UNASUR

COSIPLAN

API

Integration Priority Project Agenda

Infrastructure and Planning Council

API

INTEGRATION PRIORITY PROJECT AGENDA

Document prepared by IIRSA and approved
by the COSIPLAN Coordinating Committee

I . I . R . S . A

INITIATIVE FOR THE INTEGRATION OF REGIONAL
INFRASTRUCTURE IN SOUTH AMERICA

This document was technically prepared with the support
of the IIRSA Technical Coordination Committee (CCT)

IDB

CAF DEVELOPMENT BANK OF LATIN AMERICA

FONPLATA

November 2011

NOTE

The information concerning the South American Integration Priority Project Agenda contained herein is based on the information prepared and submitted by the countries that form part of the Union of South American Nations (UNASUR) within the framework of the Infrastructure and Planning Council (COSIPLAN).

The maps in this document have been prepared by IIRSA Technical Coordinating Committee (CCT) as a technical and general reference work tool. Borders, colors, denominations, or other information shown in them are used exclusively for illustration purposes, and are not to be understood as a judgment, opinion or other on the legal status of a territory or as a recognition of borders by the institutions that make up the CCT.

REFERENCES FOR MAPS

Priority Projects

- Road
- Railway project
- River navigability
- Oil & gas
- Power interconnections
- Roundabout
- Rail projects
- Border Crossing, CEBAF
- Ports
- Logistic Center
- Airports
- River navigability
- Bridges, alternative connections
- Tunnels

References:

- Country capital
- City
- Connecting road
- Connecting railway
- Existing road network
- Main hydrography
- Hydrography
- Country boundaries
- Area of Influence of Integration and Development Hub (EID)

TABLE OF CONTENTS

PRESENTATION 5

1. UNASUR AND A RENEWED MOMENTUM FOR SOUTH AMERICAN INTEGRATION 7

2. BACKGROUND TO API 9

3. THE INTEGRATION PRIORITY PROJECT AGENDA (API) 17

4. THE API SET UP PROCESS 21

5. THE API PROJECTS 23

REFERENCES 66

ANNEX 1:
FILES ACCOUNTING FOR COMPLIANCE WITH THE API PROJECT SELECTION CRITERIA In CD

ANNEX 2:
THE API PROJECTS: MAPS In CD

ANNEX 3:
GENERAL TABLE OF API PROJECTS In CD

PRESENTATION

This document describes the South American Integration Priority Project Agenda, designed by the Member States of the Union of South American Nations (UNASUR) within the framework of the South American Infrastructure and Planning Council (COSIPLAN).

UNASUR was created by the South American presidents in 2008 as a forum for high-level political dialogue and coordination among the twelve countries of the region. Within this institutional framework, eight sectoral councils at ministerial level, one of which is COSIPLAN, were created. The presidents commissioned COSIPLAN, among other central tasks, to identify and select a set of high-impact works for the integration and development of South America.

The Integration Priority Project Agenda (API, its acronym in Spanish) is the result of the work undertaken during 2011 by the twelve countries within COSIPLAN. This Agenda is made up of 31 strategic projects with a high impact on the physical integration and socioeconomic development of the region, involving an investment amount estimated at US$13,652.7 million. Its purpose is to encourage connectivity in the region through the construction and efficient operation of infrastructure, while taking into account sustainable social and economic development criteria and preserving the environment and the balance of ecosystems.

This document reviews the background to the creation of API; addresses in detail its concepts, features, and project selection criteria; considers the need to set up a follow-up and monitoring mechanism; and describes the process undergone in defining API. In particular, the document presents the API projects, describing their specific purpose, current situation, amount, schedule, and implementation stage. Then, an analysis is made of project compliance with the selection criteria used —particularly in relation to the connectivity promoted by each project—, stressing the benefits of their implementation for the integration and development of the territory involved.

The integration of transport, energy and communications infrastructure is one of the most significant dimensions of the integration project envisioned by the governments of the South American countries. The physical integration of the region will contribute to improving the quality of life and life expectancy within each country and at the regional level, as well as to reducing regional disparities and social inequality.

This Agenda constitutes a major policy action of UNASUR to coordinate the efforts made by the South American countries to promote sustainable development and the social welfare of their peoples.

1. UNASUR AND A RENEWED MOMENTUM FOR SOUTH AMERICAN INTEGRATION

The origins of South American physical integration can be traced as far back as more than a decade ago. The landmark event was the First South American Presidential Summit, held in Brasilia in 2000.[1] At this meeting, a multi-layered process of integration and cooperation was launched involving the twelve independent South American countries: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, and Venezuela. On that occasion, the Presidents undertook to promote regional integration to address present challenges and make use of the advantages offered by globalization. A concrete outcome of this vision was the creation of the Initiative for the Integration of Regional Infrastructure in South America (IIRSA),[2] which aims "at encouraging the integration and modernization of physical infrastructure under a regional vision of the South American space" (Brasilia Communiqué, 2000).

Since the First Summit in Brasilia, another twelve presidential summits have been held, in the course of which UNASUR began to take shape. The meetings of presidents increasingly gained formalization, culminating with the approval of the Constitutive Treaty of the Union of South American Nations on May 23, 2008, in Brasilia.[3] According to Article 2 therein, the objective of UNASUR is to create, in a participatory and consensual manner, a space for integration and union among its peoples in the cultural, social, economic and political fields, prioritizing political dialogue, social policies, education, energy, infrastructure, financing and the environment, among others, with a view to eliminating socioeconomic inequality, in order to achieve social inclusion and the participation of civil society, to strengthen democracy, and reduce assymetries within the framework of strengthening the sovereignty and independence of the States (Constitutive Treaty of UNASUR, 2008).

At the Third Summit of UNASUR (Quito, August 2009),[4] the South American Presidents decided to create, in such institutional context, the South American Infrastructure and Planning Council (COSIPLAN). Its Statute and Regulations were approved by the COSIPLAN Ministers at their First Meeting (Buenos Aires, December 2009).. According to the Statute, COSIPLAN "is a forum for political and strategic discussion […] aimed at implementing the integration of regional infrastructure in the UNASUR member countries." On the occasion of the Fourth Summit of the UNASUR Presidents(Georgetown, November 2010),[5] the Presidents envisaged "the prompt implementation of its Action Plan, which is especially significant for the future of regional integration," and stressed "the importance of selecting a series of works that would impact powerfully on integration and regional socio-economic development" (Declaration of the Fourth Summit of UNASUR, 2010).

THE MANDATE FROM THE PRESIDENTS TO COSIPLAN

The Statute and Regulations of COSIPLAN guide the work of the Council by defining its principles and objectives, and conferring to it the structure required to implement the actions entrusted by the presidents, within which IIRSA serves as its infrastructure technical forum. Based on these objectives, in the

[1] http://www.iirsa.org/i_reunion_presidentes_suramericanos.asp
[2] http://www.iirsa.org
[3] The Constitutive Treaty was approved by the presidents at the First Meeting of the UNASUR Council of Heads of State and Government, http://www.iirsa.org/i_reunion_unasur.asp
[4] http://www.iirsa.org/iii_reunion_unasur.asp
[5] http://www.iirsa.org/iv_reunion_unasur.asp

course of 2011 COSIPLAN made headway towards the design of two instruments that will organize its work in the next ten-year period: the Strategic Action Plan (PAE, its acronym in Spanish) 2012-2022, and the Integration Priority Project Agenda (API).

- *The Strategic Action Plan (PAE) 2012-2022*

The PAE 2012-2022 is the result of the discussions held and agreements attained by the Coordinating Committee of COSIPLAN, made up at the initiative of officials from the ministries of infrastructure and/or planning or similar government agencies of the UNASUR Member States. The highlights of the PAE are the following:

- It recognizes the results in regional infrastructure integration attained by IIRSA, particularly: (i) the development and application of the Indicative Territorial Planning Methodology, which gave rise to a consensus-built portfolio of more than 500 transport, energy and communications infrastructure projects, organized in nine Integration and Development Hubs (EIDs, their acronym in Spanish); (ii) the creation of the Implementation Agenda Based on Consensus (AIC, its acronym in Spanish) 2005-2010, consisting in a set of 31 priority projects having a high impact on the physical integration of the territory; (iii) the design of projects related to Sectoral Integration Processes (PSIs, their acronym in Spanish); and (iv) the development and application of new planning methodologies and tools.
- It is based on the UNASUR Constitutive Treaty and the COSIPLAN Statute and Regulations. The general and specific objectives of COSIPLAN are closely linked with those related to infrastructure as established in the UNASUR Constitutive Treaty:

  "d) Energy integration for the integral and sustainable use of the resources of the region, in a spirit of solidarity;"

  "e) The development of an infrastructure for the interconnection of the region and among our peoples, based on sustainable social and economic development criteria;"

  "m) Industrial and productive integration, focusing especially on the important role that small and medium size enterprises, cooperatives, networks, and other forms of productive organization may play."
- For every specific objective of COSIPLAN, it institutes a series of actions including their expected deliverables and estimated implementation time or frequency of implementation. Likewise, it identifies the major instruments required for the implementation of these actions and provides for the development of mechanisms designed to monitor and assess them, considering that the PAE will be subject to review five years after its launch.

- *The Integration Priority Project Agenda (API)*

The creation of API is one of the actions of the PAE. This Agenda is made up of projects having a high impact on the physical integration of the region, as they connect corridors or integration areas, which have been selected by consensus among the twelve countries that form part of UNASUR.

Sections 3, 4, and 5 address in detail its concepts, features, criteria for project selection, as well as the mechanism for its follow-up and monitoring. Furthermore, the process that led to the creation of API and the 31 projects included in it are both described and analyzed.

Before this, section 2 provides background information concerning IIRSA Project Portfolio and the Implementation Agenda Based on Consensus (AIC) 2005-2010.

2. BACKGROUND TO API

Throughout its ten years of existence, IIRSA has become an essential forum for infrastructure planning by the twelve South American countries from a shared and regional vision of the opportunities and challenges posed by the subcontinent. Under the umbrella of IIRSA, South America has, for the first time, acted as a single, integrated unit, the most significant results being the creation of IIRSA Project Portfolio[6] in the transport, energy and communications sectors, and the Implementation Agenda Based on Consensus (AIC) 2005-2010.[7] These significant endeavors in terms of cooperation, dialogue and agreement among the South American countries with a view to attaining greater, more sustainable physical integration in the region stand as the key driving forces leading to the creation of API.

- **IIRSA PROJECT PORTFOLIO**

- *IIRSA Project Portfolio 2004-2010*

The original structuring of IIRSA Project Portfolio took place in 2004 and was subject to successive updates as a result of improved territorial planning within the framework of the Initiative. By the end of 2004, the portfolio was made up of 335 infrastructure projects accounting for an estimated investment of more than US$37,424.8 million.

In 2010, as the first work stage of IIRSA was coming to an end, one last update process was undertaken within the framework of IIRSA through meetings of the Executive Technical Groups (GTEs, their acronym in Spanish) on every Integration and Development Hub (EID, in Spanish).[8] The resulting portfolio included 524 projects, accounting for an investment estimated at US$96,119.2 million.[9]

TABLE 1: NUMBER OF PROJECTS AND ESTIMATED INVESTMENT 2004-2010

(million US$)

Year	Number of Projects	Estimated Investment
2004	335	37,424.80
2007	349	60,522.60
2008	514	69,000.00
2009	510	74,542.30
2010	524	96,119.20

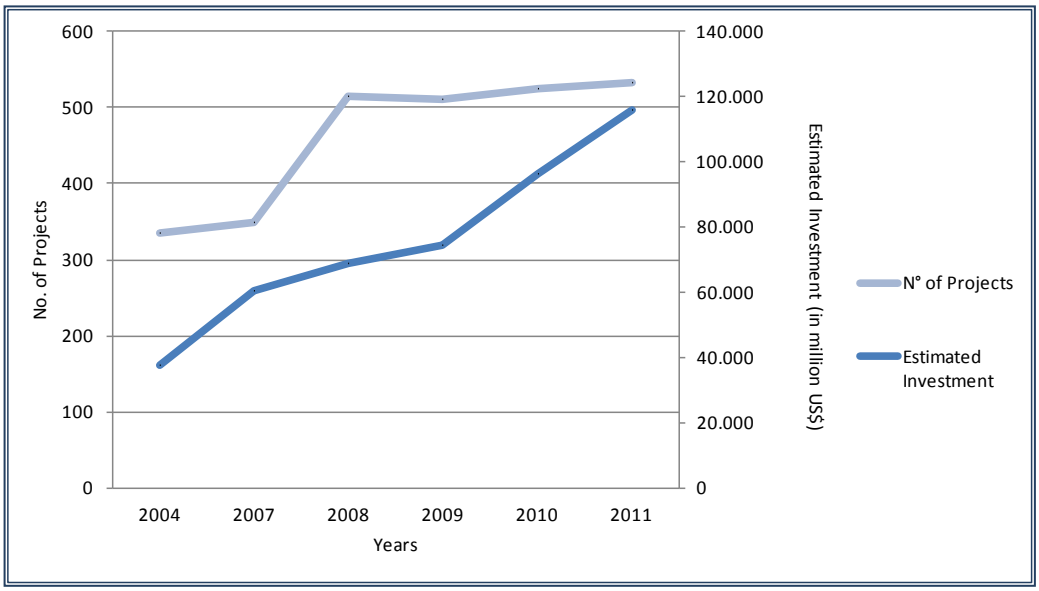
[6] http://www.iirsa.org/cartera_ENG.asp

[7] http://www.iirsa.org/LC_agenda_implementacion_consensuada_ENG.asp =

[8] The EIDs are multinational territories involving natural spaces, human settlements, production areas, and trade flows. They are a territorial reference for the sustainable development of the region, which will facilitate access to areas with a high production potential that are currently isolated or underutilized due to the deficient provision of basic transport, energy, or communication services. IIRSA has identified ten Integration and Development Hubs.

[9] IIRSA Project Portfolio, 2010

FIGURE 1: NUMBER OF PROJECTS AND ESTIMATED INVESTMENT 2004-2010



- *The Indicative Territorial Planning Process*

The structuring of IIRSA Project Portfolio has been possible thanks to the development and application of the Indicative Territorial Planning Methodology.[10] This methodology is based on the identification of EIDs, which organize the South American territory and structure the Project Portfolio. It was applied through Executive Technical Group (GTE) meetings. The First Stage of Territorial Planning took place between 2003 and 2004 in a participative working environment that involved the twelve countries.

The planning and structuring work conducted as part of this first stage generated technical elements on the basis of which it was possible to identify project groups[11] within each Hub and to give priority to those having both greater impact in terms of the sustainable development of their areas of influence and greater implementation feasibility, in view of their technical-environmental viability and the political will to boost them.

The structuring of IIRSA Project Portfolio pursued three main objectives:

- A better understanding of the contribution of each project group to sustainable development through physical integration;

- A more specific linkage between the physical integration strategy and the infrastructure projects in their pertinent territorial areas; and

[10] http://www.iirsa.org/planificacion_ENG.asp?CodIdioma=ENG

[11] A project group is a set of interdependent projects in a given space of the economic geography having synergetic effects upon sustainable development.

- The identification of the impacts of the project groups and a better logistic functionality of all the investments.

The Second Stage of Territorial Planning was launched at IIRSA in 2005, framed under the concept of "improvement and a qualitative leap forward in the planning process." The main purposes consisted in broadening the strategic scope of the Project Portfolio and creating opportunities for sustainable development through physical integration, by means of new analytical and territorial planning methodologies:

- Strategic Environmental and Social Evaluation (EASE, its acronym in Spanish) Methodology[12]
- Production and Logistics Integration Methodology (IPrLg, its acronym in Spanish)[13]
- Geospatial Network of South America (GeoSUR)[14]
- IIRSA Project Portfolio Database[15]

The development and application of these tools and methodologies served to gain insight into the territories analyzed and improve the quality of the decision-making process related to investments in infrastructure. The contribution of this new planning dimension was that it involved consideration of environmental, social, logistics, regulatory, and legal aspects that would help improve infrastructure operation in order to reap greater benefits for the harmonious development of the territories involved.

- *From IIRSA Project Portfolio to COSIPLAN Project Portfolio*

One of the objectives of COSIPLAN, as laid down in the PAE 2012-2022, consists in updating the Portfolio of Projects for the Integration of Regional Infrastructure in South America (hereinafter, the COSIPLAN Project Portfolio), which has been created on the basis of IIRSA Project Portfolio. This update process was first conducted in June 2011, within the framework of COSIPLAN, resulting in a 531-project portfolio with an estimated investment of US$116,120.6 million, broken down as follows:

[12] http://www.iirsa.org/ease_ENG.asp
[13] http://www.iirsa.org/LC_iprlg_presentacion_general_ENG.asp =
[14] http://www.iirsa.org/LC_sistema_de_infromacion_georeferenciada_ENG.asp =
[15] http://iirsa.us33.toservers.com/Index.aspx

TABLE 2: NUMBER OF PROJECTS AND ESTIMATED INVESTMENT

(million US$)

HUB	Number of Groups	Number of Projects	Estimated Investment
AND - ANDEAN	10	64	9,343.5
CAP - CAPRICORN	5	76	8,979.1
HPP - PARAGUAY-PARANÁ WATERWAY	5	93	6,514.8
AMA - AMAZON	7	64	6,099.9
GUY - GUIANESE SHIELD	4	19	4,540.3
SUR - SOUTHERN	2	27	2,738.0
IOC - CENTRAL INTEROCEANIC	5	61	4,112.7
MCC - MERCOSUR-CHILE	6	105	44,389.8
PBB - PERU-BRAZIL-BOLIVIA	3	25	29,557.8
TOTAL	**47**	**532**	**116,120.6**

Source: IIRSA Project Database (as of September 9, 2011)

NOTES:

(1) The total in the Number of Projects and Estimated Investment columns does not match the figures by Hub due to the existence of two hinge projects in two different Hubs—(i) Pircas Negras Border Crossing (CAP77 and MCC108), belonging in the Capricorn and MERCOSUR - Chile Hubs, and (ii) Paving of the Potosí - Tupiza - Villazón Road (IOC04 and CAP92), belonging in the Capricorn and Central Interoceanic Hubs.

(2) Investments in the existing projects AND01 (Road Corridor Connecting Santa Marta - Paraguachón - Maracaibo - Barquisimeto - Acarigua (Existing), in the Andean Hub) and MCC61 (Itaipu System (Existing), in the MERCOSUR-Chile Hub) are not included as they were mostly made before IIRSA was launched.

Of the 531 projects included in the Portfolio, 159 are being executed for an estimated amount of US$52,047.0 million (45% of the Portfolio); 309 are in the preparation stage for an estimated amount of US$53,665.0 million (46% of the Portfolio); and 63 have been completed for an amount of US$10,409.0 million (9% of the Portfolio).[16]

▪ THE IMPLEMENTATION AGENDA BASED ON CONSENSUS (AIC) 2005-2010

AIC was made up of a set of 31 priority projects aimed at the physical integration of the region, as agreed upon by the countries at the Sixth Meeting of the IIRSA Executive Steering Committee (CDE, its acronym in Spanish)[17] (held in Lima, Peru, in November 2004), and was submitted for discussion at the Third Summit of South American Presidents[18] (held in Cusco, Peru, in December), ocassion in which progress with respect to the Initiative and, particularly, the AIC 2005-2010 was explicitly endorsed (Ayacucho Declaration, 2004).

AIC became a priority in terms of execution for the 2005-2010 period in order to accelerate concrete results from projects having a high impact on the physical integration of the continent, and to focus the attention

[16] Project Portfolio for the Integration of Regional Infrastructure in South America, 2011

[17] http://www.iirsa.org/LC_cde6_vi_reunion_del_CDE_ENG.asp =

[18] http://www.iirsa.org/LC_rp_cusco04_iii_reunion_presidentes_ENG.asp =

and efforts of the countries and the multilateral agencies on the search of visible results, with a favorable bearing on attracting investments into the region. This also meant that particular emphasis would be placed on the preparation, financing and implementation of the projects, among other aspects.

The general principle that governed the selection of the AIC projects was the consistency with the advances made at the IIRSA Project Portfolio structuring stage, on the basis of the following guiding criteria:

- Portfolio projects having political support from the countries involved, including the commitment of the economic and financial areas of their respective governments, thus ensuring that strategic priority is assigned to them
- Anchor projects,[19] or projects associated with anchor projects, i.e. high-impact, high-visibility projects
- Projects at an advanced preparation stage, and having good short-term finance and implementation prospects
- Projects from the Hub groups that have received the best ratings at the GTE meetings held to structure IIRSA Project Portfolio

Moreover, to buttress AIC 2005-2010, efforts were made to adopt a new intensive, results-oriented management paradigm, and a new monitoring tool was designed to this end: the Strategic Management Information System (SIGE, its acronym in Spanish)[20]. This system was intended to generate, at the highest government levels, information, cooperation and monitoring mechanisms for each one of the projects.

The table below outlines basic information about the AIC projects:

[19] The Anchor Project gives meaning to the grouping process and makes synergies viable. This project is not necessarily the largest one. It is identified as the bottleneck or missing link in the infrastructure network hindering the optimum use of the combined effects of the group for the sake of economic and social development.

[20] *http://www.iirsa.org/LC_noticia_sige_ENG.asp =*

TABLE 3: AIC 2005-2010 PROJECTS

(million US$)

No.	Projects	Hub/Process	Million US$	Countries [1]
1	Upgrade of Route 14 to a Four-lane Road, between Paso de los Libres and Gualeguaychú	MERCOSUR-Chile	780.0	AR (BR)
2	Upgrade Works of the Río Branco - Montevideo - Colonia - Nueva Palmira Road Corridor	MERCOSUR-Chile	234.0	UY (AR-BR)
3	Construction of the Jaguarão - Río Branco International Bridge	MERCOSUR-Chile	35.0	BR-UY
4	Upgrade of the Palhoça - Osório Road Section to a Four-lane Road (Rodovia MERCOSUR)	MERCOSUR-Chile	700.0	BR (AR-UY)
5	Railway Project Los Andes - Mendoza (Central Trans-Andean Railway)	MERCOSUR-Chile	5,100.0	AR-CH
6	International Route No. CH-60 (between Valparaíso and Los Andes)	MERCOSUR-Chile	286.0	CH (AR)
7	Northeastern Argentina Gas Pipeline	MERCOSUR-Chile	1,000.0	AR (BO)
8	Construction of the Salvador Mazza - Yacuiba Binational Bridge and Border Center	Capricorn	23.0	AR-BO
9	New Presidente Franco - Porto Meira Bridge, with a Paraguay - Brazil Border Center	Capricorn	80.0	PY-BR
10	Construction of Pailón - San José - Puerto Suárez Road	Central Interoceanic	477.0	BO (BR-CH-PE)
11	São Paulo Ring Railway (Northern and Southern Sections)	Central Interoceanic	850.0	BR
12	Infante Rivarola - Cañada Oruro Border Crossing	Central Interoceanic	2.0	BO-PY
13	Construction of the Cañada Oruro - Villamontes - Tarija - Estación Abaroa Road (First Stage)	Central Interoceanic	49.0	BO (PY)
14	Toledo - Pisiga Road	Central Interoceanic	95.0	BO (CH)
15	Paving and Improvement of the Iquique - Colchane Road	Central Interoceanic	42.0	CH (BO)
16	Rehabilitation of El Sillar Road Section	Central Interoceanic	120.0	BO (CH-PE)
17	Desaguadero Binational Border Service Center	Andean	7.5	BO-PE
18	Cúcuta - San Antonio del Táchira Border Crossing	Andean	2.0	CO-VE
19	Improvement of Navigation Conditions on the Meta River	Andean	108.0	CO-VE
20	Tumaco - Pasto - Mocoa - Puerto Asís Road Corridor	Amazon	373.0	CO
21	Paita - Tarapoto - Yurimaguas Road, Ports and Logistics Centers	Amazon	681.2	PE (BR)
22	Lima - Tingo María - Pucallpa Road, Ports and Logistics Centers	Amazon	1,351.3	PE (BR)
23	Francisco de Orellana Port	Amazon	105.3	EC
24	Paving of Iñapari - Puerto Maldonado - Inambari Road, and Inambari - Juliaca / Inambari - Cusco Roads	Peru-Brazil-Bolivia	1,384.3	PE (BR)
25	Bridge over the Acre River	Peru-Brazil-Bolivia	12.0	BR-PE
26	Boa Vista - Bonfim - Lethem – Georgetown Road (First Stage: Studies) [2]	Guianese Shield	3.3	GY-BR
27	Bridge over the Takutu River	Guianese Shield	10.0	GY-BR
28	Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Paramaribo) Road (First Stage)	Guianese Shield	0.8	VE-GY-SU
29	Improvement of Nieuw Nickerie - Paramaribo - Albina Road and International Crossing over the Marowijne River	Guianese Shield	105.0	SU-GY
30	Exports Through Postal Services for SMEs	ICTs	5.0	Regional
31	Implementation of the South American Roaming Agreement	ICTs	1.3	Regional
	TOTAL		14,023.0	

Notes:

This report was prepared taking into account the project stages as classified for IIRSA Portfolio in the Project Database.

Profiling Pre-execution Execution Completed

(1) The neighboring country/countries impacted by the project appear(s) between brackets.

(2) As only the first stage of the project is included in AIC, and it comprises studies that have already begun, the project is deemed to be at the execution phase.

Source: Sixth AIC Report, July 2010

The 31 projects that made up AIC involved an estimated total investment of US$14,023.0 million in the sectors of transport, energy and communications, the status of which as of July 2010 may be summarized as follows:

- Two projects had been completed, representing an estimated investment of US$22 million.
- Nineteen projects were at the execution stage, accounting for an investment estimated at US$7,677.4 million.
- Eight projects were at the pre-execution phase, their estimated investment amounting to US$6,320.8 million.
- Two projects were at the profiling stage, representing an investment estimated at US$2.8 million.

As for implementation times, according to the estimation in the Sixth AIC Report, 2010, 77% of the projects in the Agenda are expected to be completed by 2014, with 14 expected to be completed by late 2011, 19 by late 2012, 21 by late 2013, and 24 by late 2014 (AIC, Assessment Report, 2010).

If these prospects are realized, several projects deemed key for the integration of the region will be completed by the end of 2011, after six years of continuous work (see Table 4).

TABLE 4: AIC PROJECTS COMPLETED IN 2011

No.	Hub and Project Name	Investing/Recipient Countries [1]	Group Number	Expected Completion Date
	MERCOSUR-CHILE HUB			
1	Upgrade of Route 14 to a Four-lane Road, between Paso de los Libres and Gualeguaychú	AR (BR)	G1	First half of 2011
2	Upgrade Works of the Río Branco - Montevideo - Colonia - Nueva Palmira Road Corridor	UY (AR-BR)	G2	December 2011
6	International Route No. CH-60 (between Valparaíso and Los Andes)	CH (AR)	G3	December 2011
	CENTRAL INTEROCEANIC HUB			
10	Construction of Pailón - San José - Puerto Suárez Road	BO (BR-CH-PE)	G3	Second half of 2011
12	Infante Rivarola - Cañada Oruro Border Crossing	BO-PY	G1	First half of 2011 (First Stage)
13	Construction of the Cañada Oruro - Villamontes - Tarija - Estación Abaroa Road (First Stage)	BO (PY)	G1	January 2011 (First Stage)
14	Toledo - Pisiga Road	BO (CH)	G5	Second half of 2011
15	Paving and Improvement of the Iquique - Colchane Road	CH (BO)	G5	March 2011
16	Rehabilitation of El Sillar Road Section	BO (CH-PE)	G5	Second half of 2011
	PERU-BRAZIL-BOLIVIA HUB			
24	Paving of Iñapari - Puerto Maldonado - Inambari Road, and Inambari - Juliaca / Inambari - Cusco Roads	PE (BR)	G1	April 2011
	GUIANESE SHIELD HUB			
26	Boa Vista - Bonfim - Lethem - Georgetown Road (First Stage: Studies)	GY-BR	G2	February 2011
	ICTs			
31	Implementation of the South American Roaming Agreement	Regional	n.a.	December 2011 (First Stage)

Notes:
[1] X (Y): Country X invests and gets benefits; country Y gets benefits without investing.
Source: SIGE, July 30, 2010.

3. THE INTEGRATION PRIORITY PROJECT AGENDA (API)

The Integration Priority Project Agenda is made up of a limited number of strategic projects with a high impact on the physical integration and the socioeconomic development of the region. Its purpose is to promote connectivity in the region through the construction and efficient operation of infrastructure networks for its physical integration, following sustainable social and economic development criteria, while preserving the environment and the balance of ecosystems (COSIPLAN Statute, Article 4a).

The components of this Agenda are not isolated but "structured projects" that strengthen physical connectivity networks that are regional in scope, with the purpose of enhancing existing synergies and solving deficiencies in the infrastructure in place. These projects are made up of one or more projects within the COSIPLAN Project Portfolio that are known, for the purposes of this Agenda, as "individual projects." API is made up of 31 structured projects and 88 individual projects.

CHARACTERISTICS OF API

As a starting point to set up the Agenda, the countries agreed on some key aspects regarding its general characteristics, namely:

- The development of integration infrastructure is a tool for sustainable economic, social and environmental development.
- The Agenda is made up of projects —which may be national, binational or multinational— with a high impact on the physical integration of the region.
- The twelve countries are represented in the Agenda, and there is a balance in the number of projects promoted by each of them.
- The projects are selected by consensus on the basis of predefined criteria.
- The projects will seek, wherever viable and appropriate, a relative increase of all the transportation modes.
- The priority projects may be supported by actions in the regulatory and territorial planning fields, which will shape an Integration Territorial Program.
- A selection will be made of ongoing projects included in AIC to be added to API, provided that they meet the selection criteria to make up API.

This Agenda deems infrastructure as the main tool for South American territorial planning, since improved connectivity among the countries encourages the regional integration process. Nevertheless, the actions to be taken in the territory as pursued by API go far beyond infrastructure works, since they embrace from the start the concept of economic, environmental and social sustainability, in line with the objectives of UNASUR.

The Agenda recognizes the need to make headway with other aspects of the territorial planning process for the purpose of enhancing the environmental management of the territory, adding production integration and logistics components, harmonizing regulatory and legal aspects, and improving the local impact of infrastructure. To this end, the new concept of Integration Territorial Programs (PTIs, their acronym in Spanish) is introduced, which consists in identifying and implementing actions that supplement the API projects with territorial planning and regulatory issues. The technical studies and methodological tools developed by IIRSA will serve as a reference in designing these programs.

As already pointed out, the API projects have been selected on the basis of their contribution to the improvement of connectivity among the regions, regardless of the countries where the infrastructure is located, implemented, and put into operation. Each project concerns two or more countries, thus ensuring the binational or multinational character of their impact on the physical integration of South America.

The projects have been selected by consensus by the twelve South American countries, based on the four selection criteria agreed upon for this Agenda. Special consideration was given to the AIC projects not yet completed that complied with such criteria.

In short, API reinforces the goal of attaining a physically integrated South America, recognizing and ensuring the continuity of the achievements made during the ten years of existence of IIRSA and incorporating them into the new UNASUR/COSIPLAN institutional framework.

PROJECT SELECTION CRITERIA

As already stated, the countries agreed upon four criteria for selecting the projects to be included in API.[21]

- CRITERION 1: The projects should belong to the COSIPLAN Project Portfolio and be a priority in government action, and there should be a commitment to accomplish them (evidenced by the allocation of funds through multi-year financing programs, by the legislation passed, the budget measures taken, etc.).

- CRITERION 2: Feasibility studies should be available, or the country should have the funds allocated to start their execution.

- CRITERION 3: The projects should strengthen connectivity networks that are regional in scope, and involve cross-border synergies.

- CRITERION 4: There should exist an opportunity or a need for taking complementary actions intended to promote efficient service provision and the sustainable development of the territory, according to the characteristics and modality of each specific project.

Regarding the first criterion, the fact that the projects should belong to the COSIPLAN Project Portfolio proves that they were identified through the application of the above-mentioned Indicative Territorial

[21] These project selection criteria were approved at the Meeting of the COSIPLAN Coordinating Committee dated on April 28, 2011, in the city of Rio de Janeiro, Brazil. Later on, during the GTE meeting held in June in Bogotá, a final version was drafted taking into account the comments made by the countries (*http://www.iirsa.org/gte_bogota_2011.asp*).

Planning Methodology, and that they are in line with the portfolio structuring process (Integration and Development Hubs - Project Groups - Strategic Functions).[22] Furthermore, as they are included in the Portfolio, their impact on regional integration was already agreed upon by all the countries.

Equally important is that the projects should be a priority in government action, which means that they should be included in national or subnational development plans, sectoral policies and strategies, national legislation, etc. This may also refer to projects politically supported at the regional level, i.e. either included in bilateral or multilateral agreements, or mentioned in presidential summit or ministerial meeting declarations.

The second criterion, i.e. the requirement that feasibility studies should have been carried out, is meant to include projects at an advanced preparation stage and having good finance and execution prospects vis-à-vis the implementation time frame established for the Agenda (2012-2022). Moreover, these studies provide accurate information about project resources and schedules. However, the countries have agreed to incorporate projects in the profiling stage,[23] provided budget resources are allocated to conduct the required studies and their completion falls within the Agenda time frame. On the other hand, it was recognized that some projects would not be completed within this time frame, but were yet incorporated due to the priority given to them by the countries involved.

The third criterion refers to the project potential for promoting regional territorial development by encouraging connectivity, eradicating bottlenecks, and adding missing links to existing networks. Similarly, cross-border synergy effects are expected to result from action coordination among the countries, thus contributing to the integration of API projects. This is why there are structured projects made up of individual projects with converging objectives.

As already explained in relation to the last criterion, the concept of Integration Territorial Programs (PTIs) is introduced in the understanding that it is necessary to make headway with the identification of actions complementary to infrastructure implementation for the API projects that may so require. These programs will help leverage the impact of infrastructure on the development of the territories involved, while considering the economic, social and environmental aspects.

API Project Follow-up and Monitoring

Concerning follow-up, the PAE provides, among other actions, for the creation of a mechanism for the permanent monitoring of the API projects. In this regard, while setting up the Agenda, all the countries emphasized that such mechanism should comply with the principles of efficiency and simplicity, providing a standard pattern for offering information on a priority issue for all the stakeholders.

[22] The effects of project groups are reflected in their strategic function, i.e. their common objective and/or main benefits for both the integration and the regional development of the geo-economic areas involved. The strategic function has to do with the direct linkage of a project group to the specific territorial aspects of its area of influence and to the business vision of the pertinent Hub.

[23] Classification of API project stages. Profiling: At this stage, background information is studied in order to assess the suitability and technical and economic feasibility of implementing the project idea. Pre-execution: This stage includes projects in the pre-feasibility, feasibility and investment phases. Execution: It refers to the set of activities required for the physical construction of the project, such as contract conclusion, purchase and set up of machines and equipment, miscellaneous installations, etc.

From the technical standpoint, the following actions stand out: design a tool associated to the Project Database (DB); add specific fields for the API projects to the DB files; build follow-up indicators to measure, initially, the attainment of the physical and financial goals of structured projects; identify the critical paths of the projects with the purpose of anticipating any complementary action, and resort to the COSIPLAN institutional framework to solve any potential obstacle; and design a follow-up report to record the API advances on an annual basis, among others.

These actions do not preclude the countries involved in the projects from providing any additional information by whatever means they deem appropriate.

The development and implementation of this mechanism for API monitoring purposes is part of the COSIPLAN Work Plan for 2012.

4. THE API SET UP PROCESS

Based on the predefined project selection criteria and characteristics, the countries agreed to adopt the following six-step procedure in order to set up the Agenda.

1. *Revision of the COSIPLAN Project Portfolio and Preliminary Identification of Priority Projects at the National Level*

The first step in this process consisted in reviewing the COSIPLAN Project Portfolio at each country level, since the API projects should belong to such Portfolio. The countries updated the project information in the Database, and identified the projects they wished to include or exclude for consideration at the GTE meetings on the relevant Hubs.

In addition, the countries identified their priority projects on a preliminary basis through a domestic dialogue and consensus process. For this purpose, national and subnational development plans, sectoral policies and strategies, bilateral agreements and/or investment priorities were taken into account.

All this information was collected and processed by the IIRSA Technical Coordination Committee (CCT, its acronym in Spanish),[24] through its Secretariat, which provided technical support to the countries throughout the process. This material served as basic input at the GTE meetings, the result of which is reported below.

2. *Update of the COSIPLAN Project Portfolio and Presentation of the Priority Projects*

In June 2011, the city of Bogotá[25] hosted a series of GTE meetings on the nine Hubs devoted to the above-mentioned purpose.[26] Furthermore, the tasks of defining its features and project selection criteria were fulfilled.

As a result of these meetings, a preliminary list was drawn up based on the projects presented by each country. At the closing plenary session, all the countries agreed to revise and confront the projects in the preliminary list against the four selection criteria laid down, with a view to presenting their conclusions at the following meeting.

3. *Selection and Proposal of the Priority Projects at the National Level*

During this stage, the countries analyzed the preliminary list of the API projects of direct concern to them, based on a dialogue process held at different government levels with the aim of achieving domestic consensus so as to make progress towards preliminary agreements with neighboring countries.

To standardize the information on the Agenda projects, the CCT designed a file with the purpose of collecting basic data about the projects and account for their compliance with the selection criteria. When

[24] Composed by the IDB, CAF and FONPLATA. http://www.iirsa.org/cct_ENG.asp?CodIdioma=ENG
[25] http://www.iirsa.org/LC_mer_bogota11_actualizacion_cartera_app_ENG.asp =
[26] The results of the Portfolio Update process are presented in a document entitled "Portfolio of Projects for the Integration of Regional Infrastructure in South America 2011."

a structured project involved more than one country, a single file was consolidated with the contributions and consensus of all the parties. These documents served as input for the debate held at the following GTE meeting.[27]

4. Definition of the Integration Priority Project Agenda (API)

In July 2011, a GTE meeting was held in the city of Montevideo, Uruguay,[28] with the purpose of revising the list of projects included in the Agenda. The National Coordinations presented the projects proposed and accounted for their compliance with the selection criteria agreed upon.

It is relevant to stress that, on the basis of the information provided by the countries and of the discussions held, it was agreed that projects with converging objectives should be grouped into structured projects of a larger scale in order to enhance their impact on the physical integration of the countries.

To complete the information on the structured projects, it was decided that the completion dates for each individual project stages would be incorporated into the Agenda.[29]

5. Consolidation of API by IIRSA National Coordinators

The Eighteenth Meeting of IIRSA National Coordinators[30] was held in the city of Rio de Janeiro in August 2011. As for the agenda for this meeting, its purpose was to complete the work underway regarding the set up of API, and to define the next steps towards its implementation and monitoring.

The following was agreed upon at the meeting: the name of the Agenda is Integration Priority Project Agenda (API); the terminology to be used in API is "structured project" and "individual project;" and the information accounting for compliance with the selection criteria as well as the schedule of completion of the individual project stages were completed.

As far as monitoring is concerned, it was agreed that a tool associated with the project Database would be designed to follow up on the API projects. This information will be available to the general public on the website of IIRSA and COSIPLAN. The CCT was entrusted with the task of preparing a preliminary proposal on this topic to be submitted at the Nineteenth Meeting of IIRSA National Coordinators to be held on November 29, 2011, in the city of Brasilia, Brazil.

6. Approval of API by COSIPLAN

The last step in this procedure will be the approval of API by the COSIPLAN Coordinating Committee at the meeting to be held on November 29, 2011. This Agenda will be subsequently submitted for consideration and approval by the ministers who make up the Infrastructure and Planning Council of UNASUR, during its second regular meeting to be held on November 30, 2011, in Brasilia, Brazil.

---

[27] Annex 1 contains the files accounting for project selection criteria submitted by the countries for each API project.
[28] http://www.iirsa.org/LC_mer_montevideo11_gte_sobre_app_ENG.asp =
[29] The detailed information on individual projects is available in the Project Database (*http:/www.iirsa.org/projects).* The codes for each of them are listed in the tables of the projects per Hub.
[30] http://www.iirsa.org/LC_cnr18_xviii_reunionCN_ENG.asp =

5. THE API PROJECTS

API is made up of 31 projects with an estimated investment of US$13,652.7 million, accounting for 11.8% of the total COSIPLAN Portfolio as of 2011, which amounts to US$116,120.6 million.

TABLE 5: LIST OF THE API PROJECTS
(million US$)

#	HUB	API PROJECT NAME	COUNTRIES INVOLVED	AMOUNT
1	**AMA**	PAITA - TARAPOTO - YURIMAGUAS ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS	PE	USD 568.9
2	**AMA**	CALLAO - LA OROYA - PUCALLPA ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS	PE	USD 2,529.4
3	**AMA**	NORTHEASTERN ACCESS TO THE AMAZON RIVER	BR / CO / EC / PE	USD 105.5
4	**AND**	CARACAS - BOGOTÁ - BUENAVENTURA / QUITO ROAD CORRIDOR	CO / EC / VE	USD 3,350.0
5	**AND**	COLOMBIA - ECUADOR BORDER INTERCONNECTION	CO / EC	USD 223.6
6	**AND**	COLOMBIA - VENEZUELA BORDER CROSSINGS CONNECTIVITY SYSTEM	CO / VE	USD 5,0
7	AND	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	BO / PE	USD 4,0
8	**AND**	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)	PE	USD 90,3
9	**CAP**	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	AR / BO	USD 23,0
10	**CAP**	ARGENTINA - BOLIVIA CONNECTION THROUGH LA QUIACA - VILLAZÓN	AR / BO	USD 227,0
11	**CAP**	PARANAGUÁ - ANTOFAGASTA BIOCEANIC RAILWAY CORRIDOR	AR / BR / PA / CH	USD 944,6
12	**CAP**	FOZ DO IGUAÇU - CIUDAD DEL ESTE - ASUNCIÓN - CLORINDA ROAD CONNECTION	AR / BR / PA	USD 316,0
13	**CAP**	ITAIPU - ASUNCIÓN - YACYRETÁ 500-KV TRANSMISSION LINE	PA	USD 255,0
14	**GUY**	REHABILITATION OF THE CARACAS - MANAUS ROAD	BR / VE	USD 480,0
15	**GUY**	BOA VISTA - BONFIM - LETHEM - LINDEN - GEORGETOWN ROAD	BR / GU	USD 250,0
16	**GUY**	ROUTES INTERCONNECTING VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (SOUTH DRAIN - APURA - ZANDERIJ - MOENGO - ALBINA), INCLUDING CONSTRUCTION OF THE BRIDGE OVER THE CORENTYNE RIVER	GU / SU / VE	USD 300,8
17	**HPP**	IMPROVEMENT OF NAVIGATION CONDITIONS ON LA PLATA RIVER BASIN	AR / BO / BR / PA / UR	USD 854,8
18	**HPP**	PARAGUAY - ARGENTINA - URUGUAY RAILWAY INTERCONNECTION	AR / PA / UR	USD 268,0
19	**HPP**	REHABILITATION OF THE CHAMBERLAIN - FRAY BENTOS RAILWAY BRANCH LINE	UR	USD 100,0
20	**HPP**	NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK	UR	USD 8,0
21	**IOC**	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU - SANTA CRUZ INTERNATIONAL HUB AIRPORT)	BO	USD 20,0
22	**IOC**	IMPROVEMENT OF ROAD CONNECTIVITY IN THE CENTRAL INTEROCEANIC HUB	BO / BR	USD 383,0
23	**IOC**	INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING	BO / PA	USD 2,0
24	**IOC**	CENTRAL BIOCEANIC RAILWAY CORRIDOR (BOLIVIAN SECTION)	BO	USD 6,7
25	**MCC**	NORTHEASTERN ARGENTINA GAS PIPELINE	AR / BO	USD 1.000,0
26	**MCC**	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	BR / UR	USD 65,0
27	**MCC**	MULTIMODAL TRANSPORTATION IN THE LAGUNA MERÍN AND LAGOA DOS PATOS SYSTEM	BR / UR	USD 100,0
28	**MCC**	MONTEVIDEO - CACEQUI RAILWAY CORRIDOR	BR / UR	USD 196,0
29	**MCC**	OPTIMIZATION OF THE CRISTO REDENTOR BORDER CROSSING SYSTEM	AR / CH	USD 7,0
30	**MCC**	AGUA NEGRA BINATIONAL TUNNEL	AR / CH	USD 850,0
30	**PBB**	PORTO VELHO - PERUVIAN COAST CONNECTION	BR / PE	USD 119,0
			TOTAL	**USD 13,652.7**

TABLE 6: API PROJECTS BY HUB AND INVESTMENT AMOUNT (million US$)

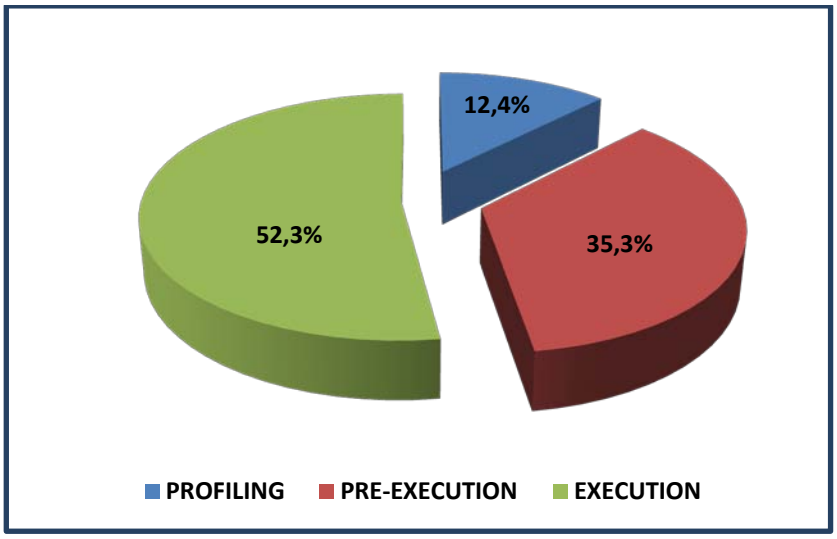
HUB	No. OF PROJECTS	INVESTMENT AMOUNT
AMA	25	3,203.8
AND	11	3,673.0
CAP	18	1,765.6
GUY	4	1,030.8
HPP	15	1,230.8
IOC	7	411.7
MCC	7	2,218.0
PBB	1	119.0
TOTAL	**88**	**13,652.7**

TABLE 7: API PROJECTS BY IMPLEMENTATION STAGE (million US$)

PROJECT STAGE	No. OF PROJECTS	AMOUNT	INVESTMENT %
PROFILING	19	1,693.3	12.4%
PRE-EXECUTION	46	4,823.1	35.3%
EXECUTION	20	7,136.3	52.3%
TOTAL	**85**	**13,652.7**	**100.0%**

Note: Amounts are estimated on the basis of the implementation stage at which the API individual projects are.
* The total under the "PROJECT #" column does not match the total sum of individual projects included in API, due to the fact that the three projects already completed prior to this report have not been taken into account.

FIGURE 2: API PROJECTS BY IMPLEMENTATION STAGE (%) (By estimated investment)



MAP 1: API PROJECTS

The rest of this section presents the API projects by Integration and Development Hub. First, a general description is made of the impact of each project on its respective Hub; next, specific information about each project is given, including purpose, current status, investment amount, schedule, and implementation stage. Finally, an analysis is made of compliance with the selection criteria used, particularly in terms of connectivity, underscoring the benefits of their implementation for territorial integration and development.

AMAZON HUB (BRAZIL, COLOMBIA, ECUADOR AND PERU)

The Amazon Hub includes a large region of northern South America between the Pacific and Atlantic oceans, crossed by the Amazon river and its tributaries. It is characterized by its large extension, diverse topography (coast, Andean area, rainforest), and low population density. The area of influence defined for the Hub covers 5,657,679 km^2, accounting for 50.52% of the total area of the countries that make it up.

The total population of the Amazon Hub is around 61,506,049 inhabitants as of 2008, accounting for 22.23% of the total population of the countries that make it up. Furthermore, an average population

density of 10.87 inhabitants per km^2 was estimated for the area of influence, which is a medium to low level overall due to a strong geographic dispersion. This indicator ranges from a maximum 103.96 inhabitants per km^2 in the Coast Region of Peru, to a minimum of 2.13 inhabitants per km^2 in the territory of the state of Amazonas, in Brazil.

The Agenda includes projects from five of the seven project groups of this Hub: i) G2 - Access to the Napo Waterway, ii) G3 - Access to the Huallaga - Marañón Waterway; iii) G4 - Access to the Ucayali Waterway; iv) G6 - Amazon Waterway Network; and v) G7 - Access to the Morona - Marañón - Amazon Waterway.

Table 8 shows the 25 individual projects that make up the three structured projects of the Amazon Hub incorporated into API. The investments involved amount to US$3,203.8 million. These API projects impact on the development of the four countries in the Hub (Brazil, Colombia, Ecuador, and Peru) and, in general terms, connect several waterways (Huallaga, Marañón, Morona, Ucayali, and Putumayo) linking the Amazon river basin to important coast, sierra, and rainforest areas in Peru, Ecuador and Colombia. The Agenda includes road, port and river projects that are likely to leverage four bimodal corridors connecting maritime terminals on the Pacific with waterways feeding the Amazon basin. These projects comply with the selection criteria set out for inclusion in the Agenda as well as with the strategic functions of the Hub's project groups involved in API (see Tables 8 and 9).

MAP 2: API PROJECTS - AMAZON HUB

TABLE 8: API PROJECTS - AMAZON HUB

EID	API PROJECT NAME	COUNTRIES INVOLVED	API AMOUNT (Millons)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	NAME OF THE PROJECTS INCLUDED	COUNTRIES INVOLVED	GP	PROJECT STAGE	PROFILING	PRE-EXECUTION		ENVIRONMENTAL LICENSE		EXECUTION	
											START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)
AMA	PAITA - TARAPOTO - YURIMAGUAS ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS	PERU	USD 568,9	AMA16	TARAPOTO - YURIMAGUAS ROAD	PE	G3	PRE-EXECUTION	USD 224.300.000						2006	2010
					YURIMAGUAS PORT						2009	2011	2011	2011	2012	2014
				AMA20	PAITA LOGISTICS CENTER	PE	G3	PRE-EXECUTION	USD 47.000.000		2009	2012	2012	2013	2014	2015
				AMA21	YURIMAGUAS LOGISTICS CENTER	PE	G3	PROFILING	USD 5.000.000	2012	2013	2014	2015	2015	2015	2016
				AMA24	PAITA PORT	PE	G3	PRE-EXECUTION	USD 227.800.000		2006	2009	2010	2011	2011	2014
				AMA25	PAITA - TARAPOTO ROAD	PE	G3	COMPLETED*	USD 0						2006	2011
				AMA40	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE HUALLAGA RIVER WATERWAY, BETWEEN YURIMAGUAS AND THE CONFLUENCE WITH MARAÑÓN RIVER	PE	G6	PRE-EXECUTION	USD 8.000.000	2008	2009	2011	2012	2013	2014	2016
				AMA41	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MARAÑÓN RIVER WATERWAY, BETWEEN SARAMERIZA AND THE CONFLUENCE WITH UCAYALI RIVER	PE	G6	PRE-EXECUTION	USD 25.700.000	2008	2009	2011	2012	2013	2014	2016
				AMA56	MODERNIZATION OF IQUITOS PORT	PE	G6	PRE-EXECUTION	USD 26.080.000	2008	2009	2011	2012	2012	2013	2015
				AMA44	IQUITOS LOGISTICS CENTER	PE	G6	PROFILING	USD 5.000.000	2012	2013	2014	2015	2015	2015	2016
AMA	CALLAO - LA OROYA - PUCALLPA ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS	PERU	USD 2.529,4	AMA26	TINGO MARÍA - PUCALLPA ROAD	PE	G4	PRE-EXECUTION	USD 361.000.213						2003	2011
					PUCALLPA PORT						2009	2012	2013	2013	2014	2016
				AMA30	PUCALLPA INTERMODAL LOGISTICS CENTER	PE	G4	PROFILING	USD 5.000.000	2012	2013	2014	2015	2015	2015	2016
				AMA31	MODERNIZATION OF EL CALLAO PORT (NEW CONTAINER DOCK)	PE	G4	EXECUTION	USD 706.870.000				2007	2008	2008 (1ra. Etapa)	2010 (1ra. Etapa)
				AMA32	LIMA - RICARDO PALMA EXPRESSWAY	PE	G4	PROFILING	USD 242.000.000	2011	2012	2013	2014	2015	2016	2019
				AMA43	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE UCAYALI RIVER WATERWAY, BETWEEN PUCALLPA AND THE CONFLUENCE WITH MARAÑÓN RIVER	PE	G6	PRE-EXECUTION	USD 20.000.000	2008	2009	2011	2012	2013	2014	2016
				AMA63	IIRSA CENTER, SECTION 2: RICARDO PALMA - LA OROYA - TURN OFF TO CERRO DE PASCO / LA OROYA - HUANCAYO	PE	G4	EXECUTION	USD 100.000.000		2009	2010	2010	2011	2011	2014
				AMA64	IIRSA CENTER, SECTION 3: TURN OFF TO CERRO DE PASCO - TINGO MARÍA	PE	G4	PROFILING	USD 70.000.000		2010	2012	2013	2013	2014	2017
				AMA65	EL CALLAO LOGISTICS ACTIVITIES ZONE (ZAL CALLAO)	PE	G4	PROFILING	USD 155.255.500		2010	2012	2013	2013	2014	2017
				AMA66	EL CALLAO MULTI-PURPOSE NORTHERN TERMINAL	PE	G4	PROFILING	USD 749.000.000		2008	2010	2011	2011	2011	2013
				AMA67	EL CALLAO MINERAL SHIPPING TERMINAL	PE	G4	PRE-EXECUTION	USD 120.300.000		2008	2010	2011	2011	2012	2014
AMA	NORTHEASTERN ACCESS TO THE AMAZON RIVER	BRASIL/ COLOMBIA/ ECUADOR/ PERÚ	USD 105,5	AMA37	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE IÇÁ RIVER	BR	G6	EXECUTION	USD 8.000.000						2010	2015
				AMA38	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PUTUMAYO RIVER	CO - EC - PE	G6	EXECUTION	USD 15.000.000	2011	2012	2014	2014	2015	2014	2017
				AMA45	MORONA FREIGHT TRANSFER PORT	EC	G7	PROFILING	USD 51.000.000	N / D						
				AMA39	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MORONA RIVER, ECUADORIAN SECTOR	EC	G6	PROFILING	USD 718.224	N / D						
				AMA42	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NAPO RIVER	EC - PE	G6	PRE-EXECUTION	USD 5.759.000	N / D						
				AMA71	PROVIDENCIA PORT	EC	G2	PRE-EXECUTION	USD 25.000.000	N / D						
								TOTAL	USD 3.203.782.937							

* This individual project has been completed and was incorporated into API because it complements the connectivity network of the structured project.

N / A: the information on the implementation schedule was not available on time for its inclusion in this document.

TABLE 9: API PROJECTS - AMAZON HUB BY IMPLEMENTATION STAGE (million US$)

PROJECT STAGE	No. OF PROJECTS*	AMOUNT	%
PROFILING	9	US$ 1,283.0	40.0%
PRE-EXECUTION	11	US$ 1,090.9	34.1%
EXECUTION	4	US$ 829.9	25.9%
TOTAL	**24**	**US$ 3,203.8**	**100.0%**

* The total under the "PROJECT #" column does not match the total sum of individual projects included, due to the fact that the project completed prior to this report has not been taken into account.

- *Paita - Tarapoto - Yurimaguas Road, Ports, Logistics Centers and Waterways (PE)*

This project, also known as "Northern Branch of the Amazon Hub," is made up of nine individual projects located in the northern area of Peru. These individual projects are structured in order to connect the coast, sierra and rainforest regions with a view to promoting trade and complementarity among the areas involved. The road, which runs from east to west, stretches from the city of Paita, on the Pacific, to the city of Yurimaguas, in the rainforest. In Yurimaguas, the road articulates with the rivers Huallaga and Marañón through a port. Farther east, across these rivers, it arrives at Iquitos city, aiming at reaching Manaus to promote overseas trade. This is a bimodal project linking i) two road projects (Paita - Tarapoto and Tarapoto - Yurimaguas sections), which jointly make up what in Peru is known as the "Northern Amazon Corridor" or "IIRSA Norte Corridor;" ii) two projects concerned with the improvement of navigation conditions on waterways (Huallaga and Marañón); iii) the upgrade or relocation of three ports (Yurimaguas, Iquitos, and Paita); and iv) three logistics centers (Yurimaguas, Iquitos, and Paita). This structured project is very significant since it is meant to streamline logistics in a large corridor connecting very densely populated areas, such as the Piura region, with emerging low-density areas in the rainforest. All the most dynamic cities on the northern coast of Peru may be linked to the Northern Branch of the Amazon Hub, which, in turn, articulates the most densely populated department in the Peruvian sierra region (Cajamarca) with three departments located in the rainforest (Amazonas, San Martín, and Loreto).

With regard to the first criterion, all the individual projects are included in the COSIPLAN Portfolio, and there is enough information to account for the priority assigned to these works in the plans of the Ministry of Transport and Communications (Intermodal 2004-2023) and in Peru's National Port Development Plan (designed by the Port Authority). As for the second criterion, it should be noted that most projects included are already being executed (some of them with public funds, and others through concessions or public-private partnership arrangements). According to the information in the project files, two projects are at the profiling stage (Yurimaguas Logistics Center and Iquitos Logistics Center). In connection with the third criterion, reference is made to joint declarations by the Brazilian and Peruvian governments expressing their commitment to the development of the states concerned and their neighboring areas, and underscoring the importance they attach to the promotion of border development and trade. In relation to the fourth criterion, the complementary actions to be taken are clearly specified.

- *Callao - La Oroya - Pucallpa Road, Ports, Logistics Centers and Waterways (PE)*

This project, also known as "Central Branch of the Amazon Hub;" is made up of eleven individual projects in the central area of Peru, which are structured in order to connect the coast, sierra and rainforest regions to

promote complementarity in the area of influence. On its coast, the Central Branch of the Amazon Hub includes the Lima-Callao conurbation, where Peru's metropolitan capital and its most important port (Callao) are located. This key node links the Central Road, running east-west, to cities and towns in the sierra, such as Oroya and Huancayo. Farther on, it connects with the roads that join the cities of Cerro de Pasco and Huánuco, in the sierras, with the denser link leading to the rainforest, between Tingo María and Pucallpa. In Pucallpa, the corridor connects with the city of Iquitos through the Ucayali river, the waterway with the most important cargo traffic in Peru. As with the Northern Branch of the Amazon Hub, this corridor aims at reaching the city of Manaus, a commercial destination, as well as overseas markets. This road axis will potentially join the cities of Lima and Manaus through a bimodal corridor. The structured project includes i) five highways (Lima-Ricardo Palma expressway, and the road linking Ricardo Palma-La Oroya-turn-off to Cerro de Pasco, turn-off to Cerro de Pasco - Tingo María, and Tingo María - Pucallpa); ii) one project related to the improvement of navigation conditions on the Ucayali river, from Pucallpa up to the confluence with the Marañón river; iii) four projects concerned with port terminal improvements (a new container dock at El Callao port, a mineral shipping terminal, El Callao multipurpose northern terminal, and Pucallpa port); and iv) two projects aimed at enhancing logistics in the area (El Callao Logistics Activities Zone and Pucallpa Intermodal Logistics Center).

With regard to the first criterion, all the individual projects are included in the COSIPLAN Portfolio, and there is enough information to account for the priority assigned to these works in the plans of the Ministry of Transport and Communications (Intermodal 2004-2023) and in Peru's National Port Development Plan (designed by the Port Authority). As for the second criterion, it should be noted that most individual projects are at the execution or pre-execution stages (some of them with public funds, and others through concessions or public-private partnership arrangements). According to the information in the project files, three projects are at the profiling stage (Turn-off to Cerro de Pasco - Tingo María; Pucallpa Intermodal Logistics Center; and El Callao Logistics Activities Zone). In connection with the third criterion, reference is made to joint declarations by the Brazilian and Peruvian governments expressing their commitment to the development of the states concerned and their neighboring areas, and underscoring the importance they attach to the promotion of border development and trade. In relation to the fourth criterion, the complementary actions to be taken are clearly specified.

- *Northeastern Access to the Amazon River (BR - CO - EC - PE)*

This project is made up of six individual projects located in the southern areas of eastern Colombia and in the Ecuadorian rainforest and extends up to the areas of influence of important waterways in Peru and Brazil. The structured project seeks to tap into the complementarities of the different natural regions of Ecuador, Colombia, Brazil and Peru in order to connect the coast and Andean areas of Ecuador and Colombia with the vast Amazonia. The individual projects link east-to-west navigable bodies of water in Ecuador, Colombia and Peru, articulating with the Putumayo, Morona, and Napo rivers that connect farther on with the Içá and Amazon rivers in the Brazilian territory. The bimodal corridors resulting from the waterways being returned to navigable standards and the river terminals in operation aim at reaching the commercial market of the city of Manaus, without losing sight of the potential overseas markets. Manaus is the most important city of the Amazonia. The structured project comprises i) four projects concerned with the improvement of navigation conditions on the Putumayo, Morona, Napo, and Içá rivers; and ii) two river terminals (the Providencia port and the Morona freight transfer port). This structured project is significant since it will enhance navigation on four waterways that are presently navigable in their natural state for

limited draft vessels. These projects will have an important impact on the communities living in their areas of influence, as they have no other alternative in terms of transportation of goods and people.

With regard to the first criterion, all the individual projects belong to the COSIPLAN Portfolio. In the case of the project related to the Morona river, it is informed that there is a joint declaration by Ecuador and Peru to open new border crossings across the Santiago and Morona rivers. The Putumayo river project is outlined in both Colombia's National Development Plan and Multi-Annual Investment Plan 2011-2014. The project involving the Içá river forms part of the studies conducted by the Western Amazon Waterway Administration of Brazil, and the Santo Antônio do Içá terminal project is included in the Brazilian Growth Acceleration Program. As for the second criterion, the terms of reference for the Morona river navigation study contract have already been drafted and submitted to the Ecuadorian National Secretariat of Planning and Development for fund allocation purposes. Regarding the project concerned with improving navigation conditions on the Napo river, studies will be carried out to complement the Peru - Ecuador binational analyses. In relation to the project involving the Providencia port, the terms of reference for awarding the contract to conduct the river port implementation studies have already been drafted, and the funds for the technical and environmental feasibility studies have already been allocated. In the case of the project for improving navigation conditions on the Putumayo river, the studies related to the Puerto Asís - Puerto Leguízamo section (Colombia, 2011) are soon to begin. Moreover, there are plans to carry out a study for increasing the navigability of the Putumayo river basin with the participation of Brazil, Colombia, Ecuador and Peru. With respect to the third criterion, accurate reference is made to the strengthening of connectivity networks and to the benefits of the cross-border synergies to be created as a result of the development of the Manta - Manaus axis, the Tumaco - Pasto - Mocoa hub, and the Morona river network. As for the fourth criterion, the following complementary actions have been proposed: i) to carry out a social and environmental analysis; ii) to prepare a socioeconomic assessment; iii) to conduct a study on cargo and passenger transport supply and demand; and iv) to design a river plan.

▪ ANDEAN HUB (BOLIVIA, COLOMBIA, ECUADOR, PERU AND VENEZUELA)

The Andean Hub features the two large north-south road corridors that connect the main cities of the countries that make it up: the Pan-American Highway, which runs along the Andes in Venezuela, Colombia, and Ecuador, and along the Peruvian coast (connecting farther south with Chile); and the Marginal Highway of the Jungle, which skirts the Andes across the plains of Venezuela and the Amazon rainforest in Colombia, Ecuador, and Peru, then enters Bolivia through the Desaguadero border crossing on the Peruvian Southern Longitudinal Highland Highway, and reaches the Argentine border through Bolivian Route 1 (Villazón - La Quiaca). These longitudinal corridors are crossed by various transversal corridors (roads and rivers) that connect them with the Guianese Shield, Amazon, Peru – Brazil - Bolivia, and Central Interoceanic Hubs. The area of influence defined for the Andean Hub covers 2,556,393 km^2, accounting for 54.41% of the total area of the countries that make it up.

The total population was estimated at approximately 103,467,313 inhabitants in 2008, accounting for 82.76% of the total population of the countries that make up the Hub. Furthermore, the area of influence reached an average population density of 33.08 inhabitants per km^2.

The Agenda includes projects from six of the 10 project groups of this Hub: i) G1 - Venezuela (Northern Plains Hub) - Colombia (Northern Zone) Connection; ii) G2 - Venezuela (Caracas) - Colombia (Bogotá) -

Ecuador (Quito) (Existing) Road Connection; iii) G3 - Venezuela (Orinoco Apure Hub) - Colombia (Bogotá) III (Low-Altitude Corridor) Connection; iv) G4 - Pacific - Bogotá - Meta - Orinoco - Atlantic Connection; v) G6 - Colombia - Ecuador II (Bogotá - Mocoa - Tena - Zamora - Palanda - Loja) Connection; and vi) G8 - Peru - Bolivia (Huancayo - Ayacucho - Tarija - Bermejo) Connection.

Table 10 shows the 11 individual projects that make up the five structured projects of the Andean Hub incorporated into API. The investments involved amount to US$3,673.0 million. These API projects impact on the development of the five countries of the Hub (Bolivia, Colombia, Ecuador, Peru and Venezuela). In general terms, the projects face the difficulties posed by several major border crossings in the Hub; supplement the solutions devised for the roads in the corridor known as the Low-Altitude Corridor between Caracas and Quito; improve the connections between Bogotá and its main port on the Pacific; and, finally, involve the improvement of navigation conditions on the Meta river and its related ports to open up new commercial routes between the central area of Colombia and eastern Venezuela. These five structured projects comply with the selection criteria set out for inclusion in the Agenda, and are in line with the strategic functions of the Hub's project groups involved in API. (see Tables 10 and 11).

MAP 3: API PROJECTS - ANDEAN HUB

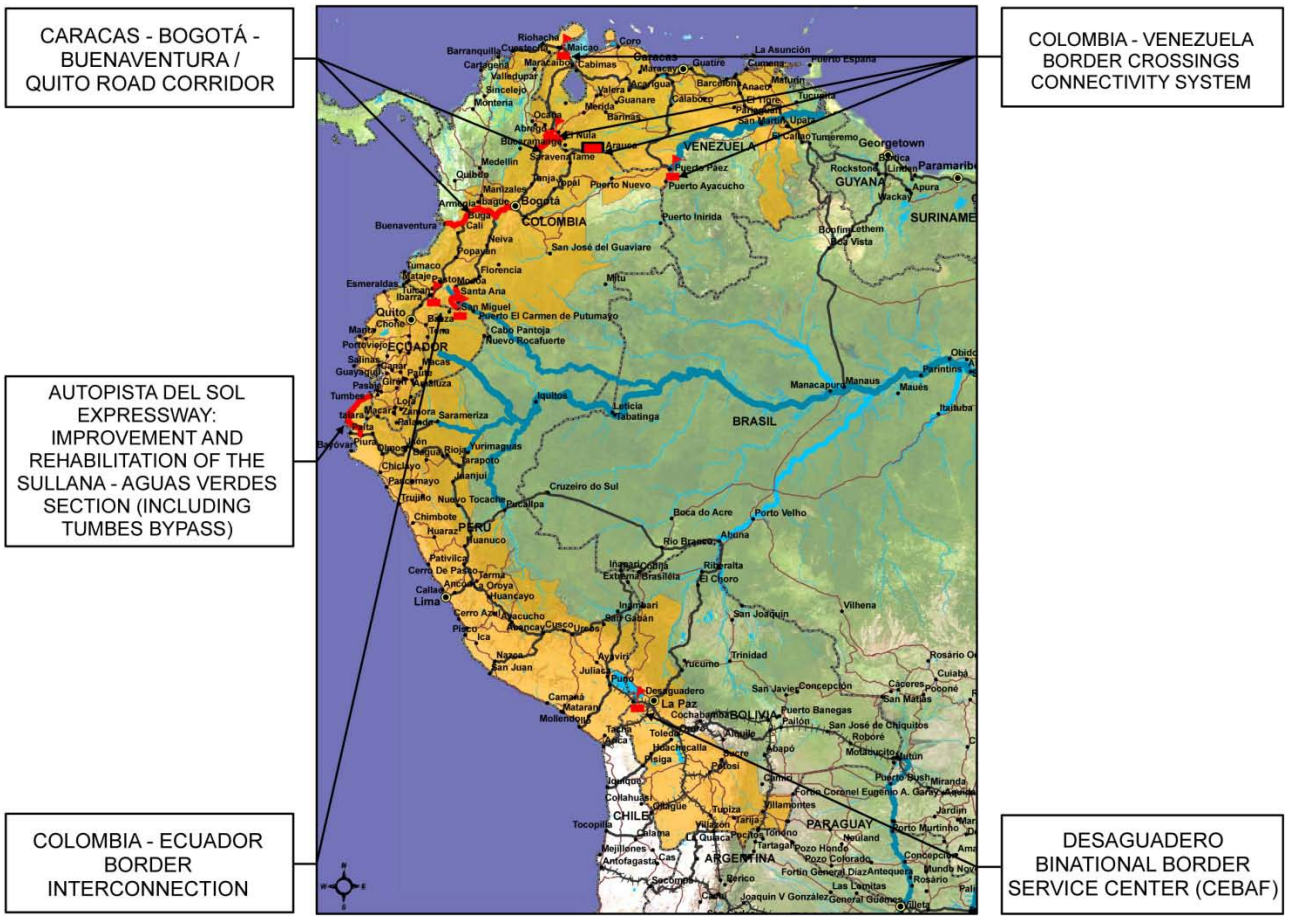


TABLE 10: API PROJECTS - ANDEAN HUB

EID	API PROJECT NAME	COUNTRIES INVOLVED	API AMOUNT (Millons)	DB CODE	NAME OF THE PROJECTS INCLUDED	COUNTRIES INVOLVED	GP	PROJECT STAGE	AMOUNT	PROFILING	PRE-EXECUTION		ENVIRONMENTAL LICENSE		EXECUTION	
											START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)
AND	CARACAS - BOGOTÁ - BUENAVENTURA / QUITO ROAD CORRIDOR	COLOMBIA/ ECUADOR/ VENEZUELA	USD 3,350.0	AND05	BOGOTÁ - CÚCUTA ROAD CORRIDOR	CO	G2	PRE-EXECUTION	USD 1,559,000,000						2001	2018
				AND07	BOGOTÁ - BUENAVENTURA ROAD CORRIDOR	CO	G2	EXECUTION	USD 1,791,000,000						2006	2018
AND	COLOMBIA - ECUADOR BORDER INTERCONNECTION	COLOMBIA/ ECUADOR	USD 208.6	AND31	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT SAN MIGUEL	CO - EC	G6	PRE-EXECUTION	USD 25,000,000		2010	2011			2012	2014
				AND79	IMPROVEMENT AND PAVING OF THE MOCOA - SANTA ANA - SAN MIGUEL ROAD SECTION	CO	G6	EXECUTION	USD 133,629,000						2009	2014
				AND82	IMPLEMENTATION OF THE BINATIONAL BORDER SERVICE CENTER (CEBAF) AT THE TULCÁN – IPIALES (RUMICHACA) BORDER CROSSING, INCLUDING IMPROVEMENT OF THE RUMICHACA BRIDGE)	CO - EC	G2	PRE-EXECUTION	USD 65,000,000		2010	2011			2012	2015
N / DAND	COLOMBIA - VENEZUELA BORDER CROSSINGS CONNECTIVITY SYSTEM	COLOMBIA/ VENEZUELA	USD 5.0	AND81	IMPROVEMENT OF THE BORDER CROSSINGS IN THE NORTHERN DEPARTMENT OF SANTANDER AND THE TÁCHIRA STATE	CO - VE	G2	PROFILING	USD 2,000,000		2011	2012			2013	2016
				AND02	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT PARAGUACHÓN	VE	G1	EXECUTION	USD 2,000,000	N / D						
				AND13	IMPROVEMENT OF JOSÉ ANTONIO PÁEZ BRIDGE	CO	G3	COMPLETED*	USD 0							2010
				AND19	PUERTO CARREÑO BORDER CROSSING	VE	G4	PROFILING	USD 1,000,000	N / D						
AND	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	BOLIVIA/PERU	USD 4.0	AND47	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	BO - PE	G8	PRE-EXECUTION	USD 4,047,170		2009	2012	2012	2012	2013	2014
AND	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)	PERU	USD 90.3	AND28	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)	PE	G5	PRE-EXECUTION	USD 90,300,000		2009	2012	2012	2013	2014	2017
								TOTAL	**USD 3,672,976,170**							

* This individual project has been completed and was incorporated into API because it complements the connectivity network of the structured project.
N / A: the information on the implementation schedule was not available on time for its inclusion in this document.

TABLE 11: API PROJECTS - ANDEAN HUB BY IMPLEMENTATION STAGE
(million US$)

PROJECT STAGE	NO. OF PROJECTS *	AMOUNT	% INVESTMENT
PROFILING	2	3.0	0.1%
PRE-EXECUTION	4	184.3	5.0%
EXECUTION	4	3,485.6	94.9%
TOTAL	**10**	**3,673.0**	**100.0%**

The total under the "PROJECT #" column does not match the total sum of individual projects included in the Hub, due to the fact that the project completed prior to this report has not been taken into account

- *Caracas - Bogotá - Buenaventura / Quito Road Corridor (CO - EC - VE)*

This structured project articulates the economic relations among the major urban centers of Colombia, Ecuador, and Venezuela, and strengthens the main international road trade flows in the Andean Hub. It is made up of two individual projects: i) Bogotá - Buenaventura Road Corridor; and ii) Rehabilitation of the Cúcuta - Bucaramanga Road. The purpose of the former is to improve connectivity between the central part of Colombia and the Buenaventura port through the construction of the Bogotá - Ibagué-Cajamarca dual carriageway. This road is part of the Bogotá-Buenaventura foreign trade corridor. These undertakings are important to link the area of influence of the capital city with the maritime hub, tapping into the Buenaventura port terminal. On the other hand, the purpose of the second project is to reinforce economic relations between the urban centers of Ecuador, Colombia, and Venezuela through existing paved roads that form part of the Quito - Bogotá - Caracas corridor. At the same time, it seeks to improve connections in the northeastern area of Colombia by building a four-lane corridor between the cities of Bucaramanga (Santander department) and Cúcuta (North Santander department).

With regard to the first criterion, the individual projects are included in the COSIPLAN Portfolio and are part of Colombia's National Development Plan 2010-2014 and Multi-Annual Investment Plan 2011-2014. As for the second criterion, the pre-investment study on the Cúcuta - Bucaramanga road rehabilitation (at the pre-execution stage) is included in Colombia's National Investment Project Bank, and the final design studies are completed. Part of the Bogotá - Buenaventura road is in execution, and its related studies are completed, including the environmental impact assessment and engineering design adjustments. With reference to the third criterion, this structured API project as well as the Colombia - Venezuela border crossings projects create important benefits and cross-border synergies, and strengthen regional connectivity networks. Concerning the fourth criterion, the main complementary action associated with the Buenaventura port is the Logistics Activity Zone, while in the case of the Cúcuta - Bucaramanga road, some complementary actions in its area of influence have been proposed in order to mitigate the social and environmental impact.

- *Colombia - Ecuador Border Interconnection (CO - EC)*

This structured project is made up of three individual projects located in the southern area of Colombia and in the north of Ecuador, completes the missing links in the corridor known as the "Low-Altitude Corridor" or "Alternative Corridor," linking Bogotá and Quito, and solves pending issues in the Ecuador - Colombia border crossings. The projects in the Low-Altitude Corridor are: i) Improvement and Paving of the Mocoa -

Santa Ana - San Miguel Road Section; and ii) Binational Border Service Center (CEBAF) at San Miguel. The third project is the implementation of a CEBAF at the Tulcán - Ipiales (Rumichaca) border crossing. The simultaneous implementation of the three projects will ease traffic congestion in Rumichaca, since some of the truck traffic will be diverted to San Miguel, where long-distance transport will have lower travel times than in the traditional corridor. On the other hand, the implementation of integrated controls will considerably reduce wait times at the Rumichaca border crossing, and will prevent the delays currently experienced at the Andean border crossings in economically consolidated areas from occurring in San Miguel. This project is highly significant, as trade between Ecuador and Colombia ranks second in international trade by road within the Andean Hub.

With regard to the first criterion, the structured project and its individual components are included in Colombia's National Development Plan (Prosperity for All) and Multi-Annual Investment Plan 2011-2014, and are a priority for the Colombian - Ecuadorian Neighborhood Commission. As for the second criterion, pre-investment studies on the border crossings have commenced, with the first phase completed. Furthermore, funds are available to finance the studies on the new International Rumichaca Bridge and its ancillary works, and the studies and final design concerning the Mocoa - Santa Ana - San Miguel section have been completed. The structured project will reinforce the connectivity networks between southern Colombia and the most important cities of Ecuador, creating significant benefits and cross-border synergies, thus complying with the third criterion. Complementary activities have been proposed, offering an important opportunity for the development of logistics and production integration processes.

- *Colombia - Venezuela Border Crossings Connectivity System (CO - VE)*

This project is made up of four individual projects designed to address existing problems, missing links and bottlenecks in the most important border crossings between Colombia and Venezuela, which concentrate the most significant international trade flows by road in the Andean Hub. These four projects are: i) Improvement of the Border Crossings in the Northern Department of Santander and the Táchira State; ii) Binational Border Service Center (CEBAF) at Paraguachón; iii) Improvement of José Antonio Páez Bridge; and iv) Puerto Carreño Border Crossing. The first project is intended to improve all the crossings within the area of influence of the most important border crossing in the Andean Hub, i.e. Cúcuta - San Antonio, and consists in implementing integrated controls to facilitate the movement of people and goods. The second project aims at implementing a CEBAF at the border crossing connecting the Colombian and the Venezuelan Atlantic coast. The third project involves the link currently missing to join Venezuela and Colombia through the Low-Altitude Corridor, with a view to formalizing activities at the border crossing; it seeks to improve the current conditions of the José Antonio Páez bridge and the access to the city of Arauca through the construction of a two-lane road, which will attract some of the traffic from the Cúcuta - San Antonio border crossing, alleviating congestion and reducing wait times. The fourth project is very important, as the Puerto Carreño border crossing will regulate the international trade by river to Venezuela along the Meta and Orinoco rivers. The challenges to this structured project are basically institutional, as great convergence efforts are required to implement integrated controls in the entire land connection system between Colombia and Venezuela.

With regard to the first criterion, the individual projects are part of the COSIPLAN Portfolio and the Colombian projects are included in Colombia's National Development Plan (Prosperity for All) and Multi-

Annual Investment Plan 2011-2014. Concerning the second criterion, a study known as "Facilitation of Transport in the South American Border Crossings" was conducted within the framework of IIRSA, and one of the pilot projects selected therein is the Cúcuta - San Antonio border crossing, between Colombia and Venezuela, for which a series of short-, medium-, and long-term actions is proposed. With reference to the third criterion, a development plan will be designed to implement such actions and infrastructure works. Finally, in relation to the fourth criterion, programs will be created to improve the quality of life of the population affected by border crossing activities, as part of the complementary actions provided for.

- *Desaguadero Binational Border Service Center (CEBAF) (BO - PE)*

This project is located at the Peru - Bolivia border, where the Ilo - Desaguadero and Puno - Desaguadero roads, on the Peruvian side, and the La Paz - Desaguadero road, on the Bolivian side, converge. The purpose is to facilitate the flow of people, vehicles and goods, and to foster bilateral trade as well as regional trade in goods in transit from third countries through Bolivian and Peruvian territory towards overseas markets. It consists in implementing integrated controls based on regulatory convergence, and a binational border service center (CEBAF), for which reason the main challenge to the project lies at the institutional level. Works are currently underway. Indeed, the actions proposed are essential, as the Desaguadero border crossing is key for both the Andean and the Central Interoceanic Hubs —it is the most important one for trade between Peru and Bolivia, and it is located in a conurbation of two small towns on each side of the border that share the same name.

With regard to the first criterion, it should be noted that the project belongs to the COSIPLAN Portfolio and was included in AIC 2005-2010. Its feasibility study stage has been completed and, at present, technical studies are being conducted, which means that the second criterion is fulfilled. As far as the third criterion is concerned, cross-border and regional synergies have been well accounted for. Finally, complementary actions associated with the regulatory framework and with the management of trade have been specified, thereby meeting the fourth criterion.

- *Autopista del Sol Expressway: Improvement and Rehabilitation of the Sullana - Aguas Verdes Section (Including Tumbes Bypass) (PE)*

This is a significant project as it involves the north Pan-American Highway of Peru in the most dynamic section of the most widely used road corridor of the country, and articulates with a major broder crossing. The works involved will be implemented within the framework of a public-private partnership. The alignment for this highway begins in the city of Sullana (Piura Department) and passes through the cities of Talara, Tumbes and Zorritos; in Zorritos it divides into two branches: one going to Aguas Verdes, and the other, being a newly constructed alternative road to access the new international bridge and its CEBAF. This project is the most important one for connecting by land the north of Peru and the south of Ecuador.

Concerning the first criterion, the project is part of the COSIPLAN Portfolio and is included in the Peruvian Road Concession Program as well as in the Intermodal Plan 2004-2023. Furthermore, it is included in the Bicentenary Plan (Peru 2021), approved in June 2010. The government of Peru launched a promotion campaign to attract private investors, and the concession was awarded in June 2011. As for the second criterion, the project is at the pre-execution stage. Part of its infrastructure will be financed with public

resources. It has already passed the pre-investment stage, and its technical files are soon to be completed. The works awarded for concession are at the financial structuring stage. With regard to the third criterion, the project consolidates and enhances the regional connectivity network, creating significant cross-border synergies. Finally, with reference to the fourth criterion, actions intended to harmonize transport-related standards are required since there are still cargo transshipment deficiencies at the border.

▪ CAPRICORN HUB (ARGENTINA, BOLIVIA, BRAZIL, CHILE AND PARAGUAY)

The Capricorn Hub comprises four homogeneous although differentiated regions: the Atlantic Coastal Region, formed by the states of Rio Grande do Sul, Santa Catarina and Paraná, in Brazil, and the southwestern Mato Grosso meso-region of the state of Mato Grosso do Sul; the Northeastern Region, comprised by northeastern Argentina (provinces of Misiones, Corrientes, Formosa, Chaco, and the north of Santa Fe) together with the eastern region of Paraguay; the Northwestern Region, formed by northwestern Argentina (Santiago del Estero, Tucumán, La Rioja, Catamarca, Salta, Jujuy and four municipalities of Córdoba), the western region of Paraguay and the departments of Santa Cruz, Tarija and Potosí, in Bolivia; and the Pacific Coastal Region, including the north of Chile (Regions I, II, and III: Tarapacá, Antofagasta, and Atacama, respectively).

The area of influence of this Hub covers approximately 2,798,318 km^2, accounting for 20.64% of the combined total area of the five countries that make it up. The population of the Capricorn Hub was approximately 49,899,979 in 2008, accounting for 19.02% of the sum of the total population of the countries that make it up. Furthermore, an average population density of 17.83 inhabitants per km^2 for the area of influence is estimated, which is a medium to low level overall, with a strong geographic dispersion.

The Agenda includes projects from four of the five project groups of this Hub: i) G1 - Antofagasta - Paso de Jama Border Crossing - Jujuy - Resistencia - Formosa - Asunción; ii) G2 - Salta - Villazón - Yacuiba - Mariscal Estigarribia; iii) G3 - Asunción - Paranaguá; and iv) G4 - Presidente Franco - Puerto Iguazú - Pilar - Resistencia.

Table 12 shows the 18 individual projects that make up the five structured projects of the Capricorn Hub incorporated into API. The investments involved amount to US$1,765.6 million. The projects are aimed at improving the bridges and border crossings in two important areas connecting Argentina and Bolivia; creating a bioceanic railway corridor between Paranaguá and Antofagasta; improving the connection of the Atlantic and Pacific oceans through Foz do Iguaçu for the benefit of Argentina, Brazil and Paraguay; and strengthening trade in energy among Argentina, Brazil and Paraguay through two transmission lines carrying 500-kV each. These projects comply with the selection criteria set out for inclusion in the Agenda and are consistent with the strategic functions of the Hub's project groups involved in API (see Tables 12 and 13).

MAP 4: API PROJECTS - CAPRICORN HUB

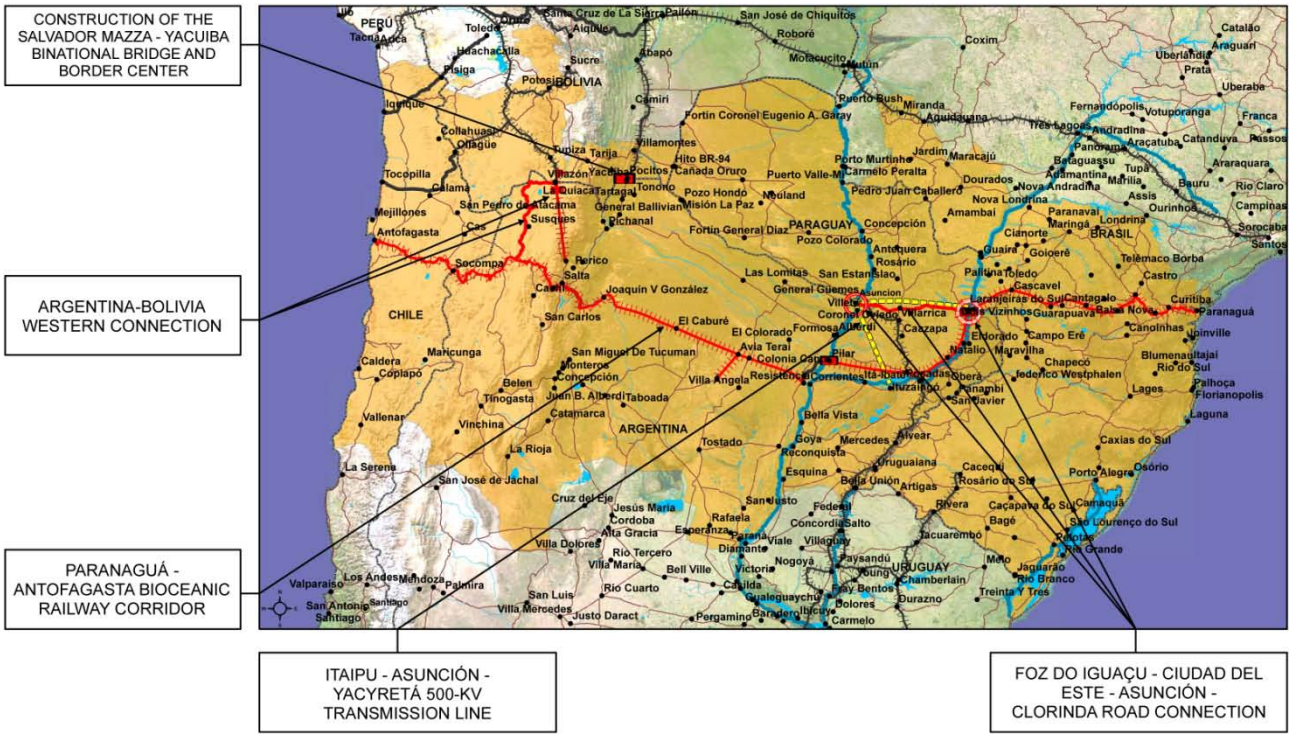


TABLE 12: API PROJECTS - CAPRICORN HUB

EID	API PROJECT NAME	COUNTRIES INVOLVED	API AMOUNT (Millons)	DB CODE	NAME OF THE PROJECTS INCLUDED	COUNTRIES INVOLVED	GP	PROJECT STAGE	AMOUNT	PROFILING	PRE-EXECUTION		ENVIRONMENTAL LICENSE		EXECUTION	
											START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)
CAP	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	ARGENTINA/ BOLIVIA	USD 23.0	CAP10	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	AR - BO	G2	PRE-EXECUTION	USD 23,000,000		2004	2005			2012	2015
CAP	ARGENTINA - BOLIVIA WEST CONNECTION	ARGENTINA/ BOLÍVIA	USD 227.0	CAP81	LA QUIACA - VILLAZÓN BRIDGE AND BORDER CENTER	AR -BO	G2	PROFILING	USD 15,000,000	2011	2012	2012	2013	2013	2014	2016
				CAP11	REHABILITATION OF JUJUY - LA QUIACA RAILWAY	AR	G2	PRE-EXECUTION	USD 62,000,000			2010	2012	2013	2014	2016
				CAP50	PAVING OF NATIONAL ROUTE NO. 40, MINING CORRIDOR PATH (BORDER WITH BOLIVIA)	AR	G2	PRE-EXECUTION	USD 150,000,000		2011	2012	2013	2013	2014	2016
CAP	PARANAGUÁ - ANTOFAGASTA BIOCEANIC RAILWAY CORRIDOR	ARGENTINA/ BRASIL/ CHILE/ PARAGUAI	USD 944.6	CAP20	CASCAVEL - FOZ DO IGUAÇU BIOCEANIC RAILWAY CORRIDOR	BR	G3	PRE-EXECUTION	USD 0		2009	2015			2016	2019
				CAP23	OPTIMIZATION OF THE ÑEEMBUCÚ - BERMEJO BRIDGE NODE	AR - PA	G4	PRE-EXECUTION	USD 60,000,000	2011	2012	2012			2014	2016
				CAP29	CONSTRUCTION OF CIUDAD DEL ESTE - PILAR RAILWAY	PA	G4	PRE-EXECUTION	USD 438,600,000	N / D						
				CAP37	REHABILITATION OF THE C3 RAILWAY BRANCH LINE: RESISTENCIA - AVIA TERAI - PINEDO	AR	G1	PRE-EXECUTION	USD 104,000,000	2011	2012	2012	2013	2013	2014	2016
				CAP38	REHABILITATION OF THE C12 RAILWAY BRANCH LINE: AVIA TERAI - METÁN	AR	G1	PRE-EXECUTION	USD 212,000,000	2011	2012	2012	2013	2013	2014	2016
				CAP39	REHABILITATION OF THE C14 RAILWAY BRANCH LINE: SALTA - SOCOMPA	AR	G1	PRE-EXECUTION	USD 60,000,000	2011	2012	2012	2013	2013	2014	2016
				CAP52	RAILWAY BRIDGE WITH FREIGHT YARD (CIUDAD DEL ESTE - FOZ DO IGUAÇU)	BR - PA	G3	PRE-EXECUTION	USD 70,000,000		2009	2015			2016	2019
				CAP53	BIOCEANIC RAILWAY CORRIDOR: PARANAGUÁ - CASCAVEL SECTION AND GUARAPUAVA - INGENIERO BLEY RAILWAY BYPASS	BR	G3	PRE-EXECUTION	USD 0		2009	2015			2016	2019
				CAP91	BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA- SOCOMPA)	CH	G1	COMPLETED*	USD 0							(*)
CAP	FOZ DO IGUAÇU - CIUDAD DEL ESTE - ASUNCIÓN - CLORINDA ROAD CONNECTION	ARGENTINA/ BRASIL/ PARAGUAY	USD 316.0	CAP07	OPTIMIZATION OF THE CLORINDA - ASUNCIÓN NODE	AR - PA	G1	PRE-EXECUTION	USD 100,000,000	2011	2012	2012	2013	2013	2014	2016
				CAP14	NEW PUERTO PRESIDENTE FRANCO - PORTO MEIRA BRIDGE, WITH A PARAGUAY - BRAZIL INTEGRATED CONTROL AREA	BR - PA	G3	PRE-EXECUTION	USD 80,000,000		2002	2010	2012	2012	2012	2014
				CAP18	CONCESSION FOR THE IMPROVEMENT OF ROUTES NO. 2 AND 7 (ASUNCIÓN - CIUDAD DEL ESTE)	PA	G3	PRE-EXECUTION	USD 136,000,000	N / D						
CAP	ITAIPU - ASUNCIÓN - YACYRETÁ 500-KV TRANSMISSION LINE	PARAGUAY	USD 255.0	CAP67	500-KV TRANSMISSION LINE (ITAIPU - ASUNCIÓN)	PA	G3	PRE-EXECUTION	USD 125,000,000	N / D						
				CAP68	500-KV TRANSMISSION LINE (YACYRETÁ - AYOLAS - CARAYAO)	PA	G3	PRE-EXECUTION	USD 130,000,000	N / D						
								TOTAL	USD 1,765,600,000							

* This individual project has been completed and was incorporated into API because it complements the connectivity network of the structured project.
N / A: the information on the implementation schedule was not available on time for its inclusion in this document.

TABLE 13: API PROJECTS - CAPRICORN HUB BY IMPLEMENTATION STAGE
(million US$)

PROJECT STAGE	NO. OF PROJECTS	AMOUNT	% INVESTMENT
PROFILING	1	15.0	0.8%
PRE-EXECUTION	16	1,750.6	99.2%
EXECUTION	0	0.0	0.0%
TOTAL	**17**	**1,765.6**	**100.0%**

- The total under the "PROJECT #" column does not match the total sum of individual projects included in API, due to the fact that the project already completed prior to this report has not been taken into account

- *Construction of the Salvador Mazza - Yacuiba Binational Bridge and Border Center (AR - BO)*

The new bridge and the border center will be located near the current Salvador Mazza - Yacuiba bridge, which links Argentina and Bolivia. The future bridge will be accessed from National Route No. 34 (from Aguaray to the border with Bolivia). The cities located in the vicinity of this crossing are Salvador Mazza, in Argentina, and Yacuiba, in Bolivia. The purpose of the project is to come up with a solution to the existing serious difficulties at the border crossing and to ensure the smooth flow of international freight traffic. At present, the border crossing has a 34-meter long, 8.3-meter wide international bridge over the Yacuiba stream that connects highly urbanized areas on both sides of the border. The problem is that the current bridge is an urban road used for both local border traffic and international traffic. The dynamic commercial activity in the area creates large flows of people crossing the border, seriously disrupting vehicular traffic, particularly trucks, which causes delays and restrictions during crossing hours. Hence the need to construct a new international bridge, its approach roads and a border center. This border crossing is part of the main road corridor between Argentina and Bolivia, which consists of Argentine National Route No. 34 and Route No. 9 of the Bolivian Fundamental Road Network. These highways link the province of Salta, in Argentina, with the southeastern departments of Bolivia, particularly Santa Cruz de la Sierra, where the only improved transport corridor of Bolivia, running to Cochabamba and La Paz, begins.

The project forms part of the COSIPLAN Portfolio, is included in the Argentine Strategic Territorial Plan and the Bolivian Development Plan, and an exchange of notes has been effected with respect to its implementation, thus being in compliance with the first criterion. As for the second criterion, the project is at the pre-execution stage according to the information contained in the IIRSA Project Database. Concerning the third criterion, reasons have been provided to explain why the project strengthens regional networks and promotes cross-border synergies. Finally, in relation to the fourth criterion, the complementary actions associated with the border strip, environmental preservation, and the logistics and production integration opportunities are clearly outlined.

- *Argentina - Bolivia West Connection (AR - BO)*

This structured project is made up of the following individual projects: i) Rehabilitation of the Jujuy - la Quiaca Railway; ii) Paving of National Route No. 40 Mining Corridor (Border with Bolivia), and iii) La Quiaca - Villazón bridge and Border Center. The railway goes from the city of Jujuy to the town of La Quiaca, in the northwestern end of Argentina, where it connects with Villazón in Bolivia through the existing railway

bridge. Then, the railway enters the Bolivian territory up to Oruro. Moreover, the new bridge and border center scheduled to be built between both border cities would be close to the existing international bridge.

In addition, the new alignment of Route No. 40 in the Jujuy province (Mining Corridor) stretches from San Antonio de los Cobres, in the province of Salta (near the border with the province of Jujuy), to La Quiaca, on the Bolivian border, running through a series of localities. These projects have significant synergies, as their simultaneous implementation will result in a smoother connection between the countries and shorter wait times on both sides of the border, where there are high-potential mineral deposits. Both the new alignment of Route No. 40 in Argentina and the establishment of the border center will help reverse the sprawl of the cities and towns adjacent to the current border crossing and alleviate vehicular and pedestrian traffic. The purpose is to turn the area into an integration node and prevent international freight trucks from entering border cities and towns.

In relation to the first criterion, the project is included in the COSIPLAN Project Portfolio and in the Argentine Strategic Territorial Plan as well as in the Bolivian Development Plan. As pre-investment studies are underway, the second criterion is met. The study concerning the bridge is at the profiling stage, while paving of Route No. 40 is at the pre-execution stage. As for the third criterion, the contribution of the project to binational connectivity and integration as well as the benefits and cross-border synergies that it promotes are very clear. Lastly, with respect to the fourth criterion, complementary actions are needed to properly serve the border strip, including border crossing infrastructure, management of the border service center, environmental preservation, and the tapping of opportunities for the implementation of measures aimed at improving logistics and production integration.

- *Paranaguá - Antofagasta Bioceanic Railway Corridor (AR - BR - CH - PA)*

This project comprises nine individual projects that articulate with one another across Argentina, Brazil, Chile and Paraguay. At present, the total length of the railway network in the countries that make up the Capricorn Hub is 74,828 km, 92.4% of which are active lines. There are railways that connect Chile and Bolivia, Chile and Argentina, Bolivia and Brazil, Argentina and Paraguay, and Argentina and Brazil. The individual projects that constitute this structured project are aimed at rehabilitating rail lines, building stretches of track that represent missing links, and strengthening or upgrading the bridges and freight yards. Three of the nine projects are located in Argentina and their purpose is to rehabilitate rail tracks, namely i) Rehabilitation of the C3 Railway Branch Line: Resistencia - Avia Terai - Pinedo; ii) Rehabilitation of the C12 Railway Branch Line: Avia Terai - Metán; and iii) Rehabilitation of the C14 Railway Branch Line: Salta - Socompa. Two projects involve Brazilian territory: i) Cascavel - Foz do Iguaçu Bioceanic Railway Corridor; and ii) Bioceanic Railway Corridor: Paranaguá - Cascavel Section and Guarapuava - Ingeniero Bley Railway Bypass. One project, the Bioceanic Railway Corridor, Chilean Section (Antofagasta - Socompa), is located in Chile. Another project is in Paraguay: Construction of Ciudad del Este - Pilar Railway. There is a further project articulating Argentina with Paraguay -Optimization of the Ñeembucú - Bermejo Bridge Node-; and, finally, another project joins Brazil and Paraguay —Railway Bridge with Freight Yard (Ciudad del Este - Foz do Iguaçu). In general, railway systems are old and in poor condition, which does not allow big trains to run. Therefore, this structured project is of great importance, as it will help increase rail-dependent economies of scale.

With reference to the first criterion, the rehabilitation and improvement of the sections that make up this corridor are included in the national plans of the countries involved in the corridor. as well as in the COSIPLAN Portfolio. In the Sixth Meeting of the Work Group on the Rail Integration of the Atlantic-Pacific Bioceanic Corridor, the report on the studies funded by BNDES was submitted for reference purposes together with the advances in each country, thus complying with the second criterion. The railway corridor runs through four countries, thereby clearly strengthening a connectivity network with a regional scope and, thus, complying with the third criterion. Finally, as for the fourth criterion, complementary actions are needed to set out a legal and institutional framework in order to establish the rules to be followed by national (public and/or private) railway operators.

- *Foz do Iguaçu - Ciudad del Este - Asunción - Clorinda Road Connection (AR - BR - PA)*

This structured project is made up of three individual projects located between Asunción and the border area of Foz do Iguaçu, in Brazil, namely i) Optimization of the Clorinda - Asunción Node; ii) New Puerto Presidente Franco - Porto Meira Bridge, with a Paraguay-Brazil Border Center; and iii) Concession for the Improvement of Routes No. 2 and 7 (Asunción - Ciudad del Este). The goal of the first project is to devise an alternative to the crossroads in the Clorinda - Asunción Metropolitan Area node. Although the carrying capacity of the current bridge, known as San Ignacio de Loyola, is adequate for existing traffic, there is a concern about frequent congestion at both ends of the bridge due to the poor infrastructure of the border center and its location, which causes major delays in the flow of people and goods. The second project involves the construction of a second international bridge over the Paraná river to enhance the connection between Foz do Iguaçu - Porto Meira, in Brazil, and Puerto Presidente Franco, in Paraguay, in addition to a border center for integrated control operations. The purpose is to contribute to the orderly growth of border cities and towns, enhance transportation systems, and improve border surveillance. The third project is aimed at awarding the concession for the operation and improvement of the two busiest highways in Paraguay, located between Asunción and Ciudad del Este. These highways form part of the Asunción - Paranaguá corridor and will facilitate trade between Brazil and Paraguay. The simultaneous implementation of the three projects will stimulate the economic activities in the area between the metropolitan capital of Paraguay and the so-called Triple Frontier, where the Iguazu Falls are located.

With regard to the first criterion, the three projects are included in the COSIPLAN Portfolio; and with reference to the Optimization of the Clorinda - Asunción Node project, this also forms part of the Argentine Strategic Territorial Plan, and an agreement concerning its implementation has been signed by the legislative branches of Argentina and Paraguay, while the New Puerto Presidente Franco - Porto Meira Bridge project is covered by a bilateral agreement and the approval of the Brazilian and Paraguayan legislative branches as well. As for the second criterion, the preparation of the feasibility study for the Clorinda - Asunción Node is open for bid; the basic design of the Presidente Franco - Porto Meira project has already been approved (the project is at the pre-execution stage); and the improvement of routes No. 2 and 7 is currently under consideration by the Paraguayan congress for authorization to proceed with the relevant studies. The structured project strengthens networks that are regional in scope and is instrumental in fostering regional connectivity and integration, thus meeting the third criterion. Finally, in relation to the fourth criterion, it is necessary to define the border crossing associated to the Argentina - Paraguay bridge .

In the structured project, there are greatlogistics and production integration opportunities, with a view to improving the quality of life of the countries involved.

- *Itaipu - Asunción - Yacyretá 500-kV Transmission Line (PA)*

This project comprises two individual projects concerned with electric-power transmission lines: i) 500-kV Transmission Line (Itaipu - Asunción); and ii) 500-kV Transmission Line (Yacyretá - Ayolas - Carayao). The first line extends from the right bank of Itaipu Dam to Villa Hayes-Asunción power station. The purpose of the project is to improve service quality and supply reliability, providing a solution to the low voltage of the grid that supplies the city of Asunción. The intention is to reduce the technical losses in transmission, which can be as high as 10% during peak hours. The transmission lines are currently operating at more than 85% of their capacity, and the power transformers of the interconnection with the Itaipu Dam will operate at full capacity by 2011. The second line runs from Yacyretá (Ayolas) to Villa Hayes-Asunción power station, with an extension to Carayao power station. Just like the previous project, the purpose of this second project is to improve service quality and supply reliability by coming up with a solution to the low voltage of the grid, which will help reduce technical losses as high as 10% during peak hours. At present, the transmission lines are operating at more than 70% of their capacity, and the transformers are being used at almost full capacity. Both projects, which will be interconnected, will substantially enhance power supply security in Paraguay as well as facilitate electricity exchange with Argentina through the 220-kV interconnection already in place between the cities of Clorinda (Argentina) and Guarambaré (Paraguay).

The individual projects satisfy the first two criteria, as they are well underway, and the completion of the relevant studies gave way to the implementation of the two transmission lines. The structured project is in compliance with the third criterion since it has the capacity to support networks with a regional scope. Lastly, the need for complementary actions in the regulatory field has been pointed out, with a view to facilitating trade in electric power between Argentina and Paraguay.

Guianese Shield Hub (Brazil, Guyana, Suriname and Venezuela)

This Hub covers the eastern region of Venezuela (the states of Anzoátegui, Bolívar, Delta Amacuro, the Capital District, Nueva Esparta, Guárico, Miranda, Monagas, Sucre, and Vargas), Brazil's northern arc (the states of Amapá, Roraima, Amazonas, and Pará), and all of the territory of Guyana and Suriname. The area of influence defined for the Hub covers 4,002,555 km^2, accounting for 40.80% of the total area of the countries that make it up.

In 2008, the total population of the area of influence was estimated at 24,488,563 inhabitants, accounting for 11.19% of the total population of the countries that make up the Hub. Furthermore, the area of influence has an average population density of 6.12 inhabitants per km^2. This indicator ranges from a maximum 4,830.14 inhabitants per km^2 in the Capital District of Venezuela to a minimum 1.84 inhabitants per km^2 in the Brazilian state of Roraima. The region has one of the lowest population densities of the Integration and Development Hubs defined within the framework of IIRSA.

The Agenda includes projects from three of the four project groups of this Hub: i) G2 - Brazil - Guyana Interconnection; ii) G3 - Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Paramaribo) Interconnection; and iii) G4 - Guyana - Suriname - French Guiana - Brazil Interconnection.

Table 14 shows the four individual projects that make up the three structured projects of the Guianese Shield Hub incorporated into API. The investments involved amount to US$1,030,08 million. The projects are aimed at enhancing road connection between Caracas and Manaus; paving the still unsurfaced sections of the main connection between Brazil and Guyana; improving the routes interconnecting Ciudad Guayana (Venezuela) - Georgetown (Guyana) and Apura – Zanderij - Paramaribo (Suriname); and, finally, building a bridge linking Guyana and Suriname over the Corentyne river. The three projects comply with the selection criteria set out for inclusion in the Agenda, and their purpose is significantly in line with the strategic functions of the Hub's project groups involved in API (see Tables 14 and 15).

MAP 5: API PROJECTS - GUIANESE SHIELD HUB

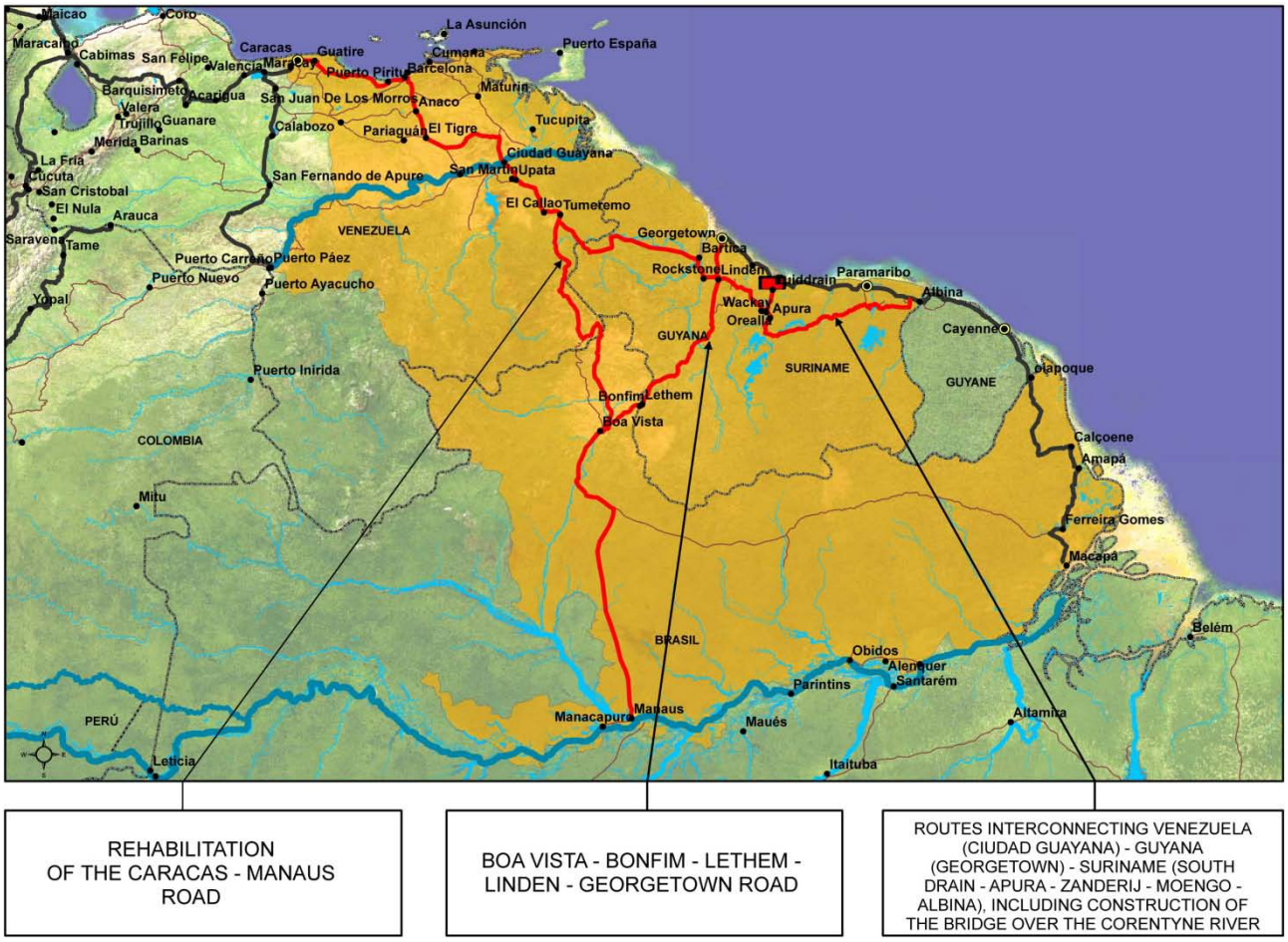


TABLE 14: API PROJECTS - GUIANESE SHIELD HUB

EID	API PROJECT NAME	COUNTRIES INVOLVED	API AMOUNT (Millons)	DB CODE	NAME OF THE PROJECTS INCLUDED	COUNTRIES INVOLVED	GP	PROJECT STAGE	AMOUNT	PROFILING	PRE-EXECUTION		ENVIRONMENTAL LICENSE		EXECUTION	
											START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)
GUY	REHABILITATION OF THE CARACAS - MANAUS ROAD	BRAZIL/ VENEZUELA	USD 480,0	GUY01	REHABILITATION OF THE CARACAS - MANAUS ROAD	BR - VE	G1	EXECUTION	USD 480,000,000						2009	2015
GUY	BOA VISTA - BONFIM - LETHEM - LINDEN - GEORGETOWN ROAD	BRAZIL/ GUAYANA	USD 250,0	GUY09	BOA VISTA - BONFIM - LETHEM - LINDEN - GEORGETOWN ROAD	BR - GU	G2	PRE-EXECUTION	USD 250,000,000	N / D						
GUY	ROUTES INTERCONNECTING VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (SOUTH DRAIN - APURA - ZANDERIJ - MOENGO - ALBINA), INCLUDING CONSTRUCTION OF THE BRIDGE OVER THE CORENTYNE RIVER	GUYANA/ SURINAME/ VENEZUELA	USD 300.8	GUY18	ROUTES INTERCONNECTING VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (APURA - ZANDERIJ - PARAMARIBO)	GU - SU - VE	G3	EXECUTION	USD 300,800,000		2009	2011			2011	2016
				GUY24	CONSTRUCTION OF THE BRIDGE OVER THE CORENTYNE RIVER	GU - SU	G3	PROFILING	USD 0		2010	2012	2012	2012	2012	2014
								TOTAL	**USD 1,030,800.00**							

N / A: the information on the implementation schedule was not available on time for its inclusion in this document.

TABLE 15: API PROJECTS - GUIANESE SHIELD HUB BY IMPLEMENTATION STAGE (million US$)

PROJECT STAGE	NO. OF PROJECTS	AMOUNT	% INVESTMENT
PROFILING	1	0.0	0.0%
PRE-EXECUTION	1	250.0	24.3%
EXECUTION	2	780.8	75.7%
TOTAL	**4**	**1,030.8**	**100.0%**

- *Rehabilitation of the Caracas - Manaus Road (BR - VE)*

The Caracas - Manaus road was originally a project to pave a 970-km long highway between the city of Manaus, in Brazil, and the border with Venezuela. It was the anchor project in Group 1 of the Guianese Shield Hub, and involved a 1,800-km long corridor interconnecting the city of Manaus and the Venezuelan ports on the Atlantic coast, mainly Puerto Ordaz city. The Caracas - Manaus road links the Brazilian states of Roraima and Amazonas with the Caribbean sea. In Brazil, this road is known as BR-174 and connects the Brazilian municipality of Pacaraima and the municipality of Santa Elena de Uairén, in Venezuela, where its name is Trunk Road 10. At present, the highway shows signs of deterioration and there are several critical sections on the Brazilian side, which hampers trade, whereas on the Venezuelan side it needs maintenance on a constant basis. This connection is of major importance for regional integration. During the first two years since the road was opened, it created new trade flows for an amount in excess of the total investment made in its infrastructure (US$168 million). The road rehabilitation project is currently at the execution stage and is instrumental in sustaining and promoting socioeconomic development in the states of Amazonas and Roraima (Brazil) as well as in furthering their integration with the states located in eastern Venezuela.

The project is included in the COSIPLAN Portfolio and is provided for in the Brazilian Multi-Annual Plan 2008-2011, thereby complying with the first criterion. It also meets the second criterion because it is stated to be at the execution stage, and technical feasibility studies have been conducted. As for the third criterion, there is enough data on the connectivity network with a regional scope strengthened by the project. Finally, reference is made in the information available to the need for complementary actions related to logistics and the environment.

- *Boa Vista - Bonfim - Lethem - Linden - Georgetown Road (BR - GU)*

This project links the city of Boa Vista with Georgetown, the capital of Guyana. The section of the road on the Brazilian side, which runs from Boa Vista to the border with Guyana, is in good condition. On the Guyanese side, two sections can be distinguished: the first one is the 15-km long Georgetown - Linden stretch, which is paved and in good condition; and the second section, spanning 438 km between Lethem and Linden, is an unpaved, low-standard road that includes a wooden bridge and a ferry crossing over the Kurupukari river. The purpose of the project is to i) improve transportation between Guyana and Brazil with a view to promoting trade and cultural exchange between the two countries; ii) boost economic development in the state of Roraima and in Guyana by facilitating the export of goods to North America, Central America and the Caribbean through the port services available in Guyana; and iii) create a north-south transportation corridor to help integrate northwestern Brazil with the capital of Guyana. Completion

of the project will result in the most important north-south connection in Guyana and generate synergies with the initiatives aimed at implementing east-west links among Venezuela, Guyana and Suriname.

Regarding the first criterion, the Linden-Lethem road section is a priority in the Government of Guyana's National Development Strategy. As a result of bilateral agreements entered into by Brazil and Guyana, two feasibility studies were undertaken in 1989 and 2000, and another feasibility study was conducted recently in connection with the Linden-Lethem section, thus satisfying the second criterion. As for the third criterion, reference is made to the fact that the conclusion of the Boa Vista - Bonfim - Lethem -Linden road will contribute to the integration between Brazil and Guyana. With respect to the fourth criterion, complementary actions are required concerning the preservation of the environment and the identification of logistics and production integration opportunities.

- *Routes Interconnecting Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Apura - Zanderij - Paramaribo), Including Construction of the Bridge over the Corentyne River (GU - SU - VE)*

This project is made up of two complementary individual projects for the development of a road corridor to facilitate integration along the coastal axis stretching from Ciudad Guayana, in Venezuela, to Paramaribo, in Suriname. The project will help link the markets in the eastern region of Venezuela with those in Guyana and Suriname, which also will be connected with the state of Amapá through French Guiana. Additionally, such regions will have access to the Venezuelan market through the Venezuelan road network and, consequently, to the Andean markets. Furthermore, the completion of the project will provide a connection with its area of influence in Brazil (the state of Roraima and the Manaus Free Trade Zone) via the Manaus - Boa Vista - Santa Elena de Uairén - Puerto Ordaz existing road corridor. The individual projects are as follows: i) the construction of a paved road running from San Martín de Turumbán, in the Venezuelan state of Bolívar, through Linden and Georgetown to Paramaribo; and ii) the construction of a bridge over the Corentyne river. At present, there is no road linking Venezuela and Guyana along the coastal axis, and trade between Guyana and Suriname is conducted by ferry, which represents a bottleneck for long-distance goods transport.

In relation to the first criterion, both projects are included in the COSIPLAN Portfolio, and it is provided for in the New Multi-Annual Plan 2012-2016, which will not be presented to the Parliament of Suriname until October 2011. As for the second criterion, many studies have been carried out; the construction of the bridge is currently at the profiling stage; and the works in several stretches of the road corridor are in execution or the relevant pre-feasibility studies are about to be undertaken. The third criterion is met, as should the project be completed, it will have a highly favorable impact on regional integration and on building synergies for development at the borders. Finally, in connection with the fourth criterion, no complementary actions have been identified.

PARAGUAY - PARANÁ WATERWAY HUB (ARGENTINA, BOLIVIA, BRAZIL, PARAGUAY AND URUGUAY)

The Paraguay - Paraná Waterway Hub covers large areas of the basins of the Paraguay, Paraná, Uruguay, and Tietê rivers. The first three rivers run north to south, forming part of the borders between Brazil and Bolivia, Brazil and Paraguay, Paraguay and Argentina, Argentina and Brazil, and Uruguay and Argentina. The Tietê river runs east-west across the state of São Paulo, in Brazil, flowing into the lake formed by the Jupiá dam and the Paraná river.

The area of influence of this Hub is transversally crossed by several (road and rail) corridors that connect this with other hubs, namely the Central Interoceanic, Capricorn, and MERCOSUR - Chile Hubs. The territory defined for the Paraguay - Paraná Waterway Hub covers 3,837,593 km^2, accounting for 29.57% of the total area of the countries that make it up.

The total population of the area of influence defined for this Hub was estimated at about 73,213, 987 inhabitants in 2008, accounting for a 29.41% of the total population of the countries that make it up. Furthermore, this area of influence has an average population density of 19.08 inhabitants per km^2. This indicator ranges from a maximum 451.89 inhabitants per km^2 in the area of influence of the state of São Paulo, in Brazil, to a minimum 0.67 inhabitants per km^2 in the western region of the Republic of Paraguay.

The Agenda includes projects from the five project groups of this Hub: i) G1 - Paraguay River, Asunción - Corumbá; ii) G2 - Tietê - Paraná (Itaipu); iii) G3 - Paraguay - Paraná Rivers, Asunción - Paraná Delta; iv) G4 - Paraná River, Itaipu - Confluence; and v) G5 - Uruguay River.

Table 16 shows the 15 individual projects that make up the four structured projects of the Paraguay-Paraná Waterway Hub incorporated into API. The investments involved amount to US$1,230.8 million. Most of these projects are aimed at improving navigation conditions on the Plata river basin for the sake of Argentina, Bolivia, Brazil, Paraguay and Uruguay. The purpose of the other projects is to complete the railway connections among Paraguay, Uruguay and Argentina, and to rehabilitate two rail connections in Uruguay that are linked to the waterway. The projects comply with the selection criteria set out for inclusion in the Agenda, and their purpose is in line with the strategic functions of the Hub's project groups involved in API (see Tables 16 and 17).

MAP 6: API PROJECTS - PARAGUAY-PARANÁ WATERWAY HUB

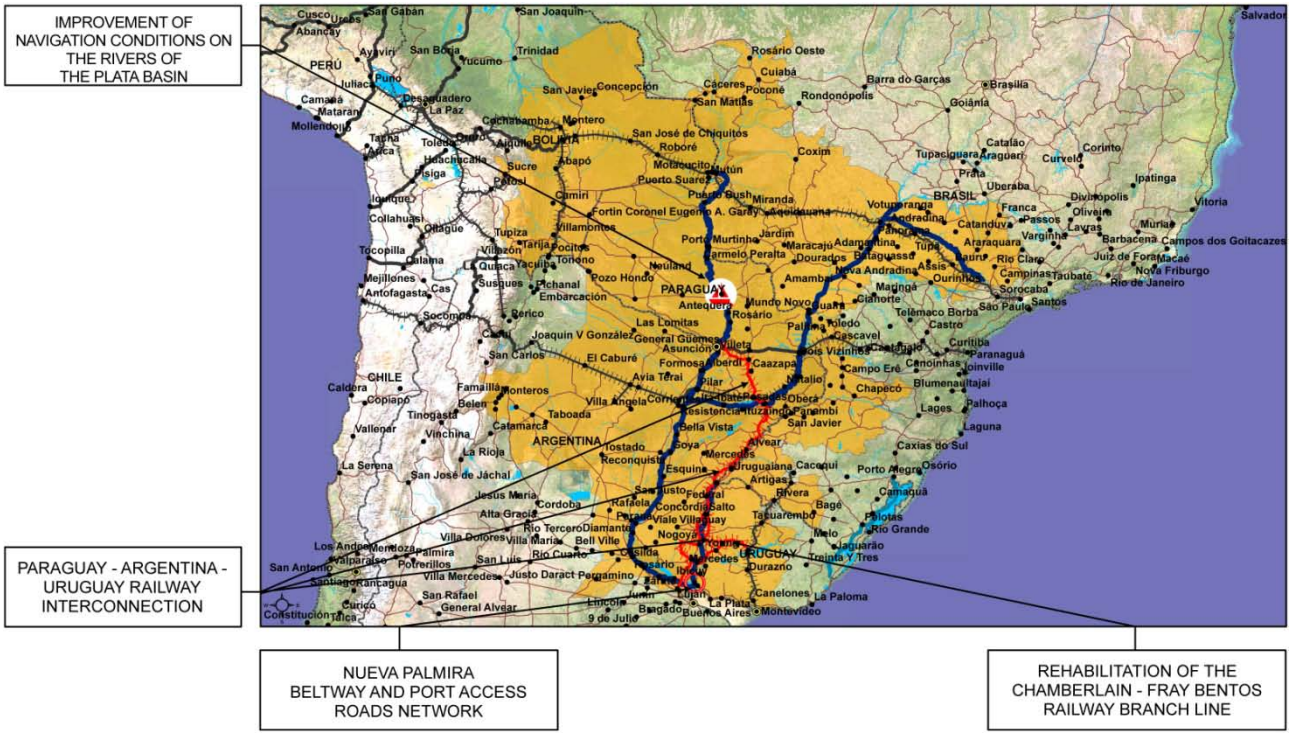


TABLE 16: API PROJECTS - PARAGUAY-PARANÁ WATERWAY HUB

EID	API PROJECT NAME	COUNTRIES INVOLVED	API AMOUNT (Millons)	DB CODE	NAME OF THE PROJECTS INCLUDED	COUNTRIES INVOLVED	GP	PROJECT STAGE	AMOUNT	PROFILING	PRE-EXECUTION		ENVIRONMENTAL LICENSE		EXECUTION	
											START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)
CAP	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	ARGENTINA/ BOLIVIA	USD 23.0	CAP10	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	AR - BO	G2	PRE-EXECUTION	USD 23,000,000		2004	2005			2012	2015
CAP	ARGENTINA - BOLIVIA WEST CONNECTION	ARGENTINA/ BOLÍVIA	USD 227.0	CAP81	LA QUIACA - VILLAZÓN BRIDGE AND BORDER CENTER	AR -BO	G2	PROFILING	USD 15,000,000	2011	2012	2012	2013	2013	2014	2016
				CAP11	REHABILITATION OF JUJUY - LA QUIACA RAILWAY	AR	G2	PRE-EXECUTION	USD 62,000,000			2010	2012	2013	2014	2016
				CAP50	PAVING OF NATIONAL ROUTE NO. 40, MINING CORRIDOR PATH (BORDER WITH BOLIVIA)	AR	G2	PRE-EXECUTION	USD 150,000,000		2011	2012	2013	2013	2014	2016
CAP	PARANAGUÁ - ANTOFAGASTA BIOCEANIC RAILWAY CORRIDOR	ARGENTINA/ BRASIL/ CHILE/ PARAGUAI	USD 944.6	CAP20	CASCAVEL - FOZ DO IGUAÇU BIOCEANIC RAILWAY CORRIDOR	BR	G3	PRE-EXECUTION	USD 0		2009	2015			2016	2019
				CAP23	OPTIMIZATION OF THE ÑEEMBUCÚ - BERMEJO BRIDGE NODE	AR - PA	G4	PRE-EXECUTION	USD 60,000,000	2011	2012	2012			2014	2016
				CAP29	CONSTRUCTION OF CIUDAD DEL ESTE - PILAR RAILWAY	PA	G4	PRE-EXECUTION	USD 438,600,000	N / D						
				CAP37	REHABILITATION OF THE C3 RAILWAY BRANCH LINE: RESISTENCIA - AVIA TERAI - PINEDO	AR	G1	PRE-EXECUTION	USD 104,000,000	2011	2012	2012	2013	2013	2014	2016
				CAP38	REHABILITATION OF THE C12 RAILWAY BRANCH LINE: AVIA TERAI - METÁN	AR	G1	PRE-EXECUTION	USD 212,000,000	2011	2012	2012	2013	2013	2014	2016
				CAP39	REHABILITATION OF THE C14 RAILWAY BRANCH LINE: SALTA - SOCOMPA	AR	G1	PRE-EXECUTION	USD 60,000,000	2011	2012	2012	2013	2013	2014	2016
				CAP52	RAILWAY BRIDGE WITH FREIGHT YARD (CIUDAD DEL ESTE - FOZ DO IGUAÇU)	BR - PA	G3	PRE-EXECUTION	USD 70,000,000		2009	2015			2016	2019
				CAP53	BIOCEANIC RAILWAY CORRIDOR: PARANAGUÁ - CASCAVEL SECTION AND GUARAPUAVA - INGENIERO BLEY RAILWAY BYPASS	BR	G3	PRE-EXECUTION	USD 0		2009	2015			2016	2019
				CAP91	BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA- SOCOMPA)	CH	G1	COMPLETED*	USD 0							(*)
CAP	FOZ DO IGUAÇU - CIUDAD DEL ESTE - ASUNCIÓN - CLORINDA ROAD CONNECTION	ARGENTINA/ BRASIL/ PARAGUAY	USD 316.0	CAP07	OPTIMIZATION OF THE CLORINDA - ASUNCIÓN NODE	AR - PA	G1	PRE-EXECUTION	USD 100,000,000	2011	2012	2012	2013	2013	2014	2016
				CAP14	NEW PUERTO PRESIDENTE FRANCO - PORTO MEIRA BRIDGE, WITH A PARAGUAY - BRAZIL INTEGRATED CONTROL AREA	BR - PA	G3	PRE-EXECUTION	USD 80,000,000		2002	2010	2012	2012	2012	2014
				CAP18	CONCESSION FOR THE IMPROVEMENT OF ROUTES NO. 2 AND 7 (ASUNCIÓN - CIUDAD DEL ESTE)	PA	G3	PRE-EXECUTION	USD 136,000,000	N / D						
CAP	ITAIPU - ASUNCIÓN - YACYRETÁ 500-KV TRANSMISSION LINE	PARAGUAY	USD 255.0	CAP67	500-KV TRANSMISSION LINE (ITAIPU - ASUNCIÓN)	PA	G3	PRE-EXECUTION	USD 125,000,000	N / D						
				CAP68	500-KV TRANSMISSION LINE (YACYRETÁ - AYOLAS - CARAYAO)	PA	G3	PRE-EXECUTION	USD 130,000,000	N / D						
								TOTAL	**USD 1,765,600,000**							

N / A: the information on the implementation schedule was not available on time for its inclusion in this document.

TABLE 17: API PROJECTS - PARAGUAY-PARANÁ WATERWAY HUB BY IMPLEMENTATION STAGE (million US$)

PROJECT STAGE	NO. OF PROJECTS	AMOUNT	% INVESTMENT
PROFILING	5	372.3	30.2%
PRE-EXECUTION	6	128.5	10.4%
EXECUTION	4	730.0	59.3%
TOTAL	**15**	**1,230.8**	**100.0%**

- *Improvement of Navigation Conditions on the Plata River Basin*

This structured project comprises ten individual projects, all of which are concerned with navigation conditions in the area of influence of the Plata river basin. Two of the individual projects involve Bolivia, Brazil and Paraguay: i) Improvement of Navigation Conditions on the Paraguay River (between Apa and Corumbá); and ii) System for Water Level Prediction in the Paraguay River (Apa - Asunción). Another two projects involve Argentina and Paraguay: i) Binational Project for the Improvement of the Navigation Conditions on the Paraná and Paraguay Rivers, between Santa Fe and Asunción; and ii) Binational Project for the Improvement of Navigation Conditions on the Alto Paraná River. Two projects are located entirely in Brazilian territory: i) Improvement of Navigation Conditions on the Tietê River; and ii) Improvement of Navigation Conditions on the Alto Paraná River (Upstream of Saltos del Guairá). One project is located in Paraguay only —Improvement of Navigation Conditions on the Paraguay River (Asunción - Apa); another one is exclusively in Argentina (Deepening of the Fairway in the Paraná River from Santa Fe to where It Flows into the Plata River); and only one project is located entirely in Bolivian territory (Rehabilitation and Maintenance of the Tamengo Canal). This structured project is important, as the improvement of the navigation conditions on the waterways will result in a significant reduction in the cost of transport for both inter- and extra-regional trade, which in turn will enhance the competitiveness of regional products, mainly of those produced in the areas farthest away from the seaports.

With regard to the first criterion, the individual projects are included in the COSIPLAN Portfolio and mentioned in the statements of the Presidents and relevant Ministers of the respective contries. The project involving the Tamengo canal also forms part of the Bolivian National Development Plan and of the Bolivian Transport Sector Programs and Projects Matrix. In addition, there are agreements among the countries reflecting the importance of the actions proposed (the Uruguay River Executive Commission and the Plata River Basin Treaty). Furthermore, several works associated with the Paraguay, Paraná, and Tietê rivers are included in the Brazilian Growth Acceleration Program. In connection with the second criterion, it is worth noting that the countries are making headway in the studies concerning the basins of the rivers involved, as specified in the relevant project file. The project strengthens networks that are regional in scope and creates cross-border synergies, thereby complying with the third criterion. As far as the fourth criterion is concerned, complementary actions are needed to ensure the preservation of the environment and the tapping of any opportunities for logistics and production development.

- *Paraguay - Argentina - Uruguay Railway Interconnection (AR - PA - UR)*

This structured project is made up of three individual projects, namely i) Rehabilitation and Improvement of the Asunción - Montevideo Railway Corridor; ii) Rehabilitation of the Zárate - Posadas Railway Branch Line; and iii) Construction and Rehabilitation of the Asunción - Posadas Railway. The purpose of the first project is to reconstruct a 380-km section of the rail corridor between the city of Asunción and the port of Montevideo, passing through Argentine territory on its way. The goal of the second project is to improve rail track infrastructure to reduce travel time, cutting the journey time of freight wagons along the 1,020-km stretch between Zárate and Posadas. The third project aims at improving operating conditions on the international connections that begin and end in Posadas and provide a link with Paraguay in Encarnación as well as with the different ports on the Plata river basin. The structured project will have a highly positive impact on the physical integration of Paraguay, Argentina and Uruguay, as it will consolidate social and economic development throughout the area of influence of the works.

As for the first criterion, the individual projects that make up this integration project are included in the COSIPLAN Portfolio and in the National Plans of each of the countries involved, as well as in declarations of presidential summits and minister meetings. With respect to the second criterion, a technical study will be undertaken in order to rehabilitate and improve the railway sections in the three countries involved, facilitating connectivity at lower transaction costs and improving the quality of life of the inhabitants of this region. With regard to the third criteron, the project strengthens networks that are regional in scope and is conducive to connectivity and integration. Lastly, regarding the fourth criterion, complementary action programs are needed, particularly in relation to border crossings and common regulations.

- *Rehabilitation of the Chamberlain - Fray Bentos Railway Branch Line (UR)*

The rail section on which works are to be carried out joins the Uruguayan cities of Chamberlain, in the department of Tacuarembó, and Fray Bentos, in the Río Negro department. This 263-km long section forms part of the active rail network in Uruguay. The deterioration of the railroad hampers the adequate transportation of freight in the area of influence of the project. The rehabilitation of this branch line is a strategic and priority initiative, as the city of Fray Bentos is home to large pulp mills with an increasing demand for raw material (cellulose), and pulp is one of the most important products to be tapped by the railroad.

Regarding the first criterion, the project forms part of the COSIPLAN Portfolio and is a priority for the Uruguayan government. The relevant feasibility studies were conducted in 2008, which accounts for compliance with the second criterion. As for the third criterion, the explanation to prove that the project promotes regional networks is offered in very general terms. With reference to the fourth criterion, no complementary actions will be needed.

- *Nueva Palmira Beltway and Port Access Roads Network (UR)*

Nueva Palmira is strategically located on the banks of the Uruguay river, in front of the Paraná river mouth. It borders the city of Dolores on the north and the city of Carmelo on the south, from which it is 22 km away, and is 280 km west of Montevideo. At present, trucks traffic passes through the city on its way to the port of Nueva Palmira due to the lack of an adequate access road, causing trouble in the center of the city

and posing an obstacle to foreign trade operations. The project consists in building a bypass road to prevent trucks going to the port from entering the city, i.e. to provide freight transport vehicles with a direct connection between the port and Routes 21 and 12. Route 21 links the port with northern Nueva Palmira, and Route 12 joins the eastern side of the city and the country's metropolitan region. The significance of the project lies in its potential for consolidating a large production network and, in regional terms, for becoming a link with the area of influence of the Paraguay - Paraná waterway.

The project forms part of the COSIPLAN Portfolio and is provided for in the national budget, thereby meeting the first criterion. In connection with the second criterion, reference is made to the fact that, although the feasibility study has not been carried out yet, it is included in the five-year budget. Furthermore, the project creates a connectivity network that is regional in scope, as it provides a link with the area of influence of the Paraguay - Paraná waterway, which accounts for its compliance with the third criterion. Lastly, the fourth criterion is also satisfied, since the need for complementary actions -such as programs related to logistics, border crossings, and legal and regulatory aspects- is sufficiently justified.

▪ CENTRAL INTEROCEANIC HUB (BOLIVIA, BRAZIL, CHILE, PARAGUAY AND PERU)

The territory of the Central Interoceanic Hub includes the departments of Arequipa, Moquegua, Puno, and Tacna, in Peru; Regions XV and I (Arica and Parinacota, and Tarapacá, respectively) and the province of Loa in Region II, Antofagasta, in Chile; the departments of Beni, La Paz, Oruro, Potosí, Tarija, Cochabamba, Chuquisaca, and Santa Cruz, in Bolivia; the Republic of Paraguay; and the Brazilian states of Mato Grosso, Mato Grosso do Sul, Rio de Janeiro, São Paulo, and Paraná. The area of influence defined for this Hub covers 3,461,461 km^2, accounting for 28.70% of the total area of the five countries that make it up.

The total population of the area of influence was estimated at 92,594,587 inhabitants in 2008, accounting for 36.83% of the total population of the five countries that make up the Hub. Furthermore, the area of influence has an average population density of 26.75 inhabitants per km^2. This indicator ranges from a maximum 363.25 inhabitants per km^2 in the state of Rio de Janeiro to a minimum 2.01 inhabitants per km^2 in the department of Beni, in Bolivia.

The Agenda includes projects from four of the five project groups of this Hub: i) G1 - Chile - Bolivia - Paraguay - Brazil Connection; ii) G2 - Optimization of the Corumbá - São Paulo - Santos - Rio de Janeiro Corridor; iii) G3 - Santa Cruz - Puerto Suárez - Corumbá Connection; and iv) G5 - Connections of the hub to the Pacific: Ilo / Matarani - Desaguadero - La Paz + Arica - La Paz + Iquique - Oruro - Cochabamba - Santa Cruz.

Table 18 shows the seven individual projects that make up the four structured projects of the Central Interoceanic Hub incorporated into API. The investments involved amount to US$411.7 million. The projects are aimed at improving road, rail and air connections among Bolivia, Brazil, Paraguay and Peru, all of them revolving around Bolivia. Four of the individual projects have been grouped together in the so-called Improvement of Road Connectivity in the Central Interoceanic Hub structured project for the purpose of enhancing Brazil - Bolivia road connection within the Hub. The other API projects from this Hub are intended to raise freight capacity at the Viru Viru Airport; improve Infante Rivarola - Cañada Oruro border crossing between Bolivia and Paraguay; and develop a central bioceanic rail corridor in Bolivia (see Tables 18 and 19).

MAP 7: API PROJECTS - CENTRAL INTEROCEANIC HUB

TABLE 18: API PROJECTS - CENTRAL INTEROCEANIC HUB

EID	API PROJECT NAME	COUNTRIES INVOLVED	API AMOUNT (Millons)	DB CODE	NAME OF THE PROJECTS INCLUDED	COUNTRIES INVOLVED	GP	PROJECT STAGE	AMOUNT	PORFILING	PRE-EXECUTION		ENVIRONMENTAL LICENSE		EXECUTION	
											START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)
IOC	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU - SANTA CRUZ INTERNATIONAL HUB AIRPORT)	BOLIVIA	USD 20.0	IOC78	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU - SANTA CRUZ INTERNATIONAL HUB AIRPORT)	BO	G3	PROFILING	USD 20,000,000	2012	2013	2013	2013	2013	2013	2017
IOC	IMPROVEMENT OF ROAD CONNECTIVITY IN THE CENTRAL INTEROCEANIC HUB	BOLIVIA/ BRAZIL	USD 383.0	IOC80	UPGRADE OF LA PAZ – SANTA CRUZ ROUTE TO A FOUR-LANE ROAD	BO	G5	PRE-EXECUTION	USD 269,000,000	2011	2011	2014	2011	2012	2014	2016
				IOC14	CAMPO GRANDE BYPASS	BR	G2	EXECUTION	USD 15,000,000				2009	2011	2011	2012
				IOC25	PUERTO SUÁREZ - CORUMBÁ INTEGRATED CONTROL AREA	BO - BR	G3	PRÉ-EXECUTION	USD 2,000,000	2012	2012	2012	2013	2013	2013	2014
				IOC32	TOLEDO - PISIGA ROAD	BO	G5	EXECUTION	USD 97,000,000		2011	2011	2011	2011	2011	2013
IOC	INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING	BOLIVIA/ PARAGUAY	USD 2.0	IOC09	INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING	BO - PA	G1	EXECUTION	USD 2,000,000	2011	2012	2012			2013	2013
IOC	CENTRAL BIOCEANIC RAILWAY CORRIDOR (BOLIVIAN SECTION)	BOLIVIA	USD 6.7	IOC81	CENTRAL BIOCEANIC RAILWAY CORRIDOR	BO	G5	PRE-EXECUTION	USD 6,700,000	2011	2012	2013	2013	2013	2014	2018
								TOTAL	**USD 411,700,000**							

TABLE 19: API PROJECTS - CENTRAL INTEROCEANIC HUB BY IMPLEMENTATION STAGE (million US$)

PROJECT STAGE	NO. OF PROJECTS	AMOUNT	% INVESTMENT
PROFILING	1	20.0	4.9%
PRE-EXECUTION	3	277.7	67.5%
EXECUTION	3	114.0	27.7%
TOTAL	**7**	**411.7**	**100.0%**

- *Passenger and Cargo Hub Airport for South America (Viru Viru - Santa Cruz International Hub Airport) (BO)*

Viru Viru Airport is located in the Bolivian city of Santa Cruz de la Sierra, which borders the department of Beni and Brazil on the north; the department of Chuquisaca and Paraguay on the south; Brazil on the east; and the departments of Beni, Cochabamba, and Chuquisaca on the west. As it is near the geographic midpoint of South America, the airport is expected to become an air cargo and passenger hub for the interconnection of the entire Central Interoceanic Hub. Thanks to its near sea level location, airplanes will be able to operate at full payload. Increasing air cargo trade justifies the expansion of the airport. The project involves the upgrade and construction of new hangars and infrastructure for cargo storage and control, as well as the expansion of the cargo apron, among other works. Airlines from other continents will be able to use this airport as a transfer point to get passengers and cargo to the other countries in the region, benefiting from shorter flight distances and times. This will result in reduced operational costs and, consequently, in lower passenger fares and freight rates. The purpose, then, is to establish a regional passenger and cargo hub airport for domestic and international flights, ensuring adequate, efficient and safe handling of cargo as a lever for both local and regional economic development. The project is important, as it will encourage exports of agribusiness products from its area of influence and boost imports of inputs.

With regard to the first criterion, the project forms part of the COSIPLAN Portfolio and is a priority in Bolivia's National Development Plan. The project has an associated Master Plan updated as of 2005, and is at the profiling stage according to the data in the project file. As for the second criterion, the feasibility study has been provided for in the budget; at present, the funds for it are being secured. Ample proof is given that the project strengthens regional connections, thereby complying with the third criterion. Finally, the fourth criterion is also satisfied, as complementary actions are listed.

- *Improvement of Road Connectivity in the Central Interoceanic Hub (BO - BR)*

This structured project is made up of four individual projects located in the Central Interoceanic Hub and intended to facilitate long-distance trade. Three of them involve roads, and one is related to a border crossing between Bolivia and Brazil. The former are i) Upgrade of La Paz - Santa Cruz Route to a Four-lane Road; ii) Corumbá Bypass; and iii) Toledo - Pisiga Road; whereas the latter is Puerto Suárez - Corumbá Border Crossing. The Upgrade of La Paz - Santa Cruz Route to a Four-lane Road project forms part of a

corridor that will join the departments of La Paz, Oruro, Cochabamba, and Santa Cruz with four-lane, paved, category 1 roads, facilitating trade and reducing the number of accidents. This corridor provides a link with Peru and Chile on the west and with Brazil on the east, in the Bolivian town and port of Puerto Quijarro, which is a point of connection with the Paraguay - Paraná waterway through the Tamengo canal and, consequently, with Uruguay and Paraguay. The Toledo - Pisiga Road project aims at supplementing Bolivia's articulation with the Chilean port of Iquique, and its completion will also contribute to improving the competitiveness of important mining areas in Bolivia. The purpose of the Corumbá bypass is to ensure a safer and smoother traffic flow in the city of Corumbá, where congestion caused by long-distance, light- and heavy-duty vehicles is a problem. Finally, the border crossing between Corumbá and Puerto Suárez needs improved infrastructure and harmonization of the Bolivian and Brazilian transport systems. The simultaneous implementation of these individual projects is highly important, as enhanced road connectivity in the Central Interoceanic Hub will impact on 98% of the trade between Brazil and Bolivia.

With regard to the first criterion, the four individual projects that make up this structured project belong to the COSIPLAN Portfolio. The projects in Bolivia are included in the National Development Plan, and investment plans are already in place, providing for the availability of resources to guarantee their execution and ensuring their harmonization with the plans. The Campo Grande Bypass is part of the first stage of the Brazilian Growth Acceleration Program (PAC-1), and its resources for 2011 have already been allocated. As for the second criterion, the funds for all the sections of the La Paz - Santa Cruz Four-Lane Road have been allocated, and most sections are already being constructed. The Puerto Suárez - Corumbá Integrated Control Area, to be built in the Brazilian territory, requires an amount of US$ 1,250 million for its operation. With reference to the third criterion, this corridor enables Bolivia to connect with Peru and Chile, on the west, with Brazil, on the east, and through the Tamengo canal, it can be integrated with Paraguay and Uruguay, encouraging the regional integration of this group of countries. With reference to the fourth criterion, the projects will require complementary actions, such as efficient border crossings, standardized rules for vehicular traffic, sustainable environmental preservation, and identification of logistics and production integration opportunities.

- *Infante Rivarola - Cañada Oruro Border Crossing (BO - PA)*

This project is located in the geographic midpoint of the Central Interoceanic Hub, in the Bolivia-Paraguay border area. Its implementation is amply justified by the increase in traffic and trade flows between Paraguay and Bolivia resulting from the pavement and improvement of the Villamontes - Cañada Oruro road. The project is currently in execution and involves the construction of infrastructure for a border center for integrated control operations, including access and cargo inspection areas, a facility for the storage of withheld cargo, IT and communications systems, and a phyto- and zoo-sanitary control laboratory. The purpose is to build and install the necessary infrastructure and services to allow efficient passenger and freight traffic between Bolivia and Paraguay.

- *Central Bioceanic Railway Corridor (Bolivian Section) (BO)*

This project will ensure an interconnection for Brazil, Chile, Peru and Bolivia in the central area of South America, facilitating trade among such countries as well as exports to overseas markets. The Central Bioceanic Railway Corridor, spanning 4,000 km from the port of Santos, in Brazil, to the port of Arica, in

Chile, will link rail networks. At present, Bolivia has two rail networks, the Andean and the Eastern ones, which are not interconnected. This missing link in Bolivian territory, which equals 6% of the total length of the railway corridor, is an obstacle to uninterrupted traffic along the entire corridor; moreover, the railroad sections are not able to efficiently handle the forecasted freight volumes. Goods traffic forecasts provide sufficient reasons to define a project for the upgrade and harmonization of the carrying capacity of tracks throughout Bolivian territory until they are fit for 25-ton axle load rolling stock, involving investments aimed at i) enhancing existing infrastructure (replacement of tracks and cross-ties, and other improvements); and ii) building the interconnection as per the alternative solution that seems more reasonable in technical, operational, environmental, economic and social terms.

The project is included in the COSIPLAN Portfolio and is a priority in both Bolivia's National Development Plan and the Annual Operating Plan for 2010-2011 of the Bolivian Office of the Deputy Minister of Transport, thus complying with the first criterion. As for the second criterion, a study intended to identify alternatives has already been conducted, which will be complemented by basic design engineering studies . An amount of US$6.7 million has been allocated to this end. The third criterion is met, since the project strengthens regional connectivity, an impact that is well accounted for. Finally, concerning the fourth criterion, no reference is made to complementary actions, except for measures intended to achieve rail network interoperability (use of compatible track gages, bearing capacity).

▪ MERCOSUR - CHILE HUB (ARGENTINA, BRAZIL, CHILE, PARAGUAY AND URUGUAY)

The area of influence of the MERCOSUR - Chile Hub encompasses Chile's Metropolitan Region and Regions IV, V, VI, and VII (Coquimbo, Valparaíso, Libertador General Bernardo O'Higgins, and Maule, respectively); the Argentine provinces of Mendoza, San Juan, La Rioja, San Luis, Córdoba, La Pampa, Santa Fe, Salta, Buenos Aires, Entre Ríos, Corrientes, and Misiones; the Brazilian states of Rio Grande do Sul, Santa Catarina, Paraná, São Paulo, and Minas Gerais; the eastern region of Paraguay; and the entire Uruguayan territory. This area of influence covers 3,216,277 km^2, accounting for 25.46% of the total area of the five countries that make up the Hub.

The total population of the area of influence was estimated at about 137,300,163 inhabitants in 2008, accounting for a 53.70% of the total population of the five countries that make up the Hub. Furthermore, the area of influence has an average population density of 42.69 inhabitants per km^2. This indicator ranges from a maximum 437.94 inhabitants per km^2 in the Metropolitan Region of Chile to a minimum 2.33 inhabitants per km^2 in the territory of the Argentine province of La Pampa.

The Agenda includes projects from three of the six project groups of this Hub: i) G2 - Porto Alegre - Argentina / Uruguay Border - Buenos Aires; ii) G3 - Valparaíso - Buenos Aires; and iii) G5 - Energy Group.

Table 20 shows the seven individual projects that make up the six structured projects of the MERCOSUR-Chile Hub incorporated into API. The investments involved amount to US$2,218.0 million. API has an impact on the development of the five countries within the Hub (Argentina, Bolivia, Brazil, Chile and Uruguay). The largest-size project is the Northeastern Argentina Gas Pipeline. The other projects have different objectives. Three of them are intended to have a positive effect on the Brazilian and Uruguayan cross-border

development via a rail corridor, an international bridge, and the improvement of multimodal transport between the Merín (or Mirim) and Lagoa dos Patos lakes. Finally, two projects contributing to the connectivity between Argentina and Chile are included: the Agua Negra Binational Tunnel, and Optimization of the Cristo Redentor Border Crossing System. All the projects meet the selection criteria set out for inclusion in the Agenda and are consistent with the strategic functions of the Hub's project groups involved in API (see Tables 20 and 21).

MAP 8: API PROJECTS - MERCOSUR-CHILE HUB

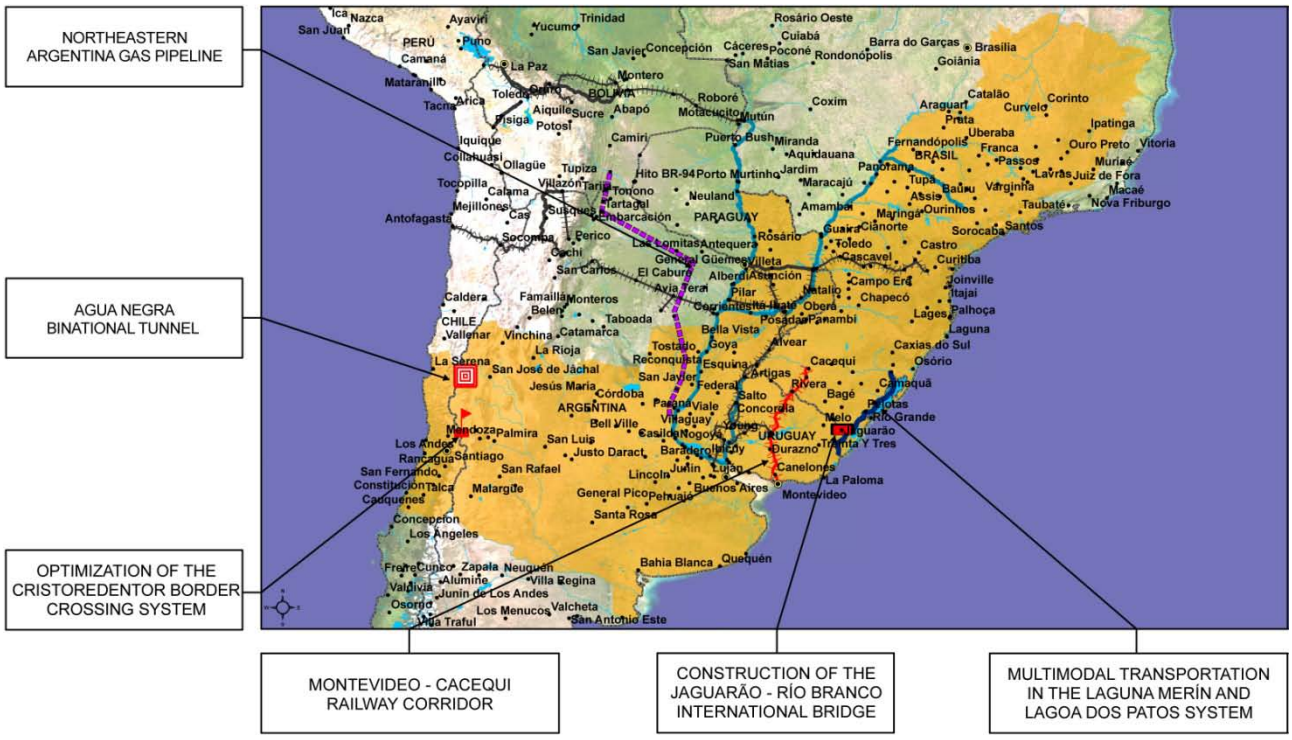


TABLE 20: API PROJECTS - MERCOSUR-CHILE HUB

EID	API PROJECT NAME	COUNTRIES INVOLVED	API AMOUNT (Millons)	DB CODE	NAME OF THE PROJECTS INCLUDED	COUNTRIES INVOLVED	GP	PROJECT STAGE	AMOUNT	PROFILING	PRE-EXECUTION		ENVIRONMENTAL LICENSE		EXECUTION	
											START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)
MCC	NORTHEASTERN ARGENTINA GAS PIPELINE	ARGENTINA/ BOLIVIA	USD 1,000.0	MCC68	NORTHEASTERN ARGENTINA GAS PIPELINE	AR	G5	EXECUTION	USD 1,000,000,000	2009	2011	2011			2013	2014
MCC	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	BRAZIL/ URUGUAY	USD 65.0	MCC22	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	BR - UR	G2	PRE-EXECUTION	USD 65,000,000	2009	2011	2012	2011	2012	2012	2014
MCC	MULTIMODAL TRANSPORTATION IN THE LAGUNA MERÍN AND LAGOA DOS PATOS SYSTEM	BRAZIL/ URUGUAY	USD 100.0	MCC85	MULTIMODAL TRANSPORTATION IN THE LAGUNA MERÍN AND LAGOA DOS PATOS SYSTEMS	BR - UR	G2	PRE-EXECUTION	USD 100,000,000		2011	2012	2012	2012	2013	2014
MCC	MONTEVIDEO - CACEQUI RAILWAY CORRIDOR	BRAZIL/ URUGUAY	USD 196.0	MCC30	REHABILITATION OF THE MONTEVIDEO - RIVERA RAILWAY	UR	G2	EXECUTION	USD 100,000,000		2011	2011			2012	2014
				MCC115	UPGRADE OF BRAZILIAN GAGE RAILWAY, RIVERA - SANTANA DO LIVRAMENTO - CACEQUI	BR - UR	G2	EXECUTION	USD 96,000,000						2011	2012
MCC	OPTIMIZATION OF THE CRISTO REDENTOR BORDER CROSSING SYSTEM	ARGENTINA/ CHILE	USD 7.0	MCC34	OPTIMIZATION OF THE CRISTO REDENTOR BORDER CROSSING SYSTEM	AR - CH	G3	PRE-EXECUTION	USD 7,000,000	2009	2010	2011			2012	2014
MCC	AGUA NEGRA BINATIONAL TUNNEL	ARGENTINA/ CHILE	USD 850.0	MCC110	AGUA NEGRA BINATIONAL TUNNEL	AR - CH	G4	PRE-EXECUTION	USD 850,000,000	2010	2011	2012			2014	2016
								TOTAL	**USD 2.218,000,000**							

TABLE 21: API PROJECTS - MERCOSUR-CHILE HUB BY IMPLEMENTATION STAGE (million US$)

PROJECT STAGE	NO. OF PROJECTS	AMOUNT	% INVESTMENT
PROFILING	0	0.0	0.0%
PRE-EXECUTION	4	1,022.0	46.1%
EXECUTION	3	1,196.0	53.9%
TOTAL	**7**	**2,218.0**	**100.0%**

- *Northeastern Argentina Gas Pipeline (AR - BO)*

This project involves a natural gas transportation system that stretches from Bolivia to the province of Santa Fe, in Argentina, passing through the Argentine provinces of Salta, Formosa, Chaco, Misiones, Corrientes, and Entre Ríos on its way. The trunk gas pipeline will link, in the vicinity of Santa Fe city, the gas reserves located in northern Argentina and in Bolivia with the Argentine Interconnected System of Trunk Gas Pipelines. The purpose of the project is to ensure natural gas supply to the northeastern region of Argentina through large-diameter pipes, and to secure a sustained provision of adequate flows for use in natural gas vehicles and in industrial and agribusiness production. The trunk gas pipeline will be 1,500 km long, with a diameter of 30 inches, and will operate at a 95-bar pressure. The proposed works comprise i) the trunk gas pipeline and the provincial branches stemming from it; ii) the gas compressor stations, pressure regulator stations, and measuring stations; and iii) above-ground facilities as well as other ancillary civil, electrical, and communications works. These ancillary works will include, among others, the implementation of electronic data transmission systems, remote operation, and telemetry. This interconnection will ensure the flow of significant gas volumes in those parts of Argentina where the demand is greater, as well as expanded gas availability in the above-mentioned provinces, some of which either lack gas supply or have insufficient provision to secure the economic development that the region requires. The project is of great importance, since residential natural gas use will improve the quality of life of the beneficiary population. In addition, the project will enhance environmental standards, as it encourages the replacement of other, more polluting fossil fuels.

As for the first criterion, the project forms part of the COSIPLAN Portfolio, and it has been mentioned in the declarations of presidential summit meetings. With respect to the second criterion, technical and economic pre-feasibility studies as well as the basic design engineering have been carried out. In addition, the concession has already been awarded, and the project is at the execution stage. Regarding the third criterion, the project promotes regional connectivity. Lastly, the fourth criterion is met, as a program of complementary actions associated with the border strip is needed, involving infrastructure, environmental preservation, and logistics and production integration opportunities.

- *Construction of the Jaguarão - Río Branco International Bridge (BR - UR)*

This project is located on the border between Uruguay and Brazil, in the vicinity of the Yaguarón (or Jaguarão) river, near the cities of Río Branco, in the Uruguayan department of Cerro Largo, and Jaguarão, in the Brazilian state of Rio Grande do Sul. Its implementation is accounted for by the need to protect the

nature reserves on the Atlantic coast through the reduction of traffic on the Chuí-Chuy commercial road by diverting it to the new international bridge. It will also help alleviate traffic congestion on the Pelotas-Rio Grande section of Brazilian route BR-392/RS. The main works of the project involve the construction of a second international bridge over the Yaguarón (or Jaguarão) river and the upgrade of its approach roads. The purpose is to ensure an unrestricted flow of international freight and passenger road traffic, leveraging the integration of the areas of influence through increased trade activity and greater cultural exchange. Furthermore, the new route provided by the second international bridge will result in the coastal road used by passenger and tourist traffic.

Regarding the first criterion, the project forms part of the COSIPLAN Portfolio, is provided for in Uruguay's budget for 2010-2014, and is included in the Brazilian Growth Acceleration Program (or PAC, its acronym in Portuguese). In addition, the legislative branches of the two countries involved have agreed to its implementation, and joint presidential statements have been released in this connection. As for the second criterion, a firm has been hired to carry out the technical, financial and environmental feasibility studies as well as the project design. The third criterion is met, as the project strengthens connectivity networks that are regional in scope and also creates cross-border synergies and benefits. As far as the fourth criterion is concerned, the implementation of integrated control operations at the associated border crossing is the main complementary action.

- *Multimodal Transportation in the Laguna Merín and Lagoa dos Patos System (BR - UR)*

In Uruguay, the area of influence of the project comprises the Merín lake and its tributaries, particularly the Yaguarón (or Jaguarão), Cebollatí and Tacuarí rivers. In Brazil, it encompasses the same lake ("Mirim" in Portuguese) and its tributaries —particularly the Jaguarão river—; São Gonçalo channel and its tributaries; the water-access channels to the port of Rio Grande; the Lagoa dos Patos lake and its tributaries; the Guaíba river; and the Taquari, Jacuí, dos Sinos, Gravataí, Caí, and Camaquã rivers. The implementation of the project is justified by the need to revitalize river and lake transport along the waterway formed by the Merín (or Mirim) and dos Patos lakes. The purpose is to have efficient, safe, regular and adequate freight and passenger transportation services to meet the current requirements of trade, economic development, and environmental preservation. Since the project is concerned with a waterway shared by two countries, actions associated with immigration, customs and sanitary regulations, among others, are needed. The project has significant cross-border implications, and involves works in both Uruguay and Brazil. It is important to note that there are regional road links with the ports interconnected by this waterway.

As for the first criterion, the project forms part of the COSIPLAN Portfolio; Uruguay's National Hydrography Authority, under the purview of the Ministry of Transport and Public Works, has included it in its budget estimate for 2010-2014; and Brazil has included it in the second stage of the Growth Acceleration Program (or PAC 2, its acronym in Portuguese). Moreover, there are joint presidential statements regarding its implementation, which is also covered by the Treaty on Cooperation in the Use of Natural Resources and the Development of the Merín Lake Basin. With respect to the second criterion, feasibility studies have been conducted, and the project is at the pre-execution stage. The project complies with the third criterion, as it is bilateral in scope and gives rise to important cross-border synergies and benefits. Finally, on the fourth criterion, actions associated with immigration, customs and sanitary regulations, among other issues, are needed.

- *Montevideo - Cacequi Railway Corridor (BR - UR)*

This structured project comprises two individual projects, namely i) Rehabilitation of the Montevideo - Rivera Railway; y ii) Upgrade of Brazilian Gage Railway, Rivera - Santana do Livramento - Cacequi. The completion of the two of them will interconnect Montevideo, in Uruguay, and the town of Cacequi, in Brazil. The first project represents the first stage in the rehabilitation of the MERCOSUR-Chile corridor, and is aimed at improving the service level of the sections that make up the corridor, particularly in terms of condition, speed, and safety for rail transport of goods. This first rehabilitation stage, intended to consolidate rail infrastructure so that it meets the new domestic and international freight transportation requirements, will be followed by another one to keep pace with the growing demand for this mode of transport. The new railroad superstructure will facilitate the upgrade to a 22-ton axle load in a future phase through the reinforcement of the track structural components, maintaining the travelling speeds improved at the first stage. The purpose of this first project is to further physical integration in the MERCOSUR region, especially in the rail corridors linking Montevideo with the Brazilian and Argentine networks in Rivera and Salto Grande, respectively. The objective of the second project is to bring the Santana do Livramiento - Cacequi rail section back into operation to leverage cargo transportation in both countries. The simultaneous implementation of both projects will strengthen regional connectivity and create cross-border synergies between Uruguay and Brazil as a result of the use of compatible gages in both countries.

In relation to the first criterion, the individual projects are part of the COSIPLAN Portfolio, are supported by a bilateral agreement signed by both countries in June 2011. Pre-investment studies were completed in 2011, and the project is at the pre-execution stage, thereby complying with the second criterion. As for the third criterion, the project strengthens regional networks and greatly contributes to consolidating the countries' integration process. Finally, the fourth criterion is met, as the project provides for complementary actions and creates the opportunity to develop activities aimed at achieving logistics and production integration.

- *Optimization of the Cristo Redentor Border Crossing System (AR - CH)*

This project is located in the Andes mountain range. The border crossing connects Chile's Region V, Valparaíso, with the Argentine province of Mendoza. The purpose is to analyze alternative solutions for the improvement of both infrastructure and operations at the Cristo Redentor border crossing in order to select the solutions to be implemented with the aim of having a better border control system in place and proposing a staged development plan for the short, medium and long term. The project includes: i) operational measures for the performance of border control functions; ii) a model for the flow of people and vehicles in the control area; iii) the location of each border control station (making a distinction between the control of passengers and the inspection of goods); iv) an infrastructure investment plan, according to the alternatives for each type of control; v) estimated operating and maintenance costs; and vi) the guidelines for a contingency plan to be approved by the countries involved. This is a high priority project, as this border crossing is the main land connection between Argentina and Chile as well as the converging point for roads with heavy traffic coming from the MERCOSUR region to Chile and from overseas Pacific markets via the ports of Valparaíso, San Antonio and Quintero, located in Region V. Furthermore, the border crossing provides a direct link to Chile's Metropolitan Region and longitudinal road, leading to the other regions of the country.

Regarding the first criterion, the project is part of the COSIPLAN Portfolio, the Argentine Territorial Strategic Plan, and Chilean road plans. Additionally, the project is on the bilateral agenda of both countries, and is supported by their Presidents and Ministers, as reflected in their recent declarations at presidential summits. As for the second criterion, the project is in the pre-execution stage, and its pre-investment studies were completed in the first quarter of 2011, involving a project executed within the framework of IIRSA. Furthermore, the project will have a strong impact on the consolidation of regional connectivity networks, and create significant benefits and cross-border synergies, thus complying with the third criterion. Finally, with reference to the fourth criterion, the project creates opportunities for developing complementary actions, primarily concerned with the production integration processes that are expected to take place as an indirect consequence of the improvements in the logistics chain and in the trade to be brought about by the project.

- *Agua Negra Binational Tunnel (AR - CH)*

This project, located in the province of San Juan (Argentina) and in the IV Region (Chile), is part of the Porto Alegre (Brazil) - Coquimbo (Chile) bioceanic corridor. The purpose of the project is to construct an international tunnel to replace the last kilometers of road on each side of the border, and offer cargo vehicles an alternative to avoid the most risky and rainy road sections in the area. This project creates a synergy with the improvement of Route No. CH-41 in Chile and Route No. 150 in Argentina. The three joint interventions create an important regional integration hub with a potential for strengthening the connection from the central area of Argentina to the area of influence of the Coquimbo port in Chile, thus encouraging tourism and international trade among all the countries that make up the Mercosur - Chile Hub.

Concerning the first criterion, the project is included in the COSIPLAN Portfolio, is part of the Maipú Treaty signed by Argentina and Chile in 2009. Furthermore, the draft of the binational agreement that will serve as a framework for the execution of the works to be built under a bilateral bidding procedure is soon to be finished. As regards the feasibility studies, the project has studies on demand and social assessment in both countries. Moreover, the technical studies, ranging from conceptual engineering, basic engineering, geology, and hydro-geology, have been completed, thus complying with the second criterion. As for the third criterion, the project will strengthen regional connectivity networks and create significant benefits and cross-border synergies. Finally, in relation to the fourth criterion, the project requires complementary actions to improve related roads (Route CH-41 and 150 in Argentina), optimize border crossings, enhance the cities of La Serena and Coquimbo, and improve the access roads to the Coquimbo port.

PERU - BRAZIL - BOLIVIA HUB (BOLIVIA, BRAZIL AND PERU)

The area of influence of this Hub comprises the departments of Tacna, Moquegua, Arequipa, Apurímac, Cusco, Madre de Dios and Puno in Per; Pando, Beni and La Paz, in Bolivia, and the states of Acre and Rondônia, in Brazil. This area of influence covers 1,146,871 km2, accounting for 10.52% of the total area of the three countries that amke up the Hub.

The total population of the area of influence was estimated at 10,249,938 inhabitants in 2008, accounting for 4.9% ofthe total population of the three countries that make up the Hub. Furthermore, the area of influence has an average population density of 8.94 inhabitants/km2. This indicator ranges from a

maximum 20.58 inhabitants per km2 in the area of influence of the department of La Paz, in Bolivia, to a minimum of 1.18 inhabitants per km2 in the territory of the department of Pando, also in Bolivia. The territory of this Hub is the least densely populated among the nine IIRSA Integration and Development Hubs described in this document.

Of the three project groups that make up the Hub, only Project Group 2 (G2 - Rio Branco corridor - Cobija - Riberalta - Yucumo - La Paz) forms part of the Agenda.

Table 22 shows the only API structured project in the Peru - Brazil - Bolivia Hub. The amount of the investment involved is US$119.0 million (see Tables 22 and 23).

MAP 9: API PROJECTS - PERU-BRAZIL-BOLIVIA HUB

TABLE 22: API PROJECTS - PERU-BRAZIL-BOLIVIA HUB

EID	API PROJECT NAME	COUNTRIES INVOLVED	API AMOUNT (Millons)	DB CODE	NAME OF THE PROJECTS INCLUDED	COUNTRIES INVOLVED	GP	PROJECT STAGE	AMOUNT	PROFILING	PRE-EXECUTION		ENVIRONMENTAL LICENSE		EXECUTION	
											START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)	START (YEAR)	COMPLETION (YEAR)
PBB	PORTO VELHO - PERUVIAN COAST CONNECTION	BRAZIL / PERU	USD 119.0	PBB64	BRIDGE OVER THE MADEIRA RIVER IN ABUNÃ (BR-364/RO)	BR	G2	PRE-EXECUTION	USD 119,000,000				2009	2011	2012	2015
								TOTAL	**USD 119,000,000**							

TABLE 23: API PROJECTS - PERU-BRAZIL-BOLIVIA HUB BY IMPLEMENTATION STAGE (million US$)

PROJECT STAGE	NO. OF PROJECTS	AMOUNT	% INVESTMENT
PROFILING	0	0.0	0.0%
PRE-EXECUTION	1	119.0	100.0%
EXECUTION	0	0.0	0.0%
TOTAL	**1**	**119.0**	**100.0%**

- *Porto Velho - Peruvian Coast Connection (BR - PE)*

This project consists in a bridge over the Madeira river in Abunã, designed to optimize trade relations between Peru and Brazil, and enhance the connections of the southern sierras and coast areas of Peru with the Brazilian Amazonia. Furthermore, the area of influence of the Southern Interoceanic Road in Peru extends into the Braziian hinterland, enhancing the integration potential of the connections built in both countries.

The project complies with the first criterion because it is included in the COSIPLAN Portfolio, as well as in the Brazilian Growth Acceleration Program (PAC-2) and Multi-Annual Plan 2008-2011. Regarding the second criterion, the project has a basic pre-investment study available. As for the third criterion, the project creates significant cross-border synergies, and consolidates regional connectivity networks by articulating and promoting the integration of both countries. With regard to the fourth project, it creates great opportunities for the development of logistic chains and production integration processes.

REFERENCES

AYACUCHO DECLARATION. Third Summit of South American Presidents, December 9, 2004, Cusco, Peru.

BRASILIA COMMUNIQUÉ. First Summit of South American Presidents, August 31-September 1, 2000, Brasilia, Brazil.

CONSTITUTIVE TREATY OF UNASUR. First Meeting of the Council of Heads of State and Government of UNASUR, May 23, 2008, Brasilia, Brazil.

DECLARATION OF THE FOURTH MEETING OF UNASUR. Fourth Ordinary Meeting of the Council of Heads of State and Government of UNASUR, November 26, 2010, Georgetown, Guyana.

INITIATIVE FOR THE INTEGRATION OF REGIONAL INFRASTRUCTURE IN SOUTH AMERICA. *IIRSA PROJECT PORTFOLIO 2009: INDICATIVE TERRITORIAL PLANNING,* December 2004, Buenos Aires.

_____ IIRSA PROJECT PORTFOLIO 2010: INDICATIVE TERRITORIAL PLANNING, December 2010, Buenos Aires.

_____ IIRSA 10 YEARS AFTER: ITS ACHIEVEMENTS AND CHALLENGES, August 2011, Buenos Aires.

_____ IMPLEMENTATION AGENDA BASED ON CONSENSUS 2005-2010: SIXTH REPORT, July 2010, Buenos Aires.

_____ *IMPLEMENTATION* AGENDA BASED ON CONSENSUS 2005-2010: ASSESSMENT REPORT, July 2010, Buenos Aires.

STATUTE AND REGULATIONS OF COSIPLAN. First Meeting of COSIPLAN Ministers, June 18, 2010, Quito, Ecuador.

STRATEGIC ACTION PLAN (PAE) 2012-2022. August 2011, Rio de Janeiro, Brazil.

I . I . R . S . A

INITIATIVE FOR THE INTEGRATION OF REGIONAL
INFRASTRUCTURE IN SOUTH AMERICA

www.iirsa.org