the goods that crossed the border.	Annual
4.4 Trade volume / No. of staff	Identifies whether there is a large number of employees at the border crossing.	Divides the total tons of foreign trade goods that passed through the border crossing by the number of employees.	Using the border crossing statistical data.	Annual
4.5 No. of passengers / No. of immigrations staff	Identifies whether there is a large number of employees at the border crossing.	Divides the total number of passengers that passed through the border crossing by the number of immigrations employees.	Using the immigrations office statistical data.	Annual

CONCLUSIONS AND RECOMMENDATIONS

- As already explained, there are several ways to measure the quality, efficiency, and efficacy of border crossings, both as a bilateral control process and as part of the transport chain.

- The implementation of performance standards and indicators in the regions is very important in order to measure the results of the investments and projects underway, especially those included in API, as set up and assessed by COSIPLAN/IIRSA.

- The implementation of such standards and indicators requires time and effort; therefore, it can be done gradually, improving little by little the quality and quantity of indicators used at both the national and bilateral levels.

- During the workshop held in Tumbes, it was proposed that the development banks that make up the COSIPLAN/IIRSA Technical Coordination Committee (CCT) should support the implementation of performance standards and indicators for the South American border crossings. It was even proposed that an observatory of border crossings should be created.

- These indicators are designed for officially established border crossings. However, it is necessary to create a mechanism to identify and evaluate informal border crossings as well.

- There is a great demand for reference material on documented good practices in planning, designing, implementing, and managing border crossings. This has become evident in several regional events on the subject, and COSIPLAN/IIRSA could make a significant contribution to meet such demand with the experiences underway in the region and also in other parts of the world. The OSCE-UNECE Handbook, many ideas and concepts of which have been used in preparing this document, is invaluable in this regard.

- Given the importance of border crossing enhancement, it is recommended that COSIPLAN/IIRSA analyze experiences in this connection both in the region and beyond with a view to incorporating lines of action so as to begin the gradual implementation of the performance standards and indicators soon.

Next Steps

- Analyze the border crossings included in API bearing in mind the information related to the regional descriptive indicators. This will help COSIPLAN /IIRSA have a baseline against which to evaluate the improvements resulting from the implementation of the projects.

- Identify pilot border crossings at which the detailed performance indicators can be implemented. It is suggested that the indicators put into practice in each border crossing should be those considered important to attain the expected goals.

E-mail: hildamariag@gmail.com
Telephones: (571) 318 – 254 58 56, (571) 61 000 61
Carrera 5 No. 86 – 42 (201) Bogotá, Colombia

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E-mail: hildamariag@gmail.com
Telephones: (571) 318 – 254 58 56, (571) 61 000 61
Carrera 5 No. 86 – 42 (201) Bogotá, Colombia