



# API

## INTEGRATION PRIORITY PROJECT AGENDA

SOUTH AMERICAN COUNCIL OF INFRASTRUCTURE AND PLANNING



PROGRESS REPORT - 2013







**Document prepared by IIRSA and approved by the  
COSIPLAN Coordinating Committee**



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**Fourth Ministerial Meeting of COSIPLAN  
Chile, November 29, 2013**















## NOTE

The information concerning the Integration Priority Project Agenda contained herein is built on the COSIPLAN Information System on the basis of the data entered by the countries that form part of the Union of South American Nations (UNASUR) within the framework of the South American Infrastructure and Planning Council (COSIPLAN) as of October 4 2013.










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 recognition of borders by the institutions that make up the CCT.

## MAP LEGEND

### API PROJECTS

	Rail
	Waterways
	Gas pipeline
	Electricity
	Access or bypass
	Rail
	Border crossing, CEBAF
	Port
	Logistics center
	Airport
	Road
	Navigation
	Bridge
	Tunnel

### REFERENCES

	National capital
	City
	Road corridor
	Rail corridor
	Existing road
	Main waterways
	Hidrography
	Country boundaries
	Area of influence of the Integration and Development Hub

## TABLE OF CONTENTS

<b>INTRODUCTION</b>	<b>3</b>
<b>EXECUTIVE SUMMARY</b>	<b>5</b>
Part I – Activities of the Year, Methodological Tools	5
<i>The Project Continuous Monitoring System</i>	6
<i>Progress Made in 2013 by the Projects Included in the Integration Priority Project Agenda</i>	7
Part II – API Projects by Integration and Development Hub	9
<b>PART I</b>	<b>11</b>
<b>A. THE INTEGRATION PRIORITY PROJECT AGENDA WITHIN THE SOUTH AMERICAN PHYSICAL INTEGRATION PROCESS</b>	<b>11</b>
1. Background and Strategic Approach	11
2. Integration Priority Project Agenda: Scope and Main Features	13
<b>B. NEW API AND CMS TOOLS AND DEVELOPMENTS IN 2013</b>	<b>15</b>
1. Project Life Cycle Methodology	15
i) Conceptual Aspects	15
ii) Application of the Project Life Cycle Methodology	17
2. Information System: Components and Put into Operation	18
i) Components	18
ii) Training and Put into Operation	20
<b>C. THE API PROJECTS: TAKING STOCK OF PROGRESS</b>	<b>21</b>
1. Number of Projects and Estimated Investment Amount	21
2. Territorial Scope	26
3. Sector/Subsector-based Breakdown of the API Projects and Type of Works Involved	27
4. The Projects and their Sources of Financing	30
5. Progress in the API Projects by Life Cycle Stage	33
i) The API Projects by Life Cycle Stage	33
ii) Evolution of the API Projects between 2012 and 2013 by Life Cycle Stage	35
iii) API Prospects	39

<b>PART II – API STRUCTURED PROJECTS BY HUB</b>	<b>41</b>
1. AMAZON HUB	<b>43</b>
2. ANDEAN HUB	<b>65</b>
3. CAPRICORN HUB	<b>95</b>
4. GUIANESE SHIELD HUB	<b>119</b>
5. PARAGUAY-PARANÁ WATERWAY HUB	<b>135</b>
6. CENTRAL INTEROCEANIC HUB	<b>157</b>
7. MERCOSUR-CHILE HUB	<b>177</b>
8. PERU-BRAZIL-BOLIVIA HUB	<b>207</b>
ANNEX I – CONTINUOUS MONITORING SYSTEM: METHODOLOGICAL PRINCIPLES TO SCHEDULE THE LIFE CYCLE OF API INDIVIDUAL PROJECTS	<b>217</b>
ANNEX II – COSIPLAN INFORMATION SYSTEM: TECHNICAL ADJUSTMENTS AND DEVELOPMENTS	<b>223</b>
ANNEX III – DETAILED LIST OF THE STRUCTURED AND INDIVIDUAL PROJECTS WITHIN API	<b>233</b>
ANNEX IV – API INDIVIDUAL PROJECTS DISAGGREGATED DURING 2013	<b>239</b>
ANNEX V – TYPES OF WORKS INVOLVED IN THE API INDIVIDUAL PROJECTS	<b>241</b>
ANNEX VI – API 2013 INDIVIDUAL PROJECTS AT THE PROFILING STAGE	<b>243</b>
ANNEX VII – API 2013 INDIVIDUAL PROJECTS AT THE PRE-EXECUTION STAGE	<b>245</b>
ANNEX VIII – API 2013 INDIVIDUAL PROJECTS AT THE EXECUTION STAGE	<b>249</b>
ANNEX IX – API 2013 INDIVIDUAL PROJECTS AT THE COMPLETED STAGE	<b>251</b>
SOURCES CONSULTED	<b>253</b>
ACRONYMS AND ABBREVIATIONS	<b>255</b>

## INTRODUCTION

This Third Report on the Integration Priority Project Agenda (API), provided for in the COSIPLAN-IIRSA Work Plan 2013 and intended for submission to the consideration of the UNASUR South American Infrastructure and Planning Council and for the general public, has a twofold objective. On the one hand, it reflects the advancements made this year regarding developments in methodological and IT tools to record and analyze the status of the API projects, and on the other hand, it presents an overall assessment of the progress made by such projects. Thus, the report provides details of the current status of the projects as well as an analysis of their rationale and their potential for creating cross-border synergies to promote sustainable social and economic development through the construction of strategic infrastructure networks.

The report is divided into two parts. The first part is made up of three sections. The first section presents an overview of the origins of API and the purposes that guided its set-up, scope, and main features as well as the background information and objectives leading to the design and implementation of a Continuous Monitoring System (CMS) for such projects.

The second section describes all the actions carried out to define the project stages and to develop and apply the API Portfolio Schedule according to the Project Life Cycle Methodology as an indispensable requisite for analyzing the progress attained by each individual project. Furthermore, this section outlines the work carried out in relation to the design and implementation of the CMS with a view to recording, comparing and measuring the progress of each project and project group. In addition, these tasks involved the training of the government officials responsible for the management and use of the system.

The third section analyzes the evolution of the API projects from five perspectives: 1) number of projects and estimated investment amount, 2) territorial scope, 3) sector- and subsector-based breakdown and type of works, 4) source of financing, and 5) project progress by life cycle stage. For each of these dimensions, an analysis is made of a series of variables and indicators derived from updated information in the COSIPLAN Information System, the API Progress Report 2012, and the notes of the meetings of the Executive Technical Groups held between 2004 and 2013.

The second part presents a detailed characterization and the current status of each one of the 31 API structured projects, broken down and classified according to the different Integration and Development Hubs. The main purpose of this second part of the report is to examine each structured project with a special focus on its potential for connectivity within the Hub to which it belongs, drawing from the information on its strategic function as described by the countries in the Information System.



## EXECUTIVE SUMMARY

This Third Report on the Integration Priority Project Agenda (API), provided for in the COSIPLAN-IIRSA Work Plan 2013 and intended for submission to the consideration of the UNASUR South American Infrastructure and Planning Council and for the general public, has a twofold objective. On the one hand, it reflects the advancements made this year regarding developments in methodological and IT tools to record and analyze the status of the API projects, and on the other hand, it presents an overall assessment of the progress made by such projects. Thus, the report provides details of the current status of the projects as well as an analysis of their rationale and their potential for creating cross-border synergies to promote sustainable social and economic development through the construction of strategic infrastructure networks.

### Part I – Activities of the Year, Methodological Tools

1. The Integration Priority Project Agenda (API) is the result of a key decision adopted in 2011 by the UNASUR South American Infrastructure and Planning Council (COSIPLAN) with the aim of encouraging the process of South American physical integration in a sustainable manner. API is the culmination of a number of convergent efforts made between 2000 and 2010 in the field of cooperation, dialogue, and agreements between the South American countries towards planning the infrastructure in the territory with a shared regional vision. As from 2011, these efforts have been recognized and incorporated into the new UNASUR COSIPLAN institutional framework.
2. The API is made out of 31 structured and 101 individual strategic projects with a high impact on the physical integration and the socioeconomic development of the region, involving an investment amount estimated at US\$16,713.8 million. The components of this Agenda are not isolated but “structured projects” that strengthen physical connectivity networks that are regional in scope. Their purpose is to enhance existing synergies and solve deficiencies in the infrastructure in place in the different Integration and Development Hubs so as to improve connectivity in them. 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.”
3. 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 and as explicitly referred to in the Strategic Action Plan (PAE) 2012-2022,<sup>1</sup> designed and adopted by the twelve Member States of COSIPLAN. Thus, 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.

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<sup>1</sup> [http://www.iirsa.org/admin\\_iirsa\\_web/Uploads/Documents/II\\_COSIPLAN\\_2011\\_PAE\\_ing\\_final.pdf](http://www.iirsa.org/admin_iirsa_web/Uploads/Documents/II_COSIPLAN_2011_PAE_ing_final.pdf)

### *The Project Continuous Monitoring System*

4. Regarding the API follow-up, the PAE includes the action of creating a permanent monitoring mechanism (see Action 4.3, PAE 2012-2022). COSIPLAN commissioned the Technical Coordination Committee (CCT)<sup>2</sup> with the task of preparing a proposal for the design and implementation of such mechanism, known as Project Continuous Monitoring System (CMS). The primary purpose of the CMS is to record the progress of the API projects from a regional perspective and to provide timely and reliable information for decision making by the competent government authorities. The CMS is a regional tool that supplements the domestic investment systems.
5. The task of designing and implementing the API CMS was included in the COSIPLAN-IIRSA Work Plans 2012 and 2013. The work carried out in 2012 is documented in the 2012 Progress Report on the CMS,<sup>3</sup> while the activities performed in 2013 are outlined in Section B of this document. At present, the CMS is available online for a group of users authorized by the National Coordinators, and its information can be accessed at <http://www.iirsa.org/proyectos/inicio.aspx>.
6. Since the approval of API, a concern shared by the COSIPLAN Member States was the need to have indicators showing the status of the projects and their evolution over time, i.e. their life cycle. The initial premise was to meet the demand for information by keeping the four project life cycle stages agreed upon by the governments in 2008, namely profiling, pre-execution, execution and completed. To satisfy such need, in 2012 the CCT developed an initial proposal concerning the API individual projects life cycle schedule. The main suggestion put forward for consideration was to subdivide the pre-execution and execution stages. The pre-execution stage normally involves studies (pre-feasibility, feasibility and investment), permits of various kinds (environmental, jurisdictional and others), and resource mobilization from various sources to finance the works and other actions that precede the execution of the physical works. Therefore, in order to evaluate the progress made within such stage, five main milestones were proposed: resources for studies, studies underway, approved studies, permits granted, and resources for works. As for the execution stage, it was proposed to be broken down into quarters of works according to the time frames involved, the costs required, or progress milestones, depending on the project concerned.
7. Once the conceptual aspects of the API Project Life Cycle Methodology were defined, its implementation was conducted in successive exercises with the participation of the countries. Regarding this task, it is worth noting the valuable efforts made by the governments, with the support of the CCT, both in the initial data entry in the CMS, which went online in September 2013, and in the update and enhancement of the information contained in the individual and structured project files on the basis of a diagnosis made concerning the information available in them. Furthermore, for the purpose of implementing the CMS, the CCT organized training activities for the government officials responsible for managing the data in the project files.

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<sup>2</sup> Made up of the IDB, CAF and FONPLATA.

<sup>3</sup> <http://www.iirsa.org/Document/Detail?Id=3416>

8. Based on the above, the challenge faced by the COSIPLAN Information System, especially the CMS, is to continue being relevant and useful. This calls for a commitment by the member countries to keep both the Project and API Databases updated with timely and quality information as an indispensable requisite to render the system reliable. This, in turn, requires maximizing institutional collaboration between the agencies that are in charge of managing this project and, therefore, have thorough knowledge and information about it, and the government institution that manages the COSIPLAN Information System, where such agencies and institutions are independent. Such commitment was considered at the GTE Meeting held in Rio de Janeiro (see the notes of the meeting),<sup>4</sup> and a consensus was reached on it. It is also necessary that the countries participate as proactive users of the CMS in the test phase currently underway (September 2013-February 2014), and that they take a leading role in the improvement of the system by contributing suggestions and specific recommendations as to its functionalities and operations. These contributions will be essential in identifying any adjustments required to ensure that the system be consistent with the real needs and possibilities of the countries in the search of a homogeneous pattern for all of them.

*Progress Made in 2013 by the Projects Included in the Integration Priority Project Agenda*

9. *The projects that make up API:* Between 2012 and 2013, the number of individual projects rose from 88 to 101, while the number of structured projects remained the same. This increase was the result of the disaggregation of six complex projects into 19 simpler, more homogeneous individual projects with independent and clearly identifiable infrastructure services. These projects qualified to be treated as individual so as to make it easier to record their progress and results as well as to monitor them, while their integration to the structured projects makes it possible to focus API on a small number of projects.
10. *Total Estimated Investment:* The total investment involved in API is estimated at US\$16,713.8 (10.6% of the COSIPLAN Project Portfolio total investment). This means an approximate 3% decrease between 2012 and 2013 due to the fact that the amounts have been updated to reflect the evolution of the projects and the availability of more information about them.
11. *API Territorial Scope:* As regards the territorial scope of the projects, only seven structured projects are wholly located in the territory of one country, 17 of them are binational, and the other ones (seven projects) involve three or more countries. It is worth noting that all the countries are involved in at least one structured binational or trinational structured project.
12. *API Sector-Based Breakdown:* As to the sector-based breakdown, 97% of the individual projects included in API fall in the transport sector and account for an investment estimated at 89.5% of the total, while the other 3% falls in the energy sector and account for an estimated investment of 10.5%.

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<sup>4</sup> [http://www.iirsa.org/admin\\_iirsa\\_web/Uploads/Documents/api\\_rio13\\_notas\\_plenario\\_eng.pdf](http://www.iirsa.org/admin_iirsa_web/Uploads/Documents/api_rio13_notas_plenario_eng.pdf)

13. *API Financing by Source:* The public sector finances 72.2% of the API estimated investment, and various private sector contractual arrangements (16.4%) and public-private partnerships (11.4%) complete the picture.
14. *API Schedule according to the Project Life Cycle Methodology and the Classification by Stage:* The following table shows the status of the API projects as of October 4, 2013.

PROJECT STAGE	No. OF PROJECTS	% OF PROJECTS	INVESTMENT AMOUNT (US\$ million)	% OF INVESTMENT AMOUNT
PROFILING	22	21.8	1,337.0	8.00
PRE-EXECUTION	52	51.5	7,869.3	47.08
EXECUTION	20	19.8	7,502.5	44.89
COMPLETED*	7	6.9	5.0	0.03
<b>TOTAL</b>	<b>101</b>	<b>100.0</b>	<b>16,713.8</b>	<b>100.00</b>

Note: Amounts are estimated on the basis of the life cycle stage at which the API individual projects are.

\* There are six individual projects included in structured projects that were already completed when API was set up. These projects, the investment amounts of which are not included in the calculation of the investment estimated for all the API projects, are the following: AMA25; AMA16; AND13; CAP91; GUY42; GUY43.

To sum up, the following can be concluded from the information available in the CMS:

- In the last two-year period, *28% of the projects that make up API have made some degree of progress*, meaning their advancement between stages and sub-stages. In addition, 59% of the projects classified at the profiling stage and almost 54% of those at the pre-execution stage have remained stagnant at such phases for a number of years now, which could jeopardize their completion schedule should no action be taken in the short term.
- The review and re-categorization process has led to *a relapse of 12.2% of the API projects to an earlier stage*.
- On the basis of current estimations, *almost 80% of the API projects would be completed within the 2022 time horizon set out in the PAE*. Most of these projects (68%) will be completed between 2013 and 2018.

## Part II – API Projects by Integration and Development Hub

The following comments on the API projects by Integration and Development Hub in terms of their integration potential can be made:

1. In the Amazon Hub, there are 27 individual projects that make up three structured projects (estimated investment: US\$3,475.4 million). API impacts on the development of the four countries in the Hub (Brazil, Colombia, Ecuador, and Peru) and its projects connect several waterways (Huallaga, Marañón, Morona, Ucayali, and Putumayo) linking the Amazon river basin to important coastal, sierra, and rainforest areas in Peru, Ecuador and Colombia. The Agenda includes road, port, river and logistics centers projects that are likely to leverage four trimodal corridors connecting maritime terminals on the Pacific with the waterways feeding the Amazon basin.
2. In the Andean Hub, there are 12 individual projects that make up five structured projects (estimated investment: US\$3,694.1 million). These API projects impact on the development of the five countries of the Hub (Bolivia, Colombia, Ecuador, Peru and Venezuela). Their aim is to enhance 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, and improve the connections between Bogotá and its main port on the Pacific (Buenaventura). In addition, it is planned to improve 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.
3. In the Capricorn Hub, there are 18 individual projects that make up five structured projects (estimated investment: US\$4,233 million). They 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.
4. In the Guianese Shield Hub, there are six individual projects that make up three structured projects (estimated investment: US\$958.8 million). They 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.
5. In the Paraguay-Paraná Waterway, there are 15 individual projects that make up four structured projects (estimated investment: US\$1,566.6 million). Most of these projects are aimed at improving navigation conditions on the rivers in the Plata Basin for the sake of the basin countries as well as of Bolivia. The purpose of the other projects is to complete the rail connections among Paraguay, Uruguay and Argentina, and to rehabilitate two rail connections in Uruguay that are linked to the waterway.

6. In the Central Interoceanic Hub, there are seven individual projects that make up four structured projects (estimated investment: US\$460.2 million). Their purpose is to improve 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 in Santa Cruz de la Sierra, Bolivia; improve the Infante Rivarola-Cañada Oruro border crossing between Bolivia and Paraguay; and develop a central bioceanic rail corridor in Bolivia.
7. In the MERCOSUR-Chile Hub, there are 15 individual projects that make up six structured projects aimed at improving the physical connectivity of the five countries in the Hub: Argentina, Bolivia, Brazil, Chile and Uruguay (estimated investment: US\$2,240.3 million). The largest-size project is the Northeastern Argentina Gas Pipeline, which will provide a link between the gas reserves located in northern Argentina and in Bolivia with the Argentine Interconnected System of Trunk Gas Pipelines. 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 dos Patos lakes. Finally, two projects contributing to the connectivity and border development between Argentina and Chile are included: Agua Negra Binational Tunnel, and Optimization of the Cristo Redentor Border Crossing System.
8. In the Peru-Brazil-Bolivia Hub, there is a single individual project making up a structured project: Porto Velho - Peruvian Coast Connection (estimated investment: US\$85.4 million). With the completion of the Southern Interoceanic Highway in Peru in 2011, the road connection between Peru and Brazil through the Acre state became a reality. However, this connection is interrupted in the Rondônia state, since in order to get to other Brazilian localities either in the direction of Manaus, through Porto Velho and the Madeira waterway, or in the direction of the central-western and southeastern regions, it is necessary to cross the Madeira river in the small village of Abunã using a draft boat, which affects transport efficiency. Therefore, the structured project includes the construction of a 1.2 km long bridge over the Madeira river in the already-mentioned village to ensure uninterrupted integration by road.

## PART I

### A. THE INTEGRATION PRIORITY PROJECT AGENDA WITHIN THE SOUTH AMERICAN PHYSICAL INTEGRATION PROCESS

#### 1. Background and Strategic Approach

The Integration Priority Project Agenda (API)<sup>5</sup> is the result of a key decision adopted in 2011 by the UNASUR South American Infrastructure and Planning Council (COSIPLAN) with the aim of encouraging the process of South American physical integration in a sustainable manner. API is the culmination of a number of convergent efforts initiated within the framework of IIRSA between 2000 and 2010 in the field of cooperation, dialogue, and agreements between the South American countries towards planning the infrastructure in the territory with a shared regional vision. As from 2011, these efforts have been recognized and incorporated into the new UNASUR COSIPLAN institutional framework.<sup>6</sup>

One of the main tasks commissioned to the COSIPLAN by the Summit Meeting of UNASUR Presidents (Georgetown, November 2010)<sup>7</sup> was to identify and select a series of works that would impact powerfully on the integration and development of South America (Declaration of the IV Meeting of UNASUR, 2010).<sup>8</sup> The objective of API is to “promote regional connectivity by building infrastructure networks for physical integration purposes, considering sustainable social and economic criteria, and preserving the environment and the balance of ecosystems” (COSIPLAN Statutes, Article 4). To carry out this mandate from the highest political body in the South American integration process, the countries agreed upon four project selection criteria, which served as a starting point to set up the Agenda.<sup>9</sup> Such criteria were the following:

- 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.

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<sup>5</sup> <http://www.iirsa.org/Page/Detail?menuItemId=33>

<sup>6</sup> The main roots and foundations leading to the creation of API are found in IIRSA, where the South American countries started consistent and sustained work aimed at improving the connectivity and physical integration of the sub-region with an integral and sustainable development approach. One of the most significant outcomes of this work was the creation of the IIRSA Project Portfolio in the transport, energy and communications sectors as well as the creation of the Implementation Agenda Based on Consensus (AIC) 2005-2010.

<sup>7</sup> <http://www.iirsa.org/Event/Detail?Id=168>

<sup>8</sup> [http://www.iirsa.org/admin\\_iirsa\\_web/Uploads/Documents/rp\\_guyana10\\_declara\\_unasur\\_1110.pdf](http://www.iirsa.org/admin_iirsa_web/Uploads/Documents/rp_guyana10_declara_unasur_1110.pdf)

<sup>9</sup> 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](http://www.iirsa.org/gte_bogota_2011.asp)).

- 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 Indicative Territorial Planning Methodology, and that they are in line with the portfolio structuring process (Integration and Development Hubs – Project Groups – Strategic Functions)<sup>10</sup>. Furthermore, it reflects that the projects were already agreed upon by all the countries as regards their impact on regional integration. 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 budgets, national legislation, etc.<sup>11</sup>

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. The countries have also agreed to incorporate projects at the profiling stage, provided budget resources are allocated to conduct the required studies and their completion falls within the Agenda time frame. Furthermore, it was recognized that some projects would not be completed within this time frame but, due to the priority given to them by the governments involved, the countries agreed to their incorporation into API. Beyond these details, it is clear that the objective of API and its project selection criteria lies in its emphasis on result attainment.

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 the API projects. This is why the Agenda incorporates the concept of structured projects, as explained below.

In line with this, the fourth criterion introduces the concept of Integration Territorial Programs (PTIs), 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. PTIs are thus conceived of as programs for territorial intervention that, together with the physical dimension of investments, pursue the integral development of the region.<sup>12</sup>

The resulting agenda was approved by the South American Infrastructure Ministers at the Second Meeting of the COSIPLAN Ministers (Brasilia, November 2011),<sup>13</sup> and since then it has deserved special attention by the Council.

<sup>10</sup> For further information on the Indicative Territorial Planning Methodology and the Project Portfolio structuring, see Project Portfolio Report 2013.

<sup>11</sup> Consideration was also given to the possibility that project priority be based on bilateral or regional agreements or declarations.

<sup>12</sup> For further information on the concept and scope of PTIs, see Project Portfolio Report 2013, Chapter B.

<sup>13</sup> [http://www.iirsa.org/admin\\_iirsa\\_web/Uploads/Documents/Cosiplan%20agreement%202%20-%20API.pdf](http://www.iirsa.org/admin_iirsa_web/Uploads/Documents/Cosiplan%20agreement%202%20-%20API.pdf)

## 2. Integration Priority Project Agenda: Scope and Main Features

As already stated, 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. 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. With regard to their geographical scope, the structured projects fall within the different Integration and Development Hubs and are precisely aimed at improving connectivity in such territories. They 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.” At present, API is made up of 31 structured projects and 101 individual projects, accounting for an estimated investment of US\$16,713.8 million.

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 and as explicitly stated in the Strategic Action Plan (PAE) 2012-2022,<sup>14</sup> designed and approved by the twelve governments of the COSIPLAN Member States in 2011. Thus, 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.

The importance of API goes beyond the identification and definition of the roles played by the structured projects, as it is crucial to have information on their progress. With reference to the monitoring of API, the PAE included the development of a continuous monitoring mechanism (see Action 4.3, PAE 2012-2022). The COSIPLAN requested the Technical Coordination Committee (CCT) to draft a proposal concerning the design and implementation of such mechanism.

The technical proposal was submitted at the XIX Meeting of IIRSA National Coordinators (Brasilia, November 29, 2011).<sup>15</sup> According to its work approach, the countries were to become the leading actors in the design and implementation of the continuous monitoring system with the technical support of the CCT throughout its development. The purpose behind this approach was to ensure, from the very beginning, that the system be consistent with the concrete needs and real possibilities of the countries. Furthermore, it was agreed to develop a system that should assign priority to the South American regional vision and record the progress being made in the management of the API projects based on the principles of efficiency and simplicity, using common patterns to provide information on a topic regarded as a priority for all.<sup>16</sup>

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<sup>14</sup> [http://www.iirsa.org/admin\\_iirsa\\_web/Uploads/Documents/II\\_COSIPLAN\\_2011\\_PAE\\_ing\\_final.pdf](http://www.iirsa.org/admin_iirsa_web/Uploads/Documents/II_COSIPLAN_2011_PAE_ing_final.pdf)

<sup>15</sup> <http://www.iirsa.org/Event/Detail?Id=186>

<sup>16</sup> This tool does not prevent any country involved in a project from providing additional information through the means it might deem most appropriate.

The objectives of the API Project Continuous Monitoring System (CMS), as agreed by the countries, are the following:

- Provide clear information about the progress attained by the projects
- Generate information to solve obstacles in project management
- Provide information to make decisions on:
  - ✓ the financing of studies, and
  - ✓ the financing of works

To sum up, the primary purpose of the CMS is to record the progress of the API projects from a regional perspective and to provide timely and reliable information for decision making by the competent government authorities.

The task of designing and implementing the API CMS was included in the COSIPLAN-IIRSA Work Plans 2012 and 2013. The work carried out in 2012 is documented in the 2012 Progress Report on the CMS,<sup>17</sup> while the activities performed in 2013 are outlined in Section B of this document. At present, the CMS is available online for a group of users authorized by the National Coordinators, and its information can be accessed at <http://www.iirsa.org/proyectos>.

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<sup>17</sup> <http://www.iirsa.org/Document/Detail?Id=3416>

## B. NEW API AND CMS TOOLS AND DEVELOPMENTS IN 2013

While the countries continued preparing and executing the API projects, the progress of which is outlined in Section C of this report, a series of activities and tools related with the Agenda were developed throughout 2013 with a view to improving information quality and implementing a monitoring system.

The two pillars underpinning these developments and their associated actions are described below.

### 1. Project Life Cycle Methodology

#### i) Conceptual Aspects

Since the very approval of API, a concern shared by the COSIPLAN Member States was the need to have indicators showing the status of the projects and their evolution over time, i.e. their life cycle. The initial premise was to meet this demand for information by keeping the four project life cycle stages agreed upon by the governments in 2008, namely profiling, pre-execution, execution and completed.<sup>18</sup> In this decision, special attention was paid to technical reasons regarding the use of the primary information available in the project database and to the intention that the categories applied to API be consistent with those used for all the COSIPLAN projects, so that the mechanisms to report the information of API or the COSIPLAN Portfolio were the same. To this end, in 2012, at the request of the countries, the CCT developed an initial proposal concerning the API individual projects life cycle schedule,<sup>19</sup> which was submitted at the II Meeting of the Executive Technical Group on the CMS (Lima, September 2012).<sup>20</sup> The main suggestion put forward for consideration was to subdivide the pre-execution and execution stages. Given the technical characteristics of the projects and of the works they involve, both stages demand long periods of time. Thus, it was deemed suitable to have a system in place that should enable the recording of their actual progress, providing detailed information that could not be properly captured otherwise or with the previous definitions. During the meeting, the preliminary proposal was agreed to be further developed throughout 2013 to define more accurately the scope of its content.

This technical work focused on responding to the conclusions that resulted from the GTE meeting already mentioned. It should be stated that the other two stages in the project classification system, i.e. profiling and completed, were not subject to any change. With regard to the first one, i.e. profiling, the second API project selection criterion specifies that there should be enough background information to assess the suitability of implementing the project idea and, therefore, its pre-investment studies are expected to be completed in a relatively short time. In this regard, this is the starting point in the schedule of the API individual project life cycle (0% progress).

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<sup>18</sup> 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: This 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. Completed: Works finished and in operation. Source: COSIPLAN Information System.

<sup>19</sup> [http://www.iirsa.org/admin\\_iirsa\\_web/Uploads/Documents/rc\\_api\\_smp\\_08.pdf](http://www.iirsa.org/admin_iirsa_web/Uploads/Documents/rc_api_smp_08.pdf)

<sup>20</sup> <http://www.iirsa.org/Event/Detail?Id=206>

As to the fourth stage (completed), its concept and duration are clear and also relatively short, the completed works are handed over to the relevant authorities, and they are opened and put in operation once the contract procedures related to work delivery and acceptance are finished.

Instead, the pre-execution stage normally involves studies (pre-feasibility, feasibility and investment), permits of various kinds (environmental, jurisdictional and others), and resource mobilization from various sources to finance the works and other actions prior to the execution stage. Therefore, to be able to evaluate the progress made, it was proposed to break it down into five main milestones: resources for studies, studies underway, approved studies, permits granted, and resources for works.

The first sub-stage, *resources for studies*, starts with the steps to secure the financial resources needed to carry out the studies, and the sub-stage will be considered to be completed when such resources are actually available and all the institutional arrangements necessary to conduct the studies (e.g. awarding them through tender processes) have been made. In particular, the financial resources required to carry out the most advanced studies for the execution of the project should be available. The degree of complexity of the pre-execution studies required usually varies depending on the technical, economic, social and environmental characteristics, the project execution method, the investment amount, and the financing source involved.

As for the *studies underway* sub-stage, it is considered to have started when any pre-execution study has been launched, and the project concerned will be recorded as being at this sub-stage until completion of the most complex study required by the project.

Once the studies have been completed, the project moves to the *approved studies* sub-stage and remains in this category until approval by the relevant authorities.

After approval of the studies, the project must comply with institutional requirements and formalities, a step that finishes with the granting of permits and authorizations. The permits to be obtained for a given project may be of various types, involve different requirements, and impose different deadlines. Thus, for example, different kinds of environmental licenses for engineering works and installation of the work site may be required. On the other hand, submitting the background information required for a license to be granted may demand some degree of interaction with the studies carried out in the previous phase. Therefore, the fourth sub-stage proposed -*permits granted*- will be deemed completed only when all permits have been granted and/or all the institutional formalities required by the project have been completed.

Finally, the last sub-stage of the pre-execution stage, *resources for works*, involves raising the funds needed to carry out the works and actions scheduled in the project. For the purpose of the Methodology proposed, this sub-stage is deemed completed when the project has been allocated the financial resources for executing the works and all the required institutional formalities have been carried out.

With regards to the execution stage, the proposal was to divide it into quarters of works on the basis of time, costs or milestones in the works progress, depending on each project.

As can be seen, the breakdown described and the general methodology used (attached as Annex 1) were built based on the principles of efficiency and simplicity to record the progress being made in the management of an

API project. In other words, through the proposed breakdown into sub-stages it is possible to focus on informing, from a regional perspective, about the advances attained by a very diverse set of projects, with different execution units and responsible agencies, and with different institutional modes that vary from country to country. The greatest detail about this kind of complex project is recorded in the national systems of each country. Therefore, the CMS is a regional tool supplementing the national investment systems.

## **ii) Application of the Project Life Cycle Methodology**

Once these conceptual aspects were defined, the revised life cycle scheduling application process was implemented with the participation of the countries in successive exercises. As a first pilot or trial step, it was agreed that the countries would carry out the analysis of two national projects, one at the pre-execution stage and the other at the execution stage, so as to test the adequacy and robustness of the subdivision criteria of these stages. In addition, with regard to the procedure, a round of videoconferences and face-to-face meetings with the national technical experts was organized for the purpose of addressing questions and comments regarding the experience in using the methodology. It is worth noting that the overall results of these discussions were highly satisfactory and that the experts said that they were able to apply the proposed methodological principles without any major trouble; however, several countries made contributions that led to the enhancement of the methodology, into which these improvements and contributions were incorporated.

After this exploratory round, the countries applied the methodology to all the API individual projects as a preparation for the Meeting of the Executive Technical Group on API and the CMS (Rio de Janeiro, August 2013).<sup>21</sup> This activity also involved coordinating the countries in the cases of binational or multinational projects. Later on, once the scheduling exercises conducted using the new criteria had been thoroughly revised, the results were directly uploaded to the Continuous Monitoring System by those responsible for the update of the project files in each country. At present, this information serves as a baseline to measure the progress made by the projects and identify their deviations, if any, thus contributing to decision making with a view to removing the obstacles that may emerge throughout the life cycle of these priority projects.

Two of the recommendations originally proposed by the CCT last March featured prominently in discussing the methodology with the government experts. The first one concerned the confirmation of the validity of the hypothesis that it is necessary to gradually polish up the proposed methodology through the joint work of the governments based on the applications to be conducted in this phase of implementation. The second recommendation, which was validated in the above-mentioned application exercises, was the advisability of disaggregating some of the complex individual projects into simpler and more homogeneous individual projects, which would make it easier to record their progress and monitor them, while their integration to the structured projects would make it possible to focus API on a relatively small number of projects, currently accounting for 17% of the total COSIPLAN Portfolio (see Section C).

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<sup>21</sup> <http://www.iirsa.org/Event/Detail?Id=227>

## 2. Information System: Components and Put into Operation

### i) Components

Until September 2013, the above-mentioned project information was in the COSIPLAN Project Portfolio Database, which is operational and can be publicly accessed through the Internet.<sup>22</sup> This database has a file for each of the 583 projects that make up the Portfolio.

After the Integration Priority Project Agenda was set up and it was deemed necessary to have a monitoring system in place, it was urgent to introduce adjustments and new technical and IT developments into the existing database, by adding two more modules that, all together, make up a project information system.

The new COSIPLAN Information System, presented to the countries at the already-mentioned GTE Meeting in Rio de Janeiro and currently online, is made up of three components: i) Portfolio Database, ii) API Structured Project Database, and iii) API Continuous Monitoring System. The three components of the system are interconnected; the information is recorded simultaneously, and can be accessed from the same IT platform using their respective sign-in buttons.<sup>23</sup>

Although the first component, i.e. the Project Portfolio Database, had been created before, in 2013 its graphic design was updated to adjust it to the new COSIPLAN-IIRSA website design; improvements in its browsing, display and export of query results and reports as well as new functionalities for project information administrators were introduced; and the information in the project files was rearranged into a module system (identification, characterization, description, financing, status and monitoring, responsible staff, and complementary information) to improve the organization of the data entered. Finally, the CMS module was also incorporated, as detailed below.

As for the second component, the Structured Project Database was created. This is a new tool that was not available so far and contains the files of the 31 structured projects according to the model agreed upon by the countries last year at the II GTE Meeting on the CMS (Lima, September 2012).<sup>24</sup> The structured project files are also organized by modules as follows:

- A structured project identification module: Code, name, Hub to which it belongs, countries, estimated investment amount, and type of financing.
- A structured project description module: Rationale, i.e. the reasons why this is a strategic structured project. This information field puts forward the reasons why the project consolidates regional connectivity networks and will produce cross-border synergies (criterion 3 of API). Furthermore, it provides information as to the opportunities or needs for developing a complementary action program for the effective provision of services and sustainable development of the territory (criterion 4 of API). This module also outlines the objective pursued through the implementation of the different components of the project together with a brief description of each one of them and, finally, offers the list of individual projects that form part of it.

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<sup>22/23</sup> <http://www.iirsa.org/proyectos>

<sup>24</sup> <http://www.iirsa.org/Event/Detail?Id=206>

- A continuous monitoring module: Its architecture and contents are detailed below.
- A module with the contact details of the National Coordination of each country involved in the structured project as well as of the persons responsible for updating the structured project file data, in addition to the last update date.
- A complementary information module: This contains the structured project maps, documents, photos and other material concerning the project.

Part II of this report presents the structured project basic data following the scheme outlined above.

Finally, the third component of the COSIPLAN Information System is the Continuous Monitoring System (CMS). The reasons for its creation are described in Section A. The CMS is also a new development and is present in both the individual and structured project files.

Thus, the continuous monitoring module for the individual projects helps monitor the progress of a project throughout its life cycle (based on the Project Life Cycle Methodology described in subsection 1 of this section), as well as identify any deviation and its causes. This module is made up of two important components: i) the schedule of the project stages and sub-stages (dates of completion estimated for each of them), and ii) the identification of the project progress (sub-stages completed, underway and/or frozen) and the description of any deviation.

The continuous monitoring module for the structured projects presents a series of aggregate indicators resulting from the information recorded in the module of the individual projects included in the structured project. As a matter of fact, one of the main difficulties posed by this kind of projects is that they are made up of a series of individual projects, the advances of which conditions and defines the overall status of the structured project as a whole. Taking this into account, the system presents an aggregate indicator of the current stage of the structured project and an aggregate indicator of the progress made by such project between two points in time.

The first major indicator is made up of three sub-indicators through which it is possible to make complementary analyses. The first one is a simple average of the progress of individual projects that shows the progress of the structured project as a whole. The second sub-indicator is an average of the progress attained by the individual projects weighted by the investment amount, and the third sub-indicator represents the gap size between the most advanced individual project and the least advanced one: a large gap size indicates a very unbalanced progress.

As for the second indicator, this measures the progress of the structured project between two points in time, i.e. how much the structured project advanced between point 0 and point 1 on the basis of the progress made by each individual project during this period. Also in this case three complementary versions are presented: a simple average of the structured project progress between two points in time, an average weighted by the investment amount, and the gap size.

Finally, in the continuous monitoring module there is also an information field to present the overall status of the structured project as well as the reasons accounting for any progress or delay. Furthermore, in the future this module will also include details about the crucial stages, i.e. the critical nodes yet to overcome to make the purpose of the structured project come true, and the management of restrictions.

The technical details of the adjustments and developments introduced into the three components of the COSIPLAN Information System are given in Annex II.

## **ii) Training and Put into Operation**

In addition to the developments explained and in order to get the system in operation, the CCT organized training activities for the government officials responsible for administering the data in the project files.<sup>25</sup>

Beyond the specific IT and training aspects described, any information system requires the ongoing recording, updating and improvement of the data entered. Regarding this task, it is worth noting the valuable efforts made by the governments, with the support of the CCT, both in the initial data entry in the CMS, which went online in September 2013, and in the update and enhancement of the information contained in the individual and structured project files on the basis of a diagnosis made concerning the information available in them. From the time when the CMS was made available online to February 2014, its implementation is being tested.

The success of the CMS lies, then, in the interest shared by all the UNASUR Member States in the progress of API. The CMS is a tool designed for that purpose, in addition to providing elements to guide the COSIPLAN in its decision making process concerning the Agenda and the projects included in it.

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<sup>25</sup> Initially, these activities took place during the GTE meeting held in Rio de Janeiro. After this meeting, training went on for the countries that needed it and had not been able to participate in the event. Furthermore, the CCT organized activities to support the countries and monitor the entry of data in the system.

## C. THE API PROJECTS: TAKING STOCK OF PROGRESS

As explained in the Introduction, the purpose of this section is to present the current status of the Priority Integration Project Agenda (API) and to analyze its evolution from early 2012 until now.<sup>26</sup> To this end, five dimensions have been selected:

- 1) number of projects and estimated investment amount;
- 2) territorial scope;
- 3) sector- and subsector-based breakdown and type of works;
- 4) source of financing; and
- 5) project progress by life cycle stage.

For each dimension, a general analysis of the API projects is made first, followed by a specific examination in terms of each Integration and Development Hub. The sources of information used are the COSIPLAN Information System,<sup>27</sup> the API Progress Report 2012,<sup>28</sup> and the notes of the meetings of the Executive Technical Groups held between 2004 and 2013.<sup>29</sup>

### 1. Number of Projects and Estimated Investment Amount

At present, as shown in Table C.1, the Agenda is made up of 31 structured projects and 101 individual projects for an amount estimated at US\$16,713.8 million. These figures account for 17.3% of the total number of projects and 10.6% of the total amount involved in the COSIPLAN Portfolio in 2013, which includes 583 projects for a total amount of US\$157,730.5 million.<sup>30</sup> It should be noted that, as a result of the analysis of the API projects carried out in 2013, the number of individual projects in the Agenda rose from 88 to 101 (see Figure C.1), while the number of structured projects remained unchanged, as anticipated in Section B and further explained below.

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<sup>26</sup> The period for this evolution analysis is January 2012 to October 4, 2013. This end date has been selected as the cutoff date for gathering the information necessary to prepare this report. Given Paraguay's recent reincorporation into UNASUR, this country's projects have not been updated in 2013.

<sup>27</sup> The data in the COSIPLAN Information System is entered and updated by the COSIPLAN Member States.

<sup>28</sup> [http://www.iirsa.org/admin\\_iirsa\\_web/Uploads/Documents/Informe\\_API\\_completo\\_eng.pdf](http://www.iirsa.org/admin_iirsa_web/Uploads/Documents/Informe_API_completo_eng.pdf)

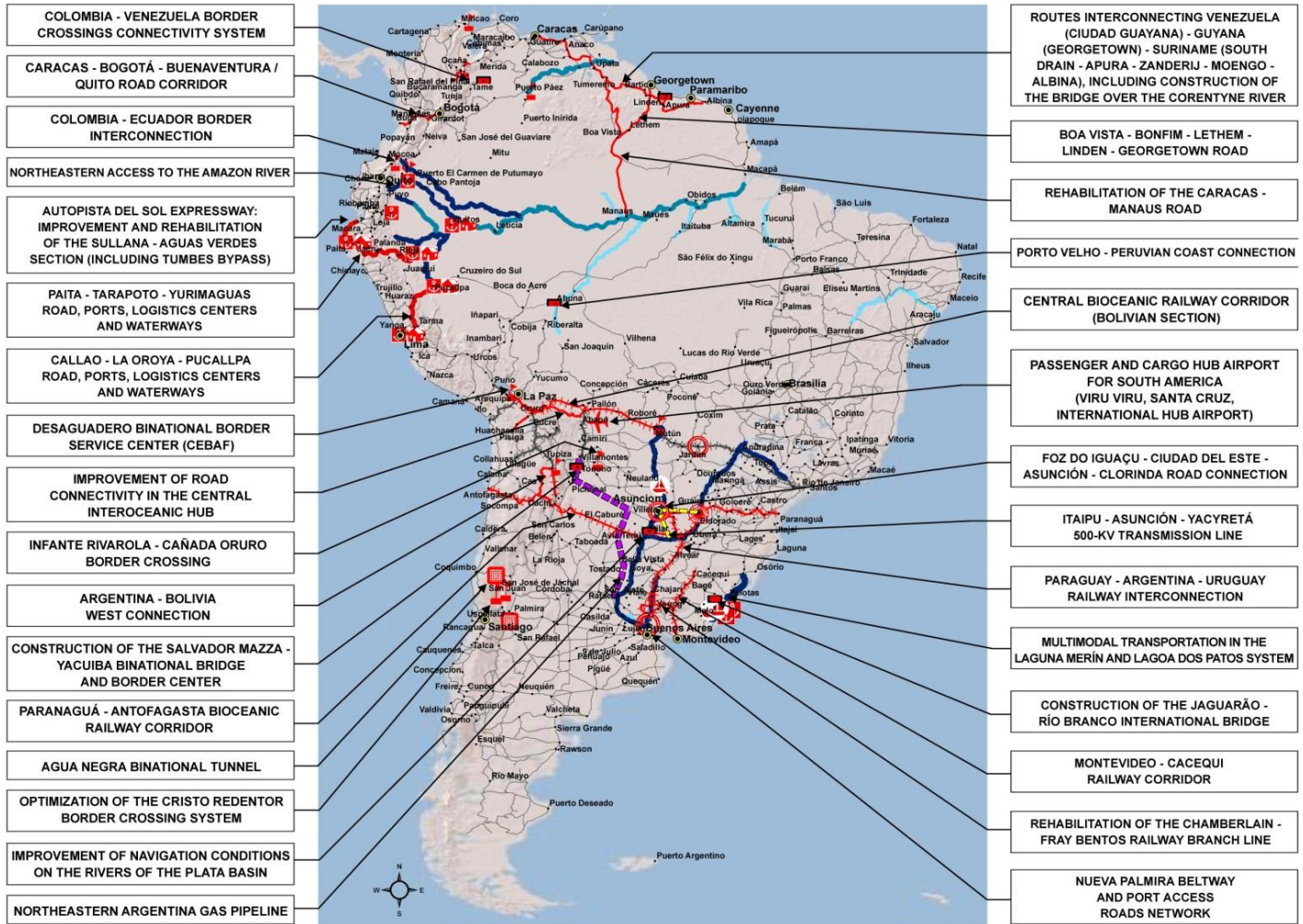
<sup>29</sup> The notes of these meetings are available on IIRSA website: <http://www.iirsa.org/>

<sup>30</sup> See Annex III for a detailed list of the structured and individual projects making up API. For information about the COSIPLAN Portfolio, see the COSIPLAN Portfolio Report 2013.

**TABLE C.1: LIST OF API PROJECTS**  
(million US\$)

ID	HUB	API Structured Project Name	Countries Involved	Estimated Investment (million US\$)
1	AMA	PAITA - TARAPOTO - YURIMAGUAS ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS	PE	478.4
2	AMA	CALLAO - LA OROYA - PUCALLPA ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS	PE	2,936.2
3	AMA	NORTHEASTERN ACCESS TO THE AMAZON RIVER	BR/CO/EC/PE	60.8
4	AND	CARACAS - BOGOTÁ - BUENAVENTURA / QUITO ROAD CORRIDOR	CO/EC/VE	3,350.0
5	AND	COLOMBIA - ECUADOR BORDER INTERCONNECTION	CO/EC	228.5
6	AND	COLOMBIA - VENEZUELA BORDER CROSSINGS CONNECTIVITY SYSTEM	CO/VE	5.0
7	AND	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	BO/PE	40.2
8	AND	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)	PE	70.4
9	CAP	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	AR/BO	23.0
10	CAP	ARGENTINA - BOLIVIA WEST CONNECTION	AR/BO	477.0
11	CAP	PARANAGUÁ - ANTOFAGASTA BIOCEANIC RAILWAY CORRIDOR	AR/BR/CH/PA	2,740.8
12	CAP	FOZ DO IGUAÇU - CIUDAD DEL ESTE - ASUNCIÓN - CLORINDA ROAD CONNECTION	AR/BR/PA	237.2
13	CAP	ITAIPU - ASUNCIÓN - YACYRETÁ 500-KV TRANSMISSION LINE	BR/PA	755.0
14	GUY	REHABILITATION OF THE CARACAS - MANAUS ROAD	BR/VE	407.0
15	GUY	BOA VISTA - BONFIM - LETHEM - LINDEN - GEORGETOWN ROAD	BR/GU	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	301.8
17	HPP	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE RIVERS OF THE PLATA BASIN	AR/BO/BR/PA/UR	1,158.3
18	HPP	PARAGUAY - ARGENTINA - URUGUAY RAILWAY INTERCONNECTION	AR/PA/UR	293.3
19	HPP	REHABILITATION OF THE CHAMBERLAIN - FRAY BENTOS RAILWAY BRANCH LINE	UR	100.0
20	HPP	NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK	UR	15.0
21	IOC	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)	BO	20.0
22	IOC	IMPROVEMENT OF ROAD CONNECTIVITY IN THE CENTRAL INTEROCEANIC HUB	BO/BR	431.5
23	IOC	INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING	BO/PA	2.0
24	IOC	CENTRAL BIOCEANIC RAILWAY CORRIDOR (BOLIVIAN SECTION)	BO	6.7
25	MCC	NORTHEASTERN ARGENTINA GAS PIPELINE	AR/BO	1,000.0
26	MCC	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	BR/UR	93.5
27	MCC	MULTIMODAL TRANSPORTATION IN THE LAGUNA MERÍN AND LAGOA DOS PATOS SYSTEM	BR/UR	14.0
28	MCC	MONTEVIDEO - CACEQUI RAILWAY CORRIDOR	BR/UR	139.8
29	MCC	OPTIMIZATION OF THE CRISTO REDENTOR BORDER CROSSING SYSTEM	AR/CH	143.0
30	MCC	AGUA NEGRA BINATIONAL TUNNEL	AR/CH	850.0
31	PBB	PORTO VELHO - PERUVIAN COAST CONNECTION	BR/PE	85.4
TOTAL				16,713.8

MAP C.1: API PROJECTS



- Legend: Priority Projects**
- Border Crossing, CEBAF
  - Port
  - Logistic Center

- Airport
- Roundabout
- Railway project

- Tunnel
- River navigability
- Oil & gas
- Power

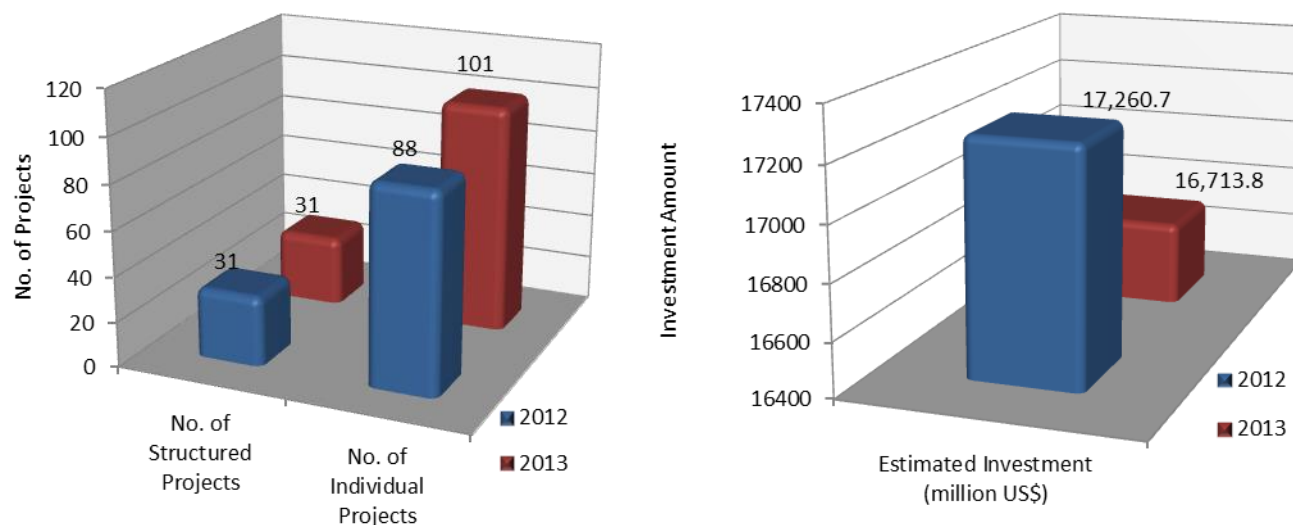
- Road
- River navigability
- Bridges, connection

- References:**
- Connecting road
  - Connecting railway
  - Existing road network
  - Country capital
  - Main hydrography
  - Hydrography

Figure C.1 shows the current data compared to last year's figures.

**FIGURE C.1: EVOLUTION OF THE API PROJECTS –2012-2013**

(number of projects and million US\$)



As a result of the technical work undertaken, some countries found merit in disaggregating certain projects that originally involved independent infrastructure undertakings and services with clearly identifiable outcomes that qualified to be treated either as individual projects (for instance, in the road and river transport subsectors) or as projects with distinguishable components (such as those concerned with border centers). Thus, six projects were turned into 19 new, smaller-scope individual projects.<sup>31</sup> This led to a simpler and more homogeneous universe of individual projects that made it easier to record their progress and monitor them, while their integration into structured projects makes it possible to keep API focused on a limited number of projects.

The following table summarizes the change in the number of API individual projects:

**TABLE C.2: EVOLUTION OF THE API INDIVIDUAL PROJECTS – 2012-2013**

(number of projects)

	No. OF INDIVIDUAL PROJECTS
Individual projects in 2012	88
Individual projects disaggregated in 2013	(6)
<b>Total projects unchanged between 2012 and 2013</b>	<b>82</b>
New individual projects in 2013 resulting from the disaggregation of six projects	19
<b>TOTAL INDIVIDUAL PROJECTS IN 2013</b>	<b>101</b>

<sup>31</sup> This net increase in the Agenda by 13 new projects was also reflected in the overall COSIPLAN Project Portfolio.

It should be mentioned that this process of disaggregating the most complex projects is likely to continue in the future as the use of the Project Life Cycle Methodology so requires.

As shown in Figure C.1, there was a slight decline of about 3% in the estimated investment amount for the API projects between 2012 and 2013, which was due to updates made to the amounts of the projects on account of their evolution and the availability of more information about them. Since the time when API was set up (2011), investments in its projects have increased by 22.4%. This change in the amounts is the result of regular information updates, because the API projects are the same since the Agenda was created, as already stated.

Table C.3 shows the change in the number of structured and individual projects as well as in the estimated investment amount by Integration and Development Hub between 2012 and 2013.

**TABLE C.3: EVOLUTION OF THE API PROJECTS BY HUB – 2012-2013**  
(number of projects, million US\$, and percentage)

	No. of Structured Projects		% of Structured Projects		No. of Individual Projects		% of Individual Projects		Investment Amount (million US\$)		% of Investment (per Hub against the Total)	
	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013	2012	2013
AMA	3	3	9.7	9.7	25	27	28.4	26.7	3,418.0	3,475.4	19.8	20.8
AND	5	5	16.1	16.1	11	12	12.5	11.9	3,623.9	3,694.1	21.0	22.1
CAP	5	5	16.1	16.1	18	18	20.5	17.8	4,435.4	4,233.0	25.7	25.3
GUY	3	3	9.7	9.7	4	6	4.5	5.9	900.8	958.8	5.2	5.7
HPP	4	4	12.9	12.9	15	15	17.0	14.9	1,998.1	1,566.6	11.6	9.4
IOC	4	4	12.9	12.9	7	7	8.0	6.9	416.7	460.2	2.4	2.8
MCC	6	6	19.4	19.4	7	15	8.0	14.9	2,382.3	2,240.3	13.8	13.4
PBB	1	1	3.2	3.2	1	1	1.1	1.0	85.4	85.4	0.5	0.5
<b>TOTAL</b>	<b>31</b>	<b>31</b>	<b>100.0</b>	<b>100.0</b>	<b>88</b>	<b>101</b>	<b>100.0</b>	<b>100.0</b>	<b>17,260.7</b>	<b>16,713.8</b>	<b>100.0</b>	<b>100.0</b>

As can be seen in the table above, the increase in the number of individual projects is concentrated in four Hubs: the MERCOSUR-Chile (MCC), the Amazon (AMA), the Guianese Shield (GUY) and the Andean (AND) Hubs. A detailed list of the disaggregated projects can be found in Annex IV.

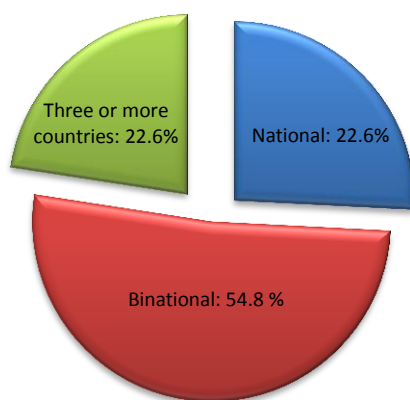
Table C.3 also shows that the projects are unevenly distributed among the Hubs. In addition to differences in their geographic area and the infrastructure already existing in them, such distribution is the result of the analysis made by the countries when selecting the projects.

Furthermore, the territorial distribution of the investments shows that the Capricorn Hub, which hosts 16.1% of the API structured projects, has the largest estimated investment amount (25.3% of the total investment in the Agenda), which is explained by the type of works involved (construction and rehabilitation of railways, and power transmission lines, as will be seen in subsection 3). The figures for the Andean Hub are similar: it holds 16.1% of the structured projects, accounting for 22.1% of the total investment (although it mainly involves road and border crossing projects). While the number of projects in the Amazon Hub is significantly lower than in the preceding two Hubs (9.7%), it accounts for a large investment amount (20.8%), as most of its projects are concerned with multimodal, road and river transport. The Peru-Brazil-Bolivia Hub represents the opposite case, since it involves only one API project (3.2% of the total number and 0.5% of the total investment), which is associated with the construction of a bridge between Brazil and Peru.

## 2. Territorial Scope

As shown in Table C.4 and Figure C.2, only seven structured projects are wholly located in the territory of one country, 17 of them are binational and the other seven involve three or more countries. While the design and implementation of all the projects are the sole responsibility of the national authorities, binational and multinational projects demand greater coordination among the agencies in the different countries. It should be noted that all the countries participate in at least one structured project, either binational or tri-national.<sup>32</sup> Only when all the investments involved in the projects located in the territory of more than one country are executed as planned will the physical connectivity improvements pursued be achieved.

**FIGURE C.2: TERRITORIAL SCOPE OF THE API STRUCTURED PROJECTS**  
(percentage of the number of projects)



Second, as regards the territorial scope of the projects, it is also important to note that the degree of national involvement in the structured projects varies from country to country, as can be seen in Table C.4. One of the general characteristics of API as agreed upon by the countries at the time of its creation is that all the twelve countries should be represented in the Agenda and that it should reflect a balance of the projects proposed by each of them.

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<sup>32</sup> The opposite holds for Argentina, Paraguay and Venezuela, as they only participate in structured projects involving two or more countries (see Table C.4).

**TABLE C.4: DISTRIBUTION OF THE API STRUCTURED PROJECTS BY COUNTRY**  
(number of projects)

Country	No. of Structured Projects	No. of National Structured Projects	No. of National Structured Projects Involving Two or More Countries	Hubs in which the Country is Involved
Argentina	9	0	9	CAP, HPP, MCC
Bolivia	9	2	7	AND, CAP, HPP, IOC, MCC
Brazil	12	0	12	AMA, CAP, GUY, HPP, IOC, MCC, PBB
Chile	3	0	3	CAP, MCC
Colombia	4	0	4	AMA, AND
Ecuador	3	0	3	AMA, AND
Guyana	2	0	2	GUY
Paraguay	6	0	6	CAP, HPP, IOC
Peru	6	3	3	AMA, AND, PBB
Suriname	1	0	1	GUY
Uruguay	7	2	5	HPP, MCC
Venezuela	4	0	4	AND, GUY

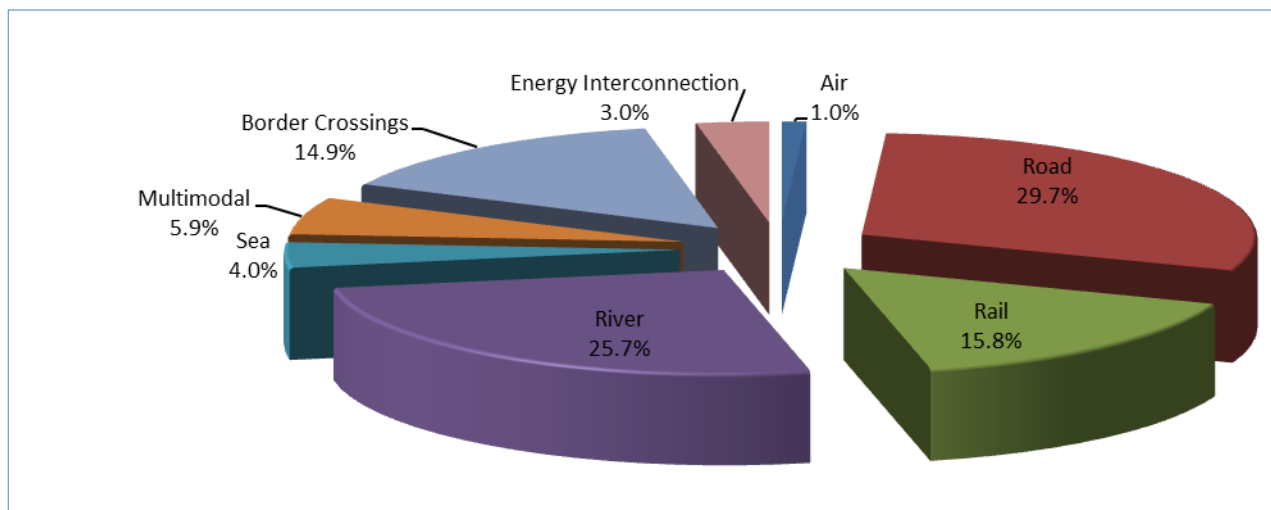
Third, the structured projects involving three or more countries belong to the AMA, AND, CAP, GUY and HPP Hubs.

### 3. Sector/Subsector-based Breakdown of the API Projects and Type of Works Involved

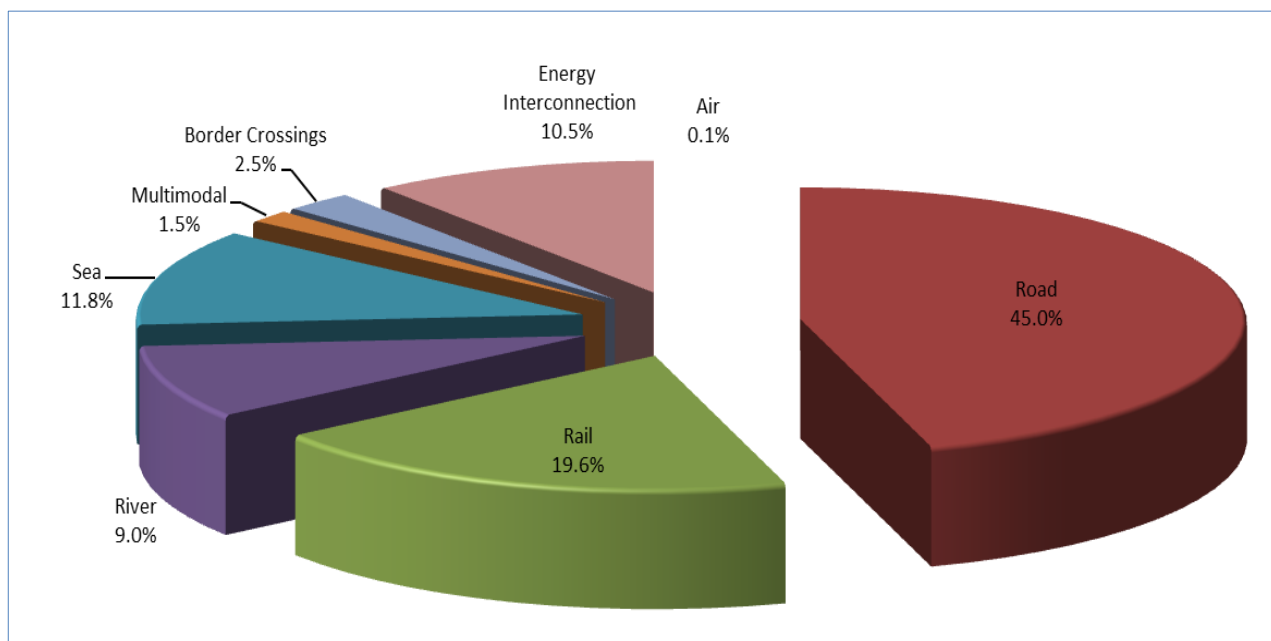
As already explained, API is basically a tool intended to improve physical connectivity in the region. Thus, it is no surprising that most of its projects are concerned with the different modes of transport. As shown in the figures below, 97% of the API individual projects fall in the transport sector and demand an estimated investment of 89.5% of the total, while the other 3% fall in the energy sector and account for an estimated investment of 10.5%. Although the latter are few in number, they require a large investment on account of their size and technical characteristics.

Regarding the subsector-based breakdown of the API individual projects (see Figures C.3 and C.4), road projects account for 30% of the Agenda and almost half of its total estimated investment amount. The opposite happens with river projects, which only account for 9% of such total investment even though in 2013 they represent as much as one quarter of the API projects. The same holds for border crossing projects, which account for 15% in terms of number but only 2.5% in terms of the total investment. This is indicative of the fact that border crossings, due to the nature of the services they offer (customs, immigration, and phytosanitary controls, among others), require much larger investments in national and bilateral institutional strengthening and coordination among government agencies than in infrastructure. As for rail projects (15.8%), they demand heavier investments (19.6%) because of the nature of the works involved.

**FIGURE C.3: API SUBSECTOR-BASED BREAKDOWN**  
(percentage of the number of projects)



**FIGURE C.4: API SUBSECTOR-BASED BREAKDOWN**  
(percentage of the investment amount)



The following table shows the subsector-based breakdown of the API individual projects by Hub.

**TABLE C.5: API SUBSECTOR-BASED BREAKDOWN BY HUB<sup>33</sup>**  
(number of projects and million US\$)

	TRANSPORT														ENERGY	
	Road		Rail		River		Sea		Multimodal		Border Crossings		Air		Energy Interconnection	
	No.	Investment (million US\$)	No.	Investment (million US\$)	No.	Investment (million US\$)	No.	Investment (million US\$)	No.	Investment (million US\$)	No.	Investment (million US\$)	No.	Investment (million US\$)	No.	Investment (million US\$)
AMA	6	920.1	0	0.0	11	326.4	4	1,975.5	6	253.4	0	0.0	0	0.0	0	0.0
AND	6	3,558.9	0	0.0	0	0.0	0	0.0	0	0.0	6	135.2	0	0.0	0	0.0
CAP	4	597.2	9	2,741.6	0	0.0	0	0.0	0	0.0	3	139.2	0	0.0	2	755.0
GUY	6	958.8	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
HPP	1	15.0	4	393.3	10	1,158.2	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
IOC	3	429.5	1	6.7	0	0.0	0	0.0	0	0.0	2	4.0	1	20.0	0	0.0
MCC	3	947.5	2	139.8	5	14.0	0	0.0	0	0.0	4	139.0	0	0.0	1	1,000.0
PBB	1	85.4	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
TOTAL	30	7,512.3	16	3,281.4	26	1,498.6	4	1,975.5	6	253.4	15	417.4	1	20.0	3	1,755.0

<sup>33</sup> An analysis of the evolution of the API sector/subsector-based breakdown between 2012 and 2013 (see Annex V) shows a reduction in the investments in the road, river, and border crossing sectors as they concern projects that were disaggregated and still lack a final valuation of the investments involved.

Both the data in the table above and the detailed type of works by sector presented in Annex V show that road projects are mainly located in the AND, AMA and GUY Hubs. Within this subsector, the projects involving the improvement and expansion of roads, the paving of new works, and the construction and rehabilitation of bridges prevail in number (23.3%), but the first of these types of works is the one that demands the largest investment (53.2% of the subsector total).

In the rail subsector, railway rehabilitation projects prevail in number (62.5% of the total), followed by new rail construction projects (accounting for the remaining 37.5%), and most of them are located in the Capricorn Hub; the latter type of works, however, due to their magnitude, represent 70.4% of the investment in the rail subsector. As for the river subsector, the dominant projects concern the improvement of navigation conditions (76.9%) on waterways located in the Amazon and Paraguay-Paraná Waterway Hubs and require an investment estimated at 83.5%. In the case of the Paraguay and Paraná rivers, most projects aim at improving navigation conditions on the Plata basin, whereas in the case of the Amazon Hub, the purpose is to articulate several waterways (Huallaga, Marañón, Morona, Ucayali, and Putumayo) that connect the Amazon river basin with important areas of Peruvian, Ecuadorian and Colombian coast, sierra and rainforest. Regarding the sea subsector, there are four projects -all of them located in the Amazon Hub- with the objective of expanding the land infrastructure of sea ports and/or upgrading them.

As far as border crossing projects are concerned-most of which are located in the AND and MCC Hubs-, infrastructure for the implementation of border control centers prevails: of the 15 projects, nine involve the creation of new infrastructure, which is indicative of their importance for the physical integration of the region. However, border crossing works requiring the largest investment amount (63.5%) are those aimed at expanding border control center capacity, which account for 40% of the total number of these projects. There is only one air transport project in API, which belongs to the IOC Hub and involves the expansion of the Viru Viru International Airport, located in Santa Cruz de la Sierra, Bolivia. As for multimodal projects, all of them belong to the AMA Hub and have the purpose of building logistics platforms in the main cargo origin and destination hubs in order to make the respective area's trade flows more efficient and reduce the logistics costs associated with transport.

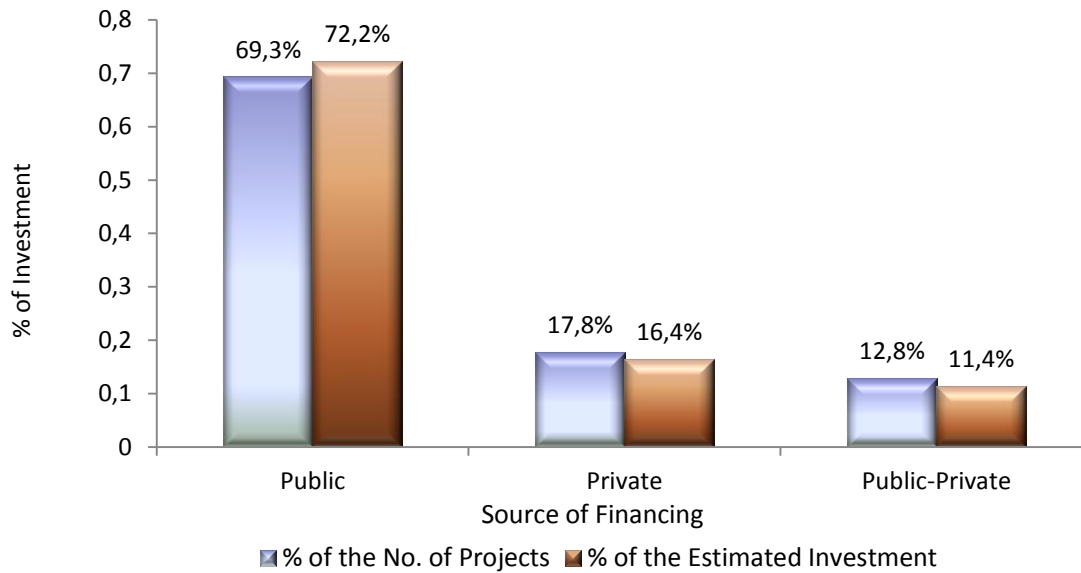
Finally, API only includes three energy interconnection projects. Two of them fall in the CAP Hub and concern the construction of two 500-kV transmission lines (Itaipu-Asunción and Yacyretá-Ayolas-Carayao), while the other one, belonging to the MCC Hub, involves the construction of new energy interconnection facilities (the Northeastern Argentina Gas Pipeline). The latter accounts for more than half of the investment required by the three projects.

#### **4. The Projects and Their Sources of Financing**

In terms of the API financing sources, the public sector is the main source of investment (72.2%), while the private sector (16.4%) -under different contract arrangements- and public-private partnerships (11.4%) complete the picture. It is worth mentioning that the strategic importance of the API projects and the priority attached to them by the countries, by international organizations, and particularly by the CCT institutions are contributing to carrying out pre-investment studies and financing the works. Taken together, the three institutions that make up the CCT (the IDB, CAF, and FONPLATA) are financing the pre-execution or execution stages of 19 of the 31 API structured projects with an investment estimated at, approximately, US\$1,208 million.

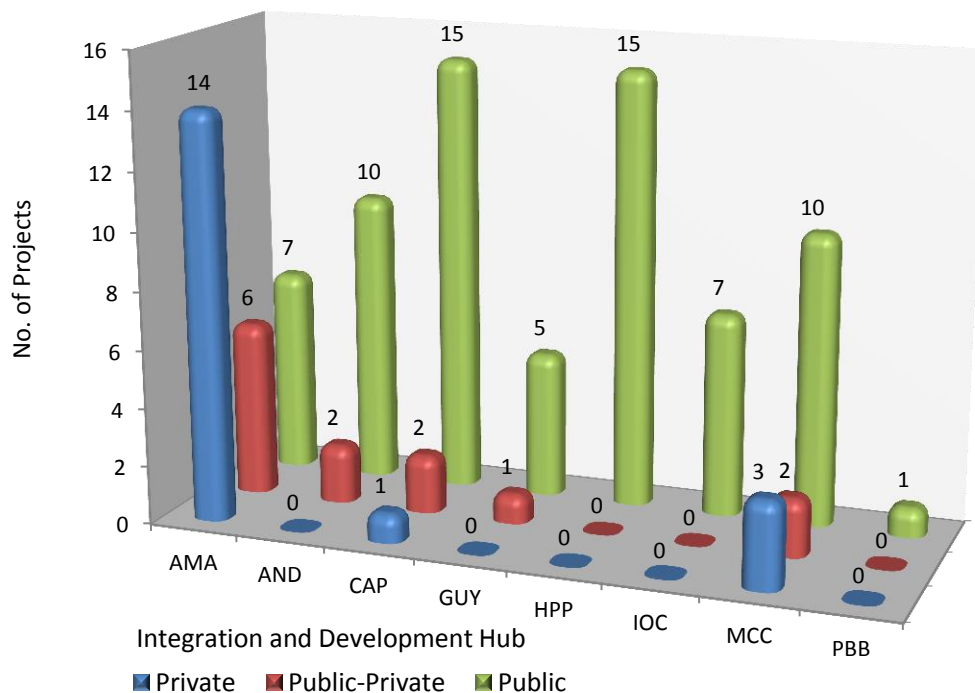
The figure below shows the API investment amount and number of individual projects by source of financing.

**FIGURE C.5: SOURCES OF FINANCING OF THE API INDIVIDUAL PROJECTS**  
(percentage of the number of projects and of the estimated investment)

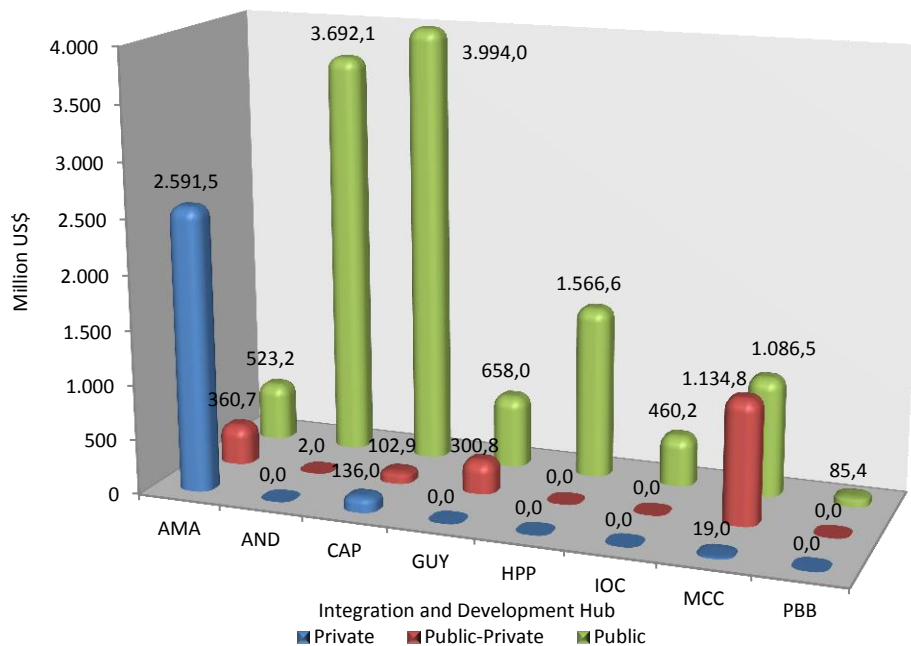


The figures below show the sources of financing by Hub.

**FIGURE C.6: SOURCES OF FINANCING OF API BY HUB**  
(number of projects)



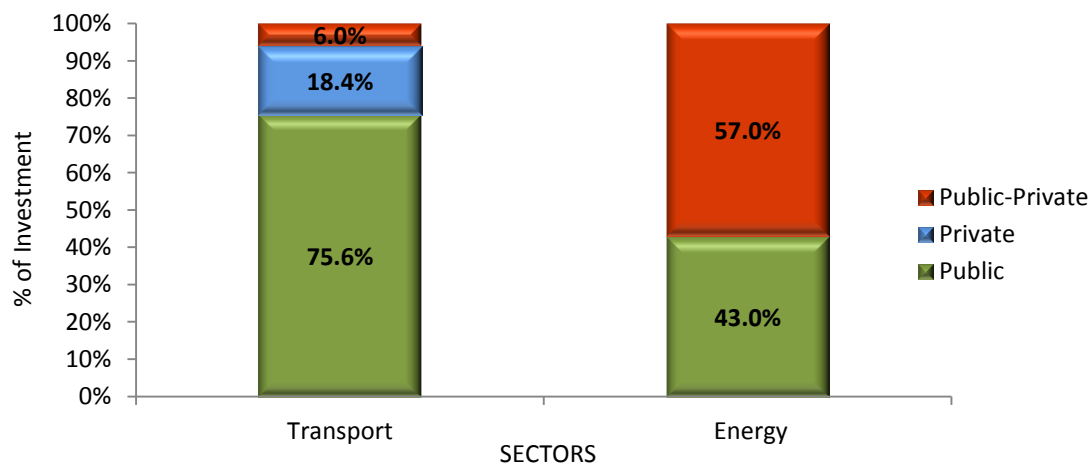
**FIGURE C.7: SOURCES OF FINANCING OF API BY HUB**  
(million US\$)



As shown in the figures above, the Amazon Hub is the one with the greatest number of projects (77.8%) financed by the private sector, accounting for an investment estimated at about 74.6% of the total investment in the projects of this Hub included in API. Such projects are of a national scope (Peru), and fall in the river and sea subsectors (29%) and in the road and multimodal subsectors (21%). In the MERCOSUR-Chile Hub, 50.7% of the investment is financed by the public-private sector.

An analysis of the sources of financing by sector (see Figure C.8) reveals that public sources finance a little more than three fourths of the estimated investments in the transport sector (76%), while public-private sources invest the most in the energy sector (57%).

**FIGURE C.8: SOURCES OF FINANCING OF API BY SECTOR**  
(percentage of the estimated investment amount)



## 5. Progress in the API Projects by Life Cycle Stage

The preceding sections described the structure of API by the different features included in the COSIPLAN Information System. Here, the focus is on the progress and change in stage of the projects throughout their life cycle. As initially mentioned, the time period of observation enables a comparison between early 2012 and the current status.

### i) The API Projects by Life Cycle Stage

The analysis of the 101 individual projects currently included in API by their life cycle stage (see Table C.6) shows that a fifth of them (19.8%) are in execution, accounting for slightly less than half of the total investment in the Agenda (44.9%). The fact that more than half of the individual projects (51.5%) are at the pre-execution stage, representing 47.1% of the investment, confirms the need to monitor this set of projects that involve half of API in terms of both the number of projects and the resources, as explained in Section I.B, and the subsequent efforts made regarding project life cycles.

The projects at the profiling stage account for 21.8% of the total number and only 8% of the total investment in API.<sup>34</sup> As will be seen further on, these data are indicative of the explicit objective of COSIPLAN in designing API: to establish a set of projects to be completed within the time horizon of the Strategic Action Plan.

**TABLE C.6: 2013 STATUS OF THE API PROJECTS BY LIFE CYCLE STAGE**

(number of projects, million US\$, and percentage)

Stage	No. of Projects	% of Projects	Investment Amount (million US\$)	% of the Investment
Profiling	22	21.8	1,337.0	8.00
Pre-execution	52	51.5	7,869.3	47.08
Execution	20	19.8	7,502.5	44.89
Completed*	7	6.9	5.0	0.03
<b>TOTAL</b>	<b>101</b>	<b>100.0</b>	<b>16,713.8</b>	<b>100.00</b>

Note: Amounts are estimated on the basis of the life cycle stage at which the API individual projects are.

The lists of the API individual projects at each stage can be found in Annexes VI through IX.

\* There are six individual projects included in structured projects that were already completed when API was set up. These projects are the following:<sup>35</sup> AMA25; AMA16; AND13; CAP91; GUY42; GUY43.

The following table summarizes the distribution of the projects along the life cycle and shows the ones that have not changed since late 2010.

<sup>34</sup> Since these projects are at the profiling stage, their amounts are likely to be reviewed and updated as progress is made in the feasibility studies.

<sup>35</sup> It should be noted that the investment amounts of the projects completed before the creation of API are not included in the calculation of the investment estimated for all the API projects.

**TABLE C.7: API PROJECTS BY LIFE CYCLE STAGE**

(number of projects)

	Profiling	Pre-execution	Execution	Completed	TOTAL
<b>TOTAL</b>	<b>22</b>	<b>52</b>	<b>20</b>	<b>7</b>	<b>101</b>
<i>Of which:</i>					
No. of projects that have not changed since late 2010	13	28	5	6	52

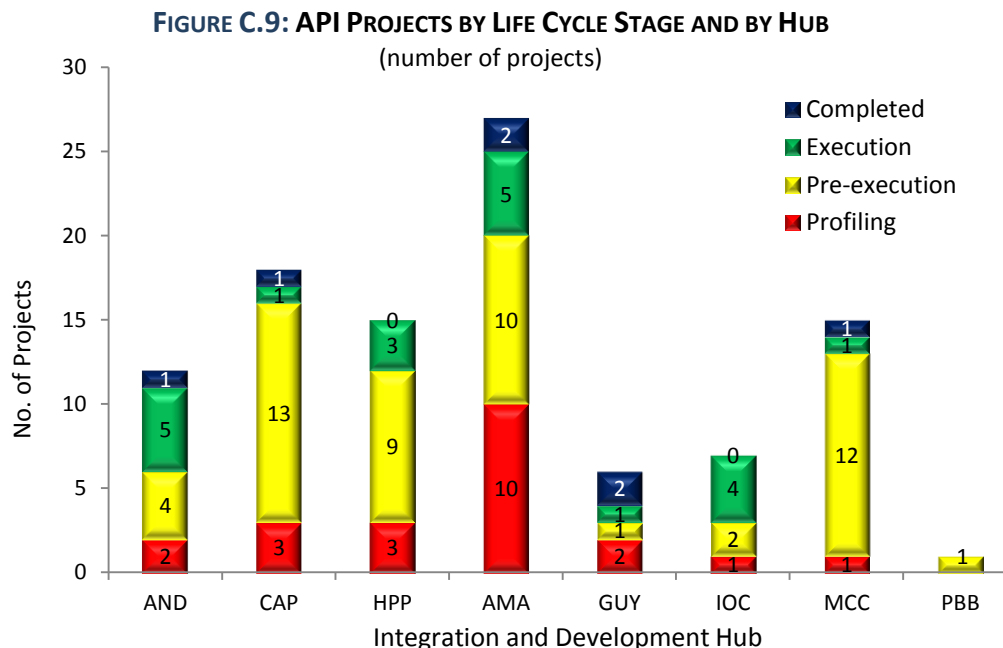
Regarding the life cycle, Table C.7 shows, first, that 59% of the projects have remained stagnant at the beginning of it, i.e. at the profiling stage, for a number of years now,<sup>36</sup> and second, that almost 54% of the projects at the pre-execution stage have remained in such phase for more than three years.<sup>37</sup>

As for the completed projects, as shown in the table, six of them were already finished before API was set up, but the decision to include them in the Agenda in spite of this fact prevailed because they complement the connectivity network involved in the structured project of which they form part. The project completed in 2012 is MCC115: Rehabilitation of the Rivera - Santana do Livramento - Cacequi Railway Section, a binational initiative of Brazil and Uruguay included in structured project Montevideo-Cacequi Railway Corridor that involved an investment of about US\$5,000,000.

In terms of the current status by Hub, the figure below shows that more than half of the projects in each Hub are at the pre-execution, execution and completed stages, and that the pre-execution stage prevails in all the cases except for the Guianese Shield and the Central Interoceanic Hubs. The Andean and the Amazon Hubs are the ones with the greatest number of projects in execution. In five of the eight Hubs that include API projects there is at least one completed project (AND, AMA, CAP, GUY and MCC). Finally, the Amazon Hub is the one with the highest percentage of projects at the initial, profiling stage (37% of the total projects in the Hub).

<sup>36</sup> Actually, the detailed information indicates that all 13 projects were included in the Portfolio in 2004 and have remained at the profiling stage since then.

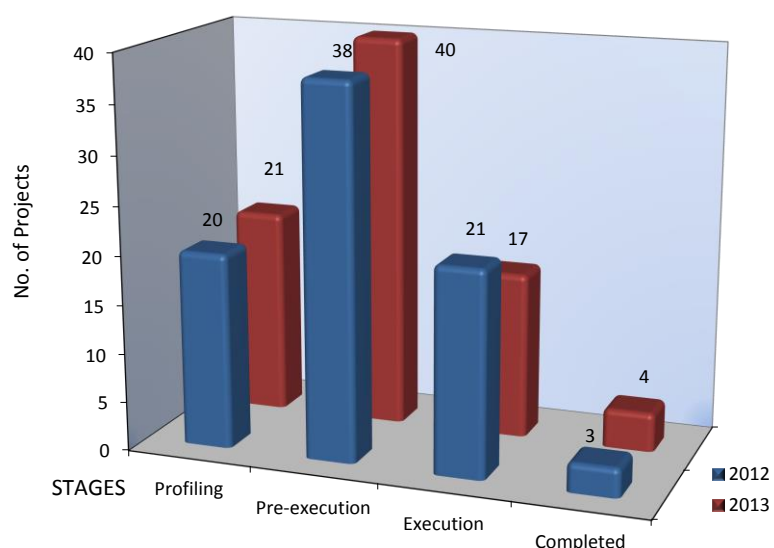
<sup>37</sup> Again, the data contained in these project files show that they have been classified at the pre-execution stage since before the end of 2010.



## ii) Evolution of the API Projects between 2012 and 2013 by Life Cycle Stage

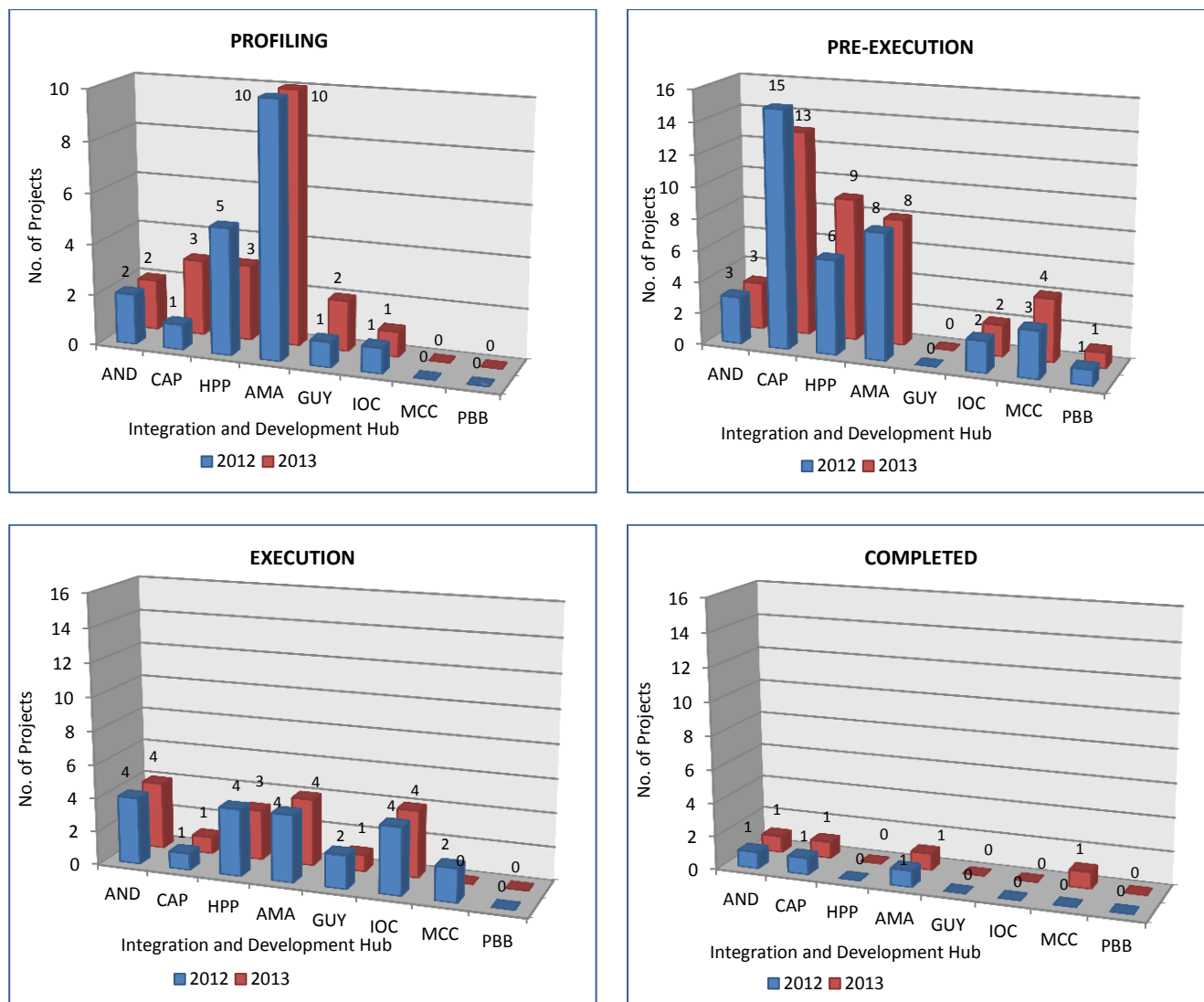
Before examining the evolution of the API projects according to their life cycle stages between 2012 and 2013, clarification needs to be made with regard to the universe of projects in question. As mentioned in subsection 1 above, of the 88 individual projects contained in the Agenda in 2012, 82 remained unchanged this year, while the other six, which involved works with a complexity that posed obstacles to their monitoring, were disaggregated into 19 new, simpler individual projects. Therefore, the analysis of project progress between 2012 and 2013 will focus only on the 82 individual projects that remained unchanged in terms of their scope during such period in order to make the results comparable.

**FIGURE C.10: EVOLUTION OF THE API PROJECTS BETWEEN 2012 AND 2013 BY LIFE CYCLE STAGE**  
(number of projects)



Note: For the purposes of comparing the life cycle stages of the projects, the figure shows the 82 API individual projects that have not changed in scope between 2012 and 2013 (see text).

**FIGURE C.11: EVOLUTION OF THE API PROJECTS BETWEEN 2012 AND 2013 BY LIFE CYCLE STAGE AND BY HUB**  
(number of projects)



Note: For the purposes of comparing the life cycle stages of the projects, the figure shows the 82 API individual projects that have not changed in scope between 2012 and 2013 (see text).

On the basis of the change in stage of the projects from 2012 to 2013, as shown in Figures C.10 and C.11, the following can be stated:

**OF THE 82 API INDIVIDUAL PROJECTS THAT REMAINED UNCHANGED IN TERMS OF SCOPE BETWEEN EARLY 2012 AND OCTOBER 2013:**

- **63 REMAINED AT THE SAME STAGE, WITH 14 OF THEM SHOWING PROGRESS IN TERMS OF SUB-STAGES:**
  - 15 remained at the profiling stage
  - 31 remained at the pre-execution stage with the following details:
    - ✓ 9 of them *made progress between the different pre-execution sub-stages* over the above-mentioned period of time
    - ✓ 15 remained at the same sub-stage, thus showing no progress
    - ✓ 7 are not included in the analysis since no information in this regard is available
  - 14 remained at the execution stage with the following details:
    - ✓ 5 of them *made progress between the different execution sub-stages* over the above-mentioned period of time
    - ✓ 7 remained at the same sub-stage, thus showing no progress
    - ✓ 2 are not included in the analysis since no information in this regard is available
  - 3 were already completed
- **9 MADE PROGRESS BETWEEN STAGES**
  - 5 that were at the profiling stage in 2012 moved on to subsequent stages in 2013:
    - ✓ 4 moved on to the pre-execution stage
    - ✓ 1 moved on to the execution stage
  - 4 that were at the pre-execution stage in 2012 moved on to subsequent stages in 2013:
    - ✓ 3 moved on to the execution stage
    - ✓ 1 was completed
- **10 WERE RECLASSIFIED AND MOVED BACK TO PRECEDING STAGES:**
  - 3 were at the pre-execution stage in 2012 and were moved back to the profiling stage in 2013
  - 2 were at the execution stage in 2012 and were moved back to the profiling stage in 2013
  - 5 were at the execution stage in 2012 and were moved back to the pre-execution stage in 2013

Note: These reclassifications are the result of the review of the information carried out during the project life cycle scheduling exercise.

To sum up, in terms of the universe of 82 projects, 23 of them (28%) made progress between stages or sub-stages of their life cycle, whereas 10 projects moved back to previous stages of their life cycle on account of the reclassification following the review and analysis of the project life cycle schedule.

Table C.8 below shows the current status as of the date of this report regarding the distribution of the projects among the stages and sub-stages.

**TABLE C.8: API PROJECTS IN 2013 BY LIFE CYCLE STAGES AND SUB-STAGES** <sup>(1)</sup>  
(percentage and number of projects)

	PROJECT STAGES AND SUB-STAGES										
	PROFILING	PRE-EXECUTION					EXECUTION				COMPLETED
	25.6%	48.8%					20.7%				4.9%
	(21)	(40)					(17)				(4)
	Initial status	Financing for studies approved	Studies completed	Approved studies	Permits granted	Financing for works approved	First quarter of works	Second quarter of works	Third quarter of works	Fourth quarter of works	Works handed over
% and No. of projects (schedule completed) <sup>(2)</sup>	100.0%	32.5%	10.0%	12.5%	17.5%	7.5%	53.0%	17.6%	17.6%	0.0%	100.0%
	(21)	(13)	(4)	(5)	(7)	(3)	(9)	(3)	(3)	(0)	(4)
% and No. of projects (not scheduled) <sup>(3)</sup>	0.0%	20.0%					11.8%				0.0%
	(0)	(8)					(2)				(0)

Notes:

- (1) The numbers and percentages shown are based on the universe of the 82 comparable projects.
- (2) The values shown for each stage/sub-stage represent the percentage and number of the projects whose life cycle schedule has been completed. The total percentage (100%) is based on the total projects in each stage.
- (3) The values shown for each stage represent the percentage and number of the projects whose life cycle schedule has not been completed. The total percentage (100%) is based on the total projects in each stage.
- (4) According to the Project Life Cycle Methodology (see Annex I), the scope of the pre-execution sub-stages is as follows:
  - Financing for studies: This sub-stage will be deemed completed when the financial resources needed to carry out the studies are available and all the institutional arrangements (e.g. awarding the studies through tender processes) have been made.
  - Studies completed: Studies will be considered to be completed when the study representing the maximum level required by the project concerned to move to the “approved studies” sub-stage has been completed.
  - Approved studies: This sub-stage will be deemed completed upon approval of the studies representing the highest level required for the project.
  - Permits granted: This sub-stage will be deemed completed only when all permits have been granted and/or all the institutional formalities required by the project to move to the execution stage have been carried out.
  - Financing for works approved: This sub-stage will be deemed completed when the project has been allocated the financial resources for executing the works and the required institutional formalities have been carried out.

On the basis of the overall distribution of the projects among each stage and of their degree of progress between each sub-stage (see Table C.8), the following conclusions can be drawn:

In the case of the pre-execution stage, 15 of the 40 projects shown in the table are at an advanced level as their studies have been completed and approved, and several of them are currently at the subsequent sub-stages, i.e. permits granted and financing approved.<sup>38</sup>

As for the other projects at the pre-execution stage, the financing needed to carry out the studies for many of them (13) is already available, and such studies have been completed in the case of four of them but their approval is still pending.

Only three of the 17 projects at the execution stage are at an advanced level, i.e. more than half of the works involved have been completed.

### iii) API Prospects

Based on the data provided by the countries in the CMS life cycle schedule section for the 101 individual projects included in API, the prospects for progress over the next few years are as follows.

#### OF THE 22 API INDIVIDUAL PROJECTS AT THE PROFILING STAGE:

- 3 are expected to obtain the resources for their studies by the end of 2013
- 10 are expected to obtain the resources for their studies in 2014
- 2 are expected to obtain the resources for their studies in 2017
- 7 have no information available in this regard

Note: In the case of four of the projects at the profiling stage, there might be deviations from their schedule for institutional reasons (lack of definition of the State agency in charge of the studies, obstacles posed by the regulatory framework, and problems in the determination of the scope of responsibility of the government institutions concerned, among others).

#### OF THE 52 API INDIVIDUAL PROJECTS AT THE PRE-EXECUTION STAGE:

- 16 are expected to complete such stage in 2013
- 14 are expected to complete such stage in 2014
- 10 are expected to complete such stage in 2015
- 4 are expected to complete such stage in 2016
- 8 have no information available in this regard

Note: In the case of four of the projects at the pre-execution stage, there might be deviations from their schedule for institutional reasons (difficulties in gathering information in the field and in the coordination with the national authorities concerned, the need to wait for the results of the feasibility study to make a decision on the project implementation alternative, and problems associated with right of way, among others).

#### OF THE 20 API INDIVIDUAL PROJECTS AT THE EXECUTION STAGE:

- 2 are expected to complete such stage in 2013
- 5 are expected to complete such stage in 2014
- 7 are expected to complete such stage in 2015
- 4 are expected to complete such stage as from 2016
- 2 have no information available in this regard

#### OF THE 7 API INDIVIDUAL PROJECTS THAT ARE ALREADY COMPLETED:

- 6 were completed before API was launched (2011)
- 1 was completed in 2012

<sup>38</sup> The information contained in the files of these projects indicates that 73% of them are financed by the public sector, 7% by the private sector, and 20% by public-private partnerships.

The following table shows the estimated year of completion of the API individual projects according to their life cycle schedule as established by each country's teams in the COSIPLAN Information System.

**TABLE C.9: ESTIMATED COMPLETION YEAR OF THE API INDIVIDUAL PROJECTS**  
(number of projects and percentage per year)

Estimated Completion Year	No. of Projects	% of Projects
Completed	7	6.9
2013	3	3.0
2014	6	5.9
2015	14	13.8
2016	15	14.8
2017	13	12.9
2018	13	12.9
2019	3	3.0
2020	4	4.0
2021	1	1.0
2022	2	2.0
2024	1	1.0
2026	1	1.0
2040	1	1.0
No information available	17	16.8
<b>TOTAL</b>	<b>101</b>	<b>100.0</b>

Notes:

(1) The projects estimated to be completed in 2013 were not finished at the time of publication of this report.

(2) The estimations in the table are based on the data available in the COSIPLAN Information System as of October 4, 2013.

As can be seen in Table C.9, 79% of the 94 API individual projects that are not completed are estimated to be finished not later than 2022, the last year of the time horizon established for the Agenda. Most of them are expected to be completed between 2013 and 2018 (68%).

Clearly, the indicators above reveal how useful the CMS is for closely monitoring project progress. The information available in the system confirms that 28% of the API projects have made some progress in the last two years, meaning that they have moved between stages and sub-stages. On the other hand, the review and reclassification process has resulted in 12.2% of the API projects being moved back to an earlier stage.<sup>39</sup> Finally, another significant fact is that, according to the current estimations, almost 80% of the API projects would be completed within the 2022 time frame established by the PAE.

<sup>39</sup> If these shares were calculated taking into account the total individual projects included in API (101), the results would be 23% and 10%, respectively.

## PART II

### API STRUCTURED PROJECTS BY HUB

This second part of the report presents detailed information about the characterization and current status of each one of the 31 structured projects of the Agenda, broken down and classified by Integration and Development Hub. The main purpose of this part is to examine each structured project in an attempt to show its connectivity potential in the Integration and Development Hub to which it belongs, using for such purpose the information contributed by the countries to the COSIPLAN Information System as of October 4, 2013.<sup>40</sup>

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<sup>40</sup> <http://www.iirsa.org/proyectos>



## 1. AMAZON HUB (BRAZIL, COLOMBIA, ECUADOR AND PERU)

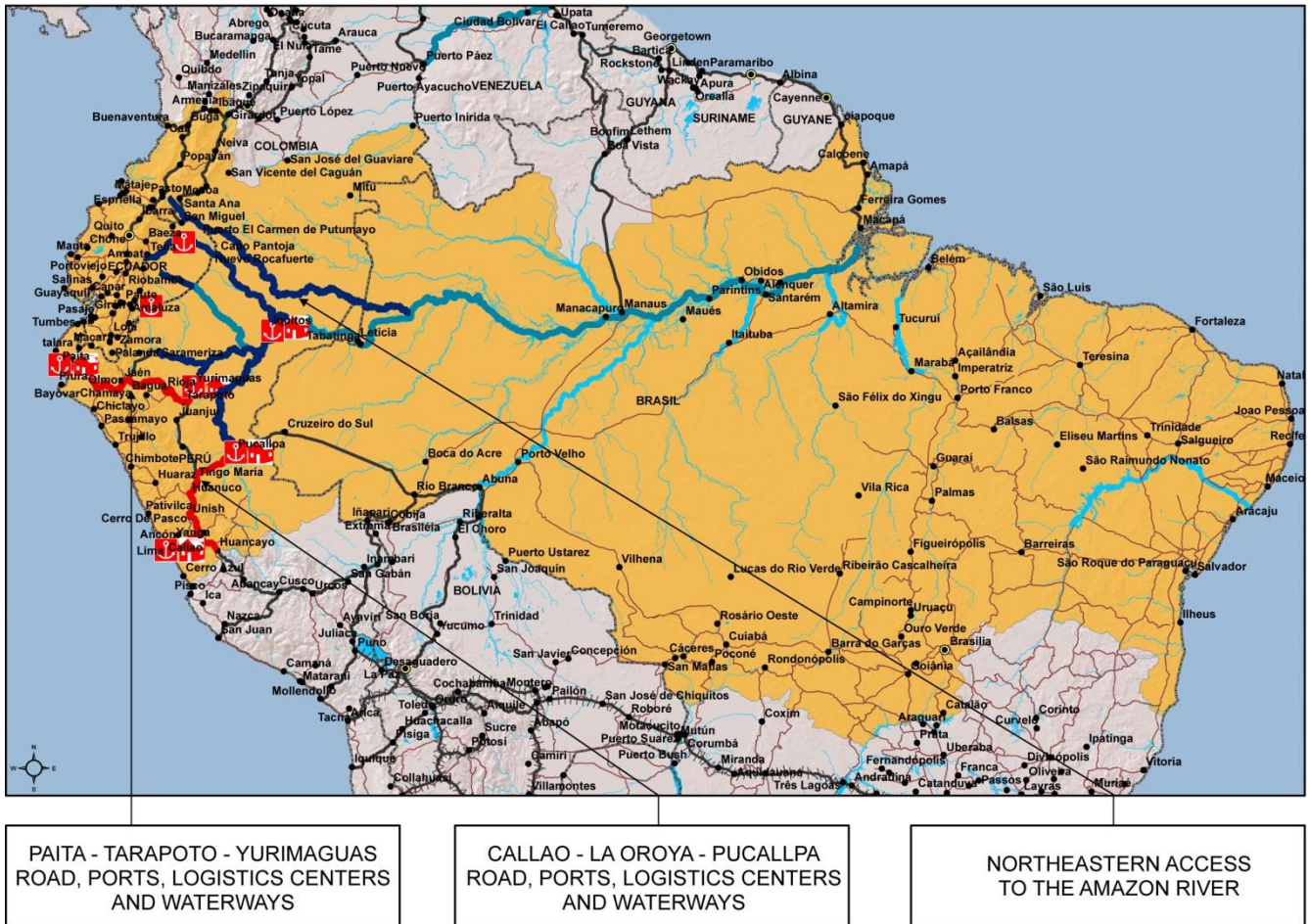
The Amazon Hub includes a large region of northern South America between the Pacific and Atlantic oceans, crossed by the Amazon river and its tributaries. It is characterized by its large extension, diverse topography (coast, Andean area, rainforest), and low population density. The area of influence defined for the Hub covers 5,657,679 km<sup>2</sup>, accounting for 50.5% of the total area of the countries that make it up.

The total population of the Amazon Hub is 61,506,049 inhabitants as of 2008, accounting for 22.2% of the total population of the countries that make it up. Furthermore, an average population density of 11 inhabitants per km<sup>2</sup> 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 104 inhabitants per km<sup>2</sup> in the Coast Region of Peru to a minimum of just over 2 inhabitants per km<sup>2</sup> in the territory of the state of Amazonas, in Brazil.

API 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 1.1 shows the 27 individual projects that make up the three structured projects of the Amazon Hub incorporated into API. The estimated investments involved amount to US\$3,475.4 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, river, and logistics centers projects that are likely to leverage four trimodal 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.

MAP 1.1: API PROJECTS – AMAZON HUB



**TABLE 1.1: API PROJECTS – AMAZON HUB**

No.	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
1	AMA	PAITA - TARAPOTO - YURIMAGUAS ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS	PERU	478.4	AMA16	TARAPOTO - YURIMAGUAS ROAD	PE	G3	COMPLETED*	231,712,828
					AMA20	PAITA LOGISTICS CENTER	PE	G3	PROFILING	47,650,000
					AMA21	YURIMAGUAS LOGISTICS CENTER	PE	G3	PROFILING	15,000,000
					AMA24	PAITA PORT	PE	G3	EXECUTION	266,922,000
					AMA25	PAITA - TARAPOTO ROAD	PE	G3	COMPLETED*	0
					AMA40	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE HUALLAGA RIVER WATERWAY, BETWEEN YURIMAGUAS AND THE CONFLUENCE WITH MARAÑÓN RIVER	PE	G6	PRE-EXECUTION	33,000,000
					AMA41	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MARAÑÓN RIVER WATERWAY, BETWEEN SARAMERIZA AND THE CONFLUENCE WITH UCAYALI RIVER	PE	G6	PRE-EXECUTION	11,000,000
					AMA44	IQUITOS LOGISTICS CENTER	PE	G6	PROFILING	15,000,000
					AMA56	MODERNIZATION OF IQUITOS PORT	PE	G6	PRE-EXECUTION	39,550,000
					AMA102	CONSTRUCTION OF NEW YURIMAGUAS PORT	PE	G3	PRE-EXECUTION	50,325,762
2	AMA	CALLAO - LA OROYA - PUCALLPA ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS	PERU	2,936.2	AMA104	CONSTRUCTION OF NEW PUCALLPA PORT	PE	G4	PRE-EXECUTION	117,763,000
					AMA26	IMPROVEMENT OF TINGO MARÍA - PUCALLPA ROAD	PE	G4	EXECUTION	462,451,169
					AMA30	PUCALLPA INTERMODAL LOGISTICS CENTER	PE	G4	PROFILING	15,000,000
					AMA31	MODERNIZATION OF EL CALLAO PORT (NEW CONTAINER DOCK)	PE	G4	EXECUTION	704,835,670
					AMA32	LIMA - RICARDO PALMA EXPRESSWAY	PE	G4	PROFILING	242,000,000
					AMA43	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE UCAYALI RIVER WATERWAY, BETWEEN PUCALLPA AND THE CONFLUENCE WITH MARAÑÓN RIVER	PE	G6	PRE-EXECUTION	19,000,000
					AMA63	IIRSA CENTER, SECTION 2: RICARDO PALMA - LA OROYA - TURN OFF TO CERRO DE PASCO / LA OROYA - HUANCAYO	PE	G4	PRE-EXECUTION	100,000,000
					AMA64	IIRSA CENTER, SECTION 3: TURN OFF TO CERRO DE PASCO - TINGO MARÍA	PE	G4	PROFILING	115,606,060
					AMA65	EL CALLAO LOGISTICS ACTIVITIES ZONE (ZAL CALLAO)	PE	G4	PROFILING	155,755,500
					AMA66	EL CALLAO MULTI-PURPOSE NORTHERN TERMINAL	PE	G4	EXECUTION	883,482,448
					AMA67	EL CALLAO MINERAL SHIPPING TERMINAL	PE	G4	EXECUTION	120,300,000
3	AMA	NORTHEASTERN ACCESS TO THE AMAZON RIVER	BRAZIL/ COLOMBIA /ECUADOR/ PERU	60.8	AMA37	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE IÇÁ RIVER	BR	G6	PROFILING	8,000,000
					AMA38	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PUTUMAYO RIVER	CO - EC - PE	G6	PRE-EXECUTION	15,000,000
					AMA39	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MORONA RIVER	EC - PE	G6	PROFILING	2,000,000
					AMA42	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NAPO RIVER	EC - PE	G6	PROFILING	5,759,000
					AMA45	MORONA FREIGHT TRANSFER PORT	EC	G7	PRE-EXECUTION	5,000,000
					AMA71	PROVIDENCIA PORT	EC	G2	PRE-EXECUTION	25,000,000

\* These two individual projects were completed before the creation of API and incorporated into the Agenda because they supplement the connectivity network of the structured project.

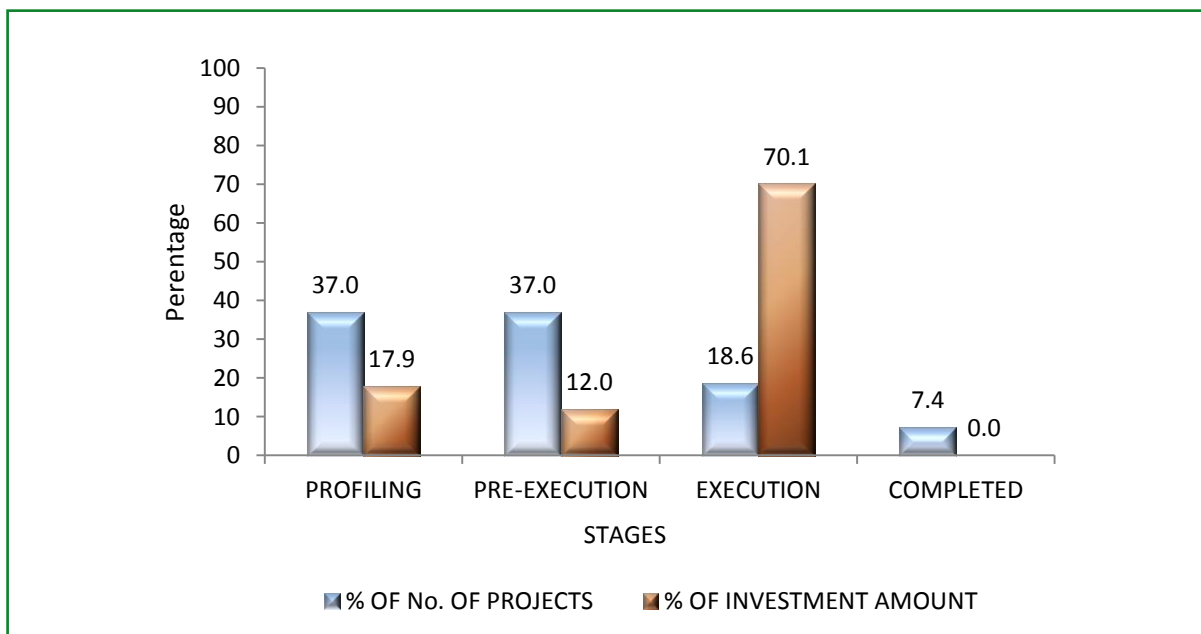
**TABLE 1.2: API PROJECTS – AMAZON HUB BY LIFE CYCLE STAGE**  
(number of projects, million US\$, and percentage)

PROJECT STAGE	No. OF PROJECTS	% OF PROJECTS	INVESTMENT AMOUNT	% OF INVESTMENT AMOUNT
PROFILING	10	37.0	621.8	17.9
PRE-EXECUTION	10	37.0	415.6	12.0
EXECUTION	5	18.6	2,438.0	70.1
COMPLETED (*)	2	7.4	0.0	0.0
<b>TOTAL</b>	<b>27</b>	<b>100.0</b>	<b>3,475.4</b>	<b>100.0</b>

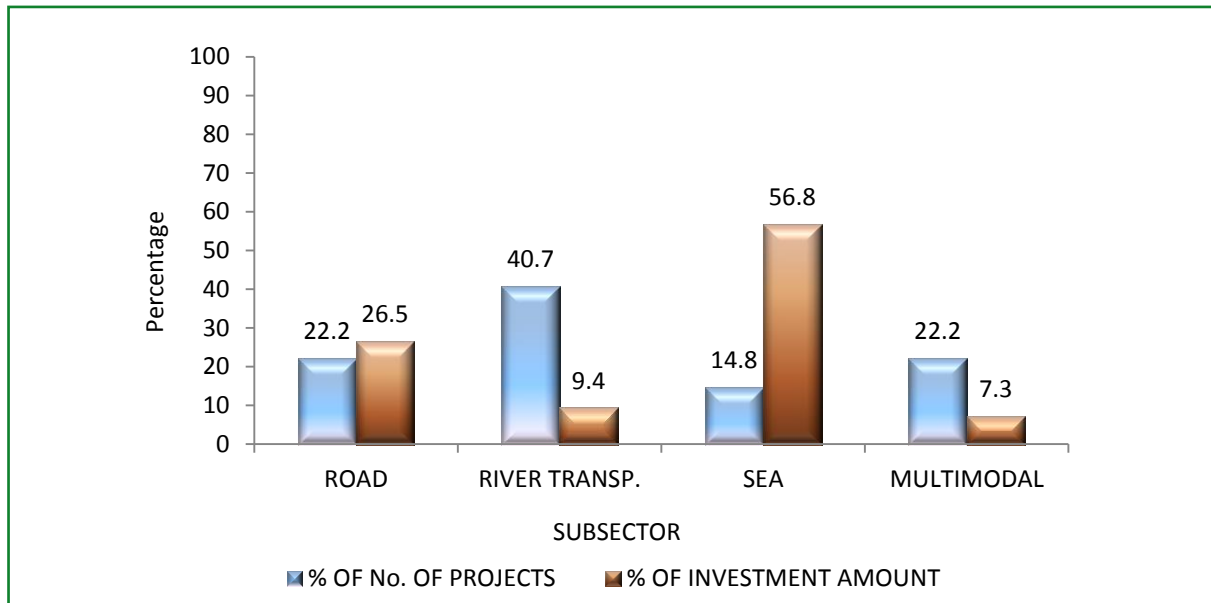
Note: Amounts are estimated on the basis of the life cycle stage at which the API individual projects are.

(\*) There are two projects included in a structured project of this Hub that were already completed when API was set up. These projects are AMA25 and AMA 16 and their investment amounts (not included in the total) are US\$0 and US\$231.7 million, respectively.

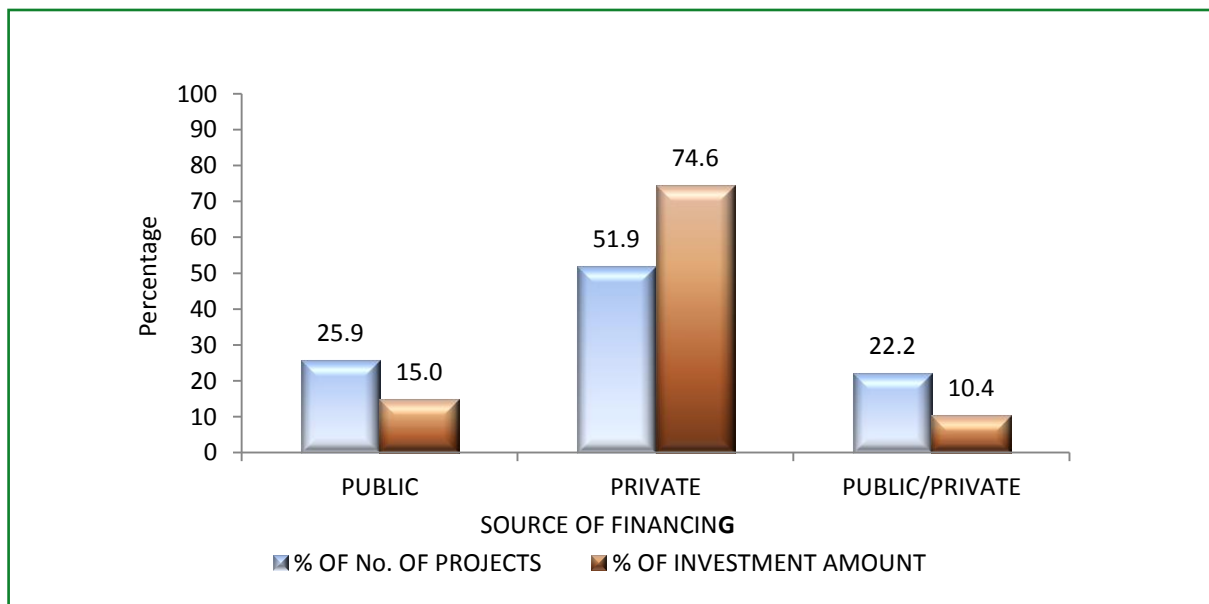
**FIGURE 1.1: API PROJECTS – AMAZON HUB BY LIFE CYCLE STAGE**  
(% of number of projects and % of investment amount)



**FIGURE 1.2: API PROJECTS – AMAZON HUB BY SUBSECTOR**  
(% of number of projects and % of investment amount)



**FIGURE 1.3: API PROJECTS – AMAZON HUB BY SOURCE OF FINANCING**  
(% of number of projects and % of investment amount)



1

## PAITA - TARAPOTO - YURIMAGUAS ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS

HUB: **AMAZON**

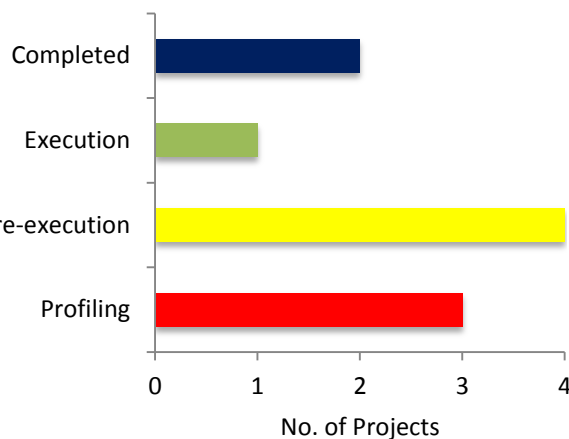
COUNTRIES: **PERU**

PROJECT TYPE: **Multimodal, Sea, Road and River Transportation**

ESTIMATED INVESTMENT: **US\$478.4 million**

SOURCE OF FINANCING: **Public-Private**

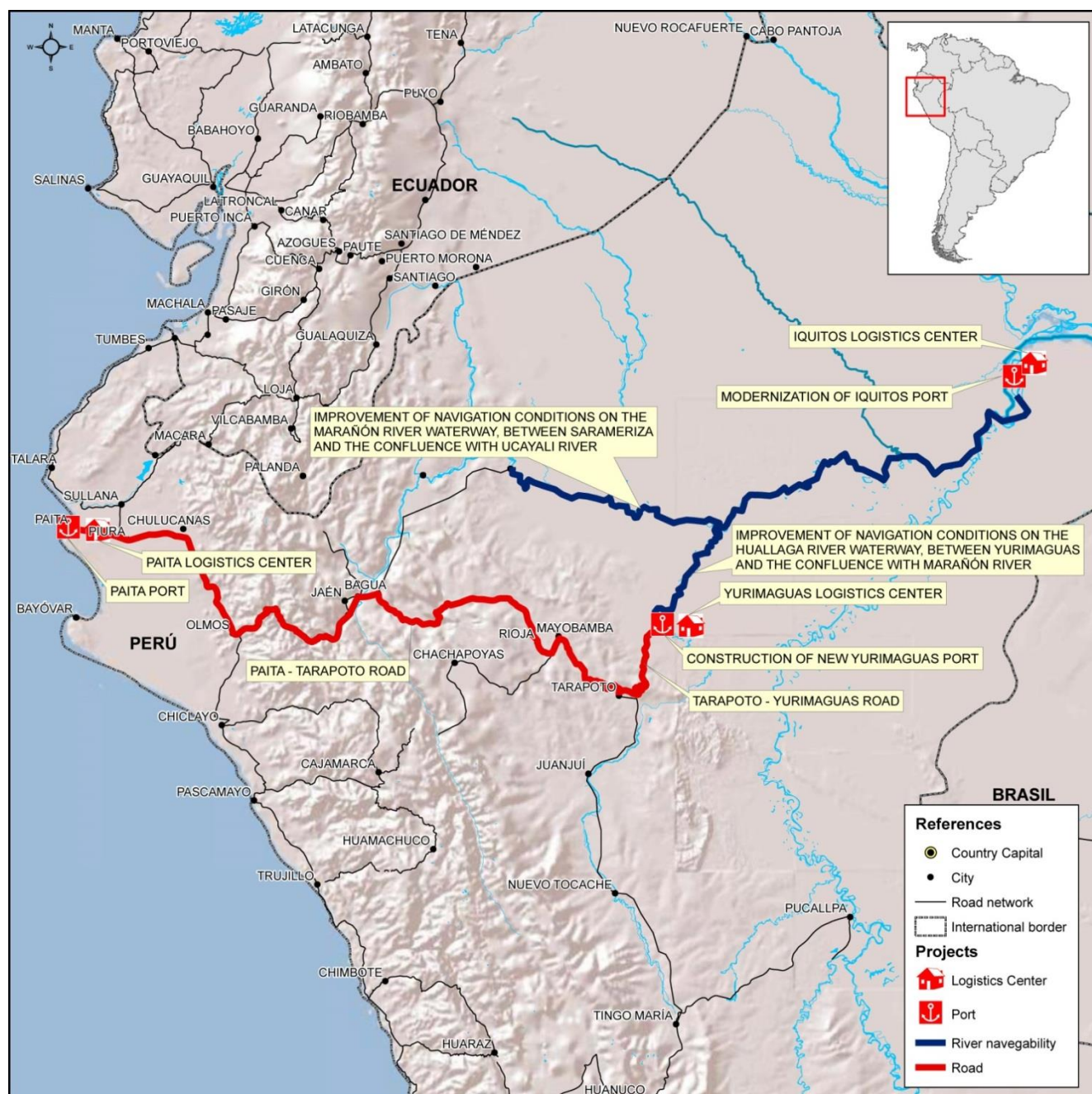
Life Cycle Stages



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
AMA16	TARAPOTO - YURIMAGUAS ROAD	PE	COMPLETED	231,712,828
AMA20	PAITA LOGISTICS CENTER	PE	PROFILING	47,650,000
AMA21	YURIMAGUAS LOGISTICS CENTER	PE	PROFILING	15,000,000
AMA24	PAITA PORT	PE	EXECUTION	266,922,000
AMA25	PAITA - TARAPOTO ROAD	PE	COMPLETED	0
AMA40	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE HUALLAGA RIVER WATERWAY, BETWEEN YURIMAGUAS AND THE CONFLUENCE WITH MARAÑÓN RIVER	PE	PRE-EXECUTION	33,000,000
AMA41	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MARAÑÓN RIVER WATERWAY, BETWEEN SARAMERIZA AND THE CONFLUENCE WITH UCAYALI RIVER	PE	PRE-EXECUTION	11,000,000
AMA44	IQUITOS LOGISTICS CENTER	PE	PROFILING	15,000,000
AMA56	MODERNIZATION OF IQUITOS PORT	PE	PRE-EXECUTION	39,550,000
AMA102	CONSTRUCTION OF NEW YURIMAGUAS PORT	PE	PRE-EXECUTION	50,325,762

1

## PAITA - TARAPOTO - YURIMAGUAS ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS



## RATIONALE

This project is structured to connect the coast, sierra and rainforest regions in the northern area of Peru with Brazil (Manaus) and, eventually, with the Atlantic ocean, with a view to promoting trade and complementarity among the different areas involved. The project is very significant since it is meant to streamline logistics in a large corridor that articulates densely populated areas such as the Piura Region with emerging, low population density areas in the rainforest. All the most dynamic cities on the northern coast of Peru may be linked to this Northern Branch of the Amazon Hub, which, in turn, connects the most densely populated department in the Peruvian sierra region (Cajamarca) with three departments located in the rainforest (Amazonas, San Martín, and Loreto).

Joint declarations by the Brazilian and Peruvian governments express their commitment to the development of the states concerned and their neighboring areas, and underscore the importance they attach to the promotion of trade through better regional connectivity and border development.

The Paita-Tarapoto-Yurimaguas road project is currently under concession; its rehabilitation and improvement works have been completed. The connection between the three areas (coast, sierra, and rainforest) has improved, facilitating exchange of production, trade and tourism. The infrastructure involved in this project is expected to improve accessibility for the benefit of the population as well as increase trade and opportunities to reach new markets in other countries under better conditions.

At present, there are regular regional transport vehicle flows in the Paita-Tarapoto-Yurimaguas road, especially in the Olmos turn-off-Tarapoto section, as traffic from the city of Chiclayo (sometimes originating in Lima) to Tarapoto, cities located along the way (Bagua, Moyobamba, Rioja) and connecting cities (Jaén, San Ignacio, Saramiriza) is significant. There is also river transportation, both of cargo and passengers, from Yurimaguas to Iquitos and intermediate locations.

The goal is that this structured project will operate as a multimodal corridor for international transportation to and from Brazil along the Amazon river. In the right conditions, this flow should be sequential and complementary, ensuring orderly and free-flowing transportation.

In relation to complementarity, the uneven economic and social development of the Peruvian regions and their production potential (the modern and industrialized coast, the extractive and/or agricultural activities in the sierra and rainforest areas) should be borne in mind. This project will ensure the complementarity of the roles played by the different regions.

Regarding border development, trade among border populated centers is expected to increase as a result of the operation of the five road axes for the integration of Peru and Ecuador, linked to the infrastructure involved in the project, as a multimodal corridor that would enable connection with Brazil. In order to attain this objective, logistics services in ports, roads and waterways must also be improved, for which purpose the Transport Logistics Services Development Plan has been implemented, which establishes the strategy to be used to minimize the costs associated with transport following a logistics corridor approach, including the operation of logistics centers or platforms along the IIRSA Norte corridor in areas adjacent to the ports of Paita, Yurimaguas and Iquitos.

As can be inferred from above, the implementation of this structured project seeks to ensure the viability of international transport between Peru and Brazil and its extension to the basins of both the Pacific and Atlantic oceans, as well as to reinforce the development of the northeastern region of Peru through the improvement of the links among its departments: the Paita-Yurimaguas road and the Huallaga, Marañón and Amazon waterways are the backbone of this macroregion, in which a network of national and regional highways and the tributaries of such rivers converge. This will also contribute to the development of the border areas, which calls for multi-sectoral, concerted actions mainly related to undertaking social projects.

The most important impacts of the development of the Paita-Yurimaguas infrastructure are associated with reduced travel times, increased traffic, and stimulated socioeconomic activities, particularly along the Tarapoto-Yurimaguas section, where farming areas devoted to the production of inputs for processed goods for export have grown considerably.

Thus, trade flows along this infrastructure are expected to include the transportation of the phosphates exploited at the Bayóvar mine, located in the Pacific coastal area of the department of Piura, to the agricultural production areas in Brazil, which are currently carried by sea. The trade flows in this direction would also incorporate the transport of the Manaus Industrial Free Trade Zone production inputs imported from Asian countries.

In the opposite direction, cargo transport flows would be associated with products from the Manaus industrial center to the markets located on the western Pacific coast of South America. These flows, however, will materialize only as long as transport costs are competitive and lower than now, which requires the prioritization of actions aimed at reducing transport logistics costs.

In the social domain, the Paita-Yurimaguas road has already a great impact on the northeastern region of Peru, particularly on areas that were poorly connected in the past but now are linked by a first-rate highway, mainly the Tarapoto-Yurimaguas stretch. This has led to a considerable expansion of agricultural areas, primarily devoted to the production of palm hearts and of oil palms both for the Peruvian coastal markets and for export. This dynamism of the regional economy undoubtedly enhances the quality of life of the inhabitants of these areas and also facilitates access to the benefits of a globalized world.

The program of complementary actions is intended to have all district capitals (local governments) linked to the infrastructure involved in the project in the medium term (six years) at the most.

## PROPOSAL

This project links 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). 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.

The Paita-Yurimaguas Northern Amazon Corridor spans 955 km across the departments of Piura, Lambayeque, Cajamarca, Amazonas, San Martín and Loreto, which total an area of 542,727 km<sup>2</sup> (42% of the national territory) and a population of 6.4 million (22% of the country's population).

At present, there are two aspects limiting the navigability of the Amazonian waterways and rendering them less competitive, namely:

- Navigation conditions: inadequate channels, submerged tree trunks and branches, sand deposition on riverbeds, changes in the course of rivers, and lack of signs and markers;
- Informal river transport services.

In order to further a solution to these problems, feasibility and navigability studies have been conducted for the rivers with the greatest potential for the development of trade flows; such studies are being used as a basis for awarding concessions for the operation and maintenance of the waterways. Furthermore, a National Waterway Plan is being developed with the purpose of channeling investments into the efficient exploitation of this transport network.

The Paita port development consists in the enlargement, improvement and modernization of its facilities by the firm holding its concession, as this is the second major port in Peru and an important entry/exit point for cargo traffic on the northern coast of the country. The Yurimaguas port terminal needs to be relocated, since its present facilities cannot be expanded because they are in an urban area and the proposed location (20 km away) is better due to the characteristics of the river and the space available. The access road to the new port is almost finished.

In order to make trade flows more efficient and reduce the logistics costs associated with transport, new logistics platforms will be built in Paita and Yurimaguas (and, probably, also in Iquitos), which will be licensed to the private sector under a concession arrangement. In the case of Paita, basic engineering studies have been completed, including the design of civil works and equipment, whereas the studies for the Yurimaguas logistics platform need to be carried out.

## PROGRESS ANALYSIS AND ASSESSMENT

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 Plan 2004-2023), the Transport Logistics Services Development Plan, the Strategic Plan 2012-2016 of the Transport and Communications Sector, and Peru's National Port Development Plan (designed by the Port Authority).

The Paita-Yurimaguas road corridor is completed (wearing course rehabilitation works on the Paita-Tarapoto section, and paving of the Tarapoto-Yurimaguas stretch), and some complementary works, such as the access road to the new port of Yurimaguas, are in execution. In addition, there are plans to build the Piura bypass road: its feasibility study has already been undertaken by the firm holding the concession.

The port of Paita has been handed over to a concessionaire. The first stage works to build a new container terminal started in June 2012. As of March 2013, the total investment was US\$39.4 million.

The concession for the construction of the new Yurimaguas port has been awarded, and the firm holding the concession has completed the technical file for the first stage. The commencement of works is contingent on the completion of the access road to the port (a 9.4-km road under construction). The works are expected to commence in the fourth quarter of 2013.

As far as waterways are concerned, the study known as “Improvement and Maintenance of the Navigation Conditions on the Ucayali, Huallaga, Marañón and Amazon Rivers” has already been approved with the Declaration of Feasibility by the Transport Sector and is being developed by PROINVERSIÓN, in its capacity as an entity specialized in the promotion of private investment, which will continue this concession process, to be co-financed by the Peruvian State.

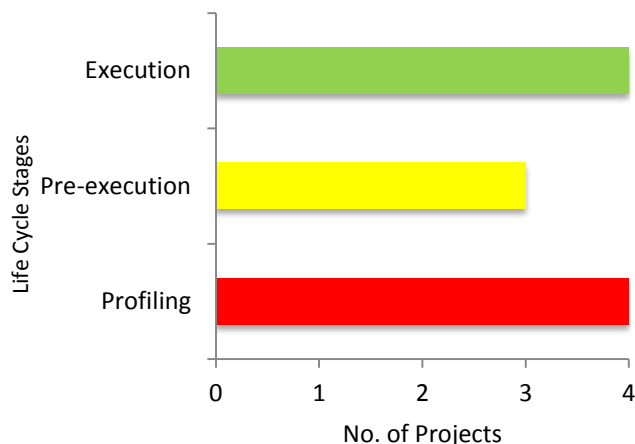
At present, the concession of the waterway system of the rivers in the Peruvian Amazonia is being promoted; it is expected to be awarded during the first quarter of 2014, and the works are to commence in 2016.

As for the logistics centers, a basic design study has been completed for the one planned for Paita, including its location and the determination of the necessary investments. No studies for the Yurimaguas and Iquitos centers are available.

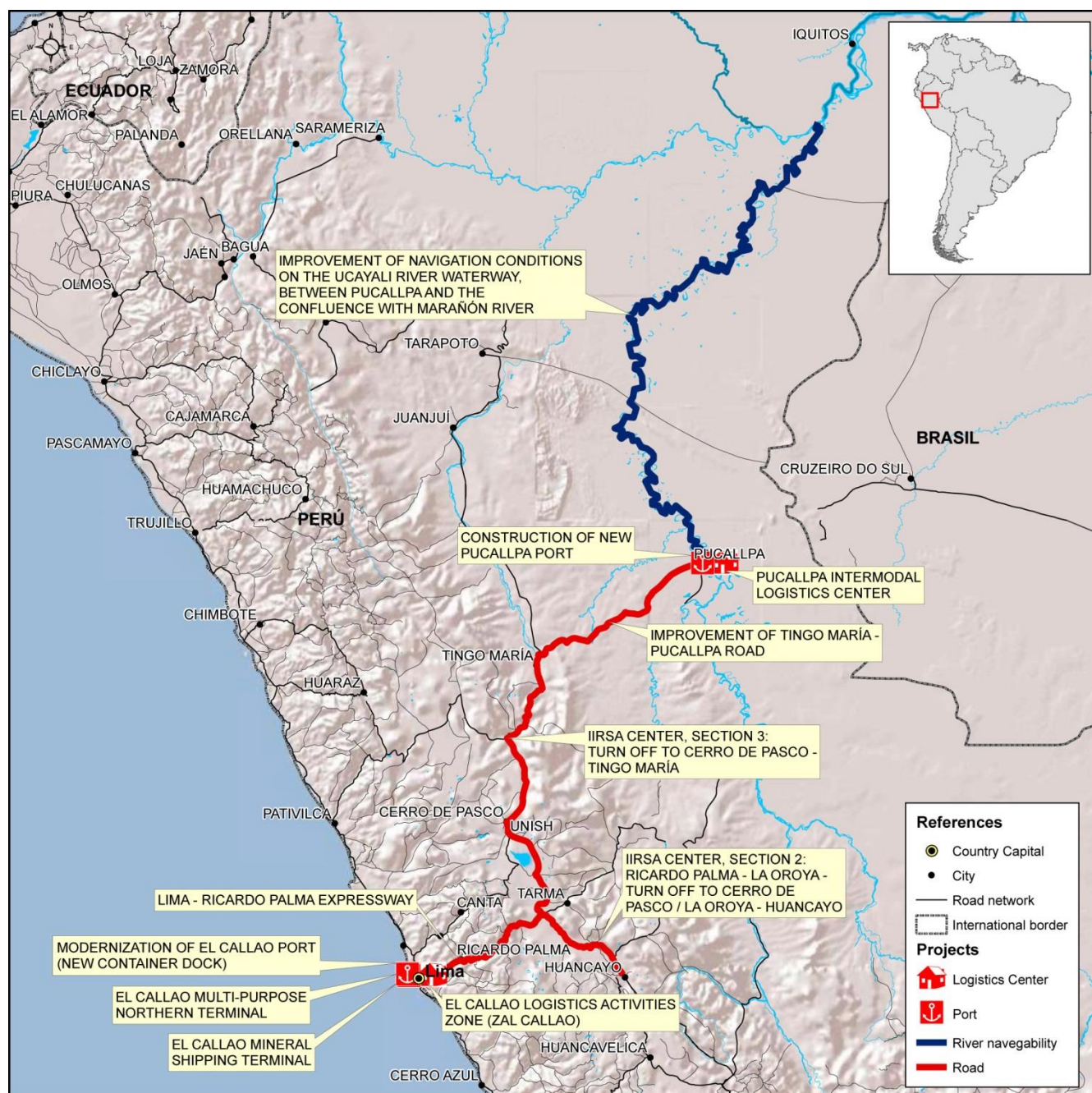
The varying degrees of progress of the individual projects affect the operability of the structured project, as this poses an obstacle to seamless transport flows. While the road component has been completed, the ports and waterways works are yet to be executed. Once these implementation lags are overcome, transportation along this corridor is expected to be much better.

In Peru, environmental licenses and permits must be necessarily obtained prior to project implementation, including the approval of the environmental impact assessment studies before the project execution stage.

Even though no coordinating body has been expressly appointed to efficiently manage the structured project, the Budget and Planning Office, under the purview of the Peruvian Ministry of Transport and Communications, has been monitoring the progress of the individual projects and taking action to accelerate the process, even in a complex context, on the basis of the results of the Transport Logistics Services Development Plan.

**HUB: AMAZON**
**COUNTRIES: PERU**
**PROJECT TYPE: Multimodal, Sea, Road and  
River Transportation**
**ESTIMATED INVESTMENT: US\$2,936.2 million**
**SOURCE OF FINANCING: Public-Private**


DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
AMA104	CONSTRUCTION OF NEW PUCALLPA PORT	PE	PRE-EXECUTION	117,763,000
AMA26	IMPROVEMENT OF TINGO MARÍA - PUCALLPA ROAD	PE	EXECUTION	462,451,169
AMA30	PUCALLPA INTERMODAL LOGISTICS CENTER	PE	PROFILING	15,000,000
AMA31	MODERNIZATION OF EL CALLAO PORT (NEW CONTAINER DOCK)	PE	EXECUTION	704,835,670
AMA32	LIMA - RICARDO PALMA EXPRESSWAY	PE	PROFILING	242,000,000
AMA43	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE UCAYALI RIVER WATERWAY, BETWEEN PUCALLPA AND THE CONFLUENCE WITH MARAÑÓN RIVER	PE	PRE-EXECUTION	19,000,000
AMA63	IIRSA CENTER, SECTION 2: RICARDO PALMA - LA OROYA - TURN OFF TO CERRO DE PASCO / LA OROYA - HUANCAYO	PE	PRE-EXECUTION	100,000,000
AMA64	IIRSA CENTER, SECTION 3: TURN OFF TO CERRO DE PASCO - TINGO MARÍA	PE	PROFILING	115,606,060
AMA65	EL CALLAO LOGISTICS ACTIVITIES ZONE (ZAL CALLAO)	PE	PROFILING	155,755,500
AMA66	EL CALLAO MULTI-PURPOSE NORTHERN TERMINAL	PE	EXECUTION	883,482,448
AMA67	EL CALLAO MINERAL SHIPPING TERMINAL	PE	EXECUTION	120,300,000



## RATIONALE

This project, also known as “Central Branch of the Amazon Hub,” is structured in order to connect the coast, sierra and rainforest regions and to open up an access to Manaus (Brazil) and overseas markets, seeking 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.

Joint declarations by the Brazilian and Peruvian governments express their commitment to the development of the states concerned and their neighboring areas, and underscore the importance they attach to the promotion of border development and trade.

Manaus is the most important industrial and trading hub in the Brazilian Amazon river basin. One of the purposes of the IIRSA Norte and IIRSA Sur interoceanic corridors is to attract part of the trade flows between Manaus and Asia across the Pacific ocean, capturing the traffic that currently uses the Panama Canal. This is contingent on the results of the cost-benefit analysis of both alternatives.

At present, there are unscheduled river transportation services between Iquitos and Manaus, provided mainly on demand.

Although the purpose of this structured project is to reach out to different destination markets of the Pacific basin through the Callao port as well as to Brazil and the Atlantic ocean through the Amazon river, it particularly seeks to connect the coast, sierra and central rainforest regions of Peru, taking into account the complementary nature of the production and consumption patterns of these regions. The central rainforest and sierra supply forestry, fruit and agricultural products to Lima and Callao, from where processed goods are carried to such region.

Thus, the Callao-Pucallpa road corridor will facilitate the integration of the city of Lima-Callao, the main production and consumption center in Peru, with the central rainforest and sierra region of the country and farther on, by river, with the northern Amazonian area of Brazil.

The city of Lima, together with Callao, hosts approximately 30% of the country’s population, 70% of its industrial production, and 52% of the government services, and also accounts for 55% of national income. This great production potential would serve as a factor to increase the flows of transport towards both eastern Peru and Brazil, which calls for improving transportation infrastructure at ports, roads, logistics platforms and waterways, as well as for implementing measures to reduce logistics costs.

The port of Callao is the most important one in Peru and on the western coast of South America. It is also the entry/exit point for the Central Amazon corridor regarding overseas destinations on one side and, on the other, the country’s central region, as well as regarding the flows of inputs and industrial goods to and from the Manaus Industrial Free Trade Zone in Brazil.

The improvement of the Tingo María-Pucallpa road is having a highly positive impact on the populated centers in the area, as it facilitates the access of their agricultural, agro-industrial and forestry products to the markets

in the central coastal and sierra regions of Peru as well as people's access to basic health care and education services, among others.

The Joint Declaration by the Presidents of Peru and Brazil dated August 2003 expressed "... their firm decision to implement the three Integration and Development Hubs of the Initiative for the Integration of Regional Infrastructure in South America (IIRSA) linking Peru and Brazil at the South American territory level -i.e. the Amazon, Central Interoceanic and Southern Interoceanic Hubs-, as they are deemed key in a regional market development and international integration strategy based on bioceanic interconnection." Furthermore, it reaffirmed "the importance attached by both governments to the integrated development of the regional economies close to the border between the two countries, which decided to conduct studies on legal instruments and mechanisms that should facilitate the flow of people and vehicles, as well as cross-border flights and trade in the border area."

In the joint statement signed in Manaus in June 2010, emphasis was placed, among other topics, on cooperation regarding river navigation and on "conducting studies with a view to building a road to connect the cities of Pucallpa and Cruzeiro do Sul, paying special attention to its social and environmental impacts." Hence, it will be necessary first to account for the economic and, particularly, social and environmental feasibility of the project prior to proposing its implementation within the IIRSA API framework.

The improvement of navigation conditions on the Amazonian waterways will allow the movement of both tradable goods and passengers between the cities of Pucallpa and Iquitos as well as facilitate access to border areas that can only be reached through the Amazon tributaries. It will also be necessary to enhance transport services, mainly the vessels operating informally, so that they provide efficient and safe transportation.

In addition, the logistics services along the area of influence of the structured project should be improved as regards facilitating the flow of transport traffic and establishing logistics platforms in the main locations of cargo origin and destination: Callao and Pucallpa.

## PROPOSAL

This project articulates i) four highways (Lima-Ricardo Palma expressway; the road linking Ricardo Palma and the turn-off to Cerro de Pasco/La Oroya-Huancayo; the road connecting the turn-off to Cerro de Pasco and Tingo María; and the Tingo María-Pucallpa road); 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). The purpose of this road axis is to link the cities of Lima and Manaus through a bimodal corridor.

Along its way, the 770-km long Callao-La Oroya-Pucallpa Road Corridor links the departments of Lima-Callao, Junín, Pasco, Huánuco and Pucallpa, which together account for a 244,000-km<sup>2</sup> area (19% of the national territory) and a population of 12.2 million (42% of the total population of the country).

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).

At present, the Lima-Pucallpa corridor is entirely paved. The current status of the road sections is the following:

- Lima - Ricardo Palma Highway: Studies are at the profiling stage. The process of expropriation is posing obstacles to the construction of the additional lanes. The municipality of Lima, within the framework of the project known as "New Roads in Lima," intends to give under concession the construction of the Lima-Ricardo Palma expressway, which at a first stage comprises the construction of the Huachipa-Los Ángeles bridge section (19.5 km).
- Ricardo Palma - La Oroya - Cerro de Pasco Turn-off: Under concession. Restructuring as well as grade-separated crossings, bypass roads and pedestrian bridges construction works will be carried out. The technical studies are being prepared. Works are estimated to commence by late 2013.
- Turn-off to Cerro de Pasco-Tingo María: (co-financed) concession scheduled to be awarded. Wearing course rehabilitation works will be undertaken. The feasibility and final studies will be carried out in a single step with the purpose of shortening the time frame.
- Tingo María - Pucallpa: (co-financed) concession scheduled to be awarded. Reconstruction of the 25-km long damaged section along the Puente Chino-Aguaytía stretch (commencement: late 2013) and upgrade of a 10-km section of the access to the city of Pucallpa to a four-lane road (the commencement of which was scheduled for September 2013) will be done with public funds.

Regarding the port terminals works, progress is as follows:

- Southern Container Dock: Under concession. In 2011, the first stage works were completed, and currently the port is operational. Commencement of the second stage works is being planned.
- Multipurpose Northern Terminal: Under concession. The technical studies have been approved, and works of the first stage commenced in the fourth quarter of 2012.
- Mineral Shipping Terminal: Under concession. In the first week of March 2013, after the dredging works were completed in December 2012, the concessionaire started the construction of the new shipping terminal.
- As for the Pucallpa port terminal, the feasibility study is being updated to provide for a new location. The final report is being reviewed, open for observations. Once the feasibility study is approved, the (co-financed) concession process will be resumed.

As far as waterway works are concerned, their implementation is being addressed in the study known as "Improvement and Maintenance of the Navigation Conditions on the Ucayali, Huallaga, Marañón and Amazon Rivers" -which has the Feasibility Declaration by the Transportation Sector- and has been commissioned to PROINVERSIÓN, in its capacity as an entity specialized in the promotion of private investment, which will further continue this concession process, to be co-financed by the Peruvian State.

At present, the concession of the waterway system of the rivers in the Peruvian Amazonia is underway; it is expected to be awarded in the first quarter of 2014, and the works are expected to commence in 2016.

With regard to the El Callao Logistics Activities Zone project, the basic design study has already been carried out. Furthermore, the process of expropriating land for the construction of a second runway at the Jorge Chávez Airport is well underway, and some of such land will be used for building the logistics platform. Pre-investment studies as well as ensuring the viability of the project are needed to initiate the concession process.

The varying degrees of progress of the individual projects affect the operability of the structured project, as this poses an obstacle to seamless transport flows. The entire Lima-Pucallpa corridor is already paved with asphalt, but upgrading some sections to an expressway, rehabilitating some critical stretches, building bypass roads and constructing grade-separated crossings is still pending, as are the completion of ports and waterways development and a significant improvement of the Callao port access roads. Once these implementation lags are overcome, transportation along this corridor is expected to be much better.

### 3

## NORTHEASTERN ACCESS TO THE AMAZON RIVER

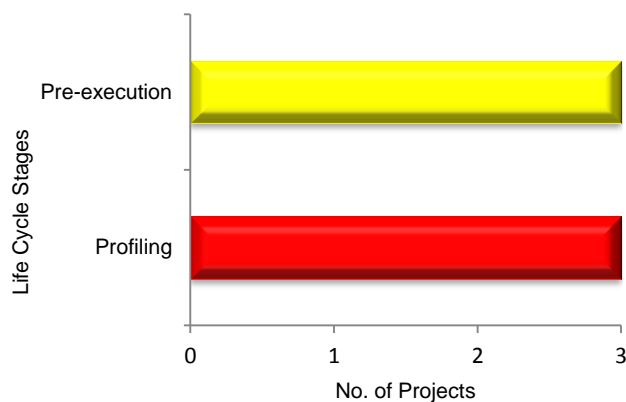
HUB: **AMAZON**

COUNTRIES: **BRAZIL – COLOMBIA – ECUADOR  
– PERU**

PROJECT TYPE: **Multimodal and River  
Transportation**

ESTIMATED INVESTMENT: **US\$60.8 million**

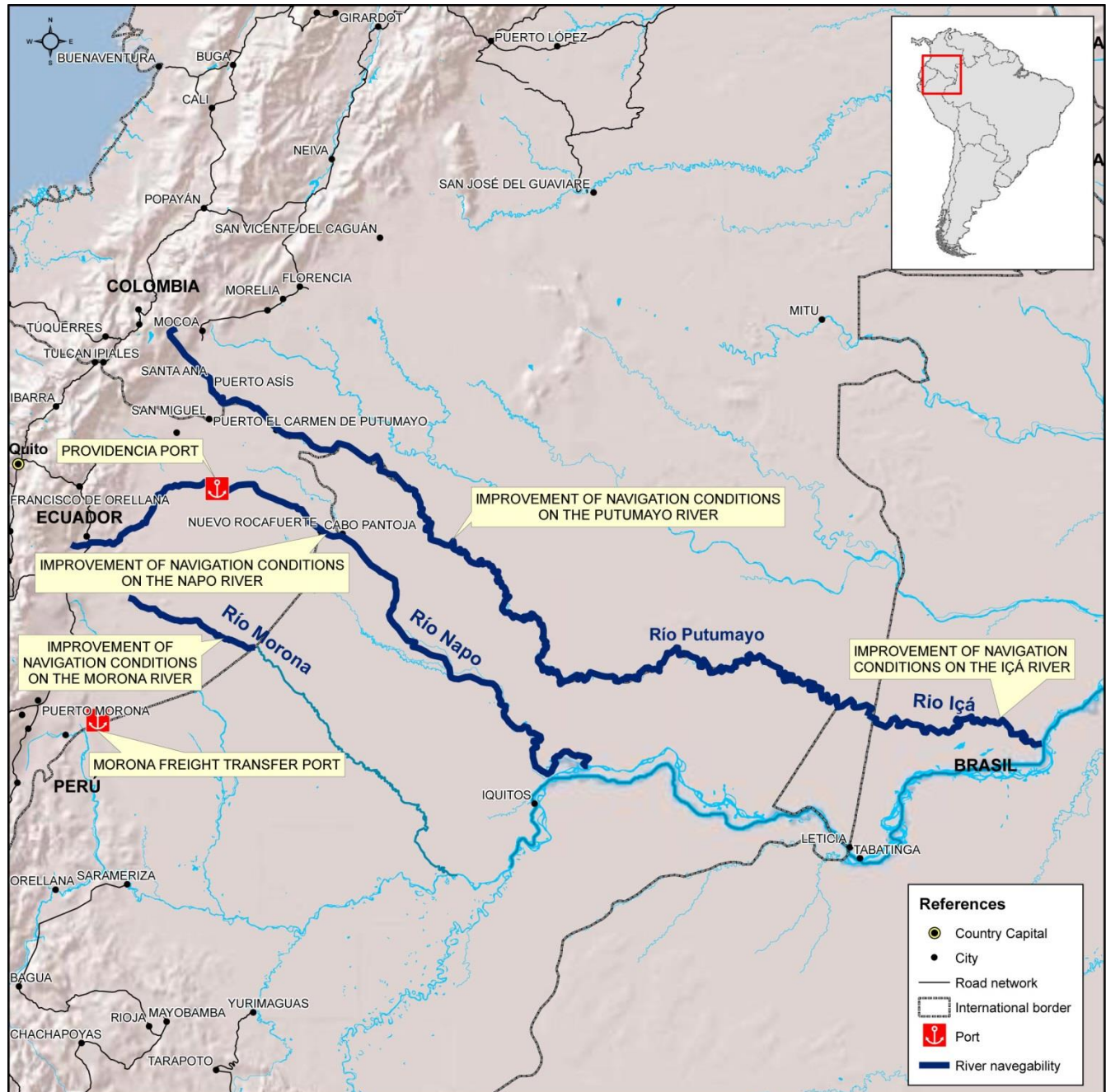
SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>AMA37</b>	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE IÇÁ RIVER	BR	PROFILING	8,000,000
<b>AMA38</b>	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PUTUMAYO RIVER	CO - EC - PE	PRE-EXECUTION	15,000,000
<b>AMA39</b>	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MORONA RIVER	EC - PE	PROFILING	2,000,000
<b>AMA42</b>	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NAPO RIVER	EC - PE	PROFILING	5,759,000
<b>AMA45</b>	MORONA FREIGHT TRANSFER PORT	EC	PRE-EXECUTION	5,000,000
<b>AMA71</b>	PROVIDENCIA PORT	EC	PRE-EXECUTION	25,000,000

### 3

## NORTHEASTERN ACCESS TO THE AMAZON RIVER



## RATIONALE

This project seeks to tap into the complementarities of the different natural regions of Ecuador, Colombia, Peru and Brazil through the connection of 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/Içá, Morona, and Napo rivers that connect farther on with the Solimões/Amazon river in the Brazilian territory, enhancing navigation on three waterways that are presently navigable only for limited draft vessels. 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.

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. Furthermore, the following complementary actions intended to promote efficient service provision and the sustainable development of the territory are identified: 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.

Moreover, the project will have an important impact on the communities living in its area of influence, as they have no other alternative in terms of transportation of goods and people.

At present, Ecuadorian border inhabitants are engaged in an emerging informal trade in products from the area as well as in mining activities to supply coastal communities living on the banks of the Napo, Putumayo, Santiago and Morona rivers.

However, there is significant trade in products from the petroleum industry, which promotes commerce. Regarding transport associated with the oil industry in Ecuador, an annual volume of 250,000 tons is estimated. Thus, the estimated marginal benefits derived from the savings generated by this river waterway project will result in more efficient operations and reduced costs.

As for the transportation of other goods, mainly foodstuffs, building materials, and tools and utensils, an annual volume of 30,000 tons is estimated.

The most important structural measures required are aimed at enhancing safety and efficiency in navigation and freight transfer through the improvement of river conditions, the availability of infrastructure for loading/embarkation and unloading/disembarkation of goods/passengers, and the definition or design of the types of vessels suited to the characteristics of the Amazonian rivers. All this will result in increased local and regional trade.

## PROPOSAL

This project comprises i) four individual projects concerned with the improvement of navigation conditions on the Putumayo/Içá, Morona and Napo rivers; and ii) two river terminals (the Providencia port and the Morona freight transfer port).

Among others, the following actions need to be taken in order to attain the objectives of these projects: establish general guidelines for fostering navigation in conformance with the regulations guaranteeing the multiple use of water resources as well as their integrated management; adopt measures providing incentives for the participation of the private sector; expand the associated logistics infrastructure; implement more stringent surveillance measures to prevent illegal and irregular activities with a view to improving navigation safety; conduct a survey of inland navigation companies; identify potential types of cargo; secure funding; and undertake works in relation to dredging, installation of signs, markers and aids to navigation, as well as construction, maintenance and upgrading works at the ports and terminals of the countries involved.

## PROGRESS ANALYSIS AND ASSESSMENT

All the individual projects belong to the COSIPLAN Portfolio.

In the case of the project related to the Morona river, there is a joint declaration by Ecuador and Peru to open new border crossings across the Santiago and Morona rivers. Within the framework of a non-reimbursable technical cooperation from the IDB, a consultant has been selected to carry out the study on the navigation conditions along the Morona river up to the confluence with the Marañón river; at present, this is in the contract subscription phase.

Regarding the project concerned with improving navigation conditions on the Napo river, studies will be carried out to complement the Peru-Ecuador binational analyses. At present, trips to Iquitos involving trade in Ecuadorian products are already made every forty-five days. Concerning the Peruvian stretch, a profiling study on the improvement and maintenance of the navigation conditions along the Napo river is scheduled to be undertaken as from the fourth quarter of 2014. This study will help define investment projects to ensure that both passengers and cargo can be transported efficiently, economically and safely along the river all year long.

Moreover, there are plans to carry out a study for increasing the navigability of the Putumayo/Içá river basin with the participation of Brazil, Colombia, Ecuador and Peru. This 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 (or PAC, its acronym in Portuguese). As most of the above-mentioned projects have been agreed upon on a binational basis, their associated studies and works are expected to be jointly conducted.

Furthermore, regarding the navigation conditions on the Putumayo river, the Colombian Government is undertaking, via the National Institute of Roads (Instituto Nacional de Vías – INVÍAS), Phase II studies on the Navigation Conditions along such river (Peñasara-Puerto Asís-Puerto Leguizamo-Puerto Alegría), in which two components are being taken into account: the socio-environmental and the technical components. These studies started on March 29, 2012, and were expected to be completed by June 2013; however, data collection activities as well as socialization with the local community regarding its scope had to be postponed for public security reasons. Therefore, these deliverables are yet to be made available. Their purpose is to submit results with a view to enhancing navigability along the Peñasora-Puerto Alegría stretch (510 km).

In Peru, negotiations are being held by the National Port Authority and the Ministry of Transport and Communications to enter into an interagency agreement concerning the preparation of a study at the profiling level with a view to providing port infrastructure in the town of Santa Rosa (located on the border with Brazil and Colombia). This project aims at providing port services in this border area as well as a logistics center in order to facilitate trade along the IIRSA Norte multimodal corridor.

As for the Providencia Port project, the relevant studies have been completed, and actions are being taken to obtain final acceptance of the project in order to issue a call for tender for the construction of this important river port, which will link the northeastern region of Ecuador with Manaus (Brazil).

## 2. ANDEAN HUB (BOLIVIA, COLOMBIA, ECUADOR, PERU AND VENEZUELA)

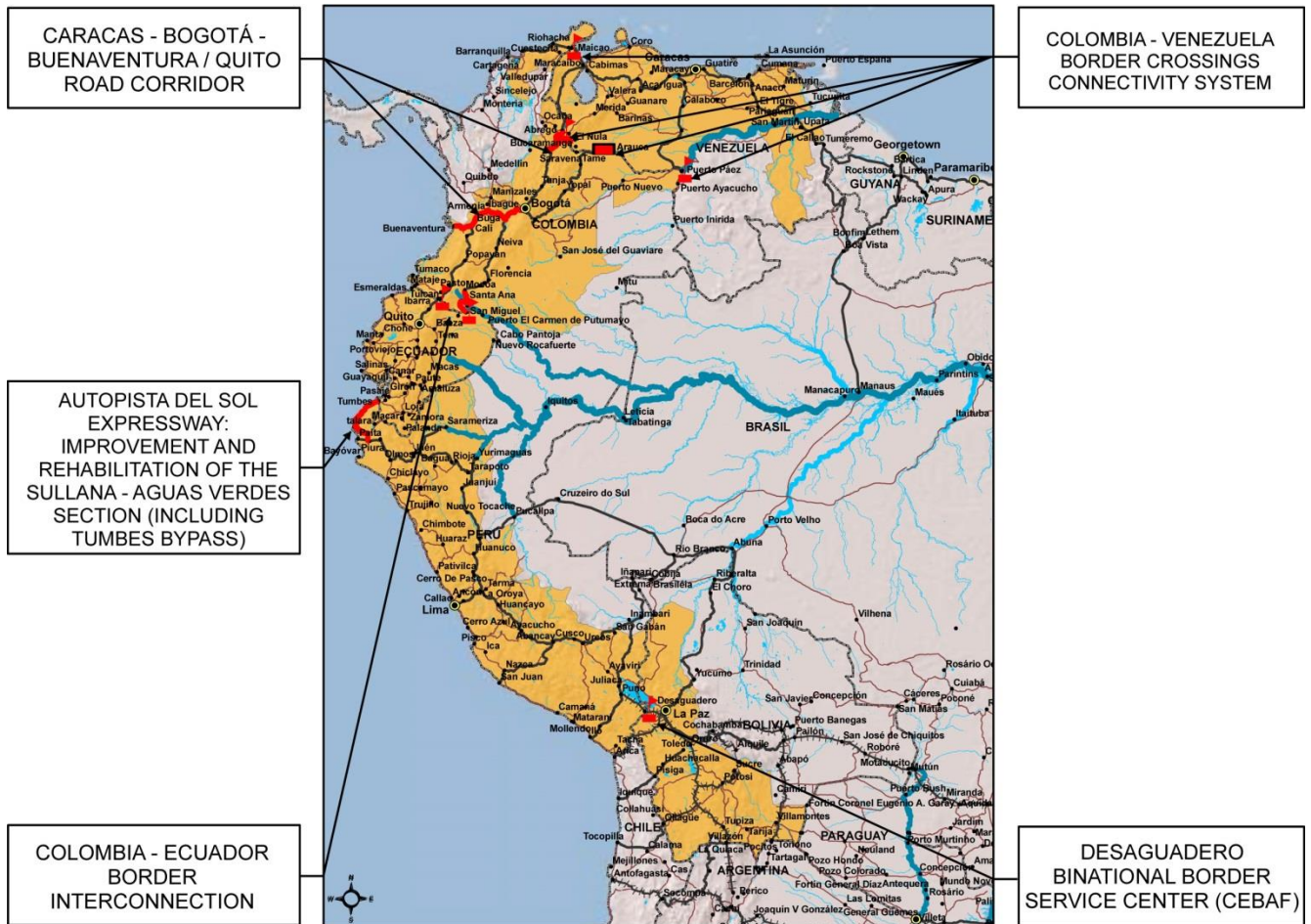
The Andean Hub features the two large north-south road corridors that connect the main cities of the countries that make it up (Bolivia, Colombia, Ecuador, Peru and Venezuela): the Pan-American Highway, which runs along the Andes in Venezuela, Colombia, and Ecuador, and along the Peruvian coast (connecting 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<sup>2</sup>, accounting for 54.4% of the total area of the countries that make it up.

The total population was estimated at approximately 103,467,313 inhabitants in 2008 for the area of influence defined for the Andean Hub, accounting for 82.8% of the total population of the countries that make it up. Furthermore, the area of influence reached an average population density of 33 inhabitants per km<sup>2</sup>.

API includes projects from seven 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) G5 - Conexión Colombia (Puerto Tumaco) - Ecuador (Puerto Esmeraldas - Guayaquil) - Perú (Ica); vi) G6 - Colombia - Ecuador II (Bogotá - Mocoa - Tena - Zamora - Palanda - Loja) Connection; and vi) G8 - Peru - Bolivia (Huancayo - Ayacucho - Tarija - Bermejo) Connection.

Table 2.1 shows the 12 individual projects that make up the five structured projects of the Andean Hub incorporated into API. The estimated investments involved amount to US\$3,694.1 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.

**MAP 2.1: API PROJECTS – ANDEAN HUB**



**TABLE 2.1: API PROJECTS – ANDEAN HUB**

No.	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
4	AND	CARACAS - BOGOTÁ - BUENAVENTURA / QUITO ROAD CORRIDOR	COLOMBIA/ECUADOR/VENEZUELA	3,350.0	AND05	BOGOTÁ - CÚCUTA ROAD CORRIDOR	CO	G2	EXECUTION	1,559,000,000
					AND07	BOGOTÁ - BUENAVENTURA ROAD CORRIDOR	CO	G2	EXECUTION	1,791,000,000
5	AND	COLOMBIA - ECUADOR BORDER INTERCONNECTION	COLOMBIA/ECUADOR	228.5	AND31	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT SAN MIGUEL	CO - EC	G6	PRE-EXECUTION	25,000,000
					AND79	IMPROVEMENT AND PAVING OF THE MOCOYA - SANTA ANA - SAN MIGUEL ROAD SECTION	CO	G6	EXECUTION	133,629,000
					AND82	IMPLEMENTATION OF THE BINATIONAL BORDER SERVICE CENTER (CEBAF) AT THE TULCÁN - IPIALES (RUMICHACA) BORDER CROSSING	CO - EC	G2	PRE-EXECUTION	65,000,000
					AND91	CONSTRUCTION OF THE NEW INTERNATIONAL RUMICHACA BRIDGE AND IMPROVEMENT OF THE EXISTING BRIDGE	CO - EC	G2	EXECUTION	4,826,592
6	AND	COLOMBIA - VENEZUELA BORDER CROSSINGS CONNECTIVITY SYSTEM	COLOMBIA/VENEZUELA	5.0	AND02	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT PARAGUACHÓN	VE	G1	EXECUTION	2,000,000
					AND13	IMPROVEMENT OF JOSÉ ANTONIO PÁEZ BRIDGE	CO	G3	COMPLETED*	1,280,000
					AND19	PUERTO CARREÑO BORDER CROSSING	VE	G4	PROFILING	1,000,000
					AND81	IMPROVEMENT OF THE BORDER CROSSINGS IN THE NORTHERN DEPARTMENT OF SANTANDER AND THE TÁCHIRA STATE	CO - VE	G2	PROFILING	2,000,000
7	AND	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	BOLIVIA/PERU	40.2	AND47	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	BO - PE	G8	PRE-EXECUTION	40,231,927
8	AND	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)	PERU	70.4	AND28	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)	PE	G5	PRE-EXECUTION	70,450,845

\* This individual project was completed before the creation of API, and was incorporated into it because it complements the connectivity network of the structured project.

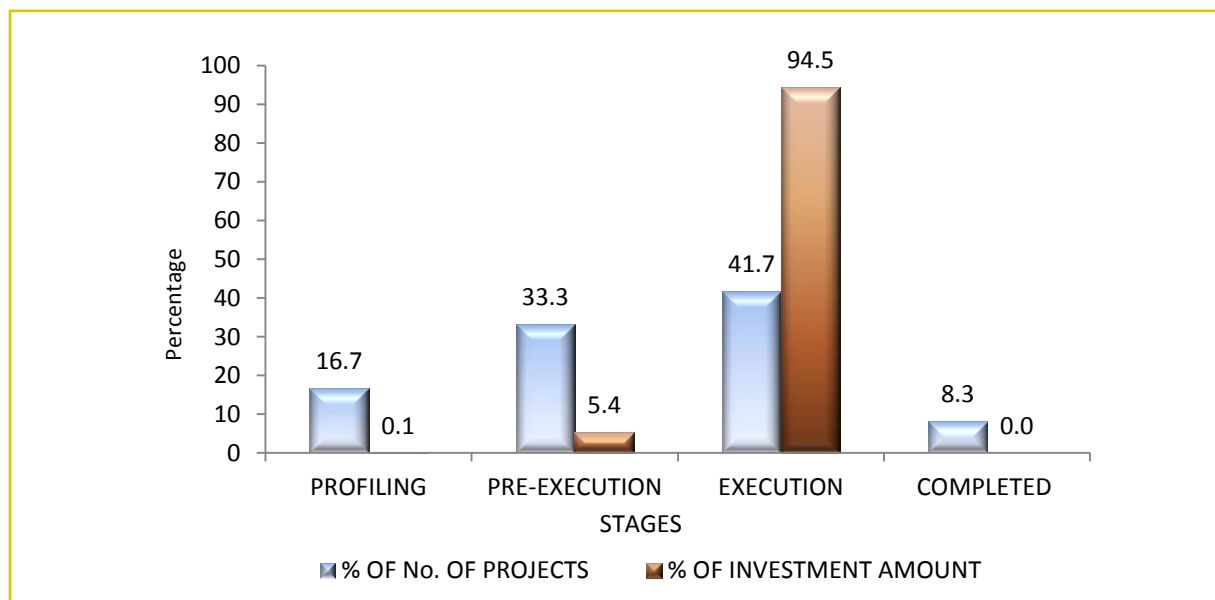
**TABLE 2.2: API PROJECTS – ANDEAN HUB BY LIFE CYCLE STAGE**  
(number of projects, million US\$ and percentage)

PROJECT STAGE	No. OF PROJECTS	% OF PROJECTS	INVESTMENT AMOUNT	% OF INVESTMENT AMOUNT
PROFILING	2	16.7	3.0	0.1
PRE-EXECUTION	4	33.3	200.7	5.4
EXECUTION	5	41.7	3,490.4	94.5
COMPLETED (*)	1	8.3	0.0	0.0
<b>TOTAL</b>	<b>12</b>	<b>100.0</b>	<b>3,694.1</b>	<b>100.0</b>

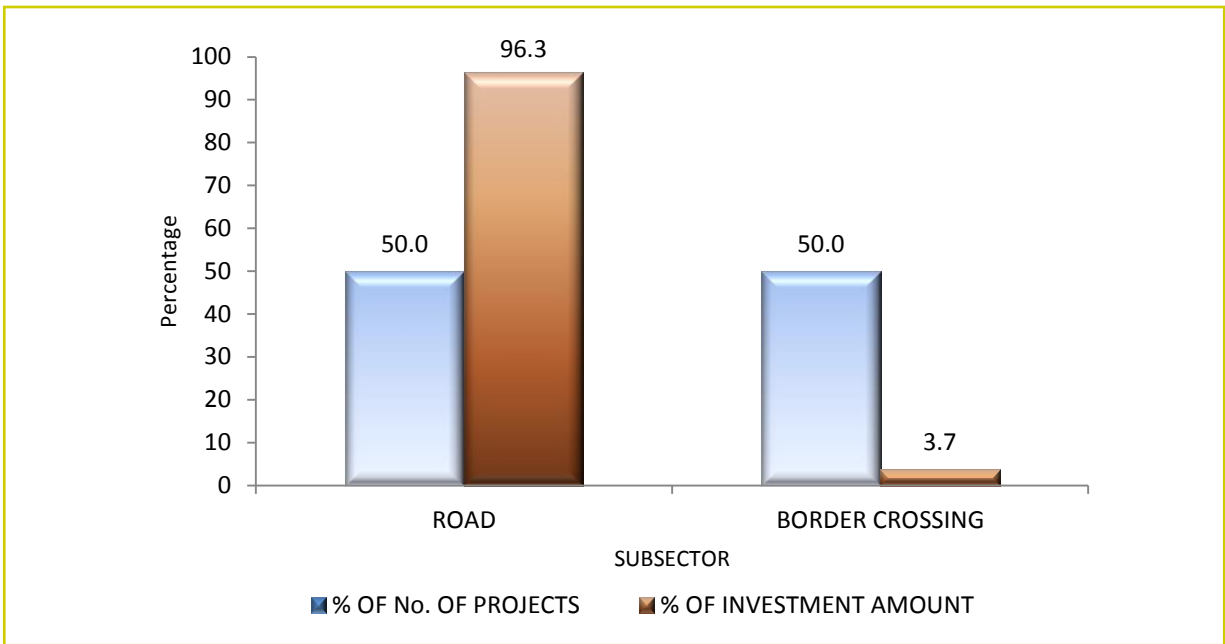
Note: Amounts are estimated on the basis of the life cycle stage at which the API individual projects are.

\* There is one individual project in this Hub that was already completed when API was set up but is part of a structured project. This project is AND13, and its investment amount (not included in the total) is US\$1.3 million.

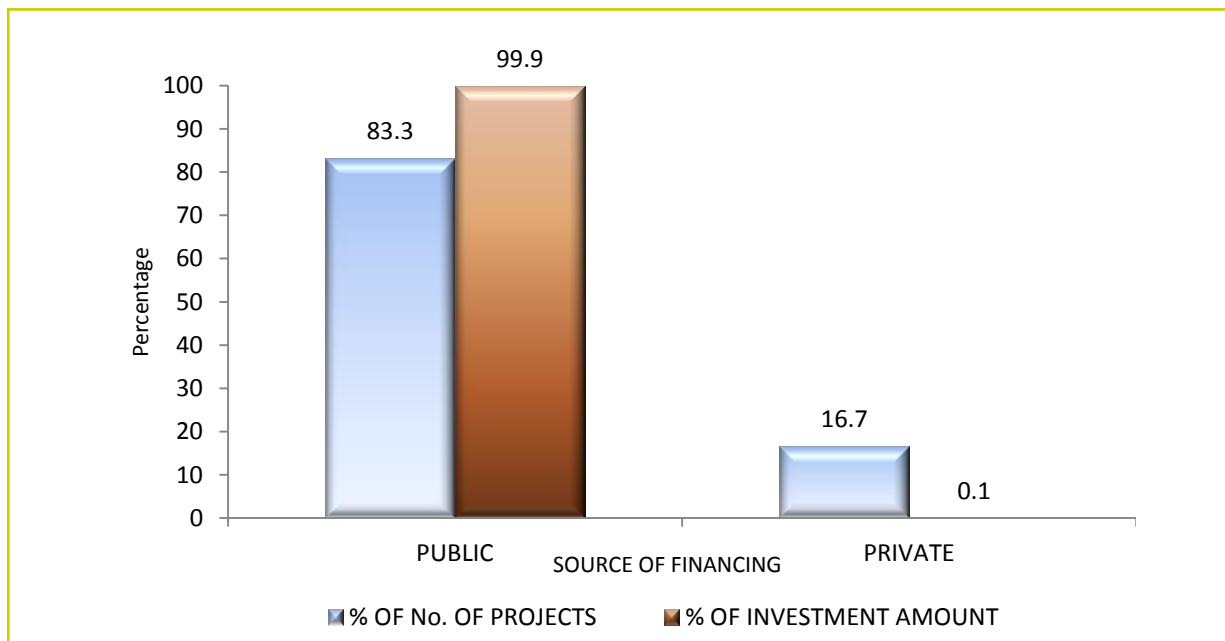
**FIGURE 2.1: API PROJECTS – ANDEAN HUB BY LIFE CYCLE STAGE**  
(% of number of projects and % of investment amount)



**FIGURE 2.2: API PROJECTS – ANDEAN HUB BY SUBSECTOR**  
(% of number of projects and % of investment amount)



**FIGURE 2.3: API PROJECTS – ANDEAN HUB BY SOURCE OF FINANCING**  
(% of number of projects and % of investment amount)



## 4

## CARACAS - BOGOTÁ - BUENAVENTURA / QUITO ROAD CORRIDOR

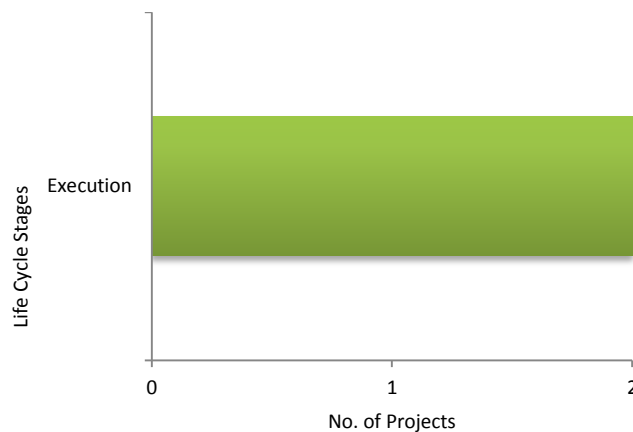
HUB: **ANDEAN**

COUNTRIES: **COLOMBIA – ECUADOR – VENEZUELA**

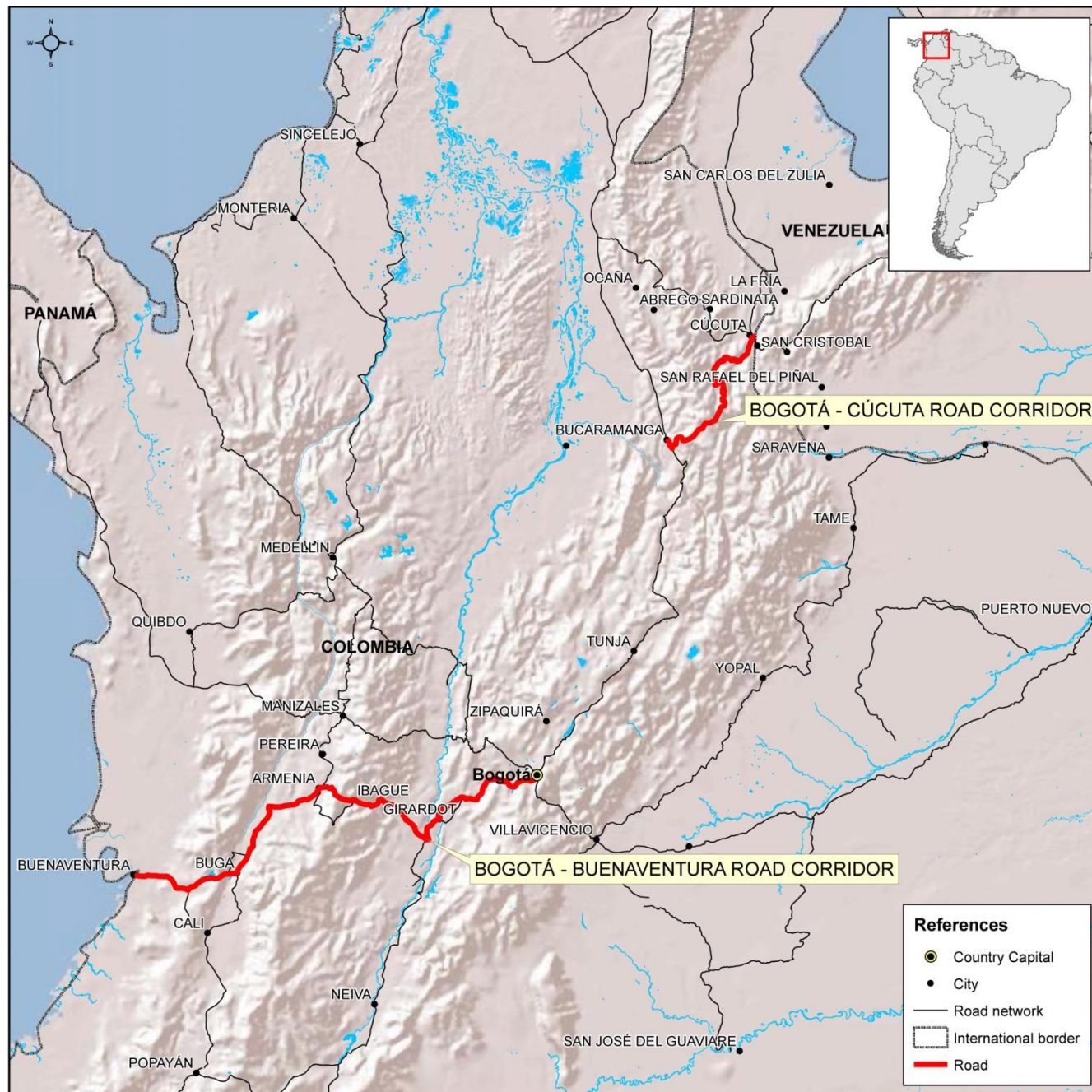
PROJECT TYPE: **Multimodal, Sea and Road Transportation**

INVESTMENT AMOUNT: **US\$3,350.0 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
AND05	BOGOTÁ - CÚCUTA ROAD CORRIDOR	CO	EXECUTION	1,559,000,000
AND07	BOGOTÁ - BUENAVENTURA ROAD CORRIDOR	CO	EXECUTION	1,791,000,000



## RATIONALE

This structured project articulates the largest urban centers of Colombia, Ecuador, and Venezuela, and strengthens the main international road trade flows in the Andean Hub. In addition, this project as well as the Colombia - Venezuela Border Crossings Connectivity System project create important benefits and cross-border synergies, and strengthen regional connectivity networks. Moreover, the main complementary action identified for 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. The approximate length of this corridor is 1,098 km.

## PROPOSAL

This structured project 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, which involves a 582-km long corridor, is to improve connectivity between the central-western part of Colombia and the Buenaventura port - regarded as the most important port in the country in terms of the volume of cargo handled-, through the construction of a dual carriageway in the still single-carriageway stretches (almost 220 km) of the roads. On the other hand, the purpose of the second project is to reinforce economic relations among the urban centers of Ecuador, Colombia, and Venezuela; 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), Cúcuta (Norte de Santander department) and Bogotá D.C. with a total length of 582 km, 113 km of which are paved.

## PROGRESS ANALYSIS AND ASSESSMENT

The two individual projects making up this structured project are included in the COSIPLAN Portfolio and are part of Colombia's National Development Plan 2010-2014 and Multi-Annual Investment Plan 2011-2014, and they are currently in execution.

The overall assessment of each one of the two individual projects to date is as follows:

**Bogotá-Cúcuta Road Corridor:** This corridor is subdivided in three progress fronts: Bogotá-Bucaramanga, Bucaramanga-Pamplona, and Pamplona-Cúcuta. The first and third ones are run under a concession contract, while the second is under a public works contract. Works already developed in the three of them include the construction of long four-lane stretches, the maintenance of existing lanes, and the repair of eight critical points following the winter wave.

Among the new policies to be adopted, the Government will assign to the concession system or a public-private partnership the stretches of the first and third corridors of the project where works have not commenced yet. Regarding the public works project, it is expected to be finished by the end of the third quarter of 2013.

**Bogotá-Buenaventura Road Corridor:** This corridor is subdivided into 13 progress fronts, nine of which are at the execution stage, three at the profiling stage, and one completed. To date, the completed section -the La Paila-Buga stretch- is a four-lane road in operation and under maintenance. Other stretches, such as Ibagué-Cajamarca-La Paila, Buga-Mediacanoa, and Citronela-Buenaventura port, will be included in the project to be awarded to a public-private partnership (the so-called fourth generation -4G- concessions). Progress in the remaining stretches are progressing in a high percentage, in some cases reaching 93% and 96% of their execution, as in the Calarcá-La Paila and Cisneros-Triana-Altos de Zaragoza sections, respectively.



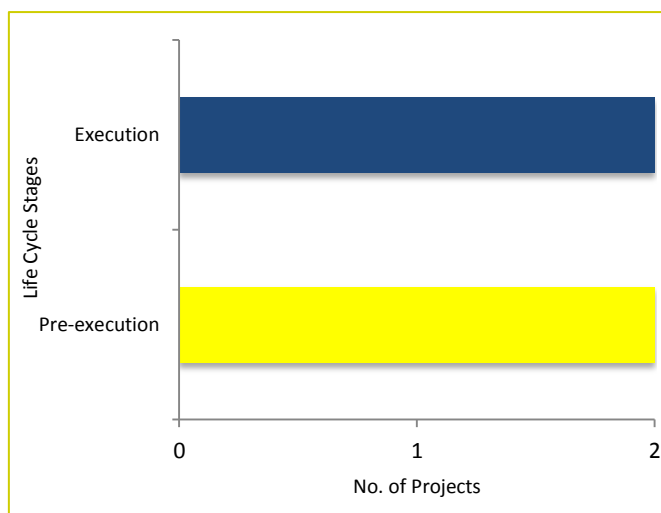
HUB: **ANDEAN**

COUNTRIES: **COLOMBIA – ECUADOR**

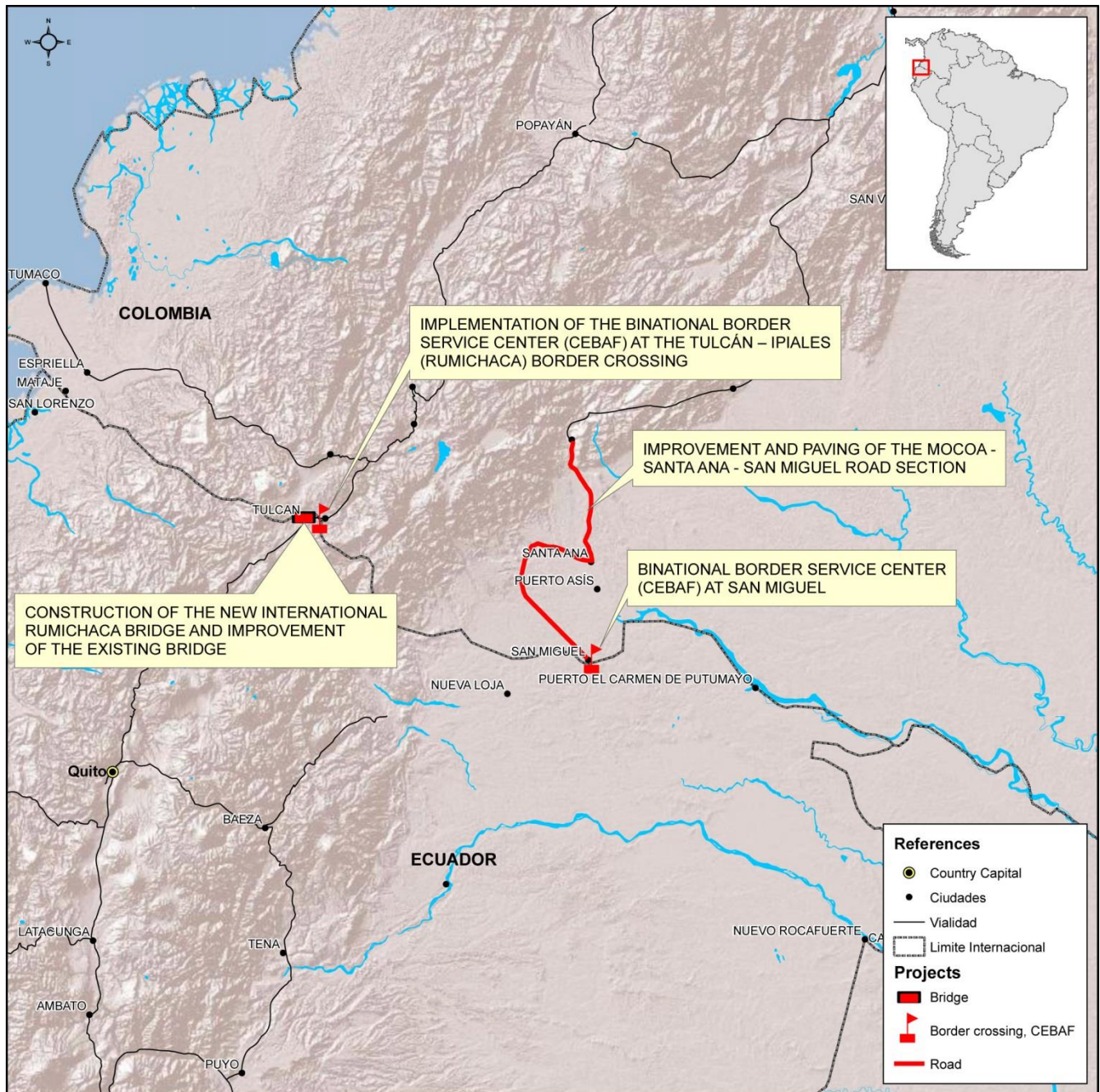
PROJECT TYPE: **Road Transportation and Border Crossings**

ESTIMATED INVESTMENT: **US\$228.5 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
AND31	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT SAN MIGUEL	CO - EC	PRE-EXECUTION	25,000,000
AND79	IMPROVEMENT AND PAVING OF THE MOCOA - SANTA ANA - SAN MIGUEL ROAD SECTION	CO	EXECUTION	133,629,000
AND82	IMPLEMENTATION OF THE BINATIONAL BORDER SERVICE CENTER (CEBAF) AT THE TULCÁN - IPIALES (RUMICHACA) BORDER CROSSING, INCLUDING IMPROVEMENT OF THE RUMICHACA BRIDGE	CO - EC	PRE-EXECUTION	65,000,000
AND91	CONSTRUCTION OF THE NEW INTERNATIONAL RUMICHACA BRIDGE AND IMPROVEMENT OF THE EXISTING BRIDGE	CO - EC	EXECUTION	4,826,592



## RATIONALE

This structured project is highly significant, as trade between Ecuador and Colombia ranks second in international trade by road within the Andean Hub; furthermore, the project helps complete 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.

In the last decade, Colombia’s export volume to Ecuador accounted for an average 0.8% of total Colombian exports, the largest volume reaching 1.1% in 2005 and the lowest, 0.6% in 2009. During the same period, Ecuador’s export volume to Colombia accounted for an average 2.5% of total Ecuadorian exports, with the largest volume, 3.3%, in 2001 and the lowest one, 1.6%, in 2004. Most trade between Colombia and Ecuador is by road, accounting, on average, for 65% of Colombia’s exports to Ecuador and 88% of Ecuador’s exports to Colombia. In terms of volume, during the last decade Colombia’s total exports grew by 5%, while Ecuador’s total exports increased by 4%.

Furthermore, the volume of cargo traded between both countries -1.2 million tons on average- is significant, thus turning the Rumichaca border crossing, through which almost 100% of trade by road is funneled, into one of the most important border crossings in the Andean Community and in South America.

Given the currently substantial flow of trucks in both directions, the capacity of the Rumichaca border crossing has turned out to be limited in terms of both size and operational design, which creates freight transport and particular vehicle traffic congestion and, hence, delays, resulting in additional costs for international trade.

Moreover, as transfer of goods takes place on both sides of the border, foreign trade operators, carriers, customs agents and trading companies have to allow extra time for the transportation of goods to and from each country, which is indeed increasing.

All this has raised awareness as to the fact that road infrastructure, for example the width of the bridge, is a restriction. Taking into account what happens in other places of the continent where traffic flows are heavier, this should not be a problem if procedures are coordinated in a functional scheme in which the authorities from both countries may perform their functions in a comfortable and orderly way.

The condition of the facilities at the San Miguel border crossing is very dissimilar. On the Ecuadorian side, there is a National Border Service Center (CENAF) that was built only a few years ago with the idea of establishing a CEBAF on a 5.7-ha plot of land located 2,800 m away from the international bridge. These facilities are in reasonable good condition but underused, since most national institutions concerned with border control have not moved into them. Only immigration and customs controls are performed there, as formalities have to be carried out in Lago Agrio. On the Colombian side, the present facilities are provisional and rudimentary, since they are located on a stretch of land belonging to an Indian reservation; furthermore, an illegal settlement has gradually sprung up in the surroundings of the bridge. This border crossing forms part of the so-called Amazonian corridor, which, once completed, will reduce travel time between Quito and Bogotá.

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. In addition, an important opportunity for the development of logistics and production integration processes is identified.

One of the major conclusions that can be drawn from the bilateral trade balance is that if a solution is found to the issues that slow down trade, such as cargo transfer activities, the potential for growth and complementarity of both economies will bring about a remarkable level of economic integration.

The startup of the CEBAFs in Rumichaca and in San Miguel will have a high impact on the local system of each border locality in terms of infrastructure and services related to border crossing operations as well as of opportunities for local development and employment and income generation, aspects that are sought to be addressed under the Local Development Strategy. The specific goals are as follows:

- At the Rumichaca Border Crossing, take full advantage of the CEBAF startup in order to enhance competitiveness in the municipalities of Tulcán and Ipiales, by promoting structural actions and specific projects that contribute to the articulation of the border territories, new urban planning, the stimulation of the economic base, and the creation of local employment and income.
- At the San Miguel Border Crossing, create, in the short run, the minimum conditions necessary for the startup of operations of the CEBAF. In the medium term, ensure that the municipalities are ready to tap into the opportunities from the predictable increase in trade and transport through this border crossing.

#### PROPOSAL

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 other two projects are the implementation of the CEBAF at the Tulcán-Ipiales (Rumichaca) border crossing, on the one hand, and the construction of a new international Rumichaca bridge and the improvement of the existing bridge, on the other. The simultaneous implementation of the four 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 along 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.

The four individual projects included in this structured project are part of the COSIPLAN Portfolio. Two of them are currently at the execution stage and the other two, at the pre-execution stage. Their current status is as follows:

- **AT THE EXECUTION STAGE**

### **Construction of the New International Rumichaca Bridge**

Works started on March 7, 2013, with an addition made to the PANAVIAL contract in force, and its progress until September 30 accounts for 77.8%. Current works involve the mounting of connectors and complementary elements to form the deck of this 80-m long bridge. This will be followed by the bridge deck overlay, the approach roads on both sides of the border, the steel railings, and the respective signs. The new international Rumichaca bridge, including the maintenance and reinforcement works in the existing bridge, is scheduled to be operating by mid-December.

### **Mocoa-Santa Ana-San Miguel Project**

Along the San Miguel-Santa Helena-Santa Ana-Puerto Caicedo-Puerto Umbría-Villa Garzón-Mocoa road, there are stretches in good condition: Villa Garzón-Mocoa, and Santa Ana-Puerto Caicedo. For the other stretches, the following contracts have been awarded:

Contract No. 850, dated 2009, for an amount of US\$304,194,622,255, the purpose of which is to pave with rigid concrete the San Miguel-Santa Helena road section in the Putumayo department. So far, the total investment has amounted to US\$261,053,000,000, and 53 km of the 78 km specified in the contract have been completed. Works are scheduled to be completed on April 22, 2014.

Contract No. 581, dated 2012, for an amount of US\$109,121,810,080, the purpose of which is to pave with rigid concrete the Santa Helena-Santa Ana road section in the Putumayo department. So far, the total investment has amounted to US\$17,322,300,000, and 5 km of the 11 km specified in the contract have been completed. Works are scheduled to be completed on November 26, 2014.

Contract No. 3378, dated 2007 (module 1), for an amount of US\$26,610,000, the purpose of which is to improve the Puerto Caicedo-Puerto Umbría road section in the Putumayo department. So far, the investment amount has been US\$21,408,316,944, and the progress attained represents 76.38% of the contract. The expected date of completion is December 20, 2013.

Contract 33.79, dated 2007 (module 2), for an amount of US\$32,008,000,000, the purpose of which is to improve the Puerto Umbría-Villa Garzón road section in the Putumayo department. So far, the investment amount has been US\$31,751,950,352, and the progress attained represents 99% of the contract. The expected date of completion is December 30, 2013.

- **AT THE PRE-EXECUTION STAGE**

**Construction and Implementation of the Binational Border Service Centers (CEBAFs) at Rumichaca and San Miguel**

Pre-feasibility and preliminary design studies have already been prepared. The National Planning Department was awarded a non-refundable loan from the IDB. The exact location is yet to be defined in order to buy the plots of land required.

In addition, the IDB delivered the terms of reference to conduct the final studies and designs, which have to be validated by both countries. After the terms of reference are validated, the countries will decide on the consulting firm to be hired.

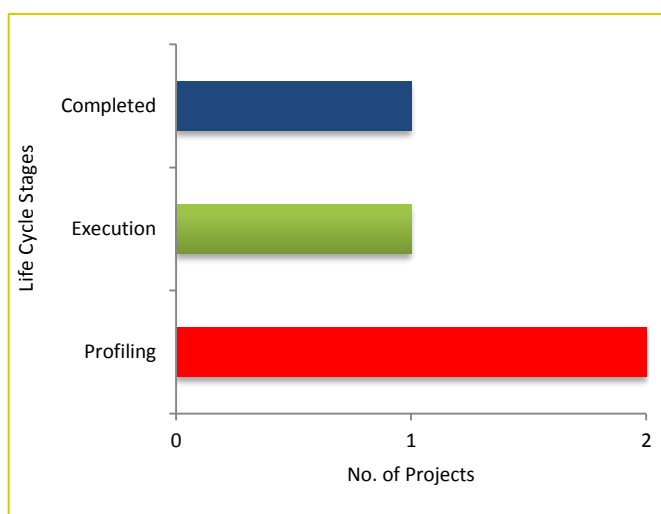
HUB: **ANDEAN**

COUNTRIES: **COLOMBIA – VENEZUELA**

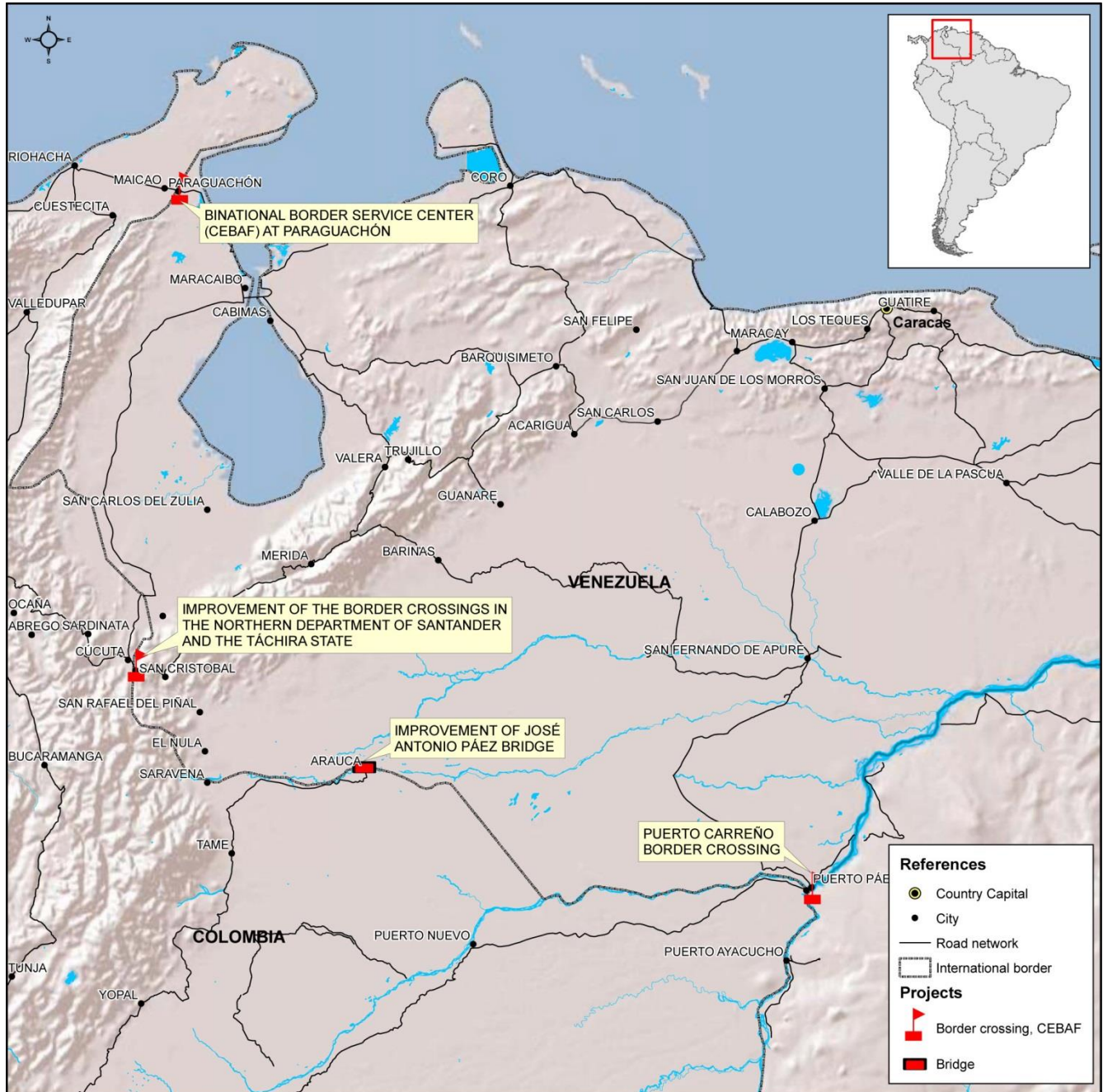
PROJECT TYPE: **Border Crossings and Road Transportation**

ESTIMATED INVESTMENT: **US\$5.0 million**

SOURCE OF FINANCING: **Public-Private**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>AND02</b>	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT PARAGUACHÓN	VE	EXECUTION	2,000,000
<b>AND13</b>	IMPROVEMENT OF JOSÉ ANTONIO PÁEZ BRIDGE	CO	COMPLETED	1,280,000
<b>AND19</b>	PUERTO CARREÑO BORDER CROSSING	VE	PROFILING	1,000,000
<b>AND81</b>	IMPROVEMENT OF THE BORDER CROSSINGS IN THE NORTHERN DEPARTMENT OF SANTANDER AND THE TÁCHIRA STATE	CO - VE	PROFILING	2,000,000



## RATIONALE

This structured project is designed to address existing problems, missing links and bottlenecks in the most important border crossings between Colombia and Venezuela, which concentrate the largest international trade flows by road in the Andean Hub. The border crossings included in this project are the following:

- 1) Binational Border Service Center (CEBAF) at Paraguachón: This border crossing, located between the Colombian department of La Guajira and the Bolivian state of Zulia, offers an alternative for bilateral trade, especially among the urban centers of northern Colombia and western Venezuela. At present, there are recently built premises of the National Integrated Customs and Tax Administration Service (SENIAT) in the village of Guarero, Venezuela, 6 km away from the border. Furthermore, a binational committee has been created at the request of the Presidential Commission on Integration and Border Affairs to evaluate the implementation of a single CEBAF on such premises. The road connection between northern Venezuela and Colombia needs that the Paraguachón border crossing meet the requirements established in the CAN agreements involving the construction of binational border service centers.
- 2) Improvement of the Border Crossings in the Northern Department of Santander and the Táchira State: The Cúcuta-San Antonio border crossing hosts substantial activity in terms of foreign trade in goods, passenger and freight vehicle traffic, and flows of people. The border crossings included in this project are the following:
  - i. La Unión bridge: This is an alternative customs office to the ones in Cúcuta and San Antonio. It involves mainly Colombian coal sold to Venezuela, in spite of the limited capacity of the bridge. In 2004, 575,000 tons of this type of good entered Venezuela from Colombia, while 17,000 tons of perishable products were carried in the opposite direction; the number of freight vehicles amounted to 134,000, carrying an average load of slightly more than 4 tons.
  - ii. Aguaclara-Guarumito-La Fría corridor, an alternative border crossing to the La Unión bridge: This road corridor, which plays a strategic role, will contribute to an increased trade by land between both countries and, most importantly, will help rationalize Colombia's coal exports through Lake Maracaibo and leverage agro-industrial development in La Fría by promoting exports to Colombia.
  - iii. El Escobal-Ureña border crossing: Here, the two countries are connected by the Francisco de Paula Santander International Bridge. The main Colombian goods released at this border crossing for export to Venezuela were coal (1 million tons, a figure that declined in 2005) and sugarcane (53,000 tons), according to data provided by Colombia's Customs Authorities.
  - iv. Tienditas: This is a potential place for the implementation of a new physical link between both countries.
  - v. Villa del Rosario-San Antonio del Táchira border crossing: These two cities are connected by the Simón Bolívar International Bridge. In 2004, some 750,000 tons were transported in the direction of Venezuela, 250,000 of which are domestic transits within Colombia between Villa del Rosario and Arauca, consisting basically of equipment for oil exploration and, to a lesser extent, of beverages and empty returnable containers. The bridge has a short span and one lane for each direction of travel. Beside it are the piles of the old bridge, which was damaged by the current of the river and subsequently closed, according to data provided by Colombia's Customs Authorities.

3) Improvement of José Antonio Páez Bridge: The purpose is to allow free-flowing traffic in the city of Arauca and to regularize the border crossing, which reduces transport costs and wait times for foreign trade goods originating in or bound to the inland and southwestern areas of the country.

The structured project includes the design of a development plan to implement the actions and infrastructure works involved.

Furthermore, as part of the complementary actions provided for, programs will be created to improve the quality of life of the population affected by border crossing activities by lowering general transportation costs. If this cost reduction brings about lower prices, it will benefit consumers of traded goods, enhance domestic production competitiveness, increase the transparency and quality of border controls -thus ensuring the integrity of fiscal, health and security policies-, and improve administrative efficiency -which promotes a similar behavior of the private sector-, among other favorable outcomes.

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.

## PROPOSAL

This structured project is made up of four individual projects: 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 coasts. 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.

## PROGRESS ANALYSIS AND ASSESSMENT

The individual projects are part of the COSIPLAN Portfolio. The Colombian projects are the following:

## **LAS TIENDITAS INTERNATIONAL BRIDGE**

The proposal is to build a new border crossing in the Tienditas-Río Táchira-Villa Silvania corridor at a place between the existing Simón Bolívar and Francisco de Paula Santander bridges in Cúcuta, Norte de Santander department, near the Colombian locality of Villa Silvania and the Venezuelan locality of Tienditas, following an agreement reached at the Meeting of Infrastructure Vice-Ministers held on July 14, 2011, and ratified at the Meeting of Foreign Relations Ministers held on August 2, 2013, in the city of Caracas. The agreement involves building a 260-m long bridge with three lanes, two for vehicles and a central one for pedestrians and cyclists, including all the necessary access roads.

At present, the formalities to sign the Inter-Administrative Agreement with the Venezuelan Government are underway. The Government of Venezuela will be responsible for the execution of the project, in accordance with the agreement reached by the parties. Thus, the consultancy studies and the works proper will be the responsibility of Venezuela. Commencement of works is scheduled for October 14, 2013, to be completed in April 2015.

The amount of the Colombian contribution, equivalent to 50% of the total cost of the project and according to the preliminary information gathered so far, is 33,000,000,000 Colombian pesos, of which 6,000,000,000 Colombian pesos will have been invested throughout 2013. The remaining amount, i.e. 27,000,000,000 Colombian pesos, will be invested between 2014 and 2015, excluding the approximately 2-km long access road.

## **UNIÓN INTERNATIONAL BRIDGE**

Although there are no technical studies for this project, some pre-feasibility profiles already made indicate that the new bridge may have an approximate length of 160 meters over the La Grita river, 5 km upstream of the existing bridge on the Cúcuta-Puerto Santander road, in the Norte de Santander department.

The new border bridge would facilitate trade between Colombia and Venezuela, especially for the coal industry.

The estimated budget for the execution of this project amounts to 20,000,000,000 Colombian pesos, which will have to be distributed between the allocation periods 2014 and 2015.

## **IMPROVEMENT OF JOSÉ ANTONIO PÁEZ BRIDGE**

Works were completed in August 2005.



7

## DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)

HUB: **ANDEAN**COUNTRIES: **BOLIVIA – PERU**PROJECT TYPE: **Border Crossings**ESTIMATED INVESTMENT: **US\$40.2 million**SOURCE OF FINANCING: **Public**

Life Cycle Stages

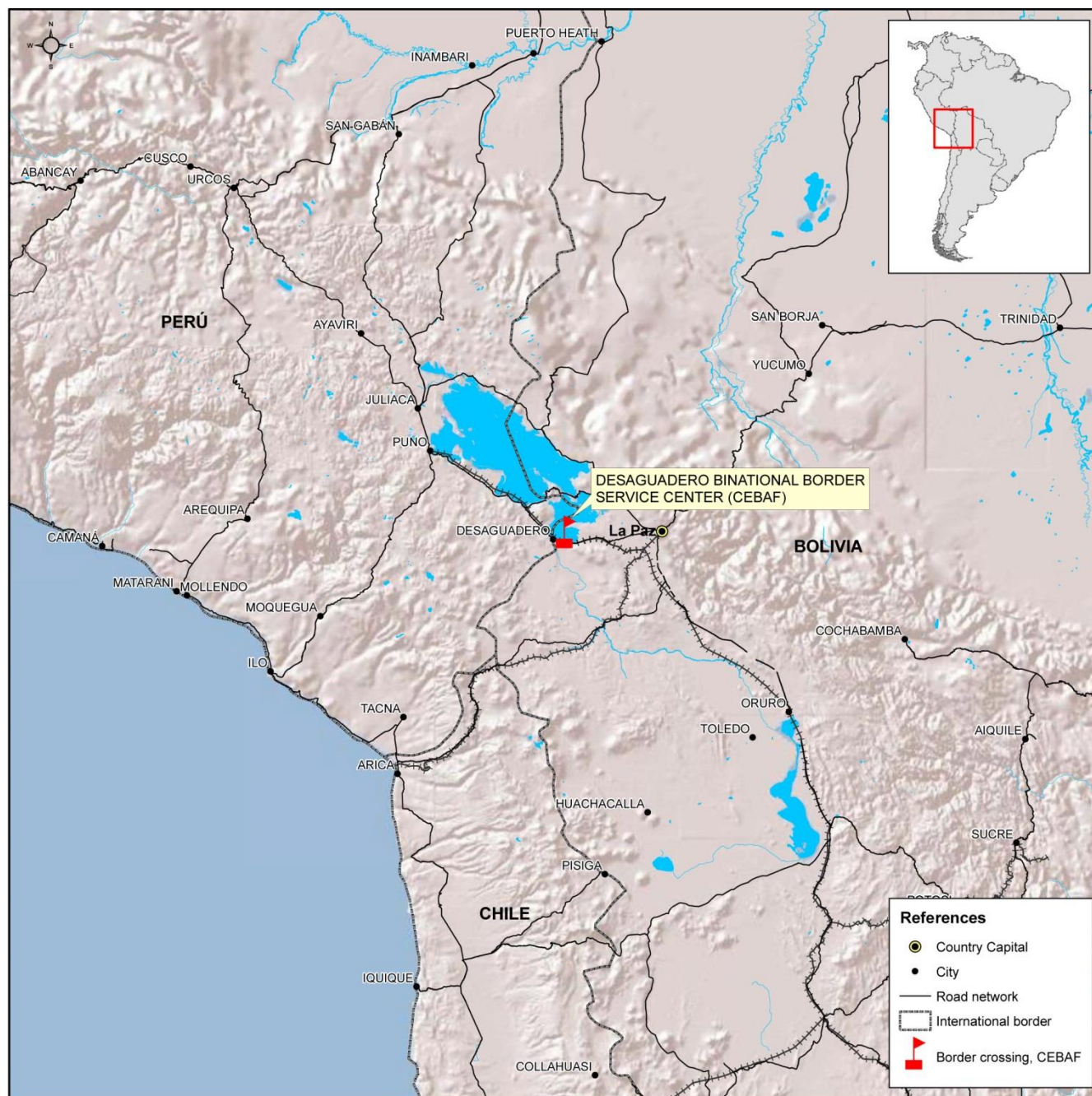
Pre-  
execution

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1

No. of Projects

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>AND47</b>	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	BO - PE	PRE-EXECUTION	40,231,927



## RATIONALE

This individual project is located at the Peru-Bolivia border, 1.8 km away from 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, fostering bilateral as well as regional trade. In addition, complementary actions associated with the regulatory frameworks and with binationally-integrated border control operations have been identified.

As regards the new international bridge, border controls in the area of Carancas, in the Peruvian territory, are currently performed in provisional facilities located in an easement area. These rudimentary conditions pose obstacles to smooth bilateral trade and tourism.

The opening of the new international bridge and the expected gradual closing of the “old” one has put on the agenda the urgent need for both countries to address the social issue in the town of Desaguadero on both sides, as the startup of the CEBAF has raised concerns among local residents as to the possibility that their way of life and border trade be destroyed.

It is worth mentioning that the Desaguadero border crossing is the most important one for trade between Peru and Bolivia.

## PROPOSAL

The project provides for the construction of adequate facilities and the implementation of integrated border control systems in line with Decision 502 agreed upon by the member countries of the Andean Community of Nations concerning the implementation of integrated control systems at their border crossings.

## PROGRESS ANALYSIS AND ASSESSMENT

This project belongs to the COSIPLAN Portfolio and was included in AIC 2005-2010, and at present is at the pre-execution stage.

After almost ten years of negotiations, in August 2011 Peru and Bolivia agreed on the construction of a CEBAF in a single customs office located on the Peruvian territory, where the Bolivian officers will have all the necessary facilities to perform their duties pursuant to their national rules and the operational guidelines set out by the Board of Administrators.

The Board of Administrators was established in 2005, and has been gaining experience and knowledge in relation to the operation of binational border controls. As of the date of this report, Peru has taken the following actions:

- a. Purchase of a tract of land for the construction of the Desaguadero CEBAF.
- b. Completion of a study on the alternative uses of the land adjacent to the CEBAF area.

- c. Undertaking of the Final Engineering Design Study on the Desaguadero CEBAF in accordance with the physical arrangement agreed upon (soon to be completed). The Bolivian authorities have played an active role in this study within the framework of the Board of Administrators.

On August 11, 2013, the tender to carry out the works at the Desaguadero CEBAF was called. Works are scheduled to start in the fourth quarter of 2013.

The IDB will contribute US\$3.1 million, which will be allocated to preparing the technical file and partially executing the works.

The Desaguadero Binational Border Service Center will be built in the binational locality of Desaguadero on the Peruvian territory, and the Plurinational State of Bolivia will participate in its administration, as special space will be assigned for its relevant agencies: the National Service for Agricultural Health and Food Safety (Servicio Nacional de Sanidad Agropecuaria e Inocuidad Alimentaria - SENASAG), the National Customs of Bolivia, and the National Migration Service (Servicio Nacional de Migración - SENAMIG).

8

## AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)

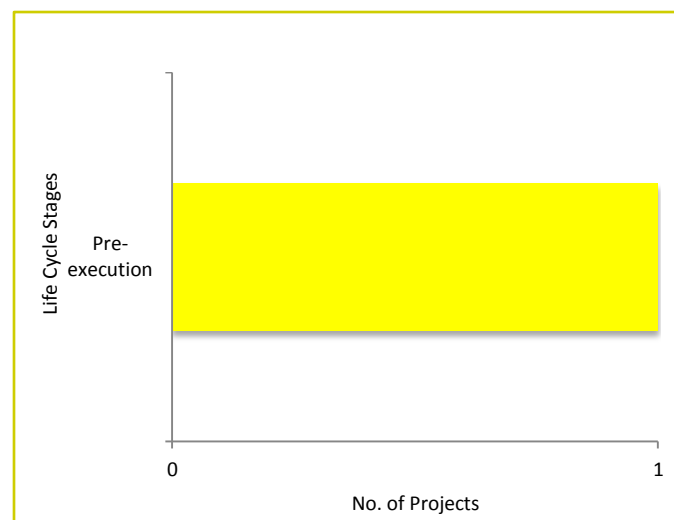
HUB: **ANDEAN**

COUNTRIES: **PERU**

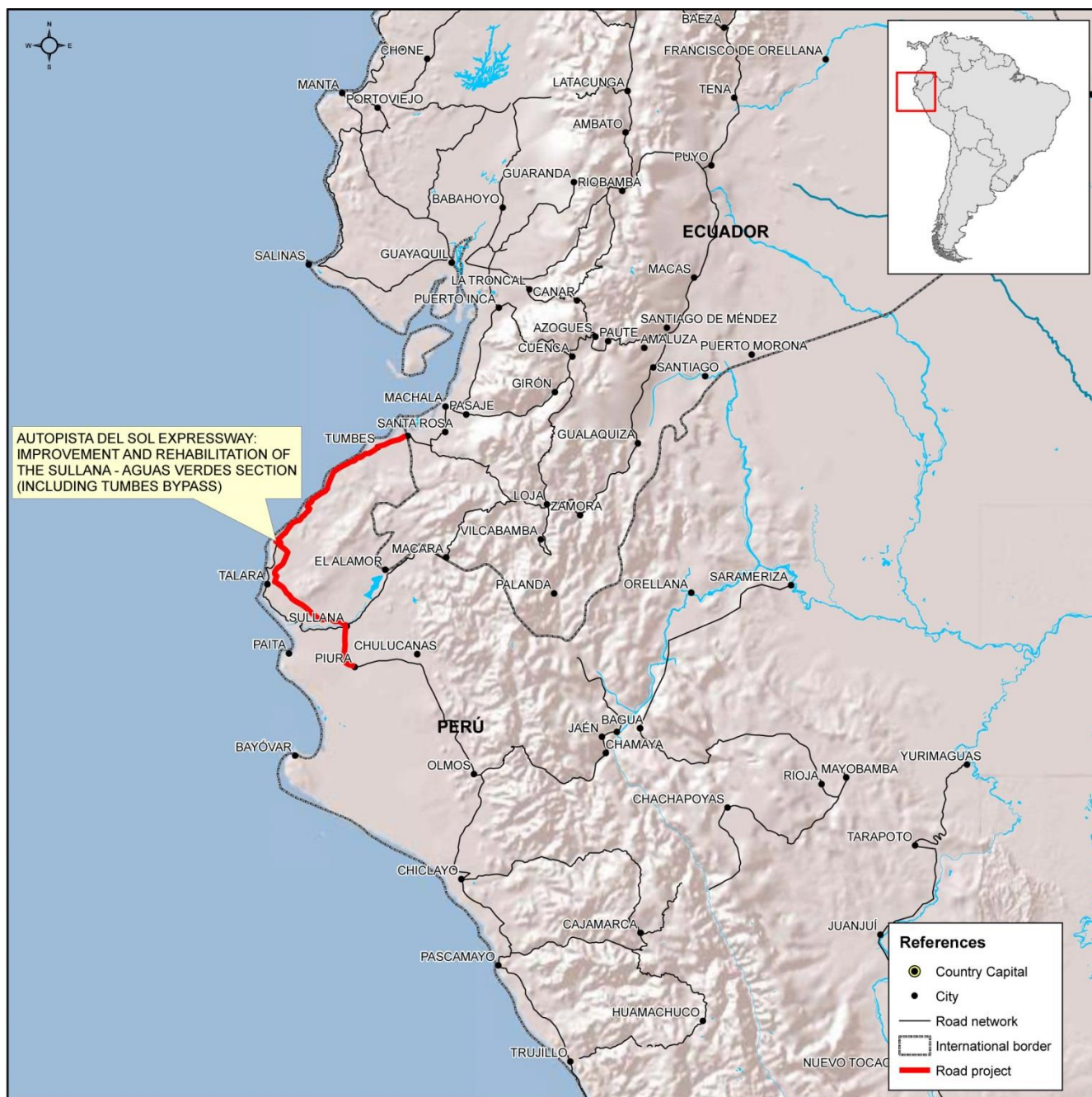
PROJECT TYPE: **Road Transportation**

ESTIMATED INVESTMENT: **US\$70.4 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>AND28</b>	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)	PE	PRE-EXECUTION	70,450,845



## RATIONALE

This structured project is significant as it involves the most dynamic section of the most widely used road corridor of Peru, i.e. the North Pan-American Highway, which forms part of the structuring logistics corridor and is linked to one of the most important border crossings. This project is the most important one for connecting by land the north of Peru and the south of Ecuador; thus, it consolidates and enhances the regional connectivity network, creating significant cross-border synergies. Additionally, actions intended to harmonize transport-related standards are identified since there are still cargo transfer deficiencies at the border.

The Zarumilla-Aguas Verdes section, of continental importance, is part of the Pan-American Highway. At present, it caters for the greatest road traffic volume between Peru and Ecuador and, since the Peace Accords were signed, trade flows through the Road Axis No. 1 CEBAF have experienced a significant increase, as trade volumes grew by three times and annual vehicle traffic figures rose by five times. In 2010, the average daily traffic (ADT) in the Zarumilla-Aguas Verdes stretch was 1,365 vehicles in the direction of Huaquillas, Ecuador, 277 of which were trailer and semi-trailer trucks. Integrated controls at the Road Axis No. 1 CEBAF are helping add dynamism to transportation flows from and to Ecuador.

Within the framework of the Binational Plan, both Peru and Ecuador have been implementing various multisectoral actions at the bilateral level to facilitate services and increase trade and tourism flows on the common border -with the purpose of enhancing living conditions in the border region- as well as to improve the road network and border controls.

Some of the most important projects included in the Binational Plan involve five bilateral road axes; their objective is to create a land interconnection network that will serve as a basis for development in the common border area.

In 2011, total bilateral trade amounted to more than US\$2.8 billion, with trade in non-oil products alone accounting for more than US\$1.2 billion. As for freight traffic along the Aguas Verdes-Huaquillas border road section, in 2010 it reached an average of 547 tons per day in terms of inbound cargo and 296 tons per day in terms of outbound cargo.

In the case of the Paita Turn off-Sullana-Talara Turn off-Mancora-Aguas Verdes road (462.82 km), a five-year contract is in force since February 2010 to carry out maintenance works by service levels, in order to ensure improved conditions for traffic (regular and routine maintenance), with an investment of US\$50.5 million.

## PROPOSAL

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.

The works will be executed with public resources and include mainly the improvement and construction of bridges as well as the construction of a bypass road in the city of Tumbes. The project is part of the COSIPLAN Portfolio and is included in the Intermodal Transportation Plan (PIT) 2004-2023.

## PROGRESS ANALYSIS AND ASSESSMENT

The Sullana-Aguas Verdes road is in good condition for traffic. Some improvement works to bridges are underway, and some other, which are at the final engineering design stage and scheduled to commence in 2013, will be financed with public resources.

At present, the Bocapán (251 m) and Canoas (50 m) bridges are at the execution stage. Furthermore, the final studies for the Tumbes (60 m), Héroes del Cenepa (72 m), Abejal (45 m) and Pontón 1217 (10 m) bridges are being conducted, as works are scheduled to commence in 2014.

The profiling of the Tumbes bypass road (18 km) is to be started in the fourth quarter of 2013.



### 3. CAPRICORN HUB (ARGENTINA, BOLIVIA, BRAZIL, CHILE AND PARAGUAY)

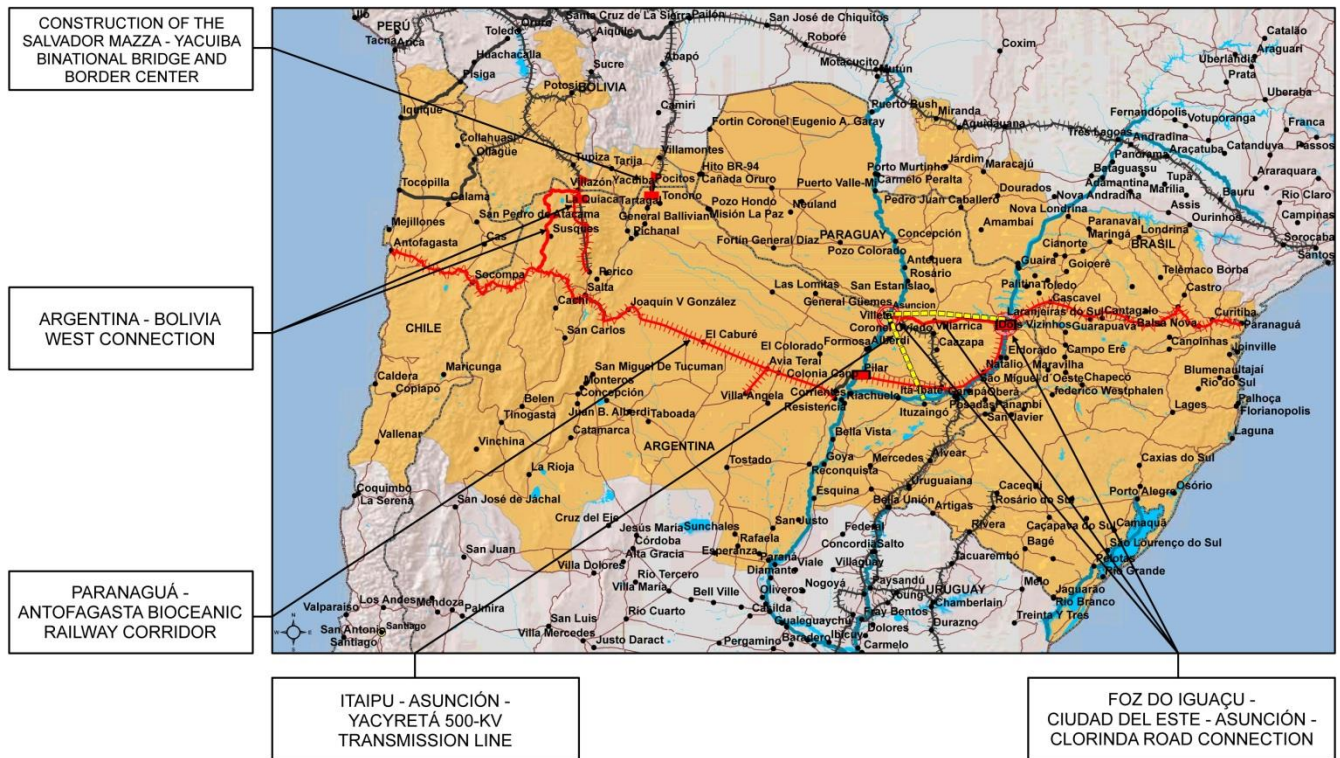
The Capricorn Hub comprises four homogeneous although differentiated regions: the Atlantic Coastal Region, formed by the states of Rio Grande do Sul, Santa Catarina and Paraná, in Brazil, and the southwestern Mato Grosso meso-region of the state of Mato Grosso do Sul; the Northeastern Region, comprised 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<sup>2</sup>, accounting for 20.6% 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% of the sum of the total population of the countries that make it up. Furthermore, an average population density of 18 inhabitants per km<sup>2</sup> 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 3.1 shows the 18 individual projects that make up the five structured projects of the Capricorn Hub incorporated into API. The estimated investments involved amount to US\$4,233 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.

**MAP 3.1: API PROJECTS – CAPRICORN HUB**



**TABLE 3.1: API PROJECTS – CAPRICORN HUB**

No.	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
9	CAP	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	ARGENTINA/ BOLIVIA	23.0	CAP10	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	AR - BO	G2	PRE-EXECUTION	23,000,000
10	CAP	ARGENTINA - BOLIVIA WEST CONNECTION	ARGENTINA/ BOLIVIA	477.0	CAP11	REHABILITATION OF JUJUY - LA QUIACA RAILWAY	AR	G2	PRE-EXECUTION	62,000,000
					CAP50	PAVING OF NATIONAL ROUTE No. 40, MINING CORRIDOR PATH (BORDER WITH BOLIVIA)	AR	G2	PRE-EXECUTION	400,000,000
					CAP81	LA QUIACA - VILLAZÓN BRIDGE AND BORDER CENTER	AR - BO	G2	PROFILING	15,000,000
11	CAP	PARANAGUÁ - ANTOFAGASTA BIOCEANIC RAILWAY CORRIDOR	ARGENTINA/ BRAZIL/ CHILE/ PARAGUAY	2,740.8	CAP20	CASCADE - FOZ DO IGUAÇU BIOCEANIC RAILWAY CORRIDOR	BR	G3	PROFILING	324,000,000
					CAP23	OPTIMIZATION OF THE ÑEEMBUCÚ - BERMEJO BRIDGE NODE	AR - PA	G4	PRE-EXECUTION	61,206,392
					CAP29	CONSTRUCTION OF CIUDAD DEL ESTE - PILAR RAILWAY	PA	G4	PRE-EXECUTION	438,600,000
					CAP37	REHABILITATION OF THE C3 RAILWAY BRANCH LINE: RESISTENCIA - AVIA TERAÍ - PINEDO	AR	G1	PRE-EXECUTION	104,000,000
					CAP38	REHABILITATION OF THE C12 RAILWAY BRANCH LINE: AVIA TERAÍ - METÁN	AR	G1	PRE-EXECUTION	212,000,000
					CAP39	REHABILITATION OF THE C14 RAILWAY BRANCH LINE: SALTA - SOCOMPA	AR	G1	PRE-EXECUTION	60,000,000
					CAP52	RAILWAY BRIDGE WITH FREIGHT YARD (CIUDAD DEL ESTE - FOZ DO IGUAÇU)	BR - PA	G3	PROFILING	40,971,000
					CAP53	BIOCEANIC RAILWAY CORRIDOR: PARANAGUÁ - CASCADE SECTION AND GUARAPUAVA - INGENIERO BLEY RAILWAY BYPASS	BR	G3	PRE-EXECUTION	1,500,000,000
					CAP91	BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA - SOCOMPA)	CH	G1	COMPLETED*	0
12	CAP	FOZ DO IGUAÇU - CIUDAD DEL ESTE - ASUNCIÓN - CLORINDA ROAD CONNECTION	ARGENTINA/ BRAZIL/ PARAGUAY	237.2	CAP07	OPTIMIZATION OF THE CLORINDA - ASUNCIÓN NODE	AR - PA	G1	PRE-EXECUTION	101,206,392
					CAP14	NEW PUERTO PRESIDENTE FRANCO - PORTO MEIRA BRIDGE, WITH A PARAGUAY - BRAZIL INTEGRATED CONTROL AREA	BR - PA	G3	PRE-EXECUTION	0
					CAP18	CONCESSION FOR THE IMPROVEMENT OF ROUTES No. 2 AND 7 (ASUNCIÓN - CIUDAD DEL ESTE)	PA	G3	PRE-EXECUTION	136,000,000
13	CAP	ITAIPU - ASUNCIÓN - YACYRETÁ 500-KV TRANSMISSION LINE	PARAGUAY/ BRAZIL	755.0	CAP67	500-KV TRANSMISSION LINE (ITAIPU - ASUNCIÓN)	BR - PA	G3	EXECUTION	555,000,000
					CAP68	500-KV TRANSMISSION LINE (YACYRETÁ - AYOLAS - CARAYAO)	PA	G3	PRE-EXECUTION	200,000,000

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

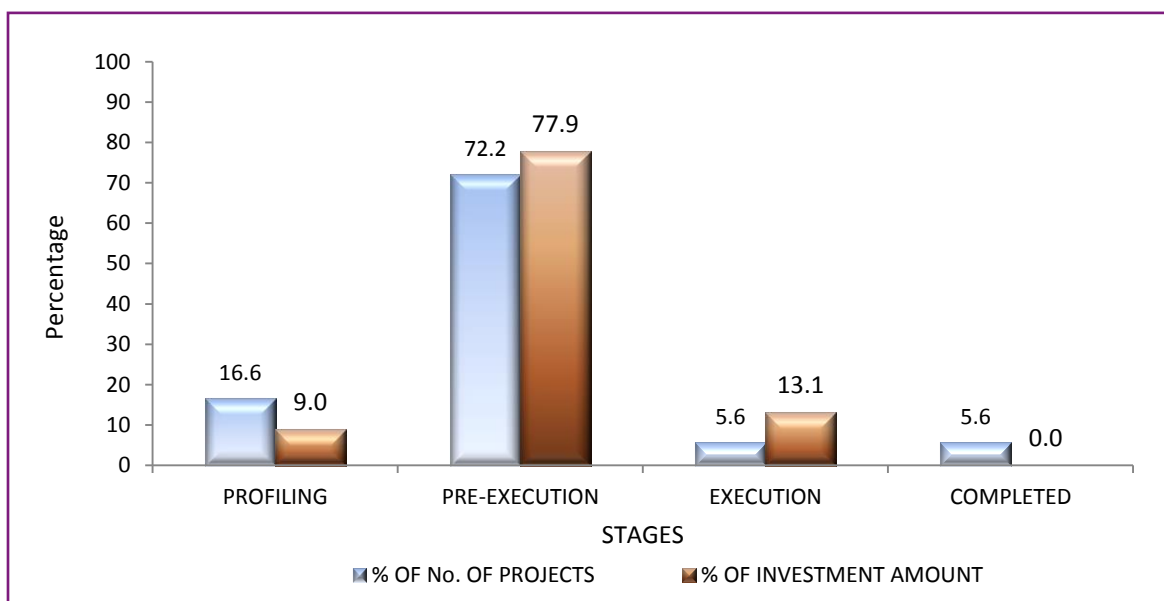
**TABLE 3.2: API PROJECTS – CAPRICORN HUB BY LIFE CYCLE STAGE**  
(number of projects, million US\$ and percentage)

PROJECT STAGE	No. OF PROJECTS	% OF PROJECTS	INVESTMENT AMOUNT	% OF INVESTMENT AMOUNT
PROFILING	3	16.6	380.0	9.0
PRE-EXECUTION	13	72.2	3,298.0	77.9
EXECUTION	1	5.6	555.0	13.1
COMPLETED (*)	1	5.6	0.0	0.0
<b>TOTAL</b>	<b>18</b>	<b>100.0</b>	<b>4,233.0</b>	<b>100.0</b>

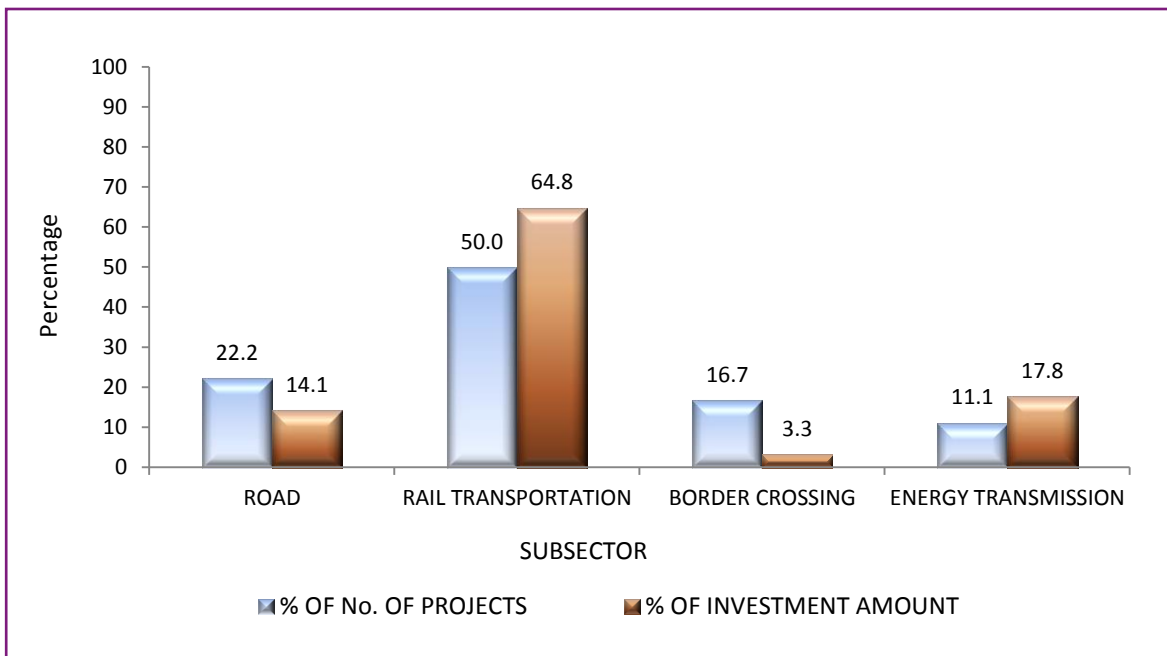
Note: Amounts are estimated on the basis of the implementation stage at which the API individual projects are.

\* There is one project included in a structured project of this Hub that was already completed when API was set up. This project is CAP91 and its investment amount is not available.

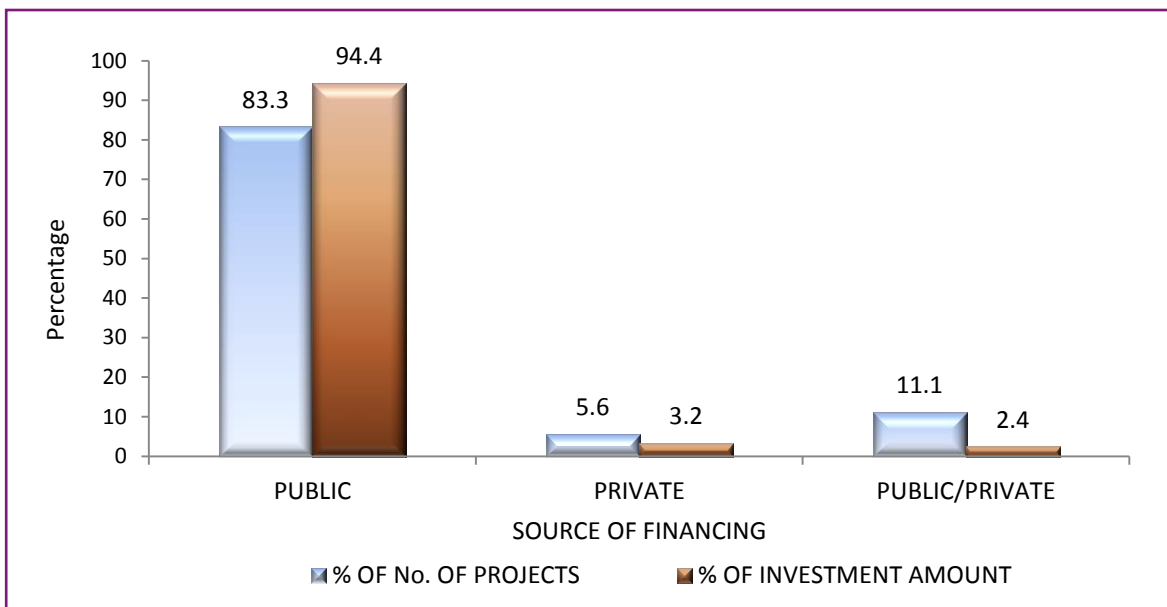
**FIGURE 3.1: API PROJECTS – CAPRICORN HUB BY LIFE CYCLE STAGE**  
(% of number of projects and % of investment amount)



**FIGURE 3.2: API PROJECTS – CAPRICORN HUB BY SUBSECTOR**  
(% of number of projects and % of investment amount)



**FIGURE 3.3: API PROJECTS – CAPRICORN HUB BY SOURCE OF FINANCING**  
(% of number of projects and % of investment amount)



9

## CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER

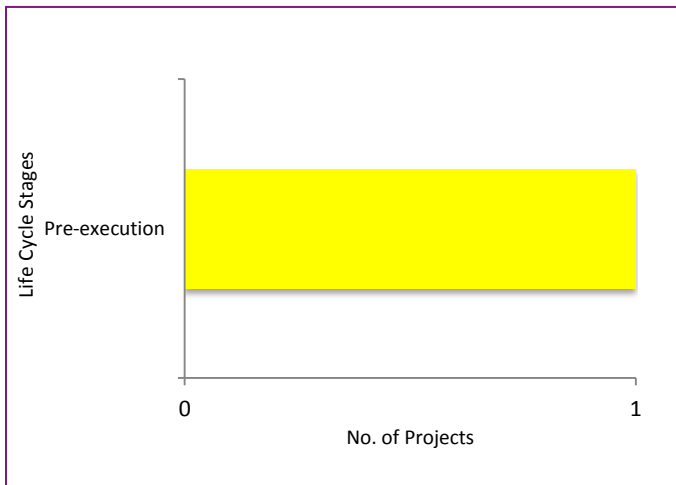
HUB: **CAPRICORN**

COUNTRIES: **ARGENTINA – BOLIVIA**

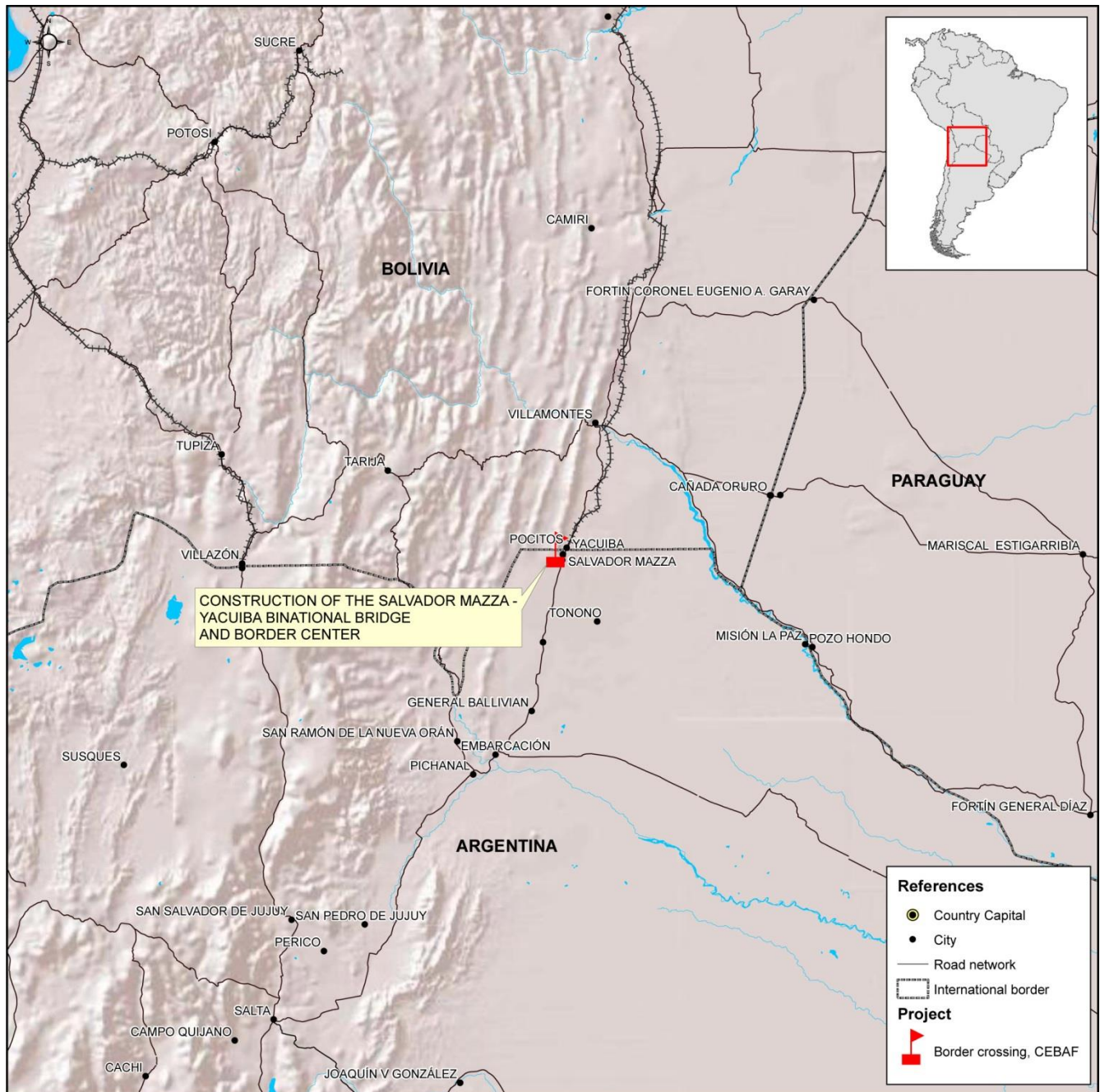
PROJECT TYPE: **Border Crossing**

ESTIMATED INVESTMENT: **US\$23.0 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>CAP10</b>	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	AR - BO	PRE-EXECUTION	23,000,000



## RATIONALE

This structured project consolidates the regional networks and favors cross-border synergies between Argentina and Bolivia. At present, the border crossing has a 34-meter long, 8.3-meter wide international bridge that connects highly urbanized areas on both sides of the border. The cities located in the vicinity of this crossing are Salvador Mazza, in Argentina, and Yacuiba, in Bolivia, and the bridge is known as YASMA.

The construction of a new bridge seeks to come up with a solution to the existing serious difficulties at the border crossing between both countries and to ensure the smooth flow of international freight and passenger traffic as well as of pedestrians. The problem is that the current bridge is an urban road used for both local border traffic and international traffic.

The purpose is to solve such traffic congestion by ordering and articulating traffic flows between the border cities, taking into account territorial planning and the promotion of production and social activities in the region.

## PROPOSAL

The proposal includes constructing a new international bridge, implementing a border center and improving the approach roads. 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 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).

## PROGRESS ANALYSIS AND ASSESSMENT

The only individual project of this structured project forms part of the COSIPLAN Portfolio and is included in the Argentine Strategic Territorial Plan and the Bolivian Development Plan. Furthermore, an exchange of notes between both countries was effected expressing support to the project. At present, the project is at the pre-execution stage.

A binational work group was created in order to take actions and follow up on the construction of the YASMA bridge, analyzing the building of a single customs office as proposed by Argentina, an issue being currently negotiated by both countries.

Moreover, a change of the route alignment at Yacuiba was agreed, for which purpose the Bolivian Road Administration reviewed the project of the new YASMA bridge as well as the plans for the approach roads.

For the project to be modified, an aerial topographic survey using LIDAR technology was conducted in May 2013. The National Road Directorate of Argentina is examining the results obtained. Afterwards, the Argentine authorities will meet in October with representatives of the Road Administration of Bolivia, and then will issue a call for tender to undertake the works, which is scheduled for the end of 2013 or the beginning of 2014.

HUB: **CAPRICORN**

COUNTRIES: **ARGENTINA – BOLIVIA**

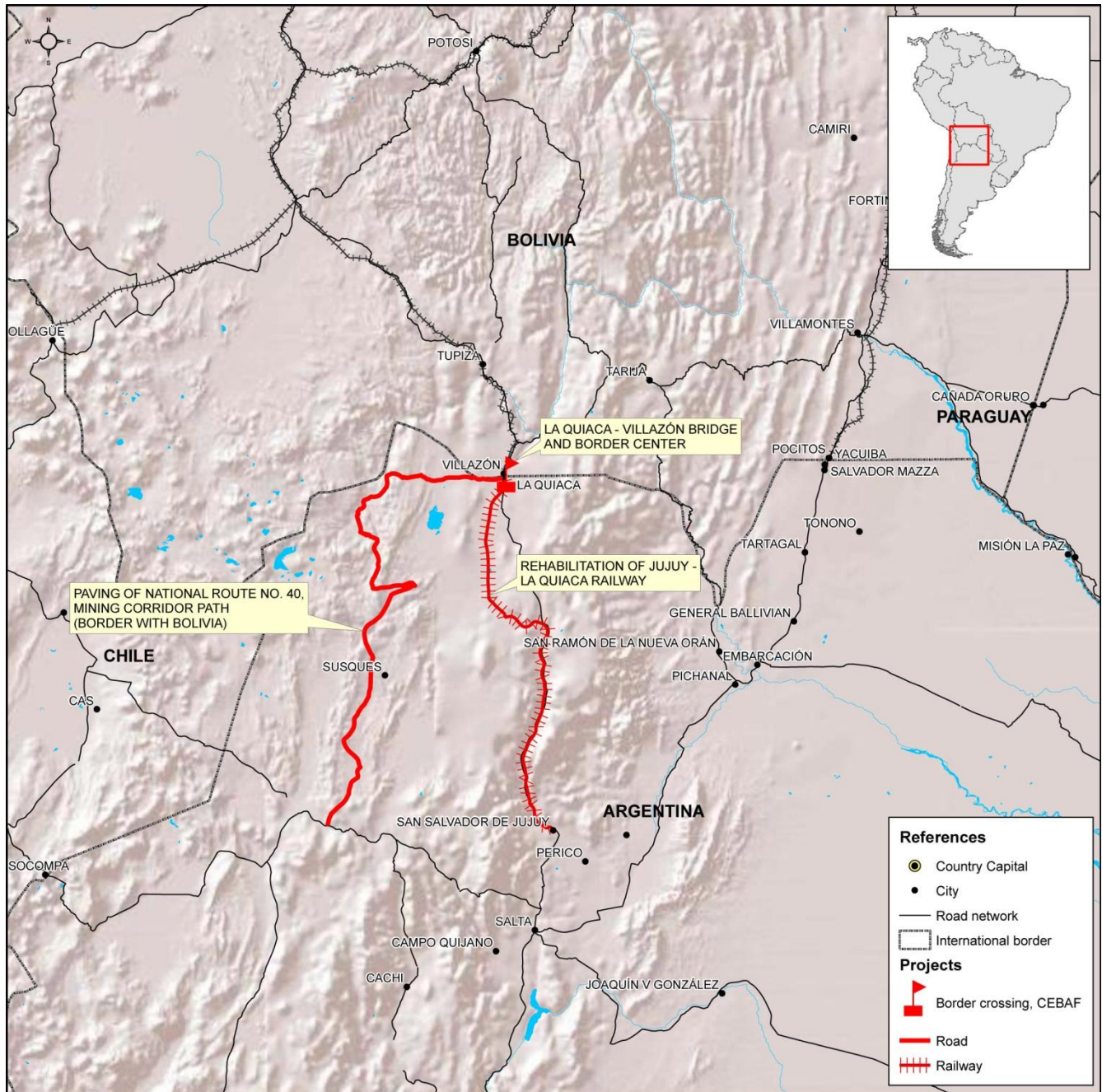
PROJECT TYPE: **Road and Rail Transportation and Border Crossing**

ESTIMATED INVESTMENT: **US\$477.0 million**

SOURCE OF FINANCING: **Public-Private**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>CAP11</b>	REHABILITATION OF JUJUY - LA QUIACA RAILWAY	AR	PRE-EXECUTION	62,000,000
<b>CAP50</b>	PAVING OF NATIONAL ROUTE No. 40, MINING CORRIDOR PATH (BORDER WITH BOLIVIA)	AR	PRE-EXECUTION	400,000,000
<b>CAP81</b>	LA QUIACA - VILLAZÓN BRIDGE AND BORDER CENTER	AR - BO	PROFILING	15,000,000



## RATIONALE

The objective of this structured project is to solve the lack of efficient connectivity in the region, as the existing infrastructure has become a gridlock. The purpose is to turn the area into an integration node with a multimodal configuration, articulating and planning the use of the land, promoting the growth of production activities, and ordering traffic flows, thus preventing international freight trucks from entering border cities and towns.

The project will create significant synergies in terms of binational integration through the implementation of the individual projects included, covering a territorial strip that goes from the province of Jujuy in Argentina to the city of Oruro in Bolivia.

The implementation of this project will result in a smoother connection between the countries and shorter wait times on both sides of the border for freight and passenger traffic. Thus, the new alignment of National Route No. 40 in Argentina, the construction of a new bridge, the establishment of a border center, and the rehabilitation of the Jujuy-La Quiaca railway will help reverse the sprawl of the cities and towns adjacent to the current border crossing and alleviate vehicular and pedestrian traffic.

In addition, complementary actions are needed to properly serve the border strip, including border crossing infrastructure, management of the border service center, and the tapping of opportunities for the implementation of measures aimed at improving logistics and production integration, all this taking into account the preservation of the environment and any other significant territorial impact.

## PROPOSAL

This structured project is made up of the following individual projects:

- i) Rehabilitation of Jujuy - La Quiaca Railway
- ii) Paving of National Route No. 40, Mining Corridor Path (Border with Bolivia)
- iii) La Quiaca (Argentina) - Villazón (Bolivia) Bridge and Border Center

The railway route starts in the city of Jujuy and runs to the farthest northeastern town of Argentina -La Quiaca-, connecting with the town of Villazón in Bolivia through the current rail bridge. The route continues on the Bolivian territory up to Oruro. In addition, the new bridge and border center to be constructed would be close to the existing international bridge.

With regard to National Route No. 40 in the province of Jujuy (Mining Corridor Path), the new alignment starts in San Antonio de los Cobres, in the province of Salta (in the proximity of the border with the province of Jujuy), passes through a series of localities, and ends in La Quiaca (border with Bolivia).

## PROGRESS ANALYSIS AND ASSESSMENT

All the projects form part of the COSIPLAN Portfolio and are included in the Argentine Strategic Territorial Plan and the Bolivian National Development Plan. Each individual project is in a different phase -the rail rehabilitation project has completed its pre-feasibility study, the paving of National Route No. 40 is at the pre-execution stage, while the alignment and bridge with border center project is at the profiling stage.

Therefore, it is advisable to conduct a comprehensive study to identify the stages for their implementation, follow-up and monitoring. In addition, it is expected that before the end of this year the Joint Technical Group will resume its meetings aimed at strengthening the technical dialogue on sectoral issues of common interest, particularly in relation to border integration, in order to coordinate actions with a view to improving connectivity.

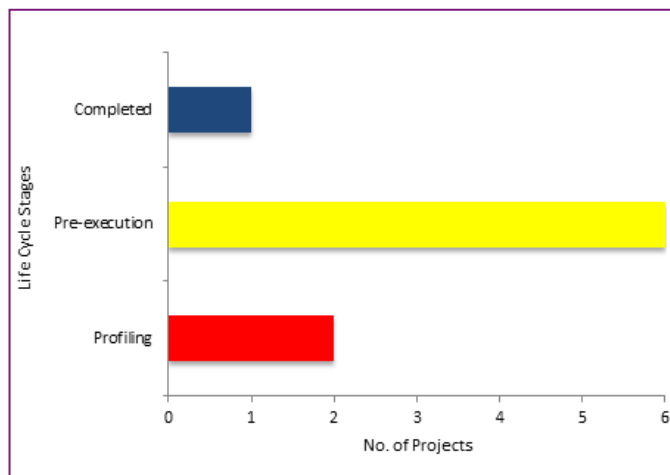
HUB: **CAPRICORN**

COUNTRIES: **ARGENTINA – BRAZIL – CHILE – PARAGUAY**

PROJECT TYPE: **Rail and Road Transportation**

ESTIMATED INVESTMENT: **US\$2,740.8 million**

SOURCE OF FINANCING: **Public-Private**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>CAP20</b>	CASCADEL - FOZ DO IGUAÇU BIOCEANIC RAILWAY CORRIDOR	BR	PROFILING	324,000,000
<b>CAP23</b>	OPTIMIZATION OF THE ÑEEMBUCÚ - BERMEJO BRIDGE NODE	AR - PA	PRE-EXECUTION	61,206,392
<b>CAP29</b>	CONSTRUCTION OF CIUDAD DEL ESTE - PILAR RAILWAY	PA	PRE-EXECUTION	438,600,000
<b>CAP37</b>	REHABILITATION OF THE C3 RAILWAY BRANCH LINE: RESISTENCIA - AVIA TERAI - PINEDO	AR	PRE-EXECUTION	104,000,000
<b>CAP38</b>	REHABILITATION OF THE C12 RAILWAY BRANCH LINE: AVIA TERAI - METÁN	AR	PRE-EXECUTION	212,000,000
<b>CAP39</b>	REHABILITATION OF THE C14 RAILWAY BRANCH LINE: SALTA - SOCOMPA	AR	PRE-EXECUTION	60,000,000
<b>CAP52</b>	RAILWAY BRIDGE WITH FREIGHT YARD (CIUDAD DEL ESTE - FOZ DO IGUAÇU)	BR - PA	PROFILING	40,971,000
<b>CAP53</b>	BIOCEANIC RAILWAY CORRIDOR: PARANAGUÁ - CASCADEL SECTION AND GUARAPUAVA - INGENIERO BLEY RAILWAY BYPASS	BR	PRE-EXECUTION	1,500,000,000
<b>CAP91</b>	BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA - SOCOMPA)	CH	COMPLETED	0



## RATIONALE

The Paranaguá-Antofagasta rail corridor is often mentioned in joint statements issued by the presidents of the countries involved as an emblematic project for the regional infrastructure integration process.

This project aims at providing a multilateral rail connection for cargo transportation in the Capricorn Hub, linking the countries concerned from the Antofagasta port, in Chile, through the northern area of Argentina, Paraguay and the Brazilian territory, up to the Paranaguá port in Brazil.

The bioceanic corridor seeks to reduce the medium- and long-distance logistics costs and encourage trade. It will facilitate the exchange of goods between the eastern and western margins of the continent, by enabling the transport of the increasing flows of imports and exports from and to South America, either through the Atlantic or the Pacific oceans. This access facilitation is expected to have a positive impact on the integration of logistics and production chains, especially those related to grain, meat and mineral processing.

The purpose of the project is to strengthen a connectivity network with a regional scope by integrating existing rail networks and consolidating a physical and operational single unit. In addition, it provides for complementary works and for other structural, regulatory, technical security and operational conditions required to ensure a continuous flow as well as an effective integration of all the sections.

In general, railway systems are old and in poor condition, which does not allow big trains to run. Therefore, this project is of great importance, as it will help increase rail-dependent economies of scale.

## PROPOSAL

The nine 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, resulting in a meter gage railway interconnecting the four countries and the Pacific and Atlantic oceans.

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 the Brazilian territory: i) the construction of the Cascavel-Foz do Iguaçu stretch; and ii) the upgrade of the Paranaguá-Cascavel section and the construction of the Guarapuava-Engenheiro Bley rail bypass.

One project is located in Chile: Bioceanic Railway Corridor, Chilean Section (Antofagasta - Socompa).

Another one 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).

Finally, another project joins Brazil and Paraguay: Railway Bridge with Freight Yard (Ciudad del Este - Foz do Iguaçu).

Additionally, it will be necessary to define and apply common parameters in all the countries for customs surveillance purposes, involving the most important operational patterns as well as actions aimed at improving regulatory, institutional and operational models. Thus, it is essential to work on a legal framework that should produce an adequate integrated operation scheme and smooth coordination mechanisms among the agencies in charge of the different sections that form part of the project.

#### PROGRESS ANALYSIS AND ASSESSMENT

The rehabilitation and improvement of the rail sections making up this corridor are included in the National Plans of the countries concerned.

At the Sixth Meeting of the Work Group on the Rail Integration of the Atlantic-Pacific Bioceanic Corridor, a report on the studies funded by the Brazilian Development Bank (BNDES) was submitted for reference purposes only -i.e. it is not binding-, together with the progress on the sections in each country.

Of the nine individual projects included, one is completed (the Antofagasta-Socompa section, in Chile), two are at the profiling stage, and the other six are at the pre-execution stage.

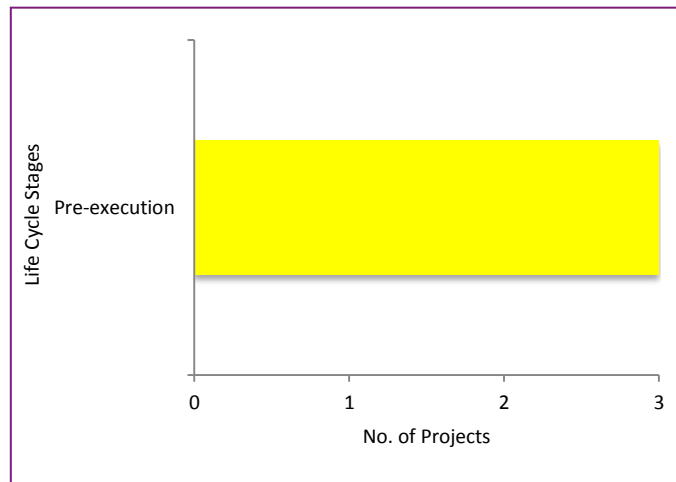
HUB: **CAPRICORN**

COUNTRIES: **ARGENTINA – BRAZIL – PARAGUAY**

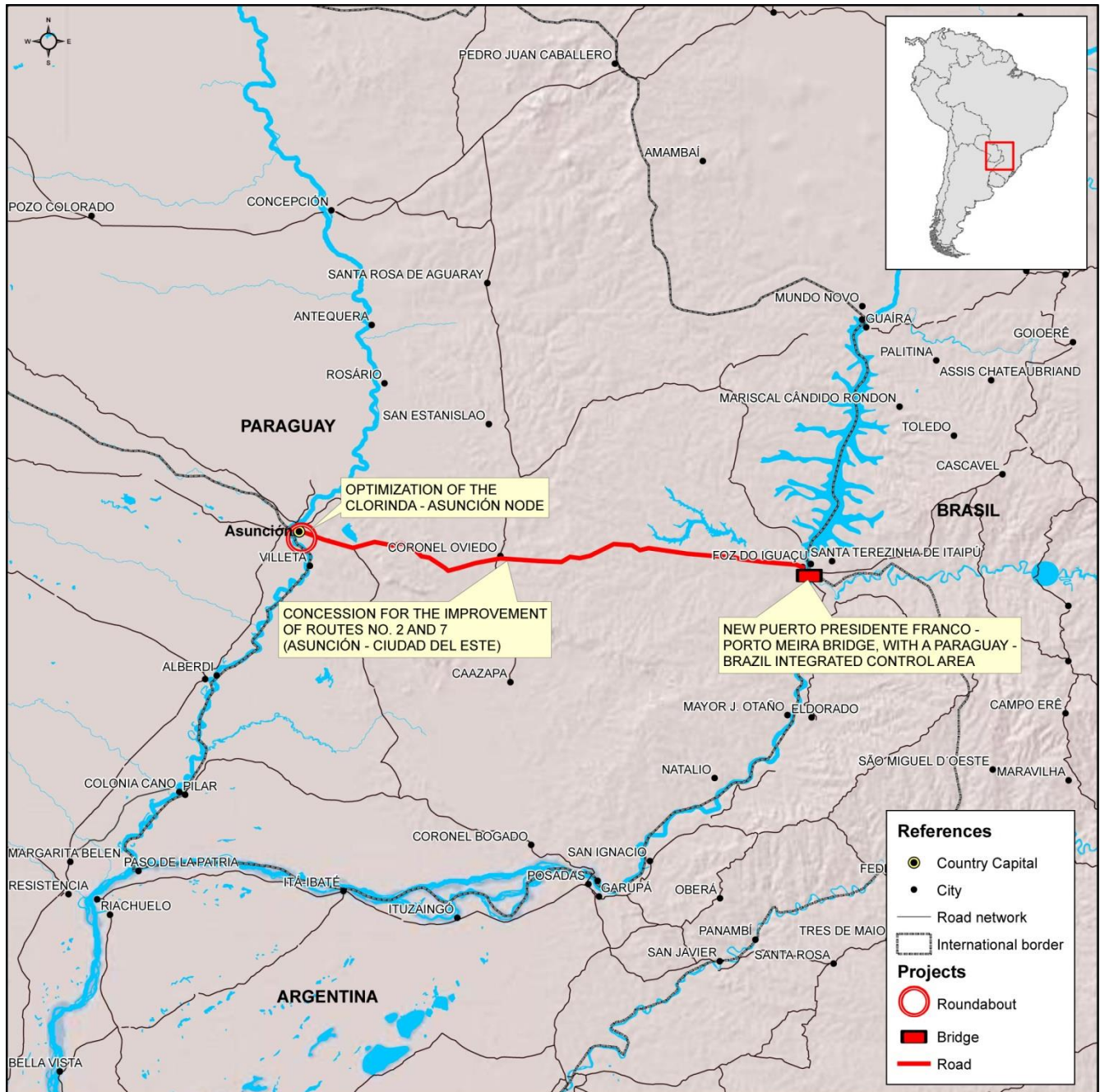
PROJECT TYPE: **Road Transportation**

ESTIMATED INVESTMENT: **US\$237.2 million**

SOURCE OF FINANCING: **Public-Private**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>CAP07</b>	OPTIMIZATION OF THE CLORINDA - ASUNCIÓN NODE	AR - PA	PRE-EXECUTION	101,206,392
<b>CAP14</b>	NEW PUERTO PRESIDENTE FRANCO - PORTO MEIRA BRIDGE, WITH A PARAGUAY - BRAZIL INTEGRATED CONTROL AREA	BR - PA	PRE-EXECUTION	0
<b>CAP18</b>	CONCESSION FOR THE IMPROVEMENT OF ROUTES No. 2 AND 7 (ASUNCIÓN - CIUDAD DEL ESTE)	PA	PRE-EXECUTION	136,000,000



## RATIONALE

This structured project is fundamental to boost the economic activities between the metropolitan capital of Paraguay through the so-called Triple Frontier (Foz do Iguaçu, Ciudad del Este, Puerto Iguazú) up to the city of Clorinda, in Argentina. It therefore strengthens networks that are regional in scope and is instrumental in fostering regional connectivity and integration.

As for the structured project as a whole, there are important logistics and production integration opportunities to improve the quality of life of the population in the countries involved.

In this regard, this project seeks to enhance transportation in the Clorinda (Argentina), Asunción (Paraguay) and Paranaguá (Brazil) axis, which will cause a high impact on the integration of these cities with the southern and southeastern regions of Brazil. There is already an intense trade flow between the state of Paraná and Paraguay, the main production integration opportunities being those related to the seeds-fertilizers, capital goods, grain, and poultry production chains. The completion of the transmission line being constructed between the Itaipu hydroelectric dam and the capital of Paraguay is expected to enhance the integration of production chains, including energy-intensive industries.

Furthermore, from the city of Clorinda, located in the province of Formosa, the project connects to the west, through National Routes No. 11 and 81, with the Jama border crossing in the province of Jujuy, with the aim of getting into Chile (Iquique, Antofagasta and Mejillones ports) to export goods through the Pacific ocean.

It should be noted that the 193-km long Route No. 7 is a national road in Paraguay. It starts in the city of Coronel Oviedo and ends in Ciudad del Este at the Puente de la Amistad (Friendship Bridge), on the border with Brazil. On the west, in Coronel Oviedo, the name of the road changes and becomes National Route No. 2, ending in the city of Asunción. To the east, when it enters the Brazilian territory from Ciudad del Este, its name is BR-277 and is 132 km long. Along its sections, the highway has either two or four lanes.

## PROPOSAL

This project is made up of three individual projects located between Asunción and the border area of Foz do Iguaçu, in Brazil.

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.

The second project involves the construction of a second international bridge over the Paraná river to enhance the connection between Brazil and 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.

## PROGRESS ANALYSIS AND ASSESSMENT

The Optimization of the Clorinda - Asunción Node project forms part of the Argentine Strategic Territorial Plan, and its binational study will be funded through a contingent-recovery technical cooperation agreement entered into by both countries and FONPLATA. At present, both countries are analyzing the quotes submitted, after the international call for tender, by different consulting firms in order to choose the one to undertake the study concerned.

The New Puerto Presidente Franco - Porto Meira Bridge project is included in the Brazilian Growth Acceleration Program (or PAC, its acronym in Portuguese), and a bilateral agreement concerning its implementation, which came into force on October 1, 2008, has been signed and approved by the Brazilian and Paraguayan congresses. The project is at the pre-execution stage. The studies started in September 2007, and works are scheduled to be completed by April 2015.

In addition, the commencement of the studies for the improvement of Routes No. 2 and 7 is contingent on the approval of the Paraguayan Congress, which is currently considering the project.

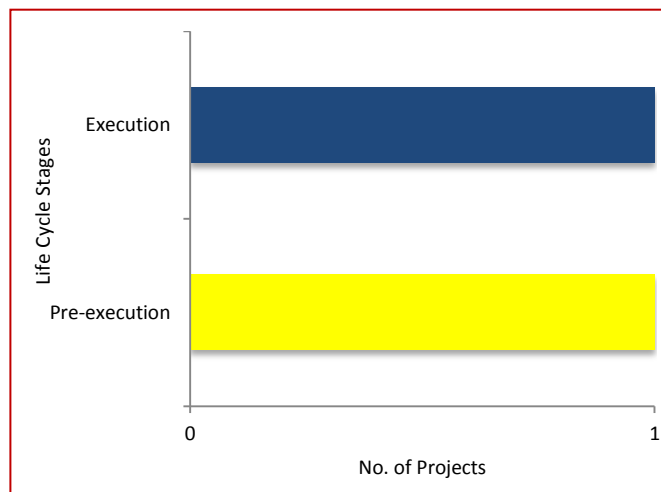
HUB: **CAPRICORN**

COUNTRIES: **BRAZIL – PARAGUAY**

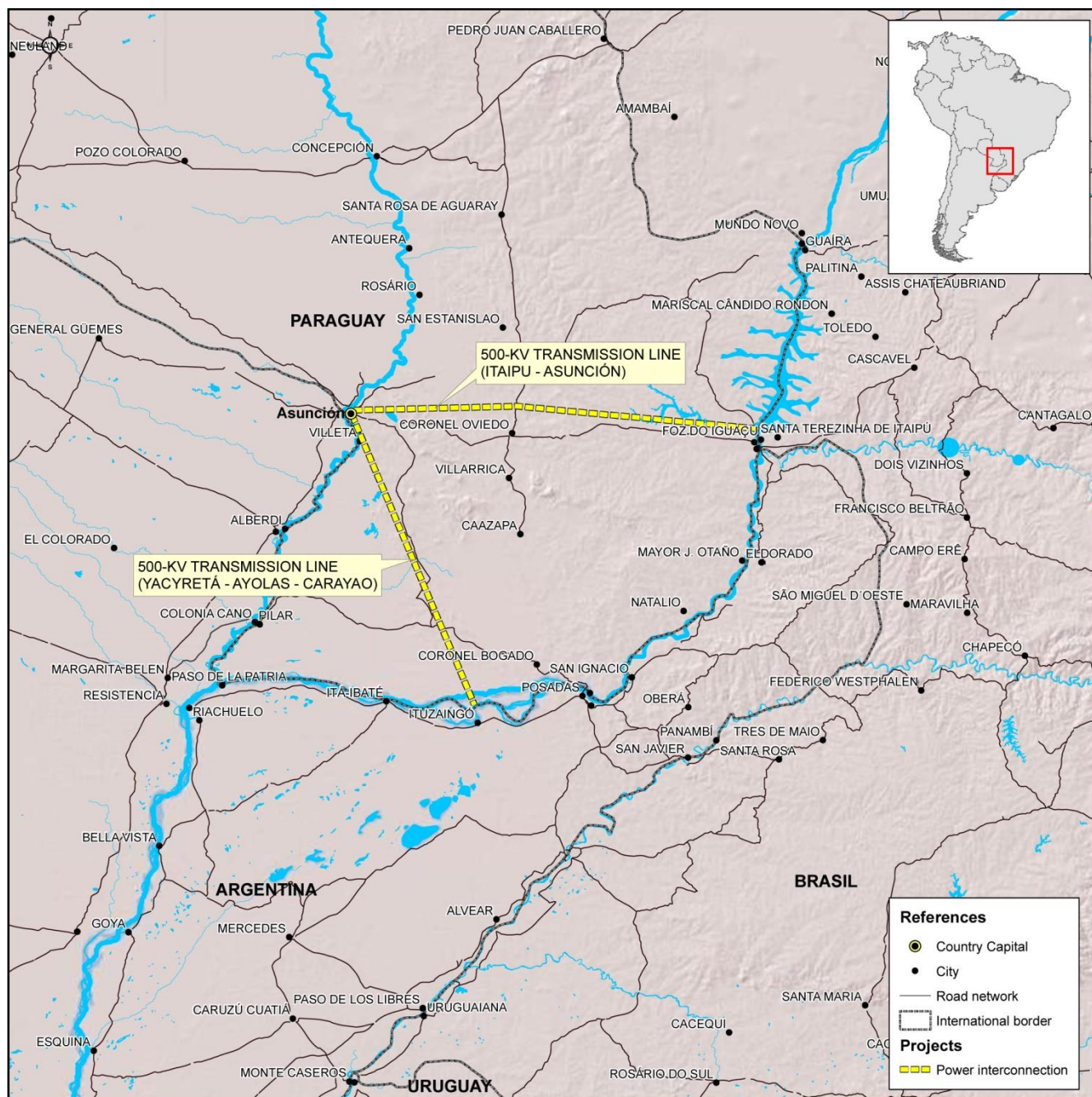
PROJECT TYPE: **Energy Transmission**

ESTIMATED INVESTMENT: **US\$755.0 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>CAP67</b>	500-KV TRANSMISSION LINE (ITAIPU - ASUNCIÓN)	BR - PA	EXECUTION	555,000,000
<b>CAP68</b>	500-KV TRANSMISSION LINE (YACYRETÁ - AYOLAS - CARAYAO)	PA	PRE-EXECUTION	200,000,000



## RATIONALE

This structured project supports networks with a regional scope, since it 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). Furthermore, 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.

This project is in line with the Declaration of Intent issued by the Government of the Federal Republic of Brazil and the Government of the Republic of Paraguay over a technical cooperation for the development of the basic design of the 500-kV transmission line between the Itaipu-Right Bank Substation and the Limpio Substation in the city of Asunción, signed on June 28, 2007, in Asunción, as well as with the Joint Declaration of the Presidents of Brazil and Paraguay made on July 25, 2009, in Asunción.

The purpose of the 500-kV Transmission Line (Itaipu - Asunción) 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 significant 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 were already operating at full capacity in 2011. The purpose of the 500-kV Transmission Line (Yacyretá - Ayolas - Carayao) 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.

## PROPOSAL

This structured 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 the Itaipu dam to the Villa Hayes-Asunción power station. The second line runs from Yacyretá (Ayolas) to the Villa Hayes-Asunción power station, with an extension to the Carayao power station.

## PROGRESS ANALYSIS AND ASSESSMENT

The Itaipu-Asunción 500-kV transmission line project is at the execution stage and scheduled to be completed approximately in December 2013. The Yacyretá-Ayolas-Carayao 500-kV transmission line project is at the pre-execution stage, but its studies have already been completed.

#### 4. GUIANESE SHIELD HUB (BRAZIL, GUYANA, SURINAME AND VENEZUELA)

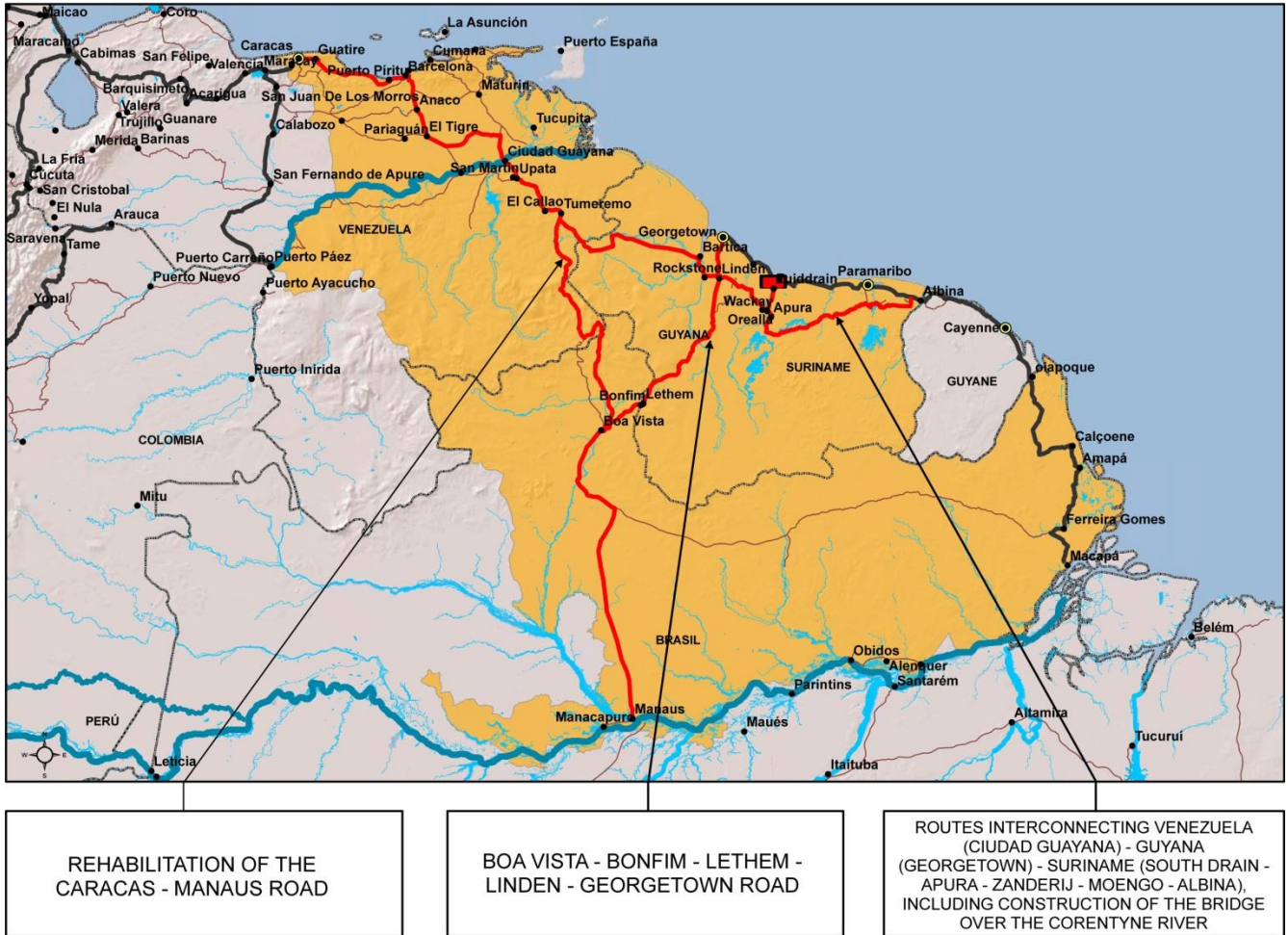
This Hub covers the eastern region of Venezuela (the states of Anzoátegui, Bolívar, Delta Amacuro, the Capital District, Nueva Esparta, Guárico, Miranda, Monagas, Sucre, and Vargas), Brazil's northern arc (the states of Amapá, Roraima, Amazonas, and Pará), and all of the territory of Guyana and Suriname. The area of influence defined for the Hub covers 4,002,555 km<sup>2</sup>, accounting for 40.8% 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 11.2% of the total population of the countries that make up the Hub. Furthermore, the area of influence has an average population density of a little over 6 inhabitants per km<sup>2</sup>. This indicator ranges from a maximum 4,830 inhabitants per km<sup>2</sup> in the Capital District of Venezuela to a minimum of almost 2 inhabitants per km<sup>2</sup> 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 API.

API includes projects from three of the four project groups of this Hub: i) G1 - Venezuela - Brazil Interconnection; ii) G2 - Brazil - Guyana Interconnection; and iii) G3 - Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Paramaribo) Interconnection.

Table 4.1 shows the six individual projects that make up the three structured projects of the Guianese Shield Hub incorporated into API. The estimated investments involved amount to US\$958.8 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.

**MAP 4.1: API PROJECTS – GUIANESE SHIELD HUB**



**TABLE 4.1: API PROJECTS – GUIANESE SHIELD HUB**

No.	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
14	GUY	REHABILITATION OF THE CARACAS - MANAUS ROAD	BRAZIL/ VENEZUELA	407.0	GUY01	REHABILITATION OF THE CARACAS - MANAUS ROAD	BR - VE	G1	EXECUTION	407,000,000
15	GUY	BOA VISTA - BONFIM - LETHEM - LINDEN - GEORGETOWN ROAD	BRAZIL/ GUYANA	250.0	GUY09	LETHEM - LINDEN ROAD	GU	G2	PRE-EXECUTION	250,000,000
					GUY42	BOA VISTA - BONFIM ROAD	BR	G2	COMPLETED*	0
					GUY43	LINDEN - GEORGETOWN ROAD	GU	G2	COMPLETED*	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	GUYANA/ SURINAME/ VENEZUELA	301.8	GUY18	ROUTES INTERCONNECTING VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (APURA - ZANDERIJ - PARAMARIBO)	GU - SU - VE	G3	PROFILING	300,800,000
					GUY24	CONSTRUCTION OF THE BRIDGE OVER THE CORENTYNE RIVER	GU - SU	G3	PROFILING	1,000,000

\* These two Individual projects were completed before the creation of API and incorporated into the Agenda because they supplement the connectivity network of the structured project.

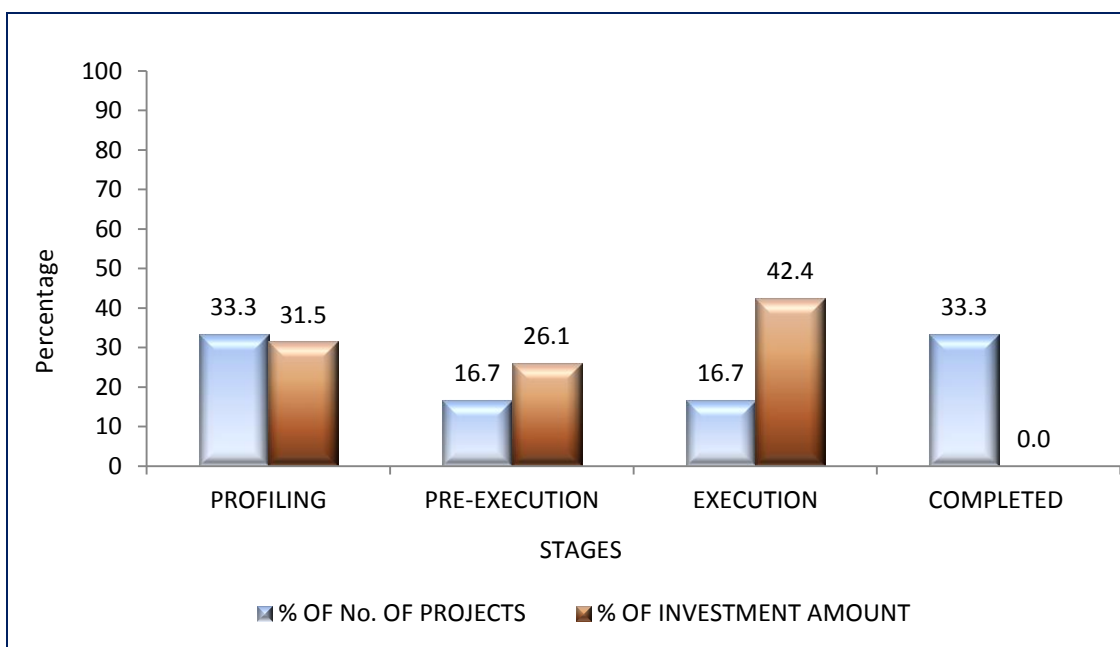
**TABLE 4.2: API PROJECTS – GUIANESE SHIELD HUB BY LIFE CYCLE STAGE**  
(number of projects, million US\$ and percentage)

PROJECT STAGE	No. OF PROJECTS	% OF PROJECTS	INVESTMENT AMOUNT	% OF INVESTMENT AMOUNT
PROFILING	2	33.3	301.8	31.5
PRE-EXECUTION	1	16.7	250.0	26.1
EXECUTION	1	16.7	407.0	42.4
COMPLETED (*)	2	33.3	0.0	0.0
<b>TOTAL</b>	<b>6</b>	<b>100.0</b>	<b>958.8</b>	<b>100.0</b>

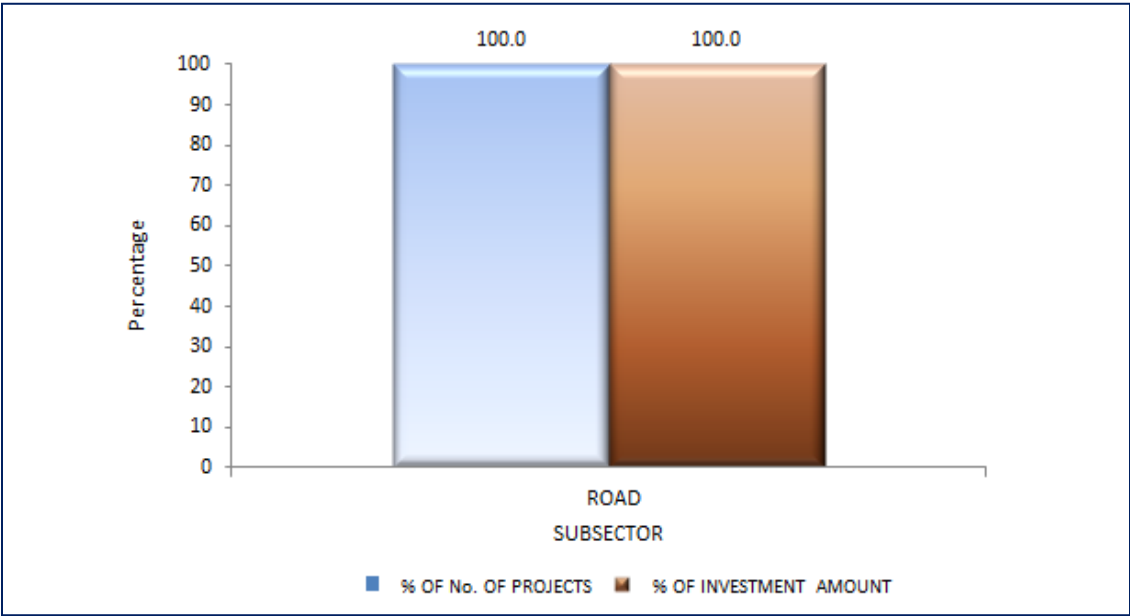
Note: Amounts are estimated on the basis of the life cycle stage at which the API individual projects are.

(\*) There are two individual projects that were completed before the creation of API, but are part of a structured project. These projects are GUY42 and GUY43, the investment amounts of which are not available.

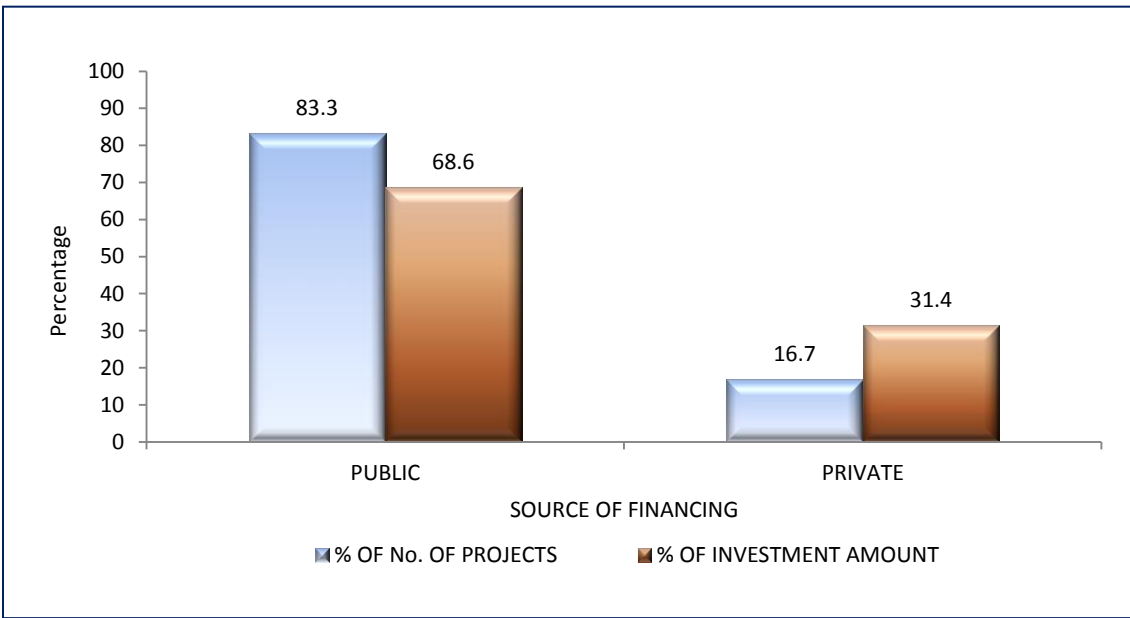
**FIGURE 4.1: API PROJECTS – GUIANESE SHIELD HUB BY LIFE CYCLE STAGE**  
(% of number of projects and % of investment amount)



**FIGURE 4.2: API PROJECTS – GUIANESE SHIELD HUB BY SUBSECTOR**  
(% of number of projects and % of investment amount)



**FIGURE 4.3: API PROJECTS – GUIANESE SHIELD HUB BY SOURCE OF FINANCING**  
(% of number of projects and % of investment amount)



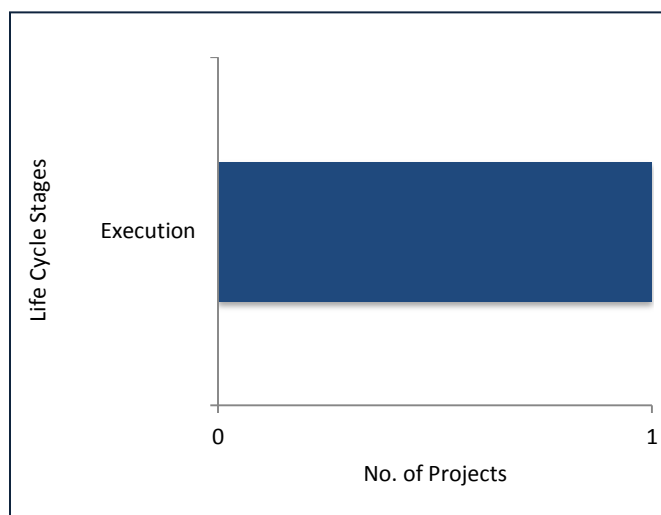
HUB: **GUIANESE SHIELD**

COUNTRIES: **BRAZIL – VENEZUELA**

PROJECT TYPE: **Road Transportation**

ESTIMATED INVESTMENT: **US\$407.0 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
GUY01	REHABILITATION OF THE CARACAS - MANAUS ROAD	BR - VE	EXECUTION	407,000,000



## RATIONALE

This project is significant on account of the importance of the Caracas-Manaus connection, as this is the only link between Venezuela and Brazil, running along the Brazilian federal longitudinal highway BR-174/AM/RR, through the BV-8 border (Santa Elena de Uairén), to the Venezuelan ports, mainly the one in Puerto Ordaz, along Trunk Road 10.

Route BR-174, which is 975-km long, runs from Manaus to Pacaraima, a Brazilian municipality located on the Brazil-Venezuela border. The territorial, socioeconomic and commercial development of the region benefited from its construction, which facilitated the movement of goods from/to their origin/destination, the mobility of people previously living in a quite isolated area, and a reduction in travel times and distances resulting in lower transport costs.

Thus, the works that need to be carried out in connection with the above-mentioned road are of major importance in the national and regional context, as the corridor will induce sustainable development in this peculiar geographical area of the Amazonia, helping improve the quality of life of people living in its cities, towns and villages and stimulate their respective production centers.

## PROPOSAL

The objective is to restore the pavement surface conditions in the critical sections of Route BR-174/AM/RR, the main deficiencies of which include patches, wear and tear, asphalt stripping, strain, and deterioration of the wearing surface. Rehabilitation requires recycling, drainage, waterproofing, reconstruction of the wearing surface, and traffic signing and road marking works. On the Venezuelan side, the road needs maintenance on a constant basis.

## PROGRESS ANALYSIS AND ASSESSMENT

With regard to the rehabilitation works on the Brazilian section, which are currently in execution, it should be noted that financial resources are allocated in the budgets of the federal government and the government of the state of Roraima. The project is included in the Brazilian Growth Acceleration Program (or PAC, its acronym in Portuguese), and works are scheduled to be completed in December 2015.



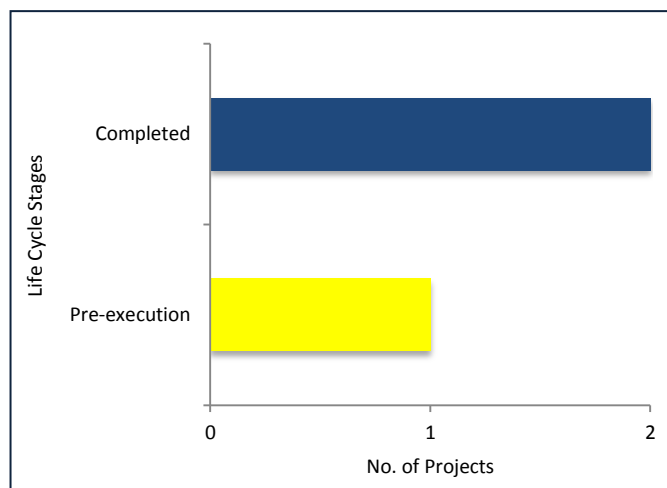
HUB: **GUIANESE SHIELD**

COUNTRIES: **BRAZIL – GUYANA**

PROJECT TYPE: **Road Transportation**

ESTIMATED INVESTMENT: **US\$250.0 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
GUY09	LETHEM - LINDEN ROAD	GU	PRE-EXECUTION	250,000,000
GUY42	BOA VISTA - BONFIM ROAD	BR	COMPLETED	0
GUY43	LINDEN - GEORGETOWN ROAD	GU	COMPLETED	0



## RATIONALE

This project links the city of Boa Vista, in Brazil, with Georgetown, the capital of Guyana, and its completion will result in the most important north-south connection in Guyana, creating synergies with the initiatives aimed at implementing east-west links among Venezuela, Guyana and Suriname. Paving of the Lethem-Linden section will contribute to the integration between Brazil and Guyana, since this road is the only connection between both countries. Works on the Boa Vista-Bonfim (Brazil) and Linden-Georgetown (Guyana) sections as well as the bridge linking Bonfim and Lethem are already completed. Complementarily, the execution of this project is expected to attract greater trade with the Caribbean, the United States, Europe and Asia, as this road will be the shortest alternative route: the distance between Manaus and the Caribbean will be reduced by some 800 km. Furthermore, complementary actions are required concerning environmental preservation and the development of production and logistics integration. As regards the environment, it should be borne in mind that the road runs across environmentally sensitive areas, such as the rainforest and the Rupununi savannah. As for production and logistics integration, more detailed studies identifying the opportunities opened up by the paving of the section need to be conducted.

## PROPOSAL

The section of the road on the Brazilian side (Route BR-401/RR), which runs from Boa Vista to the border with Guyana, is in good condition, as is the bridge over the Takutu river, which joins Bonfim (Brazil) and Lethem (Guyana).

On the Guyanese side, two sections can be distinguished: the first one is the 104-km long Georgetown-Linden stretch, which is paved and in good condition; and the second section, spanning 453.7 km between Linden and Lethem, is an unpaved, low-standard road that includes fifty-one wooden bridges (which can bear a load of up to 8 tons) and a pontoon boat crossing over the Esequibo river, in Kurupukari.

## PROGRESS ANALYSIS AND ASSESSMENT

The section of Route BR 401/RR that spans from Boa Vista to Bonfim is paved and in good condition. The same holds for the Georgetown-Linden road section.

With reference to the Linden-Lethem section, the Governments of Brazil and Guyana created a joint Working Group that is exploring different financing possibilities to undertake the works in this road stretch as well as in the New Amsterdam deep water port and in the Upper and Middle Mazaruni hydroelectric power plants, in Guyana. As a result, a report will be issued including concrete actions and decisions.



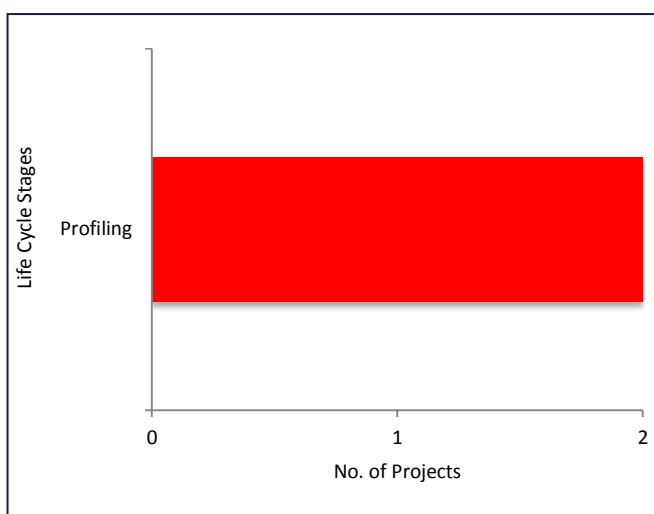
**HUB: GUIANESE SHIELD**

**COUNTRIES: GUYANA – SURINAME – VENEZUELA**

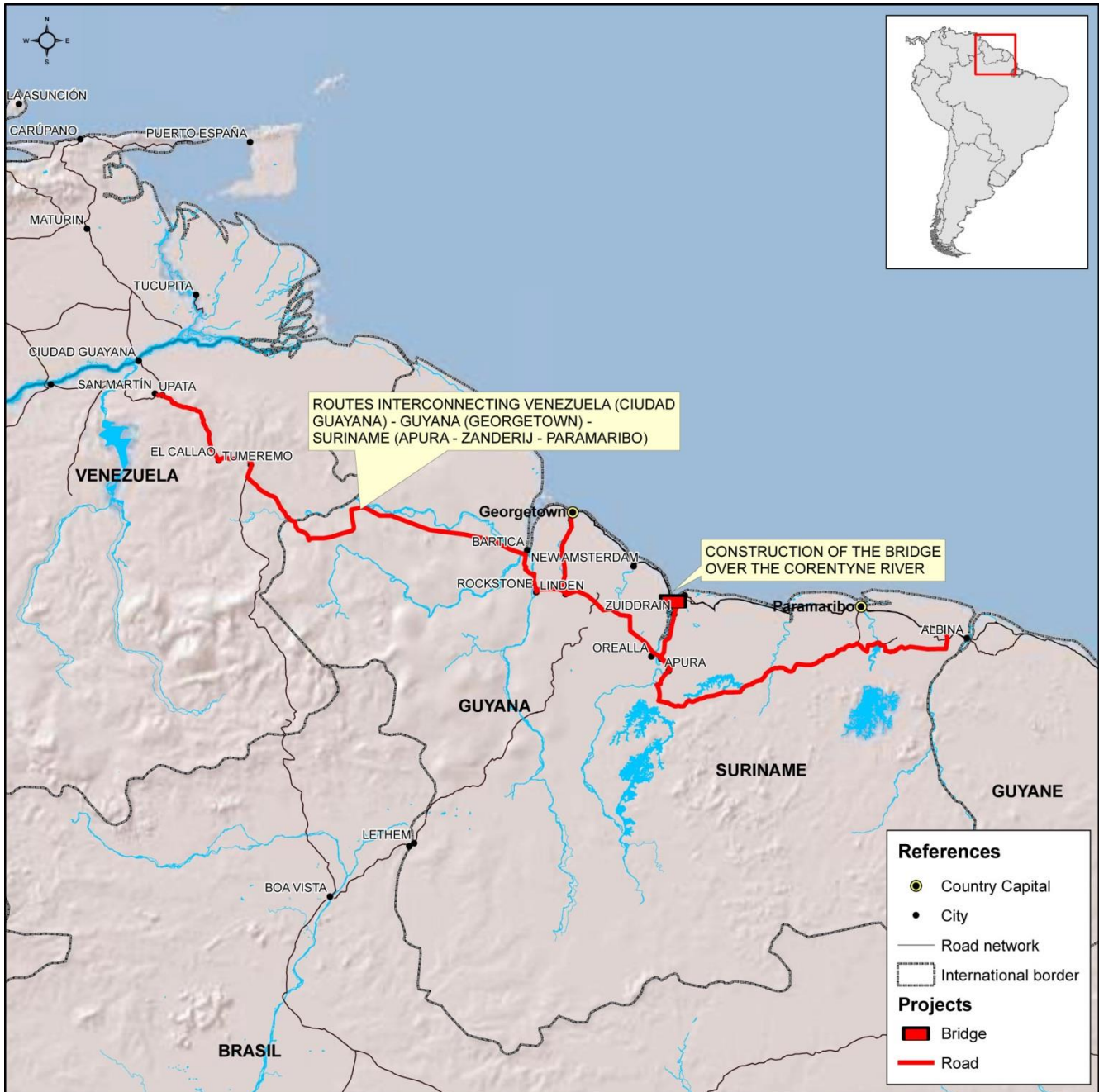
**PROJECT TYPE: Road Transportation**

**ESTIMATED INVESTMENT: US\$301.8 million**

**SOURCE OF FINANCING: Public-Private**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>GUY18</b>	ROUTES INTERCONNECTING VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (APURA - ZANDERIJ - PARAMARIBO)	GU - SU - VE	PROFILING	300,800,000
<b>GUY24</b>	CONSTRUCTION OF THE BRIDGE OVER THE CORENTYNE RIVER	GU - SU	PROFILING	1,000,000



## RATIONALE

This structured 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, 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. Therefore, this project will have a highly favorable impact on regional integration and on building synergies for development at the borders.

## PROPOSAL

The individual projects that make up this structured project 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.

## PROGRESS ANALYSIS AND ASSESSMENT

Although the terms of reference have been completed, the feasibility study for the road section between Ciudad Guayana and Linden has not been started yet. At present, there is a paved road linking Linden and Georgetown. Venezuela and Guyana will agree on the way they will finance the feasibility study to be conducted.

The Pikin Saron-Zanderij road section (21 km) is being prepared for paving, whereas the Zanderij-Carolina section (32 km) is already paved.

As for the construction of the bridge over the Corentyne river, the Ministries of Foreign Relations of Guyana and Suriname have jointly requested a Technical Cooperation from the Inter-American Development Bank to finance the feasibility study. The decision on the financing mode will be adopted by both countries.

## 5. 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 Jupia dam and the Paraná river.

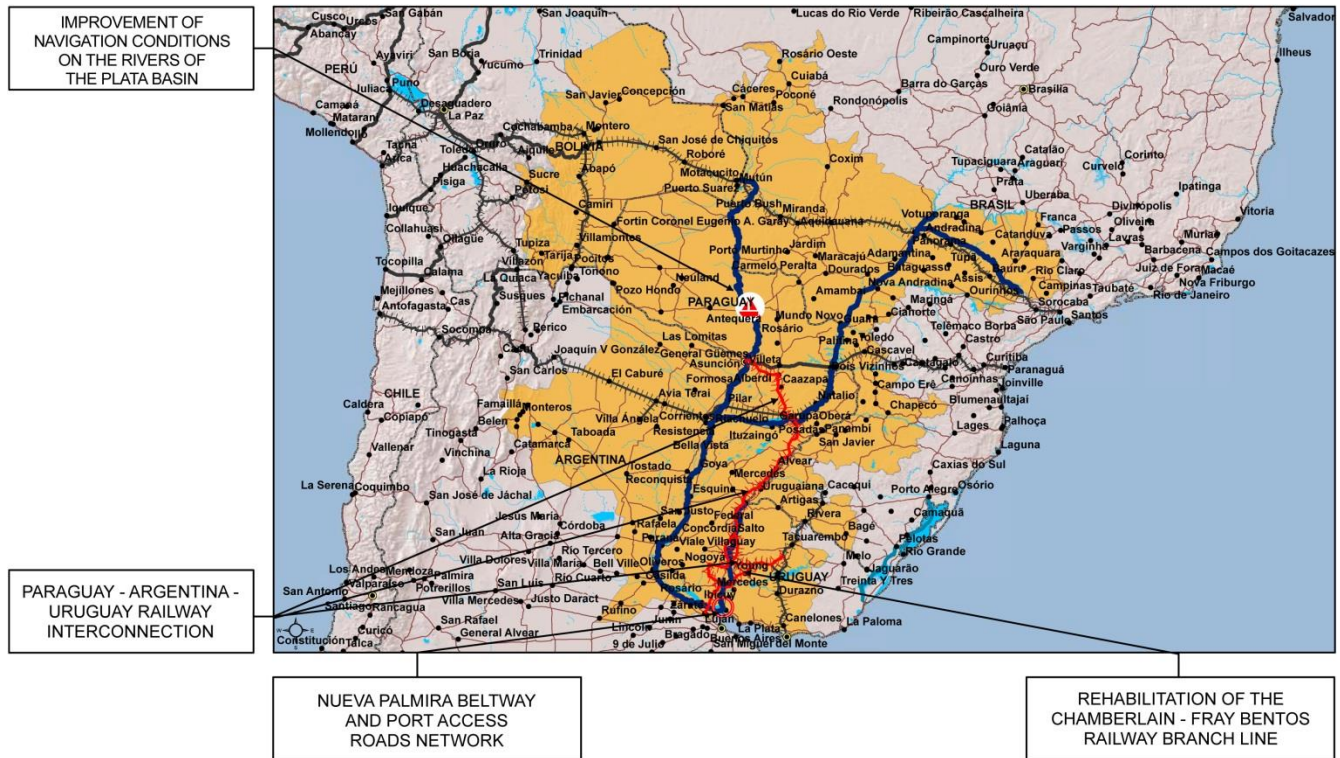
The area of influence of this Hub is crossed by several (road and rail) corridors that connect this with other hubs, namely the Central Interoceanic, Capricorn, and MERCOSUR-Chile Hubs. The territory defined for the Paraguay-Paraná Waterway Hub covers 3,837,593 km<sup>2</sup>, accounting for 29.6% of 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 29.4% of the total population of the countries that make it up. Furthermore, this area of influence has an average population density of 19 inhabitants per km<sup>2</sup>. This indicator ranges from a maximum of almost 452 inhabitants per km<sup>2</sup> in the area of influence of the state of São Paulo, in Brazil, to a minimum of almost 1 inhabitant per km<sup>2</sup> in the western region of the Republic of Paraguay.

API includes projects from the five project groups of the Paraguay-Paraná Waterway 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 5.1 shows the 15 individual projects that make up the four structured projects of this Hub incorporated into API. The estimated investments involved amount to US\$1,566.6 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 rail 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.

**MAP 5.1: API PROJECTS – PARAGUAY-PARANÁ WATERWAY HUB**



**TABLE 5.1: API PROJECTS – PARAGUAY-PARANÁ WATERWAY HUB**

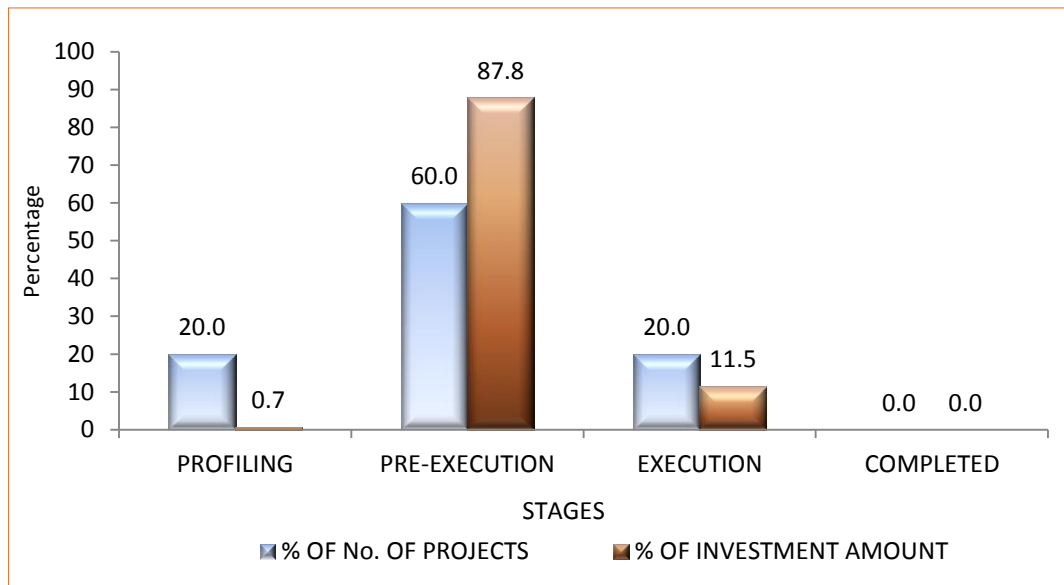
No.	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
17	HPP	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE RIVERS OF THE PLATA BASIN	ARGENTINA/ BOLIVIA/ BRAZIL/ PARAGUAY/ URUGUAY	1,158.3	HPP07	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (BETWEEN APA AND CORUMBÁ)	BO - BR - PA	G1	PRE-EXECUTION	39,000,000
					HPP09	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (ASUNCIÓN - APA)	PA	G1	PRE-EXECUTION	88,250,835
					HPP19	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE TIETÊ RIVER	BR	G2	PRE-EXECUTION	800,000,000
					HPP42	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER, FROM CONFLUENCIA TO ASUNCIÓN	AR - PA	G3	EXECUTION	45,498,216
					HPP44	DEEPENING OF THE FAIRWAY IN THE PARANÁ RIVER FROM CONFLUENCIA TO THE PLATA RIVER	AR	G3	EXECUTION	110,000,000
					HPP72	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER	AR - PA	G4	PROFILING	0
					HPP88	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE URUGUAY RIVER	AR - UR	G5	PRE-EXECUTION	40,000,000
					HPP106	SYSTEM FOR WATER LEVEL PREDICTION IN THE PARAGUAY RIVER (APA - ASUNCIÓN)	BO - PA	G1	PRE-EXECUTION	0
					HPP108	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER (UPSTREAM OF SALTOS DEL GUAIRÁ)	BR	G2	EXECUTION	25,000,000
					HPP122	REHABILITATION AND MAINTENANCE OF THE TAMENGO CANAL	BO	G1	PROFILING	10,500,000
18	HPP	PARAGUAY - ARGENTINA - URUGUAY RAILWAY INTERCONNECTION	ARGENTINA/ PARAGUAY/ URUGUAY	293.3	HPP65	REHABILITATION AND IMPROVEMENT OF THE PIEDRA SOLA - SALTO GRANDE SECTION	UR	G3	PRE-EXECUTION	127,300,000
					HPP82	REHABILITATION OF THE ZÁRATE - POSADAS RAILWAY BRANCH LINE	AR	G5	PROFILING	0
					HPP103	CONSTRUCTION AND REHABILITATION OF THE ASUNCIÓN - POSADAS RAILWAY	AR - PA	G3	PRE-EXECUTION	166,000,000
19	HPP	REHABILITATION OF THE CHAMBERLAIN - FRAY BENTOS RAILWAY BRANCH LINE	URUGUAY	100.0	HPP120	REHABILITATION OF THE ALGORTA - FRAY BENTOS RAILWAY BRANCH LINE	UR	G5	PRE-EXECUTION	100,000,000
20	HPP	NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK	URUGUAY	15.0	HPP97	NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK	UR	G5	PRE-EXECUTION	15,000,000

**TABLE 5.2: API PROJECTS – PARAGUAY-PARANÁ WATERWAY HUB BY LIFE CYCLE STAGE**  
(number of projects, million US\$ and percentage)

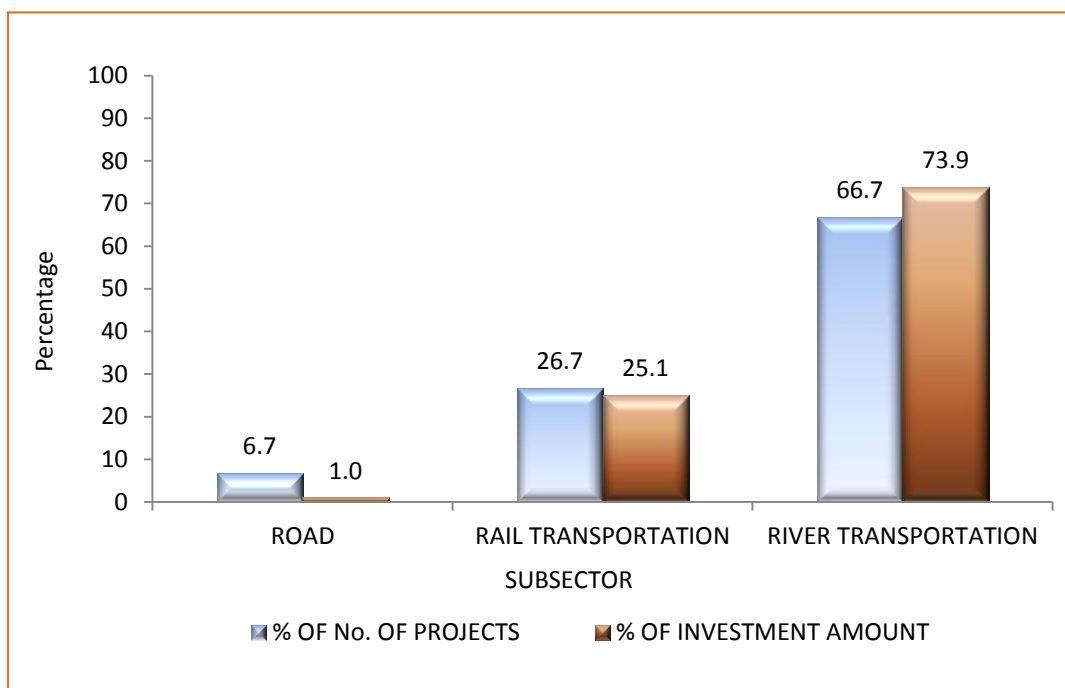
PROJECT STAGE	No. OF PROJECTS	% OF PROJECTS	INVESTMENT AMOUNT	% OF INVESTMENT AMOUNT
PROFILING	3	20.0	10.5	0.7
PRE-EXECUTION	9	60.0	1,375.6	87.8
EXECUTION	3	20.0	180.5	11.5
COMPLETED	0	0.0	0.0	0.0
<b>TOTAL</b>	<b>15</b>	<b>100.0</b>	<b>1,566.6</b>	<b>100.0</b>

Note: Amounts are estimated on the basis of the life cycle stage at which the API individual projects are.

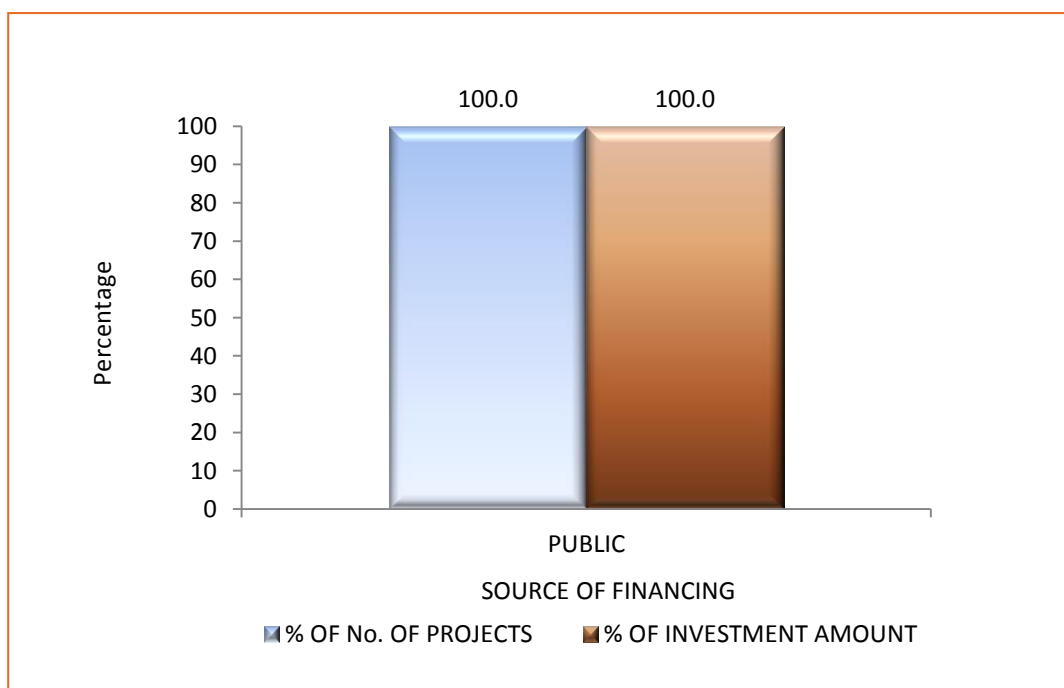
**FIGURE 5.1: API PROJECTS – PARAGUAY-PARANÁ WATERWAY HUB BY LIFE CYCLE STAGE**  
(% of number of projects and % of investment amount)



**FIGURE 5.2: API PROJECTS – PARAGUAY-PARANÁ WATERWAY HUB BY SUBSECTOR**  
(% of number of projects and % of investment amount)



**FIGURE 5.3: API PROJECTS – PARAGUAY-PARANÁ WATERWAY HUB BY SOURCE OF FINANCING**  
(% of number of projects and % of investment amount)



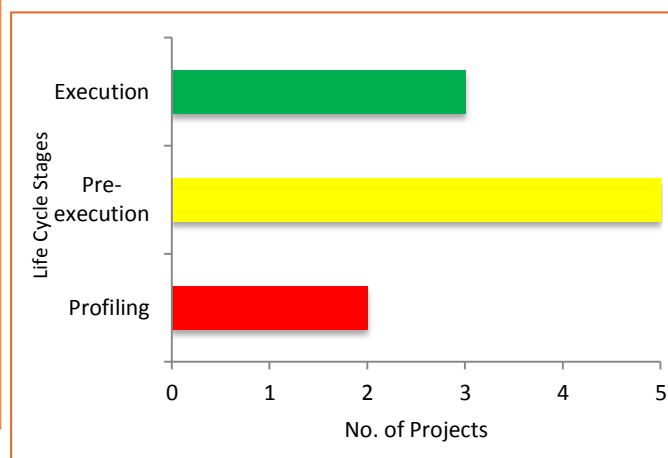
**HUB: PARAGUAY-PARANÁ WATERWAY**

**COUNTRIES: ARGENTINA – BOLIVIA – BRAZIL  
– PARAGUAY – URUGUAY**

**PROJECT TYPE: River Transportation**

**ESTIMATED INVESTMENT: US\$1,158.3 million**

**SOURCE OF FINANCING: Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
HPP07	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (BETWEEN APA AND CORUMBÁ)	BO - BR - PA	PRE-EXECUTION	39,000,000
HPP09	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (ASUNCIÓN - APA)	PA	PRE-EXECUTION	88,250,835
HPP19	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE TIETÊ RIVER	BR	PRE-EXECUTION	800,000,000
HPP42	BINATIONAL PROJECT FOR THE IMPROVEMENT OF THE NAVIGATION CONDITIONS ON THE PARAGUAY RIVER, FROM CONFLUENCIA TO ASUNCIÓN	AR - PA	EXECUTION	45,498,216
HPP44	DEEPENING OF THE FAIRWAY IN THE PARANÁ RIVER FROM CONFLUENCIA TO THE PLATA RIVER	AR	EXECUTION	110,000,000
HPP72	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER	AR - PA	PROFILING	0
HPP88	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE URUGUAY RIVER	AR - UR	PRE-EXECUTION	40,000,000
HPP106	SYSTEM FOR WATER LEVEL PREDICTION IN THE PARAGUAY RIVER (APA - ASUNCIÓN)	BO - PA	PRE-EXECUTION	0
HPP108	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER (UPSTREAM OF SALTOS DEL GUAIRÁ)	BR	EXECUTION	25,000,000
HPP122	REHABILITATION AND MAINTENANCE OF THE TAMENGO CANAL	BO	PROFILING	10,500,000



The Plata Basin covers a total area of nearly 3.1 million km<sup>2</sup>, which is one of the most potentially rich regions in the planet on account of its diverse climatic conditions, mining resources, agricultural capability, and energy, industrial and communication possibilities. The improvement of the navigation conditions on the waterways fed by the basin will result in a significant reduction in the cost of transport for both inter- and extra-regional trade, which will contribute to economically integrating the region and strengthening its sustainable development. This will enhance the competitiveness of regional products, mainly of those produced in the areas farthest away from the seaports. As a secondary effect, the project will help reduce the number of trucks on the highways, lowering the number of accidents, limiting exhaust pollution, improving pavement durability, and bringing down road maintenance costs.

The agreement of the countries involved concerning the improvement of the navigation conditions of the Plata Basin rivers was formalized in the 1969 Plata River Basin Treaty, the purpose of which is to promote the consistent development and physical integration of the Plata Basin and its direct and vast areas of influence.

Along their course, the Plata Basin rivers also constitute natural borders between the countries. Thus, the Paraguay river is shared by Brazil and Paraguay and by Paraguay and Argentina. Furthermore, the Paraná river serves in some areas as a dividing line between Brazil and Paraguay and between Argentina and Paraguay, while the Uruguay river acts, at some points, as a natural border between Brazil and Argentina and between Argentina and Uruguay.

Between Puerto Suárez and Corumbá (Mato Grosso do Sul, Brazil), in southeastern Bolivia, in the province of Germán Busch (department of Santa Cruz), the Tamengo System is found, made up of the Cáceres lake, the Tamengo canal, the Paraguay river, and the Sicurí and Tuyuyú canals. The 10.5-km long Tamengo canal, in Bolivia, was opened to give access to the Paraná-Paraguay waterway; it is a tributary of the Paraguay river on its right bank and connects to the Cáceres lake. The first 6.5-km stretch, in the outlet of the Cáceres lake, falls under shared sovereignty between Bolivia and Brazil, while the other 4-km section, from the Concepción stream up to where the canal flows into the Paraguay river, falls under the exclusive sovereignty of Brazil. The rehabilitation and maintenance of the Tamengo canal play an important role under the Paraguay-Paraná River Transport Agreement, as it provides South America with an east-west connection, facilitating an intense trade flow between the countries.

Among the tributaries, the Tietê river, which flows into the Paraná river, stands out. This river runs across the Metropolitan Region of São Paulo, but its socioeconomic significance is even greater in the inland of this state. The Tietê has a potential for hydroelectric power as well as for transportation thanks to an integrated system of locks that make it navigable. Thus, the Tietê-Paraná waterway constitutes an important link among the MERCOSUR countries, enabling the direct connection of the most economically active region of Brazil with its neighboring countries. In this context, the waterway allows soybean and fuel produced in Brazil to reach Argentina and, similarly, Argentine wheat to reach the Brazilian market. It also enables Paraguayan products to reach São Paulo and the Santos port.

Complementary actions are needed to ensure the preservation of the environment and the tapping of any opportunities for logistics and production development. With regard to the environment, the project affects

environmentally sensitive areas such as the wetland known as Pantanal, a large floodplain seasonably covered by the Paraguay river waters and made up of unaltered ecosystems and a rich biodiversity.

## PROPOSAL

This project comprises ten individual projects, all of which are concerned with navigation conditions in the area of influence of the Plata river basin.

One individual project involves Bolivia, Brazil and Paraguay: Improvement of Navigation Conditions on the Paraguay River (between Apa and Corumbá).

Two projects involve Argentina and Paraguay: i) Binational Project for the Improvement of Navigation Conditions on the Paraguay River, from Confluencia to Asunción; and ii) Binational Project for the Improvement of Navigation Conditions on the Alto Paraná River.

One project concerns Argentina and Uruguay: Binational Project for the Improvement of Navigation Conditions on the Uruguay River.

Another project involves Paraguay and Bolivia: System for Water Level Prediction in the Paraguay River (Apa - Asunción).

Two projects are located in Brazil: 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: Improvement of Navigation Conditions on the Paraguay River (Asunción - Apa).

One project concerns Argentina: Deepening of the Fairway in the Paraná River from Confluencia to the Plata River.

One project involves Bolivia and Brazil: Rehabilitation and Maintenance of the Tamengo Canal.

## PROGRESS ANALYSIS AND ASSESSMENT

This structured project is mentioned in statements of the presidents and relevant ministers of the respective countries. 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, the countries are making headway in the studies concerning the basins of the rivers involved. Of the ten individual projects, three are at the execution stage, another five at the pre-execution stage, and the remaining two at the profiling stage.

Several works associated with the Paraguay, Paraná, and Tietê rivers are included in the Brazilian Growth Acceleration Program (PAC).

In this regard, the Project for the Improvement of Navigation Conditions on the Paraguay River (between Apa and Corumbá) is at the pre-execution stage. The project for the Improvement of Navigation Conditions on the Tietê River is at its execution stage and the first quarter of the works are scheduled to be completed in the beginning of 2014. The project for the Improvement of Navigation Conditions on the Alto Paraná River (Upstream of Saltos del Guairá) is in execution and expected to be completed in November 2015.

The project involving the Tamengo canal concerns a maintenance dredging plan, which needs to be technically adjusted for implementation purposes. At present there are two private companies operating port terminals at the canal: Central Aguirre Portuaria S.A. (CAPSA) and Gravetal Bolivia S.A., which operates on the Concepción stream (a tributary of the Tamengo canal). The former devotes to the loading and unloading of hydrocarbons (Free Port Terminal Company, FPTC) and oilseed products (Aguirre Agro Bolivia S.A., AABSA), and has a wharf front with a crane for containers. The latter, Gravetal Bolivia S.A., has an oilseed processing plant and two wharf fronts (Tamengo 1 and Tamengo 2). Furthermore, Empresa Naviera Boliviana (ENABOL) has completed the pre-investment studies for the implementation of a port terminal in Puerto Quijarro.

The Deepening of the Fairway in the Paraná River from Confluencia to the Plata River project is at the execution stage, and the Binational Project for the Improvement of Navigation Conditions on the Alto Paraná River is at the profiling stage.

In addition, the Improvement of Navigation Conditions on the Paraguay River (Asunción - Apa) and the System for Water Level Prediction in the Paraguay River (Apa - Asunción) projects are both at the pre-execution stage.

The Binational Project for the Improvement of Navigation Conditions on the Paraguay River from Confluencia to Asunción is at the execution stage, and the Binational Project for the Improvement of Navigation Conditions on the Uruguay River is at the pre-execution stage.



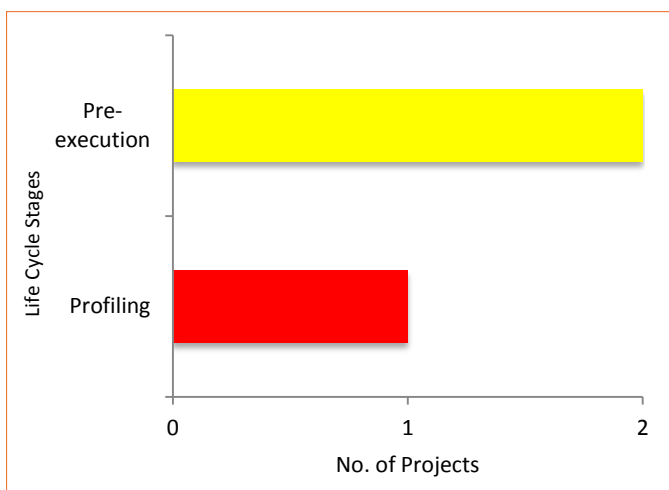
HUB: **PARAGUAY-PARANÁ WATERWAY**

COUNTRIES: **ARGENTINA – PARAGUAY –  
URUGUAY**

PROJECT TYPE: **Rail Transportation**

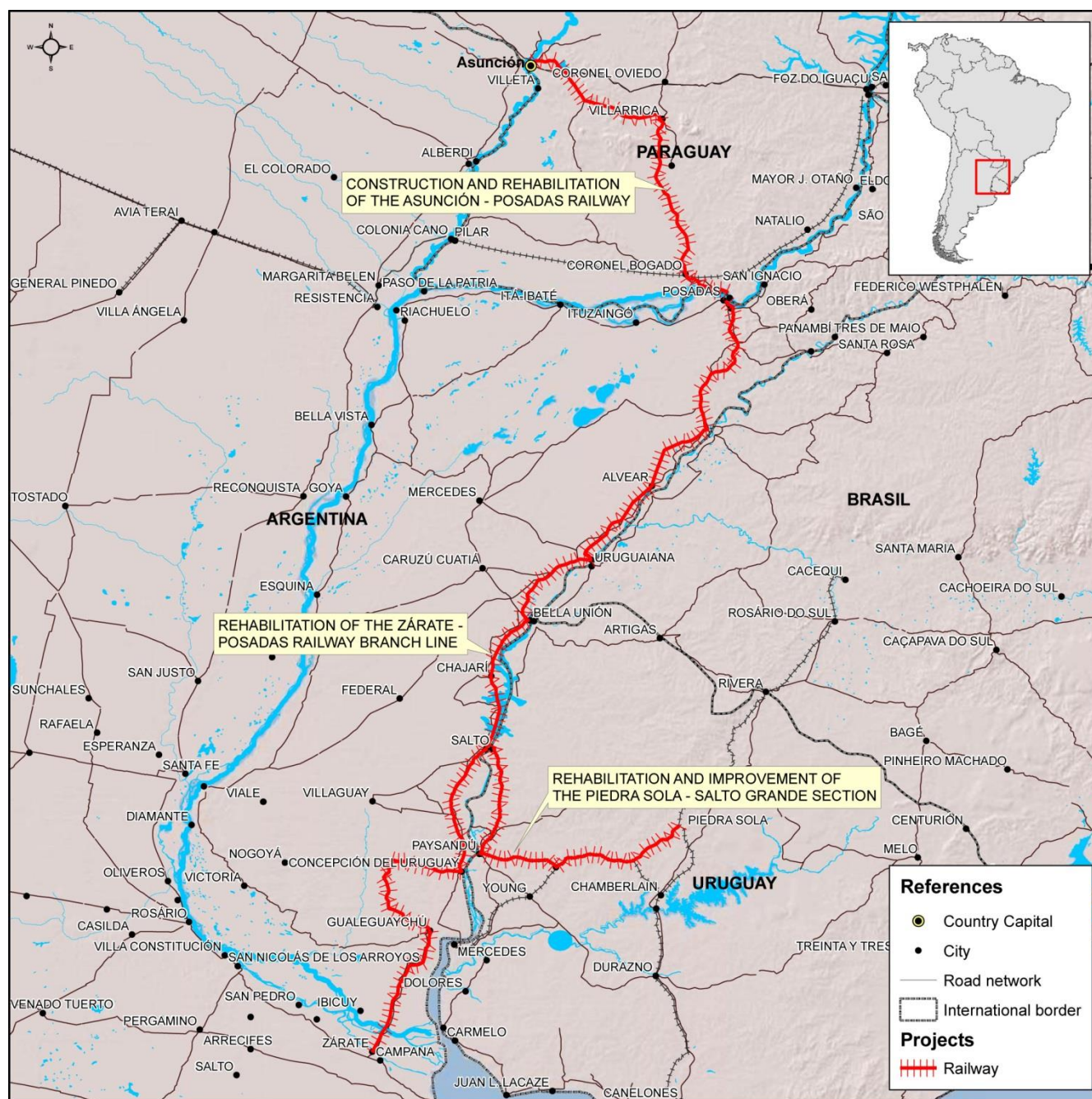
ESTIMATED INVESTMENT: **US\$293.3 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
HPP65	REHABILITATION AND IMPROVEMENT OF THE PIEDRA SOLA - SALTO GRANDE SECTION	UR	PRE-EXECUTION	127,300,000
HPP82	REHABILITATION OF THE ZÁRATE - POSADAS RAILWAY BRANCH LINE	AR	PROFILING	0
HPP103	CONSTRUCTION AND REHABILITATION OF THE ASUNCIÓN - POSADAS RAILWAY	AR - PA	PRE-EXECUTION	166,000,000

## PARAGUAY - ARGENTINA - URUGUAY RAILWAY INTERCONNECTION



## RATIONALE

This structured project will have a high impact on the physical integration of Paraguay, Argentina and Uruguay, as it will strengthen the sustainable socioeconomic development in all the area of influence zoned for the rail alignment that connects the three countries. Therefore, the project strengthens networks that are regional in scope and is instrumental in furthering regional connectivity and integration.

This regional rail network complements the river network made up of the Paraná and Uruguay rivers as well as the existing road networks, promoting the development of multimodal transportation, which will result in a reduction in the cost of freight transport and will enhance the competitiveness of regional products.

Additionally, as the rail sections involve an international connection, complementary actions are needed, particularly in relation to border crossings and common regulations.

## PROPOSAL

This structured project is made up of the following individual projects:

- i) Rehabilitation and improvement of the Piedra Sola - Algorta - Paysandú - Salto - Salto Grande section, in Uruguay;
- ii) Rehabilitation of the Zárate - Posadas Railway Branch Line;
- iii) Construction and Rehabilitation of the Asunción - Posadas Railway.

The purpose of the first project is to reconstruct a 330-km section of the Uruguayan rail network, enabling the interconnection of the city of Asunción and the port of Montevideo through the Argentine territory.

The second project aims at improving operating conditions on the international connections that begin and end in Posadas and provide a link with Paraguay in the town of Encarnación as well as with the different ports on the Plata river basin.

The goal of the third project is to improve rail track infrastructure to reduce travel time, cutting journey times along the 1,020-km stretch between Zárate and Posadas, Argentina.

## PROGRESS ANALYSIS AND ASSESSMENT

The individual projects making up this structured project form part of the COSIPLAN Portfolio and are included in the National Plans of the countries involved, and mentioned in declarations of ministerial as well as presidential summit meetings.

Furthermore, a technical study will be carried out for the reactivation and improvement of the rail sections in the three countries, which will enable connectivity with lower transaction costs and a better quality of life for those who live in the region.

The project in the territory of Uruguay as well as the Argentina-Paraguay project “Construction and Rehabilitation of the Asunción - Posadas Railway” are at the pre-execution stage, while the Rehabilitation of the Zárate - Posadas Railway Branch Line project is at the profiling stage.

19

## REHABILITATION OF THE CHAMBERLAIN - FRAY BENTOS RAILWAY BRANCH LINE

HUB: **PARAGUAY-PARANÁ WATERWAY**COUNTRIES: **URUGUAY**PROJECT TYPE: **Rail Transportation**ESTIMATED INVESTMENT: **US\$100.0 million**SOURCE OF FINANCING: **Public**

Life Cycle Stages

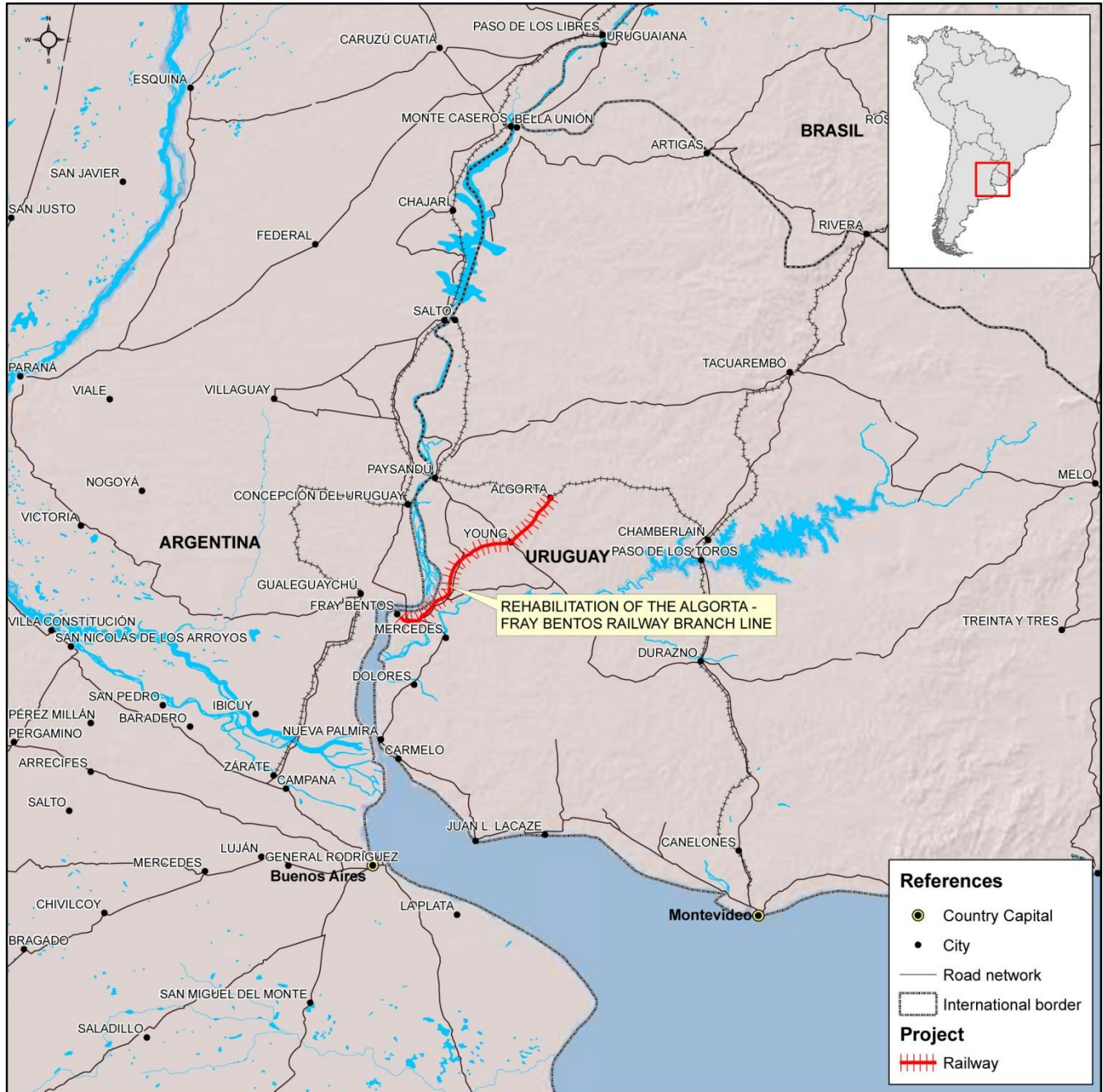
Pre-execution

0

1

No. of Projects

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>HPP120</b>	REHABILITATION OF THE ALGORTA - FRAY BENTOS RAILWAY BRANCH LINE	UR	PRE-EXECUTION	100,000,000



## RATIONALE

This structured project seeks to rehabilitate the Chamberlain-Fray Bentos rail branch line, which connects the Fray Bentos port with the national rail networks, some of which reach neighboring countries. This is the case of the following railway lines: Montevideo-Rivera, which forms part of structured project No. 28 (Montevideo - Cacequi Railway Corridor) and Algorta-Paysandú-Salto-Salto Grande, which is included in structured project No. 18 (Paraguay - Argentina - Uruguay Railway Interconnection).

This rail line is of a regional scope since it connects the Paraná and Uruguay river network (at the Fray Bentos port) with the regional rail and existing road networks, promoting the development of multimodal transportation, which will result in a reduction in the cost of freight transport and enhance the competitiveness of regional products.

## PROPOSAL

The rail section on which works are to be carried out joins the village of Algorta and the city of Fray Bentos, in the Río Negro department. This 141-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.

## PROGRESS ANALYSIS AND ASSESSMENT

The project forms part of the COSIPLAN Portfolio and is a priority for the Uruguayan government. The only individual project included in this structured project is at its pre-execution stage. At present, studies are underway to analyze its financial viability through public-private partnership agreements.



HUB: **PARAGUAY-PARANÁ WATERWAY**

COUNTRIES: **URUGUAY**

PROJECT TYPE: **Road Transportation**

ESTIMATED INVESTMENT: **US\$15.0 million**

SOURCE OF FINANCING: **Public**

Life Cycle Stages

Pre-execution

0

1

No. of Projects

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>HPP97</b>	NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK	UR	PRE-EXECUTION	15,000,000



## RATIONALE

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, and is 280 km away of Montevideo.

In Nueva Palmira, there are commercial port facilities that receive cargo, particularly grain, from the area of influence of the Paraná-Paraguay waterway, as well as national products.

These port facilities, located in the immediate vicinity of the city of Nueva Palmira, have created negative externalities due to the export increase of the last years. Truck traffic passes through urban streets on its way to the port, causing trouble in the city, such as the disturbance of daily activities and an increasing environmental pollution (noise pollution and the one caused by grain powder). In addition to these problems, the heavier traffic of trucks has resulted in the congestion of the access roads to the port area, making it more difficult for trucks to enter the different port terminals. This brings about negative consequences that range from logistics chain cost increases to problems between haulers and the other players involved.

This project is of particular importance as it consolidates this vast production network and promotes regional trade.

According to Law 18,308 -Territorial Planning and Sustainable Development-, the territorial planning of Nueva Palmira is soon to be approved, taking these considerations into account.

## PROPOSAL

This project, which will provide freight transport vehicles with a direct connection between the port and Routes 21 and 12, is intended to: (i) organize traffic access to the port so as to prevent heavy truck traffic from entering the city; (ii) set protocols of access to the port area minimizing negative externalities (Decree No. 012/012); and (iii) implement solutions to offer users more comfortable conditions.

The project is complemented with works already executed, in execution or to be executed in Routes 12, 21 and 24.

## PROGRESS ANALYSIS AND ASSESSMENT

The only individual project within this structured project forms part of the COSIPLAN Portfolio.

This project is to be included in a public-private partnership agreement, pursuant to Law No. 18,786 for the Routes 21-24 Corridor.

The feasibility study is about to be approved by the Ministry of Transport and Public Works, while the environmental impact study is under the consideration of DINAMA (the National Environment Agency).

## 6. 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<sup>2</sup>, accounting for 28.7% 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 36.8% of the total population of the five countries that make up the Hub. Furthermore, the area of influence has an average population density of almost 27 inhabitants per km<sup>2</sup>. This indicator ranges from a maximum of just over 363 inhabitants per km<sup>2</sup> in the state of Rio de Janeiro to a minimum 2 inhabitants per km<sup>2</sup> in the department of Beni, in Bolivia.

API 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 6.1 shows the seven individual projects that make up the four structured projects of the Central Interoceanic Hub incorporated into API. The estimated investments involved amount to US\$460.2 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 (Santa Cruz de la Sierra, Bolivia); improve the Infante Rivarola-Cañada Oruro border crossing between Bolivia and Paraguay; and develop a central bioceanic rail corridor in Bolivia.

**MAP 6.1: API PROJECTS – CENTRAL INTEROCEANIC HUB**



**TABLE 6.1: API PROJECTS – CENTRAL INTEROCEANIC HUB**

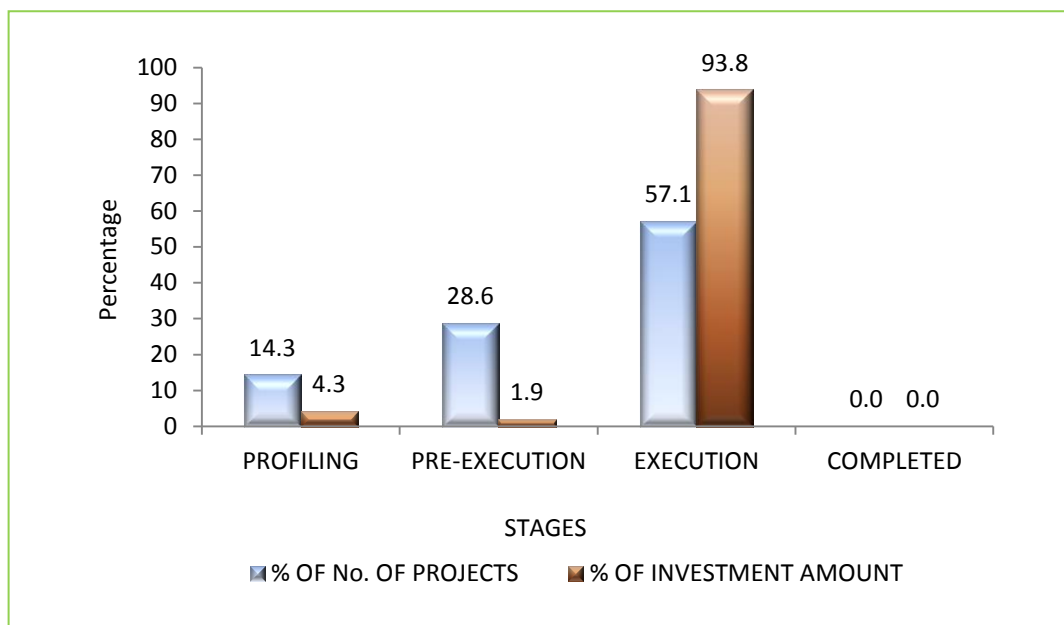
No.	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	P G	PROJECT STAGE	AMOUNT US\$
21	IOC	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)	BOLIVIA	20.0	IOC78	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)	BO	G3	PROFILING	20,000,000
22	IOC	IMPROVEMENT OF ROAD CONNECTIVITY IN THE CENTRAL INTEROCEANIC HUB	BOLIVIA/ BRAZIL	431.5	IOC14	CAMPO GRANDE BYPASS	BR	G2	EXECUTION	30,000,000
					IOC25	PUERTO SUÁREZ - CORUMBÁ INTEGRATED CONTROL AREA	BO - BR	G3	EXECUTION	2,000,000
					IOC32	TOLEDO - PISIGA ROAD	BO	G5	EXECUTION	130,500,000
					IOC80	UPGRADE OF LA PAZ - SANTA CRUZ ROUTE TO A FOUR-LANE ROAD	BO	G5	EXECUTION	269,000,000
23	IOC	INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING	BOLIVIA/ PARAGUAY	2.0	IOC09	INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING	BO - PA	G1	PRE-EXECUTION	2,000,000
24	IOC	CENTRAL BIOCEANIC RAILWAY CORRIDOR (BOLIVIAN SECTION)	BOLIVIA	6.7	IOC81	CENTRAL BIOCEANIC RAILWAY CORRIDOR	BO	G5	PRE-EXECUTION	6,700,000

**TABLE 6.2: API PROJECTS – CENTRAL INTEROCEANIC HUB BY LIFE CYCLE STAGE**  
(number of projects, million US\$ and percentage)

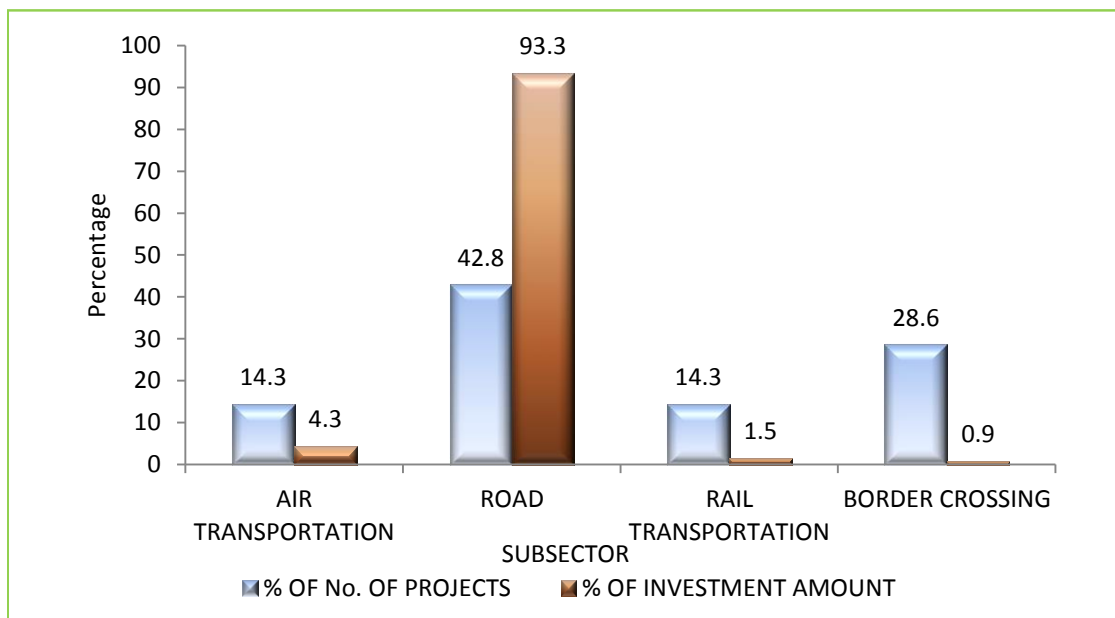
PROJECT STAGE	No. OF PROJECTS	% OF PROJECTS	INVESTMENT AMOUNT	% OF INVESTMENT AMOUNT
PROFILING	1	14.3	20.0	4.3
PRE-EXECUTION	2	28.6	8.7	1.9
EXECUTION	4	57.1	431.5	93.8
COMPLETED	0	0.0	0.0	0.0
<b>TOTAL</b>	<b>7</b>	<b>100.0</b>	<b>460.2</b>	<b>100.0</b>

Note: Amounts are estimated on the basis of the life cycle stage at which the API individual projects are.

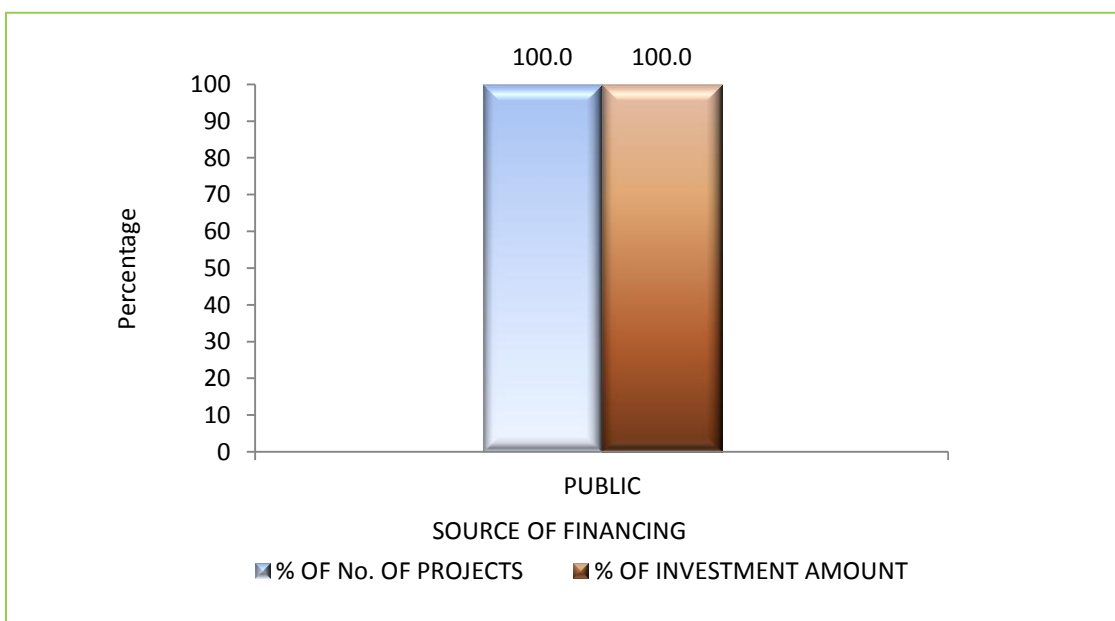
**FIGURE 6.1: API PROJECTS – CENTRAL INTEROCEANIC HUB BY LIFE CYCLE STAGE**  
(% of number of projects and % of investment amount)



**FIGURE 6.2: API PROJECTS - CENTRAL INTEROCEANIC HUB BY SUBSECTOR**  
(% of number of projects and % of investment amount)



**FIGURE 6.3: API PROJECTS - CENTRAL INTEROCEANIC HUB BY SOURCE OF FINANCING**  
(% of number of projects and % of investment amount)



21

## PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)

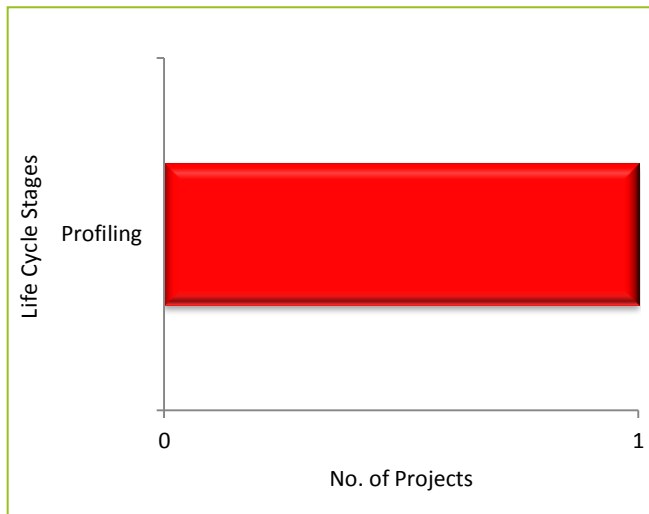
HUB: **CENTRAL INTEROCEANIC**

COUNTRIES: **BOLIVIA**

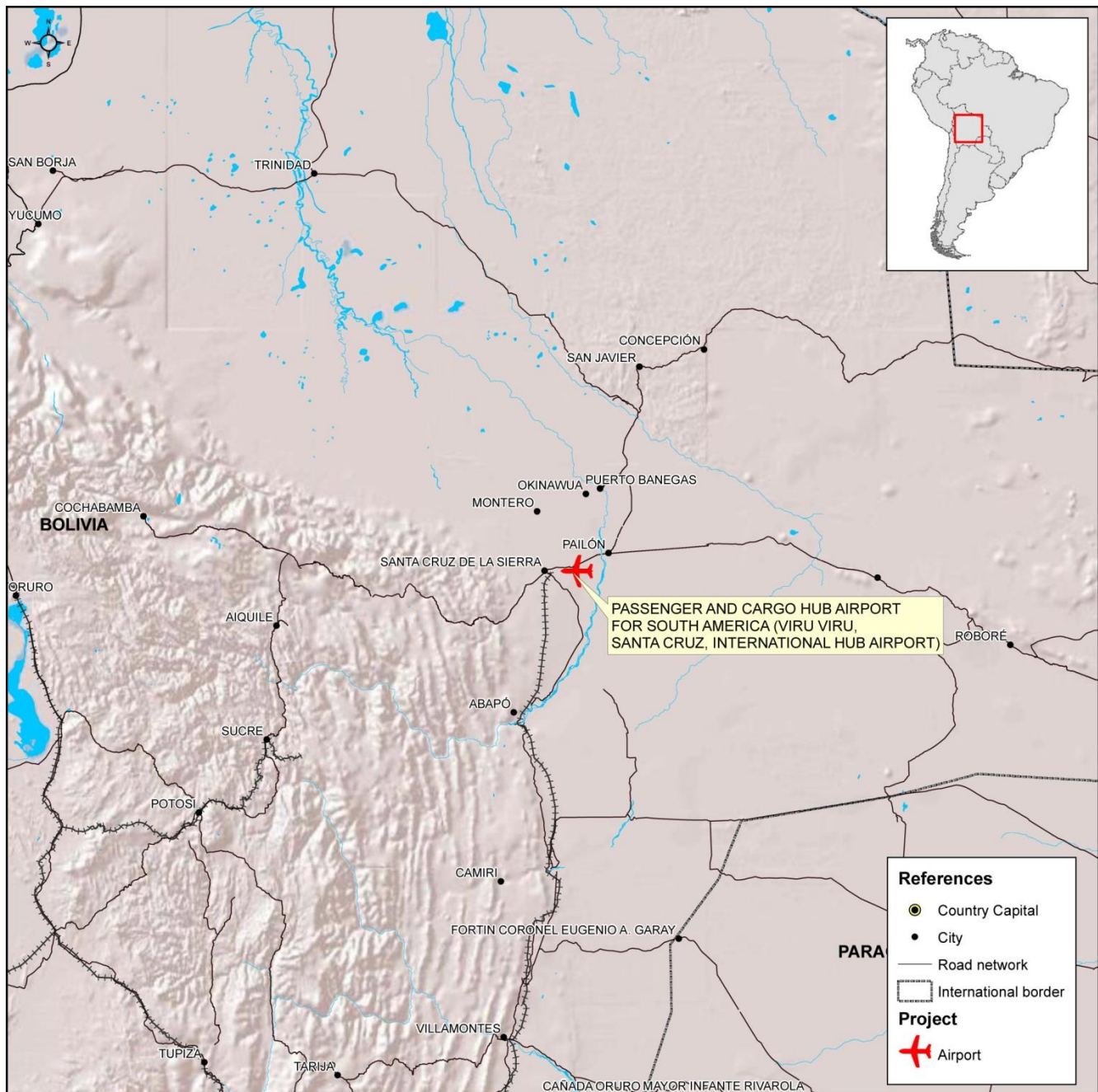
PROJECT TYPE: **Air Transportation**

ESTIMATED INVESTMENT: **US\$20.0 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
IOC78	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)	BO	PROFILING	20,000,000



## RATIONALE

The purpose of this structured project 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.

One of the hubs will be the Viru Viru Airport, located in the Bolivian city of Santa Cruz de la Sierra. As it is at 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.

## PROPOSAL

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.

## PROGRESS ANALYSIS AND ASSESSMENT

The only individual project included in this structured project forms part of the COSIPLAN Portfolio and is a priority in Bolivia's National Development Plan. It has an associated Master Plan updated as of 2005, and is at the profiling stage. The cost of the feasibility study has been estimated and, at present, the financial resources committed by FONPLATA to conduct the studies are being secured.

The project is also included as a priority in the plans of the Bolivian Office of the Deputy Minister of Transport, and the competence over its implementation rests with the Central Government.



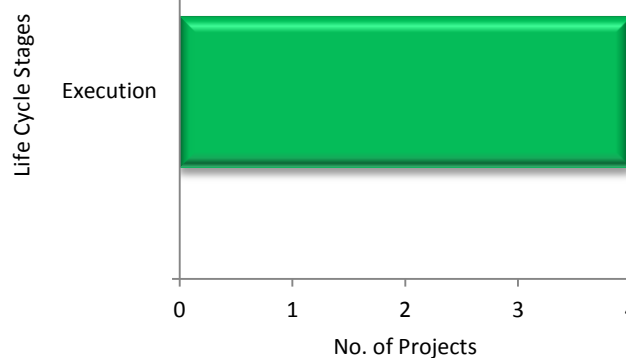
HUB: **CENTRAL INTEROCEANIC**

COUNTRIES: **BOLIVIA – BRAZIL**

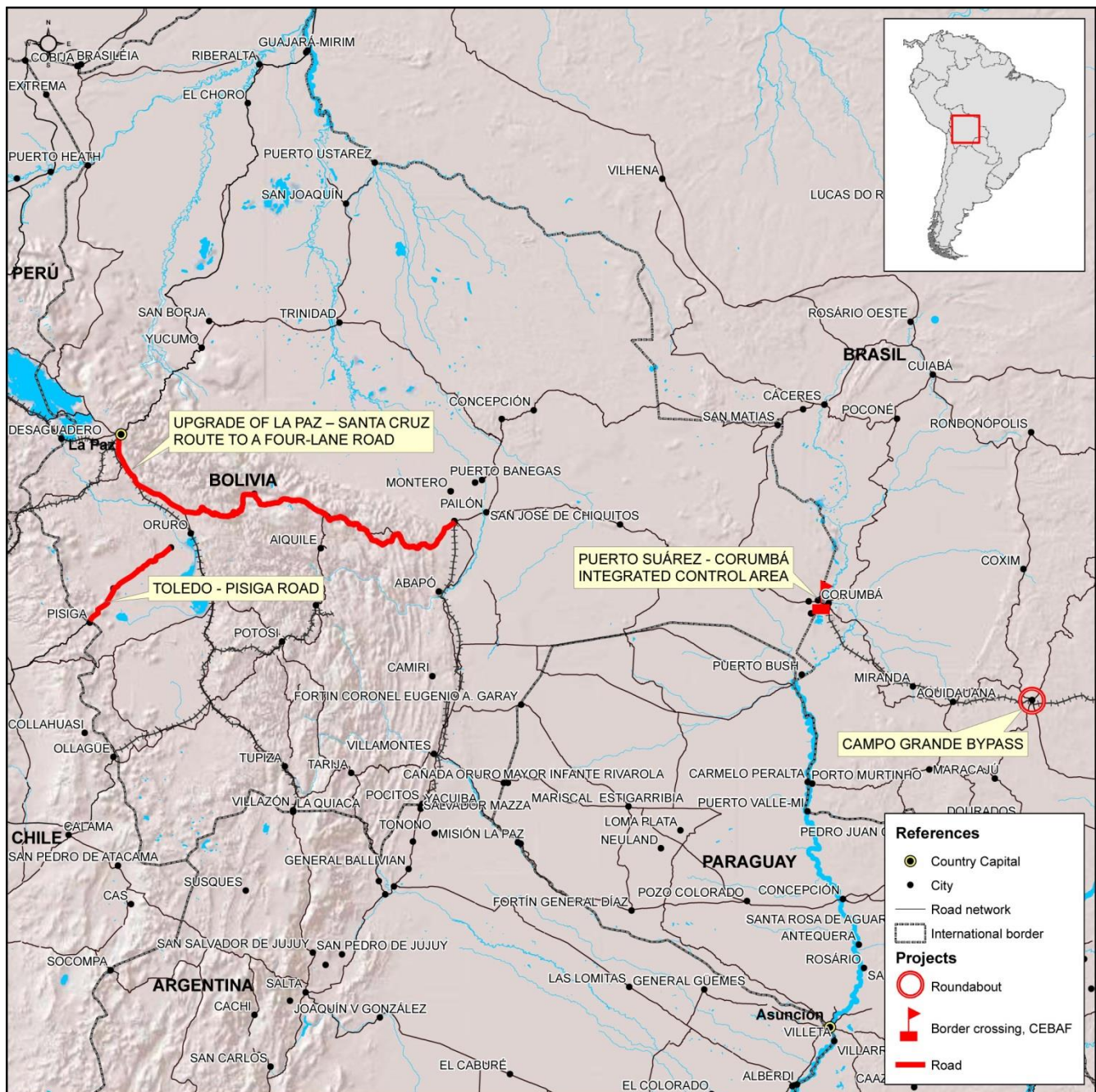
PROJECT TYPE: **Road Transportation**

ESTIMATED INVESTMENT: **US\$431.5 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>IOC14</b>	CAMPO GRANDE BYPASS	BR	EXECUTION	30,000,000
<b>IOC25</b>	PUERTO SUÁREZ - CORUMBÁ INTEGRATED CONTROL AREA	BR - BO	EXECUTION	2,000,000
<b>IOC32</b>	TOLEDO - PISIGA ROAD	BO	EXECUTION	130,500,000
<b>IOC80</b>	UPGRADE OF LA PAZ - SANTA CRUZ ROUTE TO A FOUR-LANE ROAD	BO	EXECUTION	269,000,000



## RATIONALE

The purpose of this project is to link Bolivia with Peru and Chile on the west and with Brazil on the east - through the states of Mato Grosso do Sul and São Paulo to the port of Santos. Furthermore, it enables the integration of Bolivia with Paraguay, Argentina and Uruguay through the Tamengo canal and the Paraguay-Paraná waterway, thus encouraging the regional integration of the South American countries. The simultaneous implementation of the 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.

In addition, the individual 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 within, for example, the mining/iron and steel production chain, and the agricultural and agro-industrial chain.

## PROPOSAL

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) Campo Grande Bypass; and iii) Toledo - Pisiga Road; whereas the latter is the Puerto Suárez - Corumbá Border Crossing project.

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, first-category 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 Puerto Suárez (Bolivia)-Corumbá (Brazil) Integrated Control Area needs improved infrastructure and harmonization of the Bolivian and Brazilian transport systems. Finally, the purpose of the Campo Grande bypass is to ensure a safer and smoother traffic flow in the city of Campo Grande, where congestion caused by long-distance, light- and heavy-duty vehicles is a problem.

## PROGRESS ANALYSIS AND ASSESSMENT

The four individual projects that make up this structured project belong to the COSIPLAN Project Portfolio, and all of them are in execution.

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. Moreover, 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 (ACI, in Spanish) requires an amount of US\$1,250,000 for its operation. In this regard, the Federal Government of Brazil will finance the construction of a warehouse for confiscated goods and a kennel to house sniffer dogs, the improvement of the Esdras border crossing infrastructure, and the purchase of a forklift truck. On March 27, 2012, the regulation creating the ACI between the Bolivian customs office in Puerto Suárez and the Brazilian Federal Revenue Inspectorate in Corumbá was signed with the purpose of simplifying export and import formalities for trucks and rail cars.

The construction of the Campo Grande ring road is underway and forms part of the Brazilian Growth Acceleration Program (PAC); hence, its resources have already been allocated. Completion of the works requires the relocation of the electric power distribution network in the central axis of the lane as well as the regularization of the expropriation process.

23

## INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING

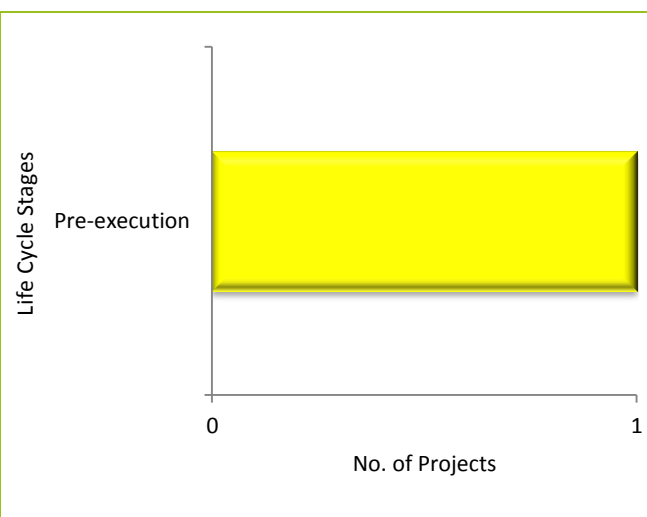
HUB: **CENTRAL INTEROCEANIC**

COUNTRIES: **BOLIVIA – PARAGUAY**

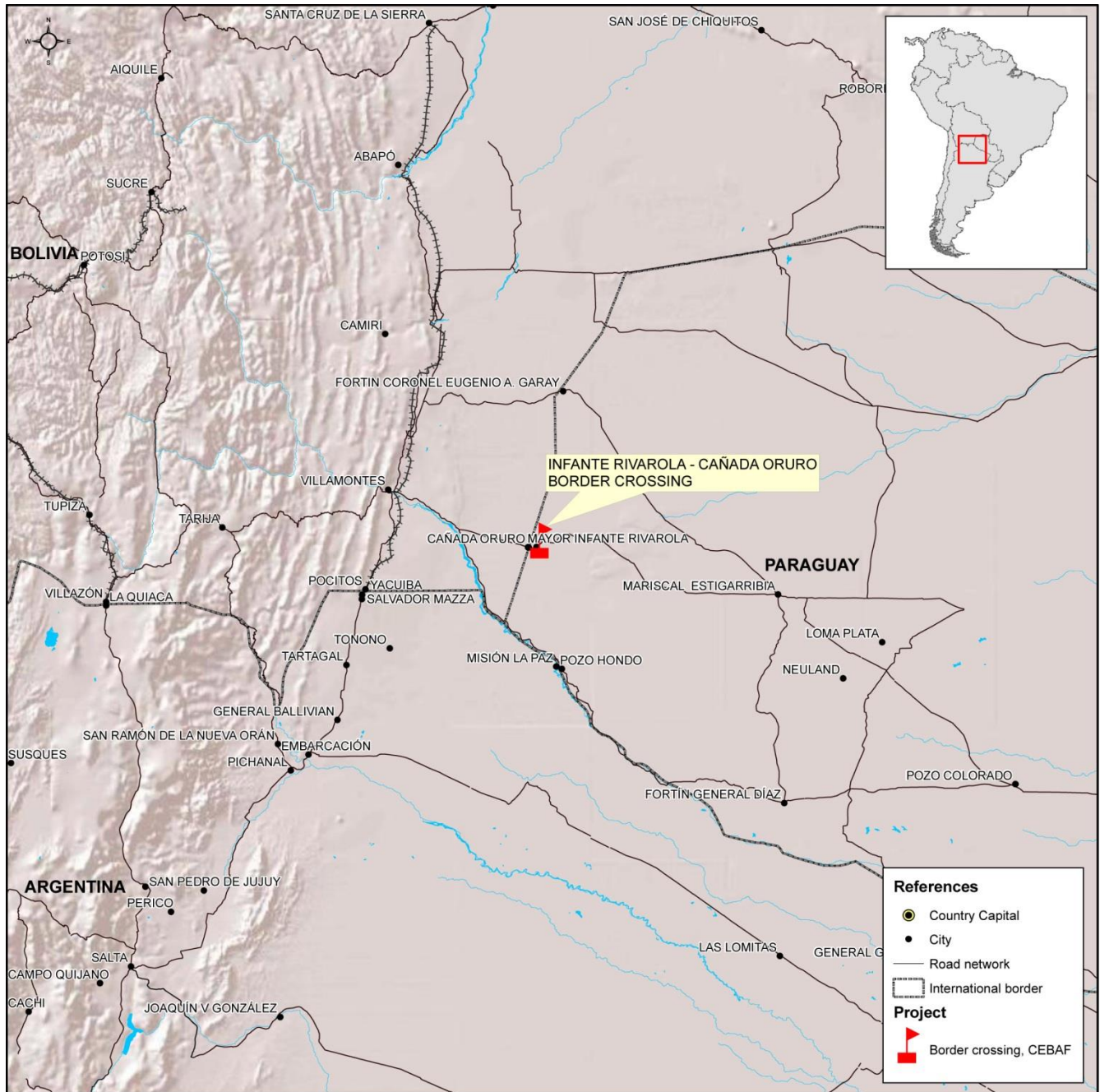
PROJECT TYPE: **Border Crossing**

ESTIMATED INVESTMENT: **US\$2.0 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
IOC09	INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING	BO - PA	PRE-EXECUTION	2,000,000



## RATIONALE

The purpose of this structured project is to build and install the necessary infrastructure and services to allow efficient passenger and freight traffic between Bolivia and Paraguay. The project is located in the geographic midpoint of the Central Interoceanic Hub, in the Bolivia-Paraguay border area, and its implementation is justified by the increase in vehicular traffic and trade flows between Paraguay and Bolivia directly resulting from the pavement and improvement of the Villa Montes-Cañada Oruro road.

The project involves paving of the Paraguayan road section between Estancia La Patria and Infante Rivarola (which has been completed), and of the Bolivian Cañada Oruro-Villa Montes road section. As for the latter, the Palo Marcado-Cañada Oruro stretch is already paved and operational. It is located in the third section of the Gran Chaco province in the Tarija Department, and it forms part of Route F11, within the Bolivian Fundamental Road Network, as well as of the corridor for exporting agricultural products from southern Santa Cruz and the Bolivian Chaco region to the Paraguayan and Brazilian markets.

## PROPOSAL

The only individual project included in this structured project involves the construction of infrastructure for a Paraguay-Bolivia 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 lab for sanitary controls.

## PROGRESS ANALYSIS AND ASSESSMENT

This project is included in the COSIPLAN Portfolio and is currently at the pre-execution stage.

On the Bolivian side, works on the Palo Marcado-Cañada Oruro section have been completed and the section is operational as of the date of this report. The route of the project starts in the town of Villa Montes, located 275 km away from the city of Tarija; along its first 60-km stretch, it runs parallel to the Pilcomayo river up to the village of Ibibobo, from where it reaches in a straight line the border with Paraguay at a place known as “Hito BR 94” (BR 94 Milestone) or Cañada Oruro.

The project forms part of Route F11, which links Tarija with the capital city of the O’Connor province as well as with the capital of the third section of the Gran Chaco province -Villa Montes-, and ends on the border with Paraguay at BR 94 Milestone. The whole road is within the Gran Chaco plain and runs across lands with undulating and flat relief.



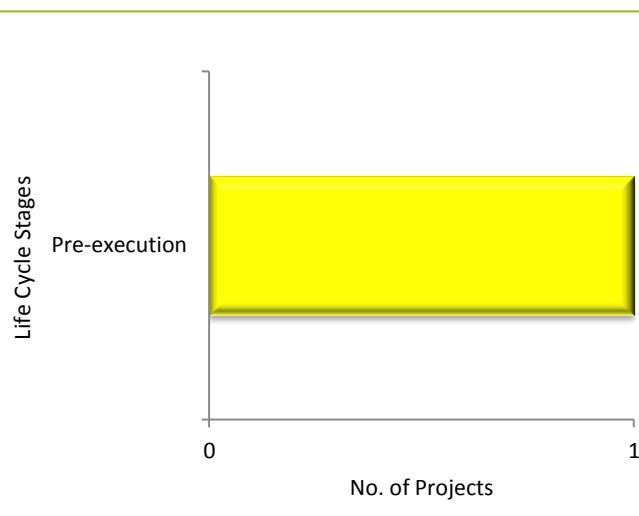
HUB: **CENTRAL INTEROCEANIC**

COUNTRIES: **BOLIVIA**

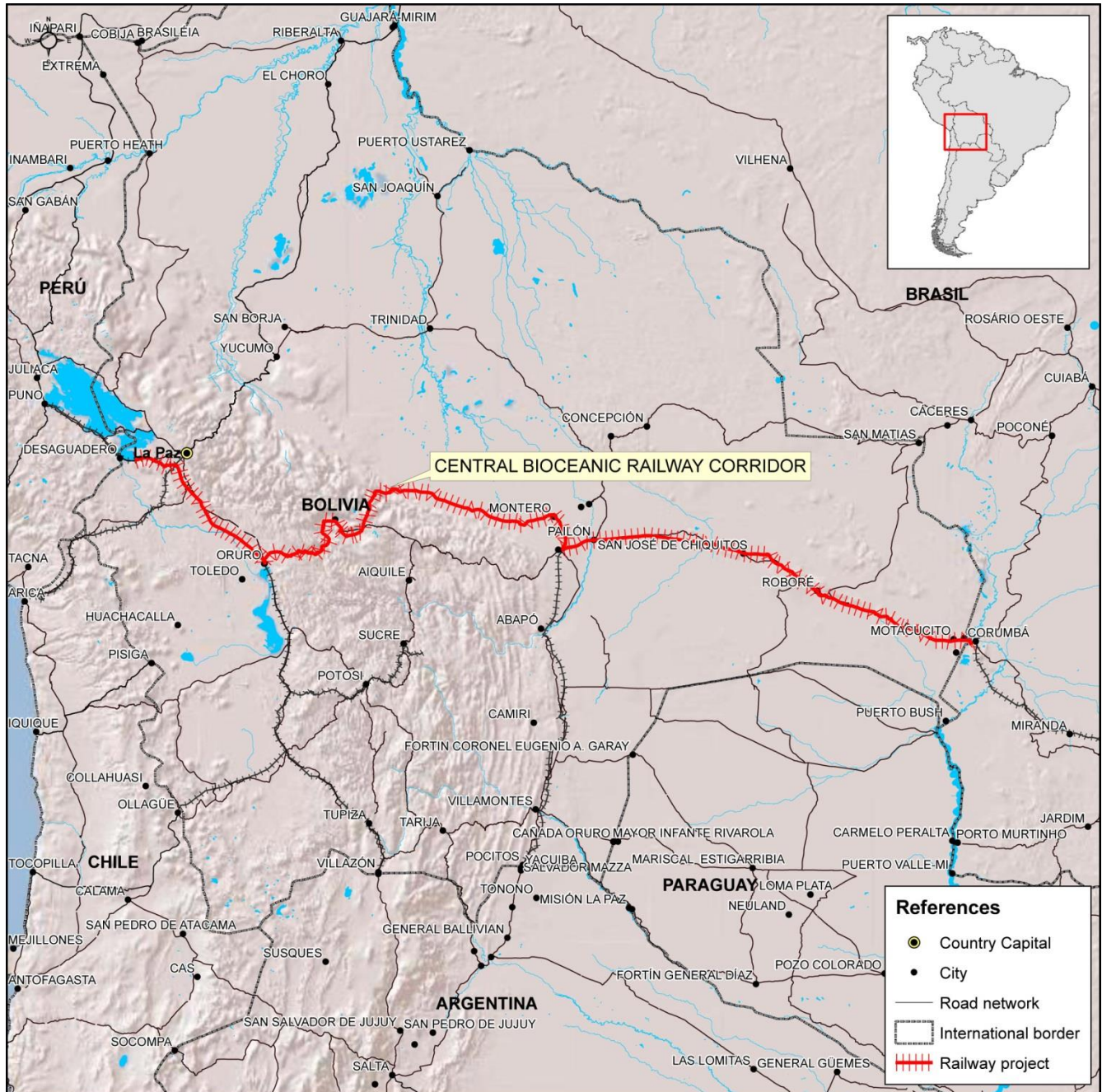
PROJECT TYPE: **Rail Transportation**

ESTIMATED INVESTMENT: **US\$6.7 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
IOC81	CENTRAL BIOCEANIC RAILWAY CORRIDOR	BO	PRE-EXECUTION	6,700,000



## RATIONALE

This structured 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. The section in Bolivia is of critical importance, since at present the two rail networks in the country, the Andean and the Eastern ones, are not interconnected. This approximately 500-km long missing link in Bolivian territory equals 6% of the total length of the Central Bioceanic Railway Corridor. Both rail networks have meter gauge tracks and a bearing capacity ranging from 15-ton to 18-ton axle load, and allow a speed of 70 km/h (passengers) and 40 km/h (cargo).

The Bolivian missing link 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 the Bolivian territory.

## PROPOSAL

The proposal involves 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. Thus, the intention is to achieve interoperability (compatible track gages and a standard track bearing capacity) at the regional level.

## PROGRESS ANALYSIS AND ASSESSMENT

The only individual project making up this structured project is included in the COSIPLAN Portfolio and is a priority in both Bolivia's National Development Plan and Sectoral Development Plan, as well as in the Annual Operating Plan 2011-2012 of the Bolivian Office of the Deputy Minister of Transport.

At the national level, the Central Bioceanic Railway Corridor is the most ambitious project in the history of Bolivia, and will facilitate the sustainable development, exploitation and industrialization of natural resources, enabling export and import operations in a better condition than today as well as a logistics chain with the Corridor as its main axis.

A study intended to identify alternatives has already been conducted, and will be complemented with other studies including basic design engineering. Furthermore, it should be stated that the resources required to undertake this project have already been secured from the Inter-American Development Bank.

## 7. MERCOSUR-CHILE HUB (ARGENTINA, BRAZIL, CHILE, PARAGUAY, URUGUAY)

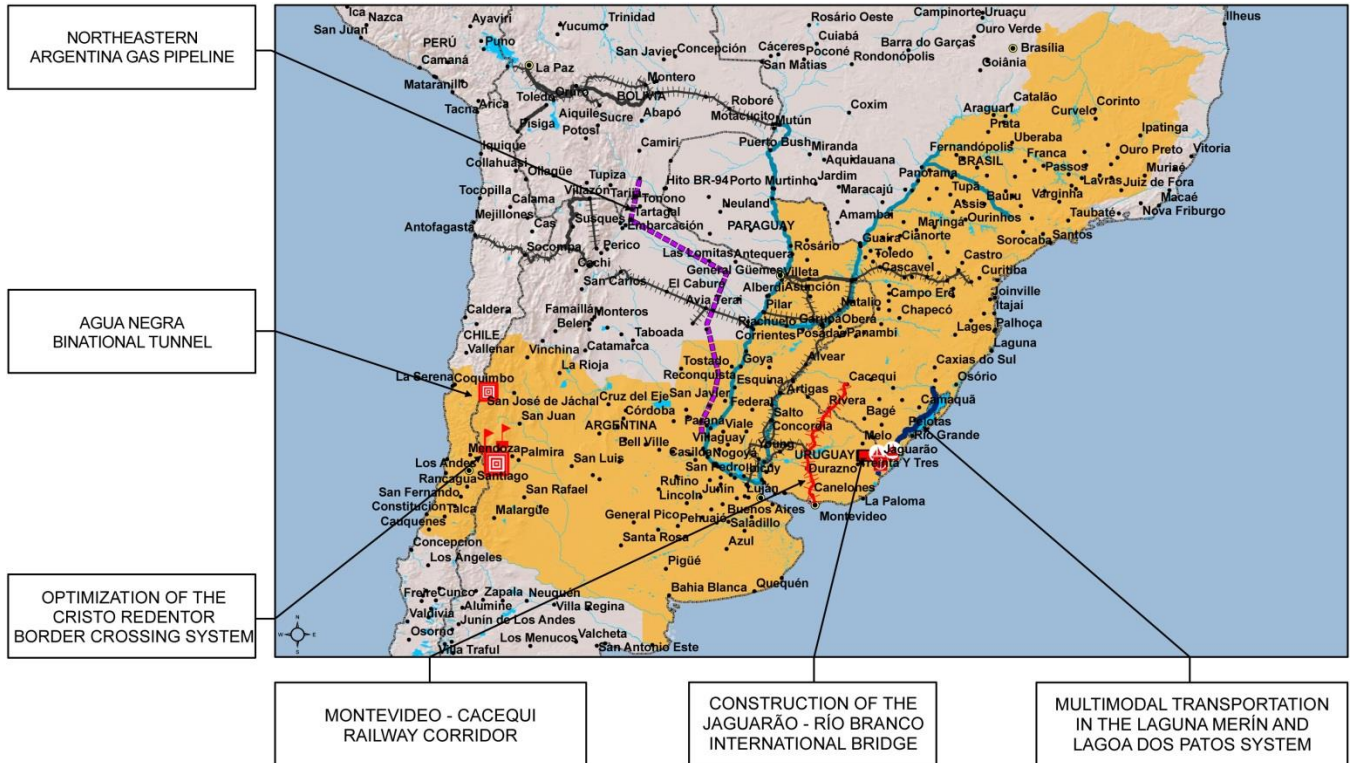
The area of influence of the MERCOSUR-Chile Hub encompasses Chile's Metropolitan Region and Regions IV, V, VI, and VII (Coquimbo, Valparaíso, Libertador General Bernardo O'Higgins, and Maule, respectively); the Argentine provinces of Mendoza, San Juan, La Rioja, San Luis, Córdoba, La Pampa, Santa Fe, 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<sup>2</sup>, accounting for 25.5% 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 53.7% of the total population of the five countries that make up the Hub. Furthermore, the area of influence has an average population density of almost 43 inhabitants per km<sup>2</sup>. This indicator ranges from a maximum 438 inhabitants per km<sup>2</sup> in the Metropolitan Region of Chile to a minimum of slightly more than 2 inhabitants per km<sup>2</sup> in the territory of the Argentine province of La Pampa.

The Agenda includes projects from four of the six project groups of this Hub: i) G2 - Porto Alegre - Argentina / Uruguay Border - Buenos Aires; ii) G3 - Valparaíso - Buenos Aires; iii) G4 - Coquimbo - Argentine Central Region - Paysandú; and iv) G5 - Energy Group.

Table 7.1 shows the 15 individual projects that make up the six structured projects of the MERCOSUR-Chile Hub incorporated into API. The investments involved amount to US\$2,240.3 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: 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.

**MAP 7.1: API PROJECTS – MERCOSUR-CHILE HUB**



**TABLE 7.1: API PROJECTS – MERCOSUR-CHILE HUB**

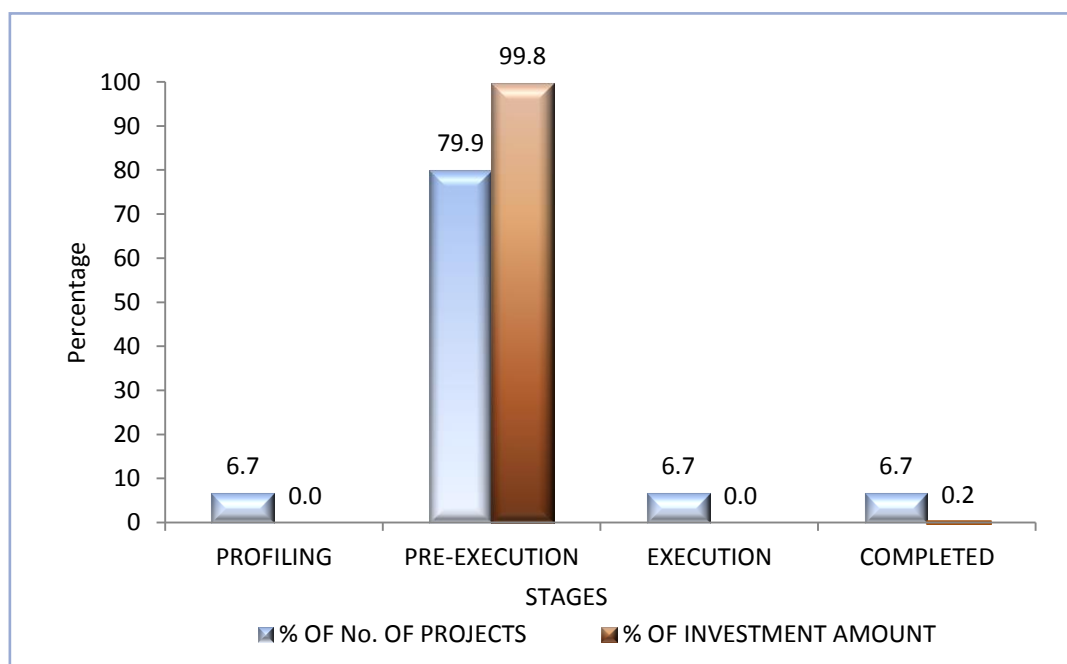
No.	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
25	MCC	NORTHEASTERN ARGENTINA GAS PIPELINE	ARGENTINA/ BOLIVIA	1,000.0	MCC68	NORTHEASTERN ARGENTINA GAS PIPELINE	AR	G5	PRE-EXECUTION	1,000,000.00 0
26	MCC	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	BRAZIL/ URUGUAY	93.5	MCC22	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	BR - UR	G2	PRE-EXECUTION	93,500,000
27	MCC	MULTIMODAL TRANSPORTATION IN THE LAGUNA MERÍN AND LAGOA DOS PATOS SYSTEM	BRAZIL/ URUGUAY	14.0	MCC85	DREDGING OF MIRIM LAKE	BR	G2	EXECUTION	0
					MCC157	DREDGING OF THE TACUARÍ RIVER	BR	G2	PRE-EXECUTION	0
					MCC158	DREDGING OF AND INSTALLATION OF SIGNS, MARKERS AND AIDS TO NAVIGATION ON THE MIRIM LAKE - DOS PATOS LAKE SYSTEM	BR	G2	PROFILING	0
					MCC159	LA CHARQUEADA PORT TERMINAL AND DREDGING OF THE CEBOLLATI RIVER	UR	G2	PRE-EXECUTION	7,000,000
					MCC160	PORT TERMINAL AND DREDGING OF TACUARÍ	UR	G2	PRE-EXECUTION	7,000,000
28	MCC	MONTEVIDEO - CACEQUI RAILWAY CORRIDOR	BRAZIL/ URUGUAY	139.8	MCC30	REHABILITATION OF THE MONTEVIDEO - RIVERA RAILWAY	UR	G2	PRE-EXECUTION	134,831,000
					MCC115	REHABILITATION OF THE RIVERA - SANTANA DO LIVRAMENTO - CACEQUI RAILWAY SECTION	BR - UR	G2	COMPLETED	5,000,000
29	MCC	OPTIMIZATION OF THE CRISTO REDENTOR BORDER CROSSING SYSTEM	ARGENTINA/ CHILE	143.0	MCC151	INTEGRATED FREIGHT CONTROL CENTER AT USPALLATA	AR	G3	PRE-EXECUTION	90,000,000
					MCC152	PASSENGER CONTROL CENTER AT LOS HORCONES	AR	G3	PRE-EXECUTION	35,000,000
					MCC153	NEW LOS LIBERTADORES BORDER COMPLEX	CH	G3	PRE-EXECUTION	0
					MCC154	REHABILITATION OF THE CRISTO REDENTOR TUNNEL AND CARACOLES	AR - CH	G3	PRE-EXECUTION	4,000,000
					MCC155	BINATIONAL MANAGEMENT CONTROL SYSTEM AT THE CRISTO REDENTOR BORDER CROSSING	AR - CH	G3	PRE-EXECUTION	14,000,000
30	MCC	AGUA NEGRA BINATIONAL TUNNEL	ARGENTINA/ CHILE	850.0	MCC110	AGUA NEGRA BINATIONAL TUNNEL	AR - CH	G4	PRE-EXECUTION	850,000,000

**TABLE 7.2: API PROJECTS – MERCOSUR-CHILE HUB BY LIFE CYCLE STAGE**  
(number of projects, million US\$ and percentage)

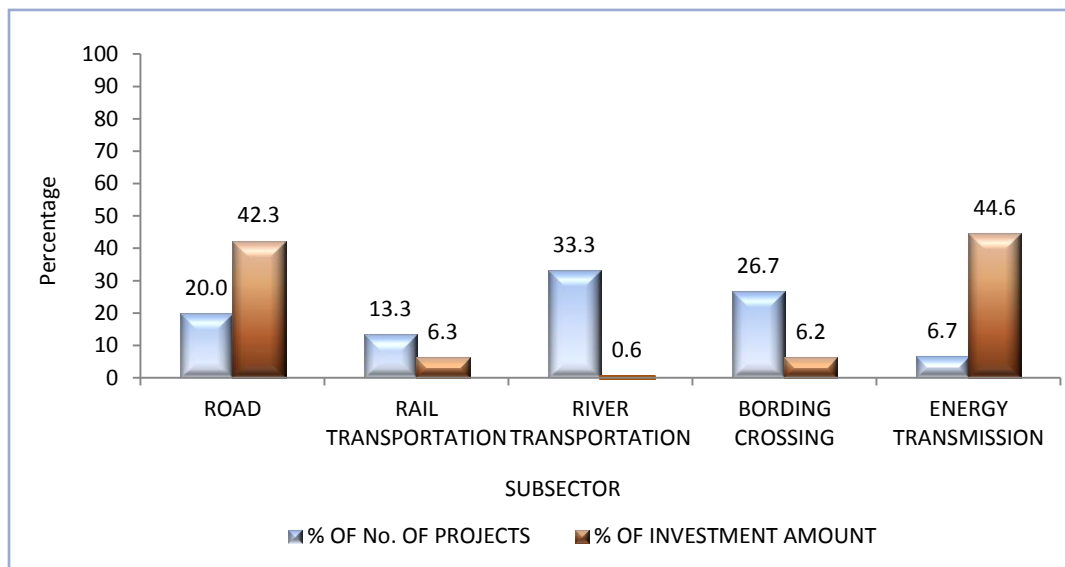
PROJECT STAGE	No. OF PROJECTS	% OF PROJECTS	INVESTMENT AMOUNT	% OF INVESTMENT AMOUNT
PROFILING	1	6.7	0.0	0.0
PRE-EXECUTION	12	79.9	2,235.3	99.8
EXECUTION	1	6.7	0.0	0.0
COMPLETED	1	6.7	5.0	0.2
<b>TOTAL</b>	<b>15</b>	<b>100.0</b>	<b>2,240.3</b>	<b>100.0</b>

Note: Amounts are estimated on the basis of the life cycle stages at which the API individual projects are.

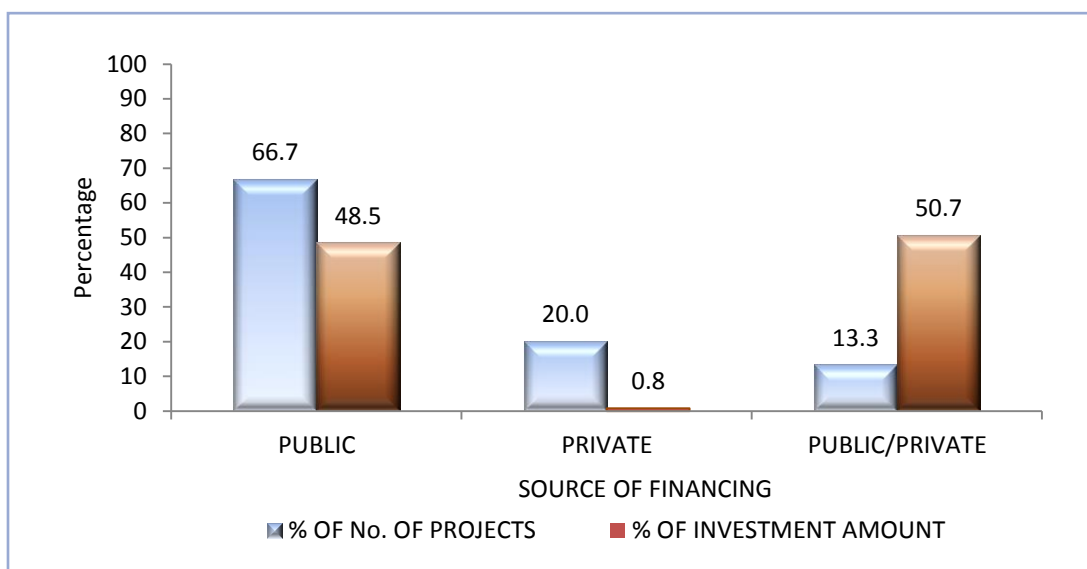
**FIGURE 7.1: API PROJECTS – MERCOSUR-CHILE HUB BY LIFE CYCLE STAGE**  
(% of number of projects and % of investment amount)



**FIGURE 7.2: API PROJECTS – MERCOSUR-CHILE HUB BY SUBSECTOR**  
(% of number of projects and % of investment amount)



**FIGURE 7.3: API PROJECTS – MERCOSUR-CHILE HUB BY SOURCE OF FINANCING**  
(% of number of projects and % of investment amount)



25

## NORTHEASTERN ARGENTINA GAS PIPELINE

HUB: **MERCOSUR-CHILE**COUNTRIES: **ARGENTINA – BOLIVIA**PROJECT TYPE: **Energy**ESTIMATED INVESTMENT: **US\$1,000.0 million**SOURCE OF FINANCING: **Public-Private**

Life Cycle Stages

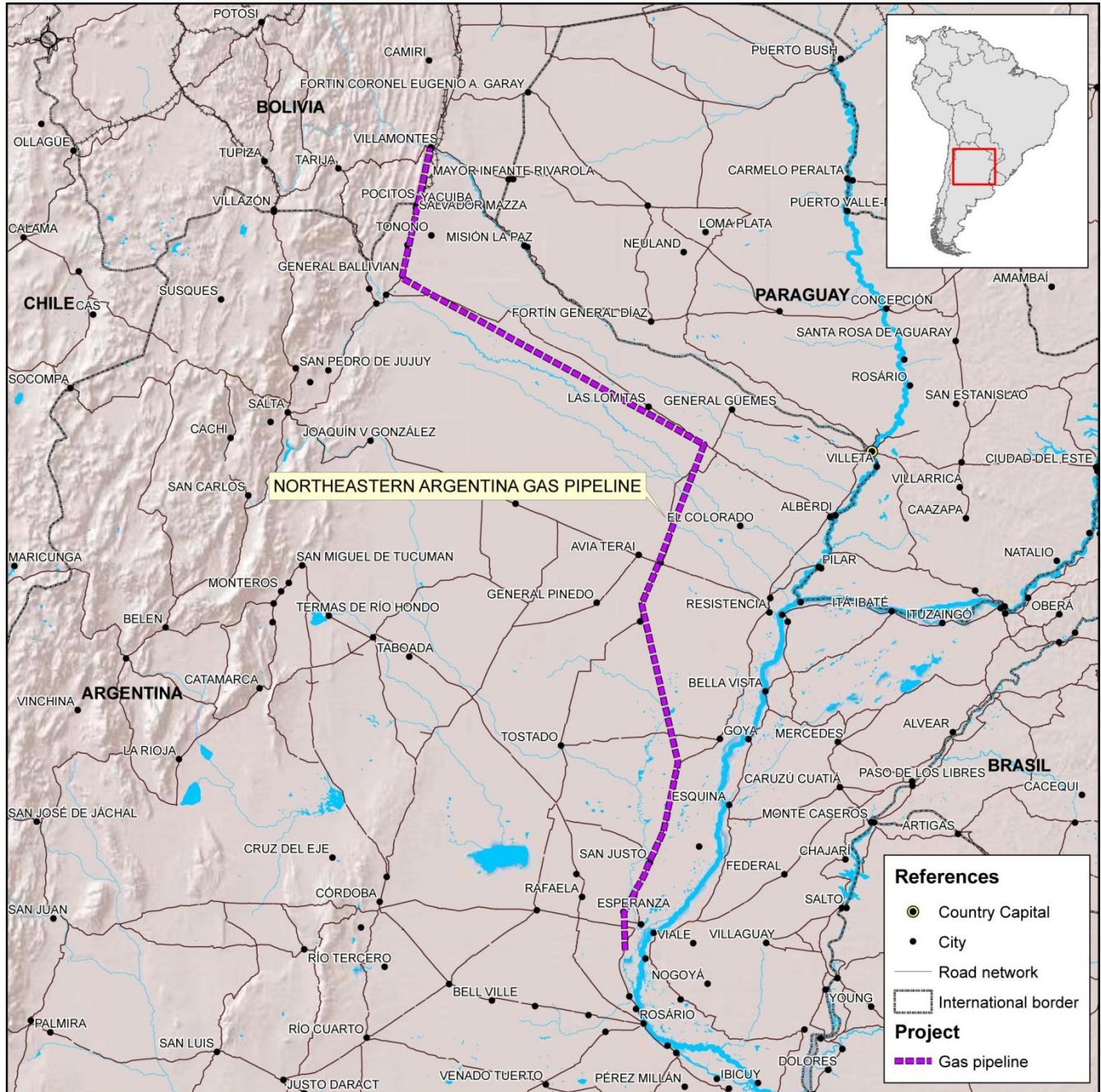
Pre-execution

0

1

No. of Projects

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>MCC68</b>	NORTHEASTERN ARGENTINA GAS PIPELINE	AR	PRE-EXECUTION	1,000,000,000



## RATIONALE

The purpose of this structured 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 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. 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 provinces that either lack gas supply or have insufficient provision to secure the economic development that the region requires.

Furthermore, the project will enhance environmental standards, as it encourages the replacement of other, more polluting fossil fuels. In addition, it has been identified that a program of complementary actions associated with the border strip is needed, involving infrastructure, environmental preservation, and logistics and production integration opportunities.

## PROPOSAL

The proposal involves building a natural gas transportation system that stretches from Bolivia and spans along approximately 675 km of the trunk gas pipeline that runs across the Argentine province of Chaco, linking the sections in the provinces of Formosa and Santa Fe. The branches stemming from the trunk pipeline will contribute to the development of smaller towns in the interior of the provinces.

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.

## PROGRESS ANALYSIS AND ASSESSMENT

This single individual project makes up the structured project, forms part of the COSIPLAN Portfolio, and has been mentioned in the declarations of summits involving both countries' presidents.

Eighteen companies interested in the construction of the gas pipeline have sent their quotes, which are being technically assessed by the Ministry of Planning. After this, the technical proposals will be studied. Three sections will be opened for tender, spanning over 797 km and linking the provinces of Salta, Formosa, and Santa Fe.



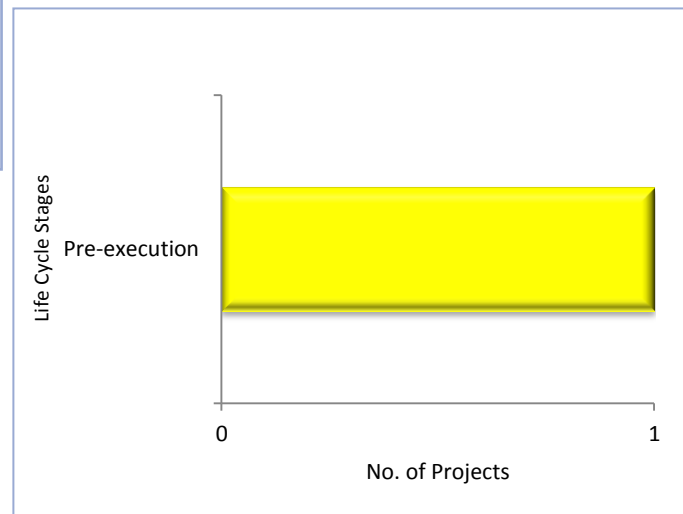
HUB: **MERCOSUR-CHILE**

COUNTRIES: **BRAZIL – URUGUAY**

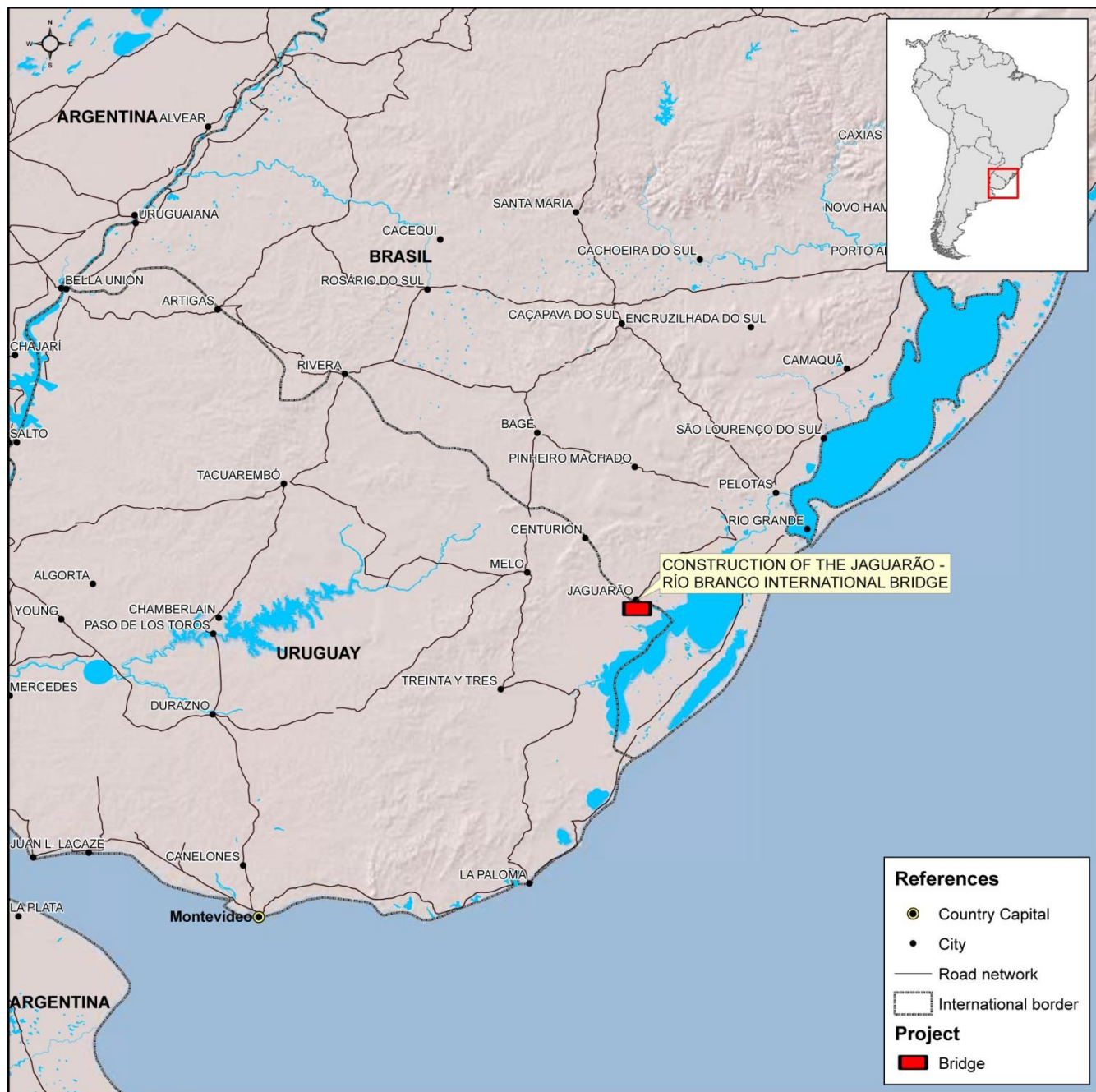
PROJECT TYPE: **Road Transportation**

ESTIMATED INVESTMENT: **US\$93.5 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>MCC22</b>	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	BR - UR	PRE-EXECUTION	93,500,000



## RATIONALE

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.

The purpose of the project 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. Through the reduction of traffic on the Chuí-Chuy commercial road by diverting it to the new international bridge, the project will protect the nature reserves on the Atlantic coast; alleviate traffic congestion in the Pelotas-Rio Grande section of Brazilian route BR-392/RS; result in the coastal road being used by passenger and tourist traffic only; and reduce the distance by road between Montevideo and Porto Alegre by approximately 53 km.

The technical, economic and environmental feasibility study estimates that 75% of cargo vehicles and 50% of passenger vehicles that currently use the Chuí-Chuy road in long-distance trips will be diverted to the new bridge (Jaguarão-Río Branco).

## PROPOSAL

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 new bridge will be a concrete and steel extradosed structure, measuring 400 m in length and 16.85 m in width. As regards approach roads, the project includes 9.1 km up to Route BR-116/RS (Brazil) and 6.4 km up to Route 26 (Uruguay). Border crossings will have integrated controls, with passenger controls on the Uruguayan side and cargo controls on the Brazilian side.

## PROGRESS ANALYSIS AND ASSESSMENT

This project forms part of the COSIPLAN Project Portfolio and is frequently mentioned as a priority in joint statements.

Furthermore, the Brazil-Uruguay Joint Committee, created pursuant to the agreement signed by the two countries, and the Brazil-Uruguay Strategic Planning and Production Integration Bilateral Commission (CBPE) are in charge of the project.

Both countries have allocated funds in their budget for the execution of this binational project, which is also included in the Brazilian Growth Acceleration Program (or PAC, its acronym in Portuguese).

The project is currently at its pre-execution stage and scheduled to be completed in June 2015.



HUB: **MERCOSUR-CHILE**

COUNTRIES: **BRAZIL – URUGUAY**

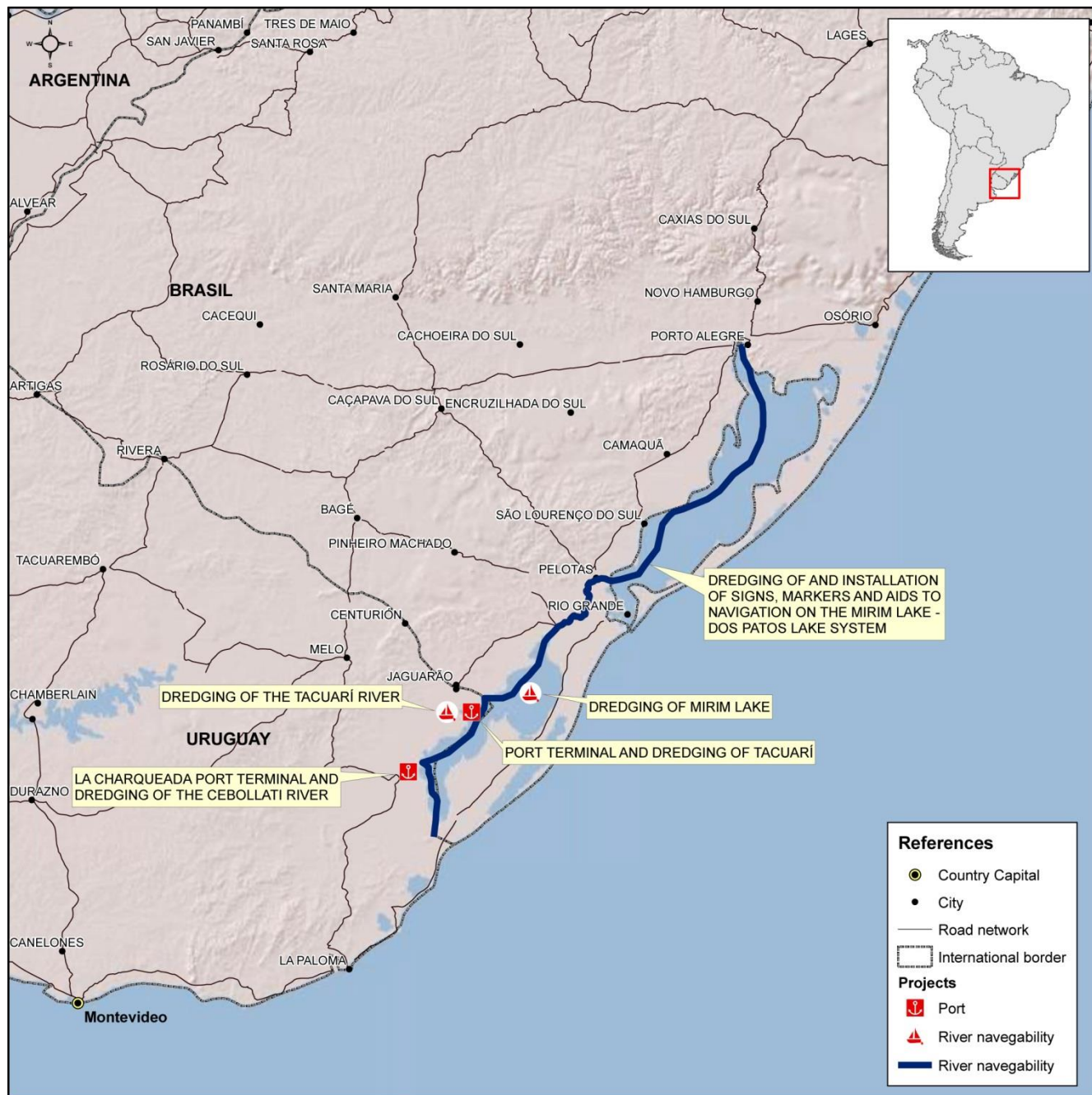
PROJECT TYPE: **Multimodal Transportation**

ESTIMATED INVESTMENT: **US\$14.0 million**

SOURCE OF FINANCING: **Private**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>MCC85</b>	DREDGING OF MIRIM LAKE	BR	EXECUTION	0
<b>MCC157</b>	DREDGING OF THE TACUARÍ RIVER	BR	PRE-EXECUTION	0
<b>MCC158</b>	DREDGING OF AND INSTALLATION OF SIGNS, MARKERS AND AIDS TO NAVIGATION ON THE MIRIM LAKE - DOS PATOS LAKE SYSTEM	BR	PROFILING	0
<b>MCC159</b>	LA CHARQUEADA PORT TERMINAL AND DREDGING OF THE CEBOLLATI RIVER	UR	PRE-EXECUTION	7,000,000
<b>MCC160</b>	PORT TERMINAL AND DREDGING OF TACUARÍ	UR	PRE-EXECUTION	7,000,000



## RATIONALE

The project has significant cross-border implications, and involves works in both Uruguay and Brazil, to meet the need for improved connectivity between the eastern region of Uruguay and the southern area of Brazil, which at present is exclusively by road. The restoration of the river transportation mode will help carry greater cargo volumes, reduce freight and infrastructure maintenance costs, alleviate bottlenecks at border crossings, mitigate the environmental impact caused by exhaust emissions and noise pollution, and reduce the number of road accidents. The impacts of the project on the river and lake environments are being studied by both countries in their respective jurisdictions.

The rationale for this project is in line with the Agreement between the Federal Republic of Brazil and the Republic of Uruguay concerning River and Lake Transportation along the Uruguay-Brazil Waterway, signed on July 30, 2010, in the city of Santana do Livramento. This waterway became inactive after the construction of Route BR-471/RS (Chuí-Pelotas) in the 1970s. Route BR-471/RS runs across the Taim Ecological Station, which has an area of 32,038 ha comprising part of the Santa Vitória do Palmar and Rio Grande municipalities, between the Merín (or Mirim) lake and the Atlantic ocean, near the Chuí or Chuy stream (Brazil-Uruguay border).

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, covering a total area of 997 km.

## PROPOSAL

The project aims at revitalizing river and lake transport along the waterway formed by the Merín (or Mirim) and dos Patos lakes and their tributaries.

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.

The project consists in carrying out dredging works; installing aids to navigation and signs and markers along the navigable waterways of both countries; jointly conducting cartographic and hydrographic surveys on the Merín lake; and building ports in the Uruguayan territory.

Since the project is concerned with a waterway shared by two countries, actions associated with immigration, customs and sanitary regulations, among others, are needed, which will be carried out jointly by the relevant national and binational entities.

## PROGRESS ANALYSIS AND ASSESSMENT

The project forms part of the COSIPLAN Portfolio, has been mentioned in joint statements by both presidents, and is within the framework of the Treaty on Cooperation in the Use of Natural Resources and the Development of the Merín Lake Basin.

The project falls under the purview of the Uruguay-Brazil Waterway Technical Secretariat, has been commissioned to the Work Group for the Development of a Cartographic Plan, and is also monitored by the Brazil-Uruguay High-Level Group (GAN).

Environmental protection requirements in force in each country are being observed so as not to affect the ecosystem, in particular the river and lake environments.

The funds for this project have been provided for in the budget estimate for 2010-2014 of Uruguay's National Hydrography Authority, under the purview of the Ministry of Transport and Public Works, while Brazil has included the project in the second stage of the Growth Acceleration Program (or PAC 2, its acronym in Portuguese), which ensures the financial resources required for its implementation and provides it with a special management model.

The project is at the execution stage and is scheduled to be completed in 2015. The dates of completion of its sub-stages will be defined after the feasibility study is finished.

Finally, it should be stated that, during 2013, the Strategic Environmental and Social Assessment (EASE) Methodology was applied to this structured project with the active participation of the national technical teams of Brazil and Uruguay.

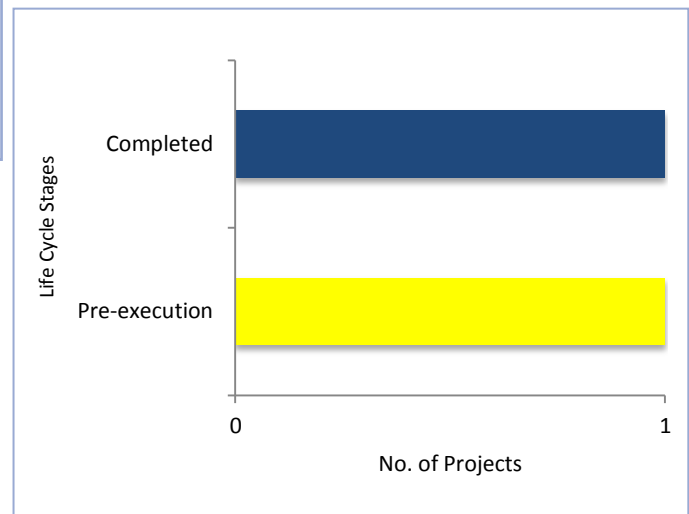
HUB: **MERCOSUR-CHILE**

COUNTRIES: **BRAZIL – URUGUAY**

PROJECT TYPE: **Rail Transportation**

ESTIMATED INVESTMENT: **US\$139.8 million**

SOURCE OF FINANCING: **Public-Private**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
MCC30	REHABILITATION OF THE MONTEVIDEO - RIVERA RAILWAY	UR	PRE-EXECUTION	134,831,000
MCC115	REHABILITATION OF THE RIVERA - SANTANA DO LIVRAMENTO - CACEQUI RAILWAY SECTION	BR - UR	COMPLETED	5,000,000



## RATIONALE

This project has significant cross-border implications, and involves works in both Uruguay and Brazil, as it will connect the city of Montevideo (Uruguay) with the Rio Grande port (Brazil) and the southern and southeastern regions of Brazil by rail. The project seeks 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. Furthermore, it will strengthen regional connectivity and create cross-border synergies between Uruguay and Brazil, enhancing regional production flows, activating and optimizing rail transportation, and opening up cargo transportation opportunities currently restricted to the road network.

This initiative, which represents a priority on the agenda of both governments, is an efficient instrument for consolidating regional trade, as railways can carry large volumes with high energy efficiency (mainly in medium- and long-distance journeys), under safer conditions than road vehicles -i.e. fewer accidents, robberies and thefts-, with less environmental impacts, and at lower -hence, more competitive- freight and infrastructure costs, while encouraging the participation of logistics operators and providers of goods and services located in the project's area of influence.

At present, the goods traded between the two countries -primary and secondary products (mainly cereals, timber, barley, rice, molten iron sheets, and agricultural machines)- are carried by road (in Brazil, through BR-293/RS and BR-158/RS).

As for upgrade works in the Uruguayan section, they will bring about better services, as they will directly impact on transportation costs for the benefit of clients. This will help attract investments to the logistics sector, cargo transfer terminals, and activities directly or indirectly associated with rail operations and logistics in general.

## PROPOSAL

In Brazil, the 158-km long Santana do Livramento-Cacequi rail section needs to be brought back into operation. Experts and representatives from Brazil's National Land Transport Agency (ANTT) and from América Latina Logística do Brasil S/A (ALL) -the firm holding the concession for this rail section stretch- carried out a technical inspection and identified the necessary rehabilitation works, including cross-tie replacement, cut removal, embankment reinforcement, and repair activities in ten bridges.

In Uruguay, the 567-km rail corridor between Montevideo and Rivera needs to be upgraded. These works are aimed at improving the level of service of the sections that make up the corridor, particularly in terms of condition, speed, and safety for the rail transport of goods. This first rehabilitation stage (admissible axle load in Uruguay: 18 tons) is intended to consolidate rail infrastructure so that it meets the new domestic and international freight transportation requirements, and 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 complementary actions identified are the following: negotiate contracts to enhance operation conditions; discuss issues related to cargo transfer facilitation; purchase equipment; seek potential rail shippers; identify the products to be traded; verify the need to incorporate new rolling stock; and rehabilitate stations.

#### PROGRESS ANALYSIS AND ASSESSMENT

The two individual projects that make up this structured project form part of the COSIPLAN Portfolio.

The structured project is supported by joint statements made by the two countries, as it is of strategic importance in the context of a new Brazil-Uruguay bilateral relation paradigm.

Moreover, the pre-investment studies were completed in 2011.

Works in the Brazilian territory were completed in November 2012, and, therefore, the railway started its international operation between Uruguay and Brazil. The rail rehabilitation and upgrade works in Uruguay will take until 2015.

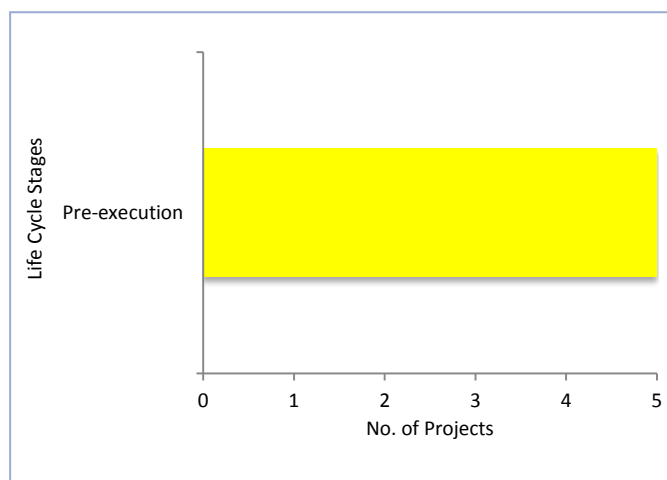
HUB: **MERCOSUR-CHILE**

COUNTRIES: **ARGENTINA – CHILE**

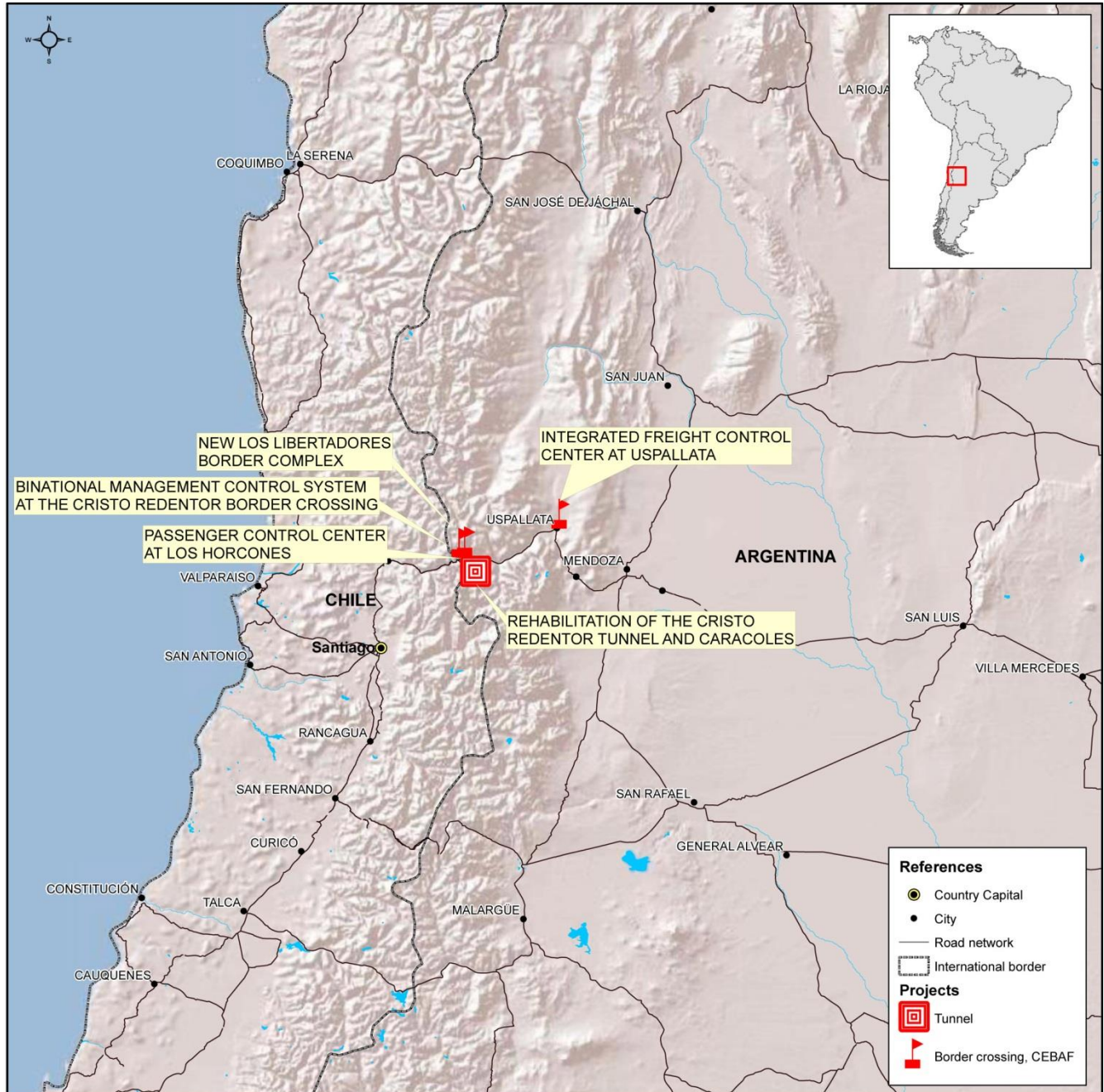
PROJECT TYPE: **Border Crossing**

ESTIMATED INVESTMENT: **US\$143.0 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>MCC151</b>	INTEGRATED FREIGHT CONTROL CENTER AT USPALLATA	AR	PRE-EXECUTION	90,000,000
<b>MCC152</b>	PASSENGER CONTROL CENTER AT LOS HORCONES	AR	PRE-EXECUTION	35,000,000
<b>MCC153</b>	NEW LOS LIBERTADORES BORDER COMPLEX	CH	PRE-EXECUTION	0
<b>MCC154</b>	REHABILITATION OF THE CRISTO REDENTOR TUNNEL AND CARACOLAS	AR - CH	PRE-EXECUTION	4,000,000
<b>MCC155</b>	BINATIONAL MANAGEMENT CONTROL SYSTEM AT THE CRISTO REDENTOR BORDER CROSSING	AR - CH	PRE-EXECUTION	14,000,000



## RATIONALE

This structured project consists in a plan to improve the infrastructure as well as the technological and operational aspects involved in the operation of all the border building complexes and management stations that form part of the Cristo Redentor border crossing system. It is a systemic solution to the congestion problem posed for years by the growing traffic demand to the services provided by both countries in this connection.

This border crossing is located in the Andes mountain range, and links Chile's Region V, Valparaíso, with the Argentine province of Mendoza. 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 to overseas Pacific markets via the ports of Valparaíso, San Antonio and Quintero, located in Region V.

The project is based on a study that analyzed alternative solutions for the improvement of both infrastructure and operations at the Cristo Redentor border crossing in order to select the ones to be implemented with the aim of having a better border control system in place under a staged development plan for the short, medium and long term.

This initiative considers all the aspects related to bilateral traffic, without seeing congestion as the result of a single cause, and takes into account new concepts such as the following: the optimization of space by allocating different areas for different services depending on vehicle type, which prevents border control areas from being used for other activities and, thus, users from being delayed longer than necessary; the implementation of new technologies; the design of a model for the flow of people and vehicles in the control area; and the building of housing facilities for customs officers.

## PROPOSAL

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 project comprises several works and individual actions to be undertaken by Chile and Argentina in two stages, with short- and medium-term goals. The degree of progress related to such works and actions is different. The project has its origins in the approval by both governments of the Binational Study on the Optimization of the Cristo Redentor Border Crossing System, carried out within the framework of IIRSA as a technical cooperation program funded by the IDB. The Binational Commission for the optimization of the Cristo

Redentor border crossing, created in 2011, has already held several meetings. Progress has been made as to some actions intended to speed up operations and define the logistics needs of each service involved in the integrated controls of the respective building complexes. The project provides for a first stage, with provisional improvements using mobile units aimed at expanding the capacity of the facilities, and a second stage, in which controls will be carried out in the final and permanent facilities. The project as a whole is at the pre-execution stage regarding the most important works, and its pre-investment studies are already completed.

#### PROGRESS ANALYSIS AND ASSESSMENT

At present, the Integrated Control Center at Uspallata (ACIUS, its acronym in Spanish) has some service civil works already finished: the administrative facilities, the cargo inspection bay, the scanning bay, and the area for seized cargo.

As for road infrastructure, the recommended works are: defining the access roads to ACIUS via the bypass of National Route No. 7 and National Route No. 49, thus avoiding the urban area. The design proposed includes the necessary traffic circles and management control stations.

Concerning the passenger control center at Los Horcones, the project profile was sent to the Externally-financed Programs and Projects Coordination Unit under the purview of the Federal Planning Ministry for its consideration as a priority upon request for external funding to the IDB.

The rehabilitation of the Cristo Redentor Tunnel and Caracoles project is currently being designed, which is scheduled to finish in 2014, whereas a call for tender has been launched for the New Los Libertadores Border Complex project, a process bound to be finished by the end of 2013, for construction to start in mid-2014.

Finally, with regard to the binational management system, a Chilean pre-feasibility study is about to be completed to determine the works/systems to incorporate along the road in order to help accelerate the international flow of passengers and vehicles.

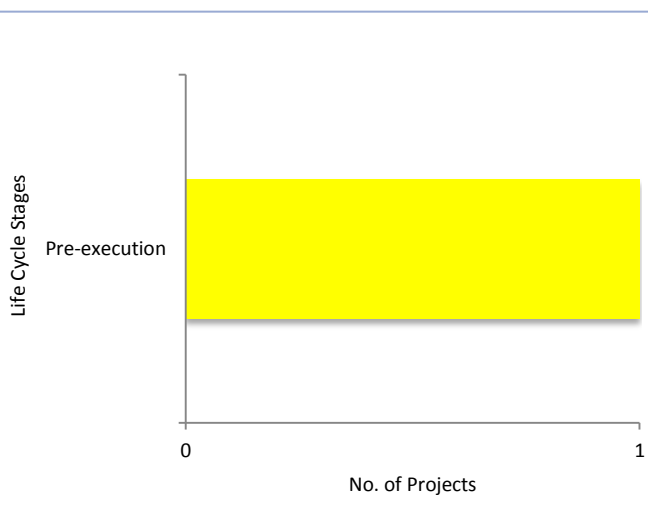
HUB: **MERCOSUR-CHILE**

COUNTRIES: **ARGENTINA – CHILE**

PROJECT TYPE: **Road Transportation**

ESTIMATED INVESTMENT: **US\$850.0 million**

SOURCE OF FINANCING: **Public**



DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
<b>MCC110</b>	AGUA NEGRA BINATIONAL TUNNEL	AR - CH	PRE-EXECUTION	850,000,000



## RATIONALE

The main purpose of this structured project is to construct a two-way tunnel at the Agua Negra border crossing between Chile and Argentina. Given its geographical location, this is an important regional integration point, as it provides a further connection from the central area of Argentina to the area of influence of the Coquimbo port in Chile, which encourages tourism and international trade among the countries that make up the MERCOSUR-Chile Hub. Furthermore, Argentina and Chile have produced estimates (social impact assessment studies) of the effect that the opening of the tunnel will have on traffic levels. Despite their differences, these studies have been further refined to get more accurate figures concerning demand.

The altitude of the border crossing would be brought down from 4,750 to 3,620 meters above sea level on the Chilean end of the tunnel, and to 4,085 meters above sea level on the Argentine end, thus improving the existing connection. The new alignment, with a nominal length of 13.8 km, would offer a faster and safer route to join the Chilean Coquimbo region with the Argentine province of San Juan, opening up new opportunities for tourism and trade development.

At the bilateral level, this project was analyzed within the framework of the Joint Technical Group and, later, by the Agua Negra Binational Entity or EBITAN, created pursuant to the Maipú Treaty on Integration and Cooperation signed by Argentina and Chile in 2009. In the multilateral context, it is included in IIRSA Project Portfolio and in the COSIPLAN API.

## PROPOSAL

This structured project is located in the Argentine province of San Juan and in Chile's Region IV, and is part of the Porto Alegre (Brazil)-Coquimbo (Chile) bioceanic corridor.

The project consists in building 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.

The elements that make up the project subject to the Protocol to the Maipú Treaty are the following:

- a) The studies conducted in Chile and Argentina on the Agua Negra International Tunnel;
- b) Additional studies that may be carried out by the parties or by construction companies;
- c) The civil works to construct the tunnel, its facilities, safety equipment, and access roads for its operation, including mechanical systems (ventilation and fire control), electrical systems (electric power, lighting, etc.), and electronic systems (control and communications);
- d) Additional structures, facilities, equipment, systems and construction works located in the binational area, including those related to telecommunications and external services required for the management and operation of the Agua Negra International Tunnel;

- e) Procedures, instruction manuals, and technical manuals to be drafted during the different stages of the project and approved by EBITAN;
- f) Activities related to the construction, maintenance, operation, and management of the tunnel, according to the regulations applicable to the project.

#### PROGRESS ANALYSIS AND ASSESSMENT

This project is at the pre-execution stage. Concerning its feasibility, demand and social impact assessment studies have been completed in both countries. Moreover, the technical studies, ranging from conceptual engineering to basic engineering, geology, and hydrogeology, have already been completed. There is no accurate schedule for the project yet, but the studies being presently carried out (basic engineering update) and their analysis are expected to be finished in 2013-2014. Also by that time, a protocol will be entered into to move on to the tunnel construction contractor prequalification stage (already reached) and open the bidding process.

As agreed, the tunnel construction cost will be borne by both countries, in proportion to the area involved in their respective territories. Estimations will use a formula whereby the tunnel construction will be financed by Argentina, but once the tunnel becomes operational, Chile will refund Argentina its share in the cost of the construction works with its respective toll fees.

The construction of the tunnel is expected to take seven years.



## 8. 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 Peru; Pando, Beni, and La Paz, in Bolivia; and the states of Acre and Rondônia in Brazil. This area of influence covers 1,146,871 km<sup>2</sup>, accounting for 10.5% of the total area of the three countries that make up the Hub.

The total population of the area of influence was estimated at 10,249,938 inhabitants in 2008, accounting for 4.5% of the total population of the three countries. Furthermore, this area has an average population density of almost 9 inhabitants per km<sup>2</sup>. This indicator ranges from a maximum of almost 21 inhabitants per km<sup>2</sup> in the area of influence of the department of La Paz, in Bolivia, to a minimum of slightly more than 1 inhabitant per km<sup>2</sup> in the department of Pando, also in Bolivia. The territory of this Hub is the least densely populated among the nine API Hubs.

Of the three project groups that make up this Hub, a single project from Project Group 2 (G2 - Rio Branco - Cobija - Riberalta - Yucumo - La Paz Corridor) is included in API.

Table 8.1 shows the only API structured project in the Peru-Brazil-Bolivia Hub. The estimated investment amount involved is US\$85.4 million.

**MAP 8.1: API PROJECT – PERU-BRAZIL-BOLIVIA HUB**



**TABLE 8.1: API PROJECTS – PERU-BRAZIL-BOLIVIA HUB**

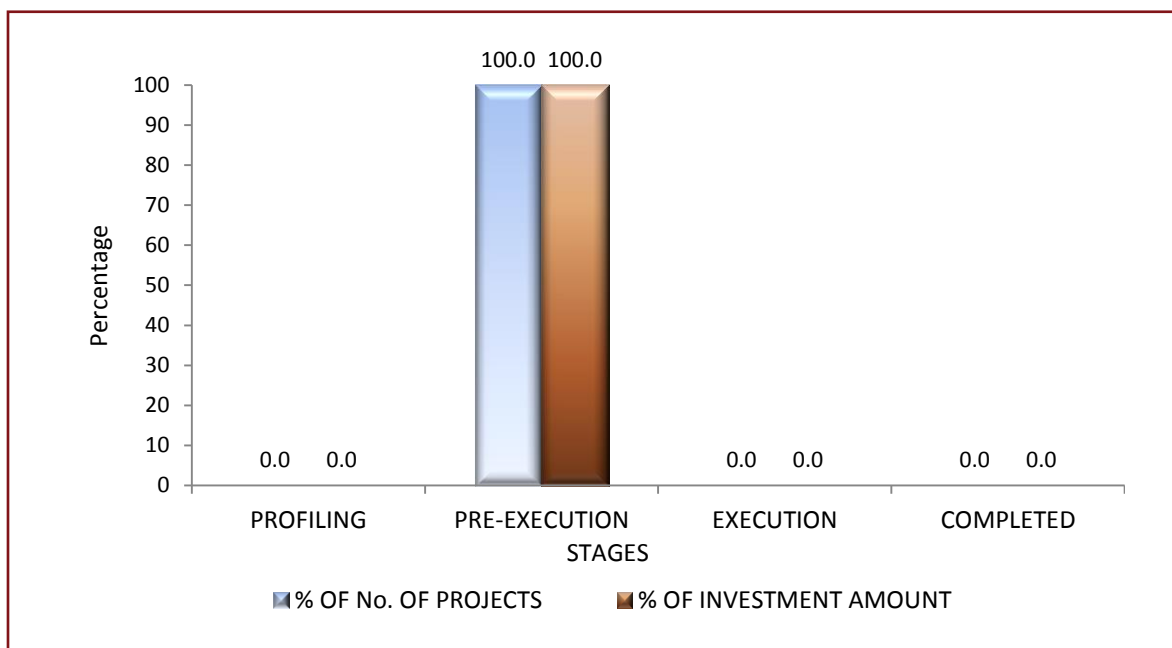
No.	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
31	<b>PBB</b>	PORTO VELHO - PERUVIAN COAST CONNECTION	BRAZIL/PERU	85.4	PBB64	BRIDGE OVER THE MADEIRA RIVER IN ABUNĂ (BR-364/R0)	BR	G2	PRE-EXECUTION	85,350,000

**TABLE 8.2: API PROJECTS – PERU-BRAZIL-BOLIVIA HUB BY LIFE CYCLE STAGE**  
(number of projects, million US\$ and percentage)

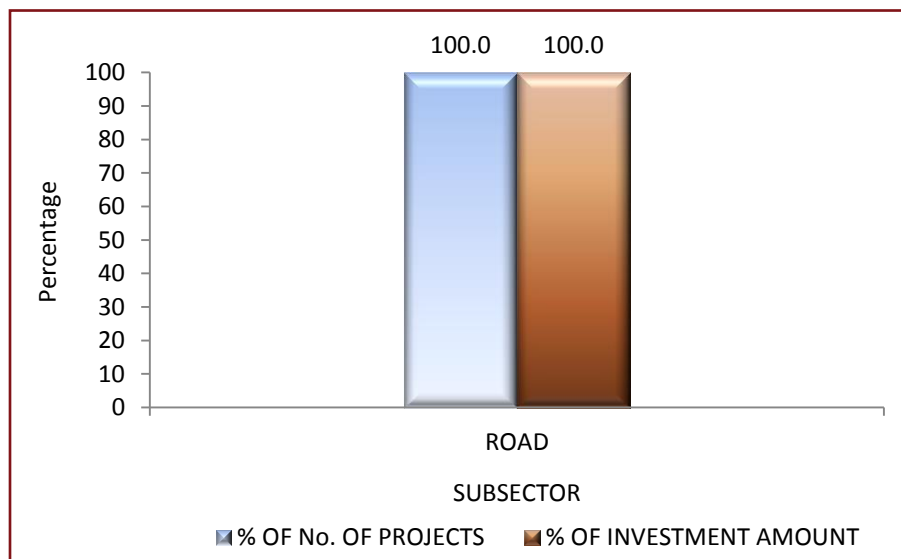
PROJECT STAGE	No. OF PROJECTS	% OF PROJECTS	INVESTMENT AMOUNT	% OF INVESTMENT AMOUNT
PROFILING	0	0.0	0.0	0.0
PRE-EXECUTION	1	100.0	85.4	100.0
EXECUTION	0	0.0	0.0	0.0
COMPLETED	0	0.0	0.0	0.0
<b>TOTAL</b>	<b>1</b>	<b>100.0</b>	<b>85.4</b>	<b>100.0</b>

Note: Amounts are estimated on the basis of the life cycle stages at which the API individual projects are.

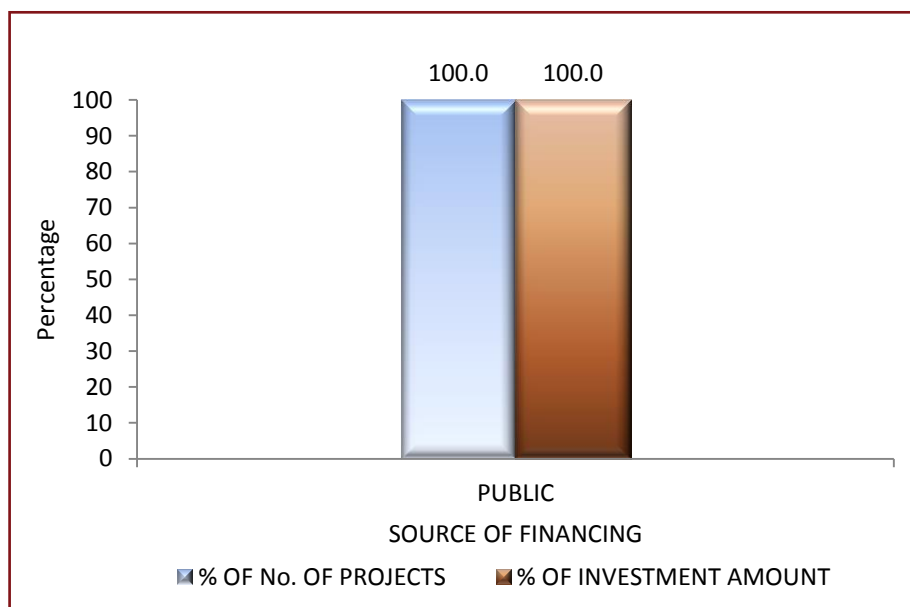
**FIGURE 8.1: API PROJECTS – PERU-BRAZIL-BOLIVIA HUB BY LIFE CYCLE STAGE**  
(% of number of projects and % of investment amount)



**FIGURE 8.2: API PROJECTS – PERU-BRAZIL-BOLIVIA HUB BY SUBSECTOR**  
(% of number of projects and % of investment amount)

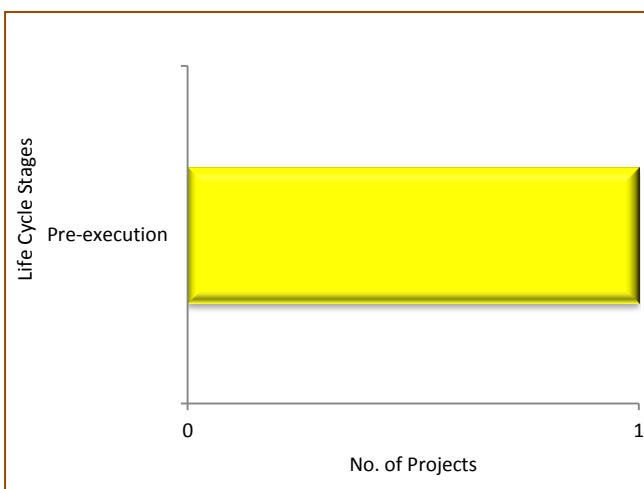


**FIGURE 8.3: API PROJECTS – PERU-BRAZIL-BOLIVIA HUB BY SOURCE OF FINANCING**  
(% of number of projects and % of investment amount)



31

## PORTO VELHO - PERUVIAN COAST CONNECTION

HUB: **PERU-BRAZIL-BOLIVIA**COUNTRIES: **BRAZIL – PERU**PROJECT TYPE: **Road Transportation**ESTIMATED INVESTMENT: **US\$85.4 million**SOURCE OF FINANCING: **Public**

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PROJECT STAGE	AMOUNT US\$
PBB64	BRIDGE OVER THE MADEIRA RIVER IN ABUNÃ (BR-364/RO)	BR	PRE-EXECUTION	85,350,000



## RATIONALE

This structured project creates significant cross-border (social, cultural, educational, tourism, economic, and trade) synergies by strengthening regional connectivity networks, which coordinates and promotes the integration of Brazil and Peru. It also encourages important opportunities for the development of logistics chains and production integration processes, fostering the internationalization of the micro- and small-sized enterprises located in the region. Furthermore, at the local level, the project will contribute to reducing the vulnerability of border cities and towns and, overall, of the Acre state economy.

With the completion of the Southern Interoceanic Highway in Peru on July 15, 2011, the road connection between Peru and Brazil through the Acre state became a reality. However, this connection is interrupted in the Rondônia state, since in order to get to other Brazilian localities either in the direction of Manaus, through Porto Velho and the Madeira waterway, or in the direction of the central-western and southeastern regions, it is necessary to cross the Madeira river in the small village of Abunã using a draft boat, which affects transport efficiency.

## PROPOSAL

In order to strengthen the connection of Peru with Brazil through the Southern Interoceanic Highway -along which there is already a significant increase in the bilateral flow of goods and people-, the project includes the construction of a 1.2-km long bridge over the Madeira river in Abunã so as to ensure uninterrupted integration by road.

## PROGRESS ANALYSIS AND ASSESSMENT

The project is at the pre-execution stage, and the works are scheduled to be completed by November 2016.

The construction of the bridge over the Madeira river in Abunã on Route BR-364/RO will be opened for tender in October 2013, and works are expected to be finalized in May 2016.

The project is included in the Brazilian Growth Acceleration Program (or PAC, in Portuguese).

The Peruvian sections of the Southern Interoceanic Highway between Iñapari and the southern sea ports are all completed and serve international traffic. The Urcos-Pte. Inambari (300 km), Pte. Inambari-Iñapari (403 km), and Azángaro-Pte. Inambari (306 km) stretches have been paved, while the San Juan de Marcona-Urcos (758 km) and Matarani/Ilo-Azángaro (855 km) sections have been rehabilitated. Furthermore, the construction of the 722-m long Continental Bridge over the Madre de Dios river has been completed, thus revitalizing transport flows to and from the border.

With reference to the Iñapari border crossing, the CEBAF on the Peruvian side, currently at the feasibility stage, is yet to be built. This issue is being discussed at the bilateral level to define the best way to carry out border controls.

The completion of the Southern Interoceanic Highway is contributing to making headway in the process of integration with Brazil. At present, there are already some cargo traffic flows. The transportation of Andean cereals, onions, garlic, cement, iron and other products from the southern areas of Peru towards the Brazilian states of Acre and Rondônia is expected to increase. Furthermore, there are two passenger transport companies already operating in the area, one covering the route between Cusco and Rio Branco and the other going up to the city of São Paulo.

However, the greatest impact of the Southern Interoceanic Highway lies in that it has connected isolated areas of Peru's Madre de Dios department with more developed regions, such as Cusco and Juliaca-Puno, and much more dynamism is observed here in cargo traffic flows for commercial and tourism purposes.

The Southern Interoceanic Highway has two contact points with the Pacific ocean for the exit/entry of goods: the Ilo and Matarani ports. The Matarani port terminal is currently operated under a concession agreement and is in good condition for international trade activities. As for the Ilo port terminal, its facilities are planned to be improved and streamlined, thus helping support also Bolivian import and export operations.



## CONTINUOUS MONITORING SYSTEM

### Methodological Principles to Schedule the Life Cycle of API Individual Projects (September 2013)

#### 1. BACKGROUND

Following the recommendations of the last GTE meeting on the API Continuous Monitoring System (Lima, Peru, September 26 and 27, 2012), in March 2013 the CCT refined the initial proposal concerning the API individual projects life cycle schedule. Subsequently, the COSIPLAN governments were asked to test these methodological principles by applying them to two of their projects, one at the pre-execution stage and another at the execution stage. In addition, a round of videoconferences and face-to-face meetings with the national technical experts was organized for the purpose of addressing questions and comments regarding difficulties encountered in the use of the methodology. It is worth noting that the overall results of these discussions were highly satisfactory and that the experts said that they were able to apply the proposed methodological principles without any major trouble; however, several countries made contributions aimed at further specifying and improving them.

Two of the recommendations originally proposed by the CCT last March featured prominently in the discussions with the government experts. The first one concerned the confirmation of the validity of the hypothesis that it is necessary to gradually polish up the proposed methodology through the joint work of the governments and on the basis of the applications conducted in the Continuous Monitoring System (CMS) implementation phase. The second recommendation, which was validated in the above-mentioned application exercises, was the advisability of disaggregating some of the complex individual projects into more than one individual project should the circumstances so warrant. This would result in a universe of simpler and more homogeneous individual projects, which would make it easier to record their progress and monitor them, while their integration to the structured projects would make it possible to focus API on a relatively small number of projects (31).

In fact, several initiatives in this regard came up during the videoconferences, which were later ratified at the GTE Meeting to Update the Portfolio (Montevideo, Uruguay, May 7-9, 2013). This process of disaggregating the more complex projects may well have to continue in the future as the use of the methodology so requires. This would particularly apply in the case of those projects that are divided into conceptually identifiable sections (e.g. roads or waterways) or that have distinguishable components (e.g. border crossings).

Accordingly, there follows the first revision of the principles for applying the API Schedule according to the Project Life Cycle Methodology, which was prepared by the CCT. This revised version incorporates the suggestions made by the countries' technical experts to expand and/or specify more clearly some concepts.

## 2. FIRST REVISION OF THE CCT PROPOSAL

Based on the above-mentioned considerations, there follows a first revision of the principles for applying the methodology for scheduling the life cycle of the individual projects included in API.

### a) *Objective of the Schedule*

It is important to recall that the primary objective of the API Continuous Monitoring System (CMS) is to record the progress made by the individual projects included in the Agenda from a regional perspective and in successive periods (every half-year or year). At a later stage, the system is also expected to contribute -again from a regional perspective- to monitor the crucial stages of the structured projects and to timely identify any restrictions affecting these projects that require special efforts by the governments involved to be overcome.

### b) *Recording of Project Progress*

The initial proposal established the continuation of the four stages of a project life cycle agreed by the governments in 2008. With regard to the first one, i.e. profiling, it should be mentioned that the second API project selection criterion specifies that a project should, at least, be at this stage to be included in the Agenda (otherwise, it cannot be incorporated into it). This means that there is enough background information to assess the suitability and technical and economic feasibility of implementing the project idea. In this regard, this is the starting point in the schedule of an API individual project life cycle (0% progress).

As to the fourth stage, its concept and duration are clear and relatively short. In general, infrastructure projects present a gap between, on the one hand, the date of completion of the physical works or actions required for the project execution, and, on the other, the infrastructure start-up date. This is usually because the completed works have to be handed over to the relevant authorities first, who then decide when they are to be opened and functioning. For this reason, it is proposed to reserve a 5% of the total schedule to provide for this time gap between the end of the execution stage (95%) and the completion of the project (100%).

In addition to these profiling and completed stages, the current scheduling system distinguishes another two - pre-execution and execution- that serve the purpose of defining the status and progress of each project within the Project Portfolio.

It is important to note that the pre-execution and execution stages of an individual project are the ones that take up most of the time in the project life cycle. In the huge majority of the cases, they will demand a minimum of 10 years (3 to 5 years for the pre-execution stage, and 7 to 10 for the execution stage). Therefore, in the case of the API individual projects it is necessary to subdivide them in order to evaluate the progress made by the projects; otherwise, the projects would seem “frozen” for many years. In other words, regardless of the advances that may take place, it would be impossible to “identify” them as there would not be any intermediate phase recorded. Hence, the principle of subdivision of these two stages is an essential component in the project schedule proposed -in fact, it should be deemed unavoidable and undisputable if the CMS objective is to be attained. The table below presents a subdivision proposal, which will be discussed in the document further on.

INDIVIDUAL PROJECT STAGES AND SUB-STAGES										
PROFILING 0%	PRE-EXECUTION 30%					EXECUTION 65%				COMPLETED 5%
0% Initial status	6% Resources for studies	12% Studies underway	18% Approved studies	24% Permits granted	30% Resources for works	50% First quarter of works	65% Second quarter of works	80% Third quarter of works	95% Fourth quarter of works	100% Works handed over
SCHEDULE, PROGRESS, AND DEVIATIONS										
	Completion MM/YY	Completion MM/YY	Completion MM/YY	Completion MM/YY	Completion MM/YY	Completion MM/YY	Completion MM/YY	Completion MM/YY	Completion MM/YY	Completion MM/YY

Another issue is to determine how or in what manner this principle will be uniformly applied to such a heterogeneous set of projects that involve a wide range of infrastructure sectors, countries, and investment methods. This is the challenge ahead, which is not simple at all and is very likely to call for flexibility and some degree of compromise regarding the various alternatives possible, without overlooking the fundamental objective.

A first problem is what percentage should be assigned to each stage (30% has been decided for the pre-execution stage and 65% for the execution stage). These percentages are somewhat arbitrary, and this arbitrariness might be reduced if a history of the average time taken by the projects in each stage were available, but such information is not at hand. In any case, the relative weighting could be adjusted based on the governments' experience if needed.

Apart from this observation, however, it is necessary to subdivide the stages. The subdivision of the execution stage appears to be simpler, since several options can be considered. Thus, the execution stage (which ranges from 30 to 95% of the schedule) could be broken down into, for example, four sub-stages, as shown in the table above. To establish the end of each stage, the investment amounts required, the time frames involved, or the significant milestones in the progress of the works might be used. In this regard, if four sub-stages were adopted, from the beginning of the project execution (30% of the total schedule) onward, their successive dates of completion would show that the project concerned has progressed 50%, 65%, 80%, and 95%.

#### c) *Pre-execution Stage*

Subdividing the pre-execution stage is, apparently, a more complex though equally necessary task. Its complexity lies in the fact that it usually comprises activities of a different nature, which can additionally be undertaken in different ways and can be sequential, simultaneous, or overlapping. The pre-execution stage normally involves studies (pre-feasibility, feasibility and investment), permits of various kinds (environmental, jurisdictional and others), and resource mobilization from various sources to finance the works and other actions at the execution stage. The problem lies in that variability among projects, sectors, and countries can be very large. Therefore, this proposal suggests a few methods to approach cases that are representative of this complexity. By way of an example, the pre-execution stage will be assumed to be broken down into five segments carrying an equal weighting (6%), thus making it possible to record the consecutive progress of the project at 6%, 12%, 18%, 24% and 30%. This last milestone (30%) will be supposed to mark the beginning of the

execution stage and, therefore, the end of the pre-execution stage. In other words, the pre-execution stage, ranging from 0 to 30% of the project life cycle schedule, is divisible into five equally weighted sub-stages.

i) First Subdivision: “Resources for Studies”

Originally, the second API project selection criterion established the requirement that feasibility studies should have been carried out for all projects in order to include only 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). Additionally, the purpose was that these studies would provide accurate information about the project resources and schedule (i.e. the present task). However, the countries decided to make this criterion more flexible and agreed to incorporate projects with a completed profiling study and budget resources allocated to conduct the pre-execution studies.

On the other hand, the level of the pre-execution studies required varies depending on the project execution method, the investment amount, and the financial source involved. For example, in the case of project execution undertaken directly by the public sector, all pre-execution study levels usually fall together in one, whereas if the funds are provided by international agencies, the three levels of studies are normally required at different stages of the established process as a condition for granting the loans. Different forms of public-private partnerships may also demand different levels of study, may establish a different time for conducting them, and may appoint different parties to be in charge.

Proposal for Recording Project Progress No. 1

In general, in this first pre-execution sub-stage measures have already been taken with a view to securing the financial resources needed to carry out the studies, and the sub-stage will be considered to be completed when such resources are actually available and all the institutional arrangements (e.g. awarding the studies through tender processes) have been made. In particular, the financial resources required to carry out the most advanced studies for the execution of the project should be available. For example, if a project demands pre-feasibility, feasibility and investment studies, this sub-stage will be deemed completed only when the funds for the investment study have been secured, regardless of the previous levels. If, instead, only a feasibility study were enough to execute a given project, the sub-stage will be deemed completed when the financial resources to conduct the pre-feasibility and feasibility studies have been secured.

ii) Second Subdivision: “Studies Underway”

As already stated, three pre-execution studies are considered, namely pre-feasibility, feasibility, and investment. Depending on various factors, each project may require different study levels before passing on to the execution stage. Given the objectives of this system, it is not necessary to distinguish the different levels of the pre-execution studies but only the fact of whether the level required is underway or has been completed.

Proposal for Recording Project Progress No. 2

Studies will be considered to be underway when any pre-execution study has been launched, and will be recorded as such until completion of the study representing the level required by the project concerned to

move to the “approved studies” sub-stage. Of course, a project that needs to go through the three levels will remain at this second sub-stage for a period longer than that of another project that needs to complete fewer levels of study. This is quite reasonable since what matters is to record the time when the studies required by the project to move to the “studies completed” sub-stage are finished.

iii) Third Subdivision: “Approved Studies”

Once finished, the studies are usually subject to approval by a relevant authority for them to be considered completed. In this third sub-stage, the criteria applied are similar to the ones previously used. What truly matters is the level of study required in each case to pass on to the execution stage. Again, it seems to be outside the scope of the system to record the approval of each level of all the theoretically possible studies.

Proposal for Recording Project Progress No. 3

Studies will be deemed to be completed upon approval of the study representing the highest level required by the project concerned to move to the execution stage. The completion of the studies of the previous levels will not be recorded in the system, and such studies will remain at the “studies underway” sub-stage.

iv) Fourth Subdivision: “Permits Granted”

Again, what matters is to record the time when the total tasks of this sub-stage have been finished. On the one hand, the permits to be obtained for a given project may be of various types, involve different requirements, and impose different deadlines. Thus, for example, different kinds of environmental studies and licenses for engineering works and installation of the work site may be required. On the other hand, submitting the background information required for a license to be granted may demand some degree of interaction with the studies, as is the case of some environmental permits.

Proposal for Recording Project Progress No. 4

This sub-stage will be deemed completed only when all permits have been granted and/or all the formalities required by the project to move to the execution stage have been carried out. In other words, no partial completion of this sub-stage will be recorded. This is reasonable, since what matters is to mark the time in which the conditions are ready -i.e. the necessary authorizations have been obtained- for the project to move to the execution stage. In those cases in which interaction with the studies stage is very strong, both sub-stages may be consolidated in order to record, in an extreme case, their simultaneous completion.

v) Fifth Subdivision: “Resources for Works”

This sub-stage involves raising the funds needed to carry out the works and actions scheduled in the project. Here again there may coexist many situations not always simple to record consistently. Thus, for instance, the funds may come from fiscal revenues, and this may range from financing guaranteed against any event (national investment plans or multi-annual plans) to funding exposed to the circumstances that may affect the annual fiscal budget. Funds may also derive from a public-private partnership arrangement, provided either by the private sector against future revenues of some sort or by a public subsidy. Finally, they may result from an

international borrowing operation, which will usually require domestic matching funds. In some cases, the calls for tender for the execution of works as well as the vetting of the relevant contracts must also be included in this sub-stage. In any case, it is important to note that the completion of this sub-stage is another precondition for the project to pass on to its execution stage.

#### Proposal for Recording Project Progress No. 5

This sub-stage will be deemed completed when the project has been allocated the financial resources for executing the works and all the required institutional formalities have been carried out. As for the financial resources, it is worth noting that this relates only to the formal commitment to finance the entire project and does not necessarily involve that all the funds have been disbursed. Should there be any problems with the disbursements, the works and actions underway will feel the impact, the passage from one sub-stage of the execution phase to the next being thus slower. While this availability of financial resources may be a mere formality in some cases, in others it may require a considerable effort.

#### d) *Execution Stage*

As mentioned above, subdividing this stage is simpler, as percentages of works to be completed can be fixed on the basis of time, costs or milestones in the works progress. It has been decided to use four sub-stages in this proposal. The first one is given a higher weighting (20% versus 15% for the others) because of the longer time or higher costs involved in the installation of work sites and in the on-site preparatory activities.

### **3. SOME GENERAL REMARKS**

As already mentioned, it is important to stress that the only effective way to confirm the validity of the methodological principles described is by trying to apply them to a wide variety of projects across different sectors and countries. Based on the results, the methodology for scheduling the projects life cycle may be subject to further adjustments to meet the needs and concrete possibilities of the countries, always in search of a common pattern applicable to all.

## COSIPLAN INFORMATION SYSTEM

### TECHNICAL ADJUSTMENTS AND DEVELOPMENTS

#### INTRODUCTION

The Project Database, a tool available on IIRSA website that gathers the data associated with the COSIPLAN Project Portfolio, offers access to the file containing general information about each project (objective, solution, current status, project stage, financing, etc.) and the possibility of running reports based on the query criteria selected by the user. Each project file is updated by one person responsible per country or countries, depending on the territorial scope of the project.

The first version of the Project Database was built in 2004 on the basis of the creation of IIRSA Project Portfolio with the purpose of consolidating in a single instrument all the basic information related to each project. Between 2007 and 2010, new improvements were introduced into this IT tool, and the project files were regularly reviewed for information consistency, which was possible thanks to the efforts made by the National Coordinations and the support provided to them by the CCT institutions throughout this process.

In 2011, the countries approved the Integration Priority Project Agenda (API), which is made up of a subset of Portfolio projects. In order to record the progress made in the implementation of the API projects, the countries commissioned the CCT to create by 2013 two new components associated with the Project Database: (i) a module to consolidate all the information on the API projects, and (ii) a Continuous Monitoring System (CMS) for these projects.

To incorporate these new instruments, technical and programming adjustments had to be made to the Project Database platform in place. In this context, the **COSIPLAN Information System** was developed with three components:

- i. COSIPLAN Project Database;
- ii. API Structured Project Database; and
- iii. API Continuous Monitoring System (CMS).

These three components are interconnected, even for data entering purposes, and can be accessed from the same IT platform using their respective sign-in buttons.<sup>1</sup> The system is currently online,<sup>2</sup> and was presented to the countries at the GTE Meeting on API and the CMS held in August 27 and 28, 2013, in Rio de Janeiro.<sup>3</sup>

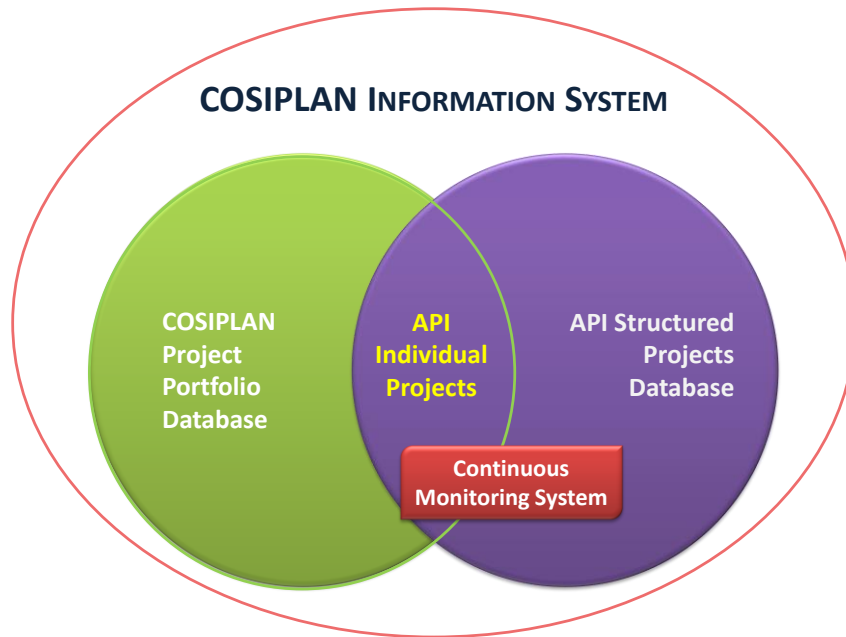
---

<sup>1</sup> <http://www.iirsa.org/proyectos>

<sup>2</sup> At present, the CMS is available online for a group of users authorized by the National Coordinators.

<sup>3</sup> <http://www.iirsa.org/Event/Detail?Id=227>

**Figure I: COSIPLAN Information System Relationship Diagram**



**Figure II: Access to the COSIPLAN Information System**  
(in Spanish)



This Annex describes the adjustments and improvements made to the three components of the COSIPLAN Information System in 2013.

## 1. COSIPLAN PROJECT PORTFOLIO DATABASE

The adjustments and improvements made to the COSIPLAN Project Portfolio Database are the following:

- Update of its graphic design in order to adjust it to the new IIRSA website.
- Modular organization of the files of the COSIPLAN Portfolio projects (also known as “individual projects”). The information already contained in the project files was reorganized using a structure of modules: Identification, Characterization, Description, Financing, Status and Monitoring, Responsible Staff, and Complementary Information.

**Figure III: Individual Project Files: Structure of Modules**  
(in Spanish)



The screenshot displays the IIRSA website interface for a project file. At the top, the IIRSA logo is on the left, and language options (Español, English, Português) and an 'INGRESAR' button are on the right. Below the header, the title 'FICHA DE PROYECTO' is centered. A navigation bar contains buttons for 'Exportar a PDF', 'Volver a Consulta', and 'Nueva Búsqueda'. The main content area is divided into modules, with 'MÓDULO IDENTIFICACIÓN' expanded to show project details: NOMBRE: REHABILITACIÓN Y MEJORA DEL TRAMO PIEDRA SOLA - SALTO GRANDE, CODIGO: HPP65, EJE: DE LA HIDROVÍA PARAGUAY-PARANÁ, GRUPO: G03: G3 - RÍOS PARAGUAY - PARANÁ, ASUNCIÓN - DELTA DEL PARANÁ, PAISES: URUGUAY, ETAPA DEL PROYECTO: PRE-EJECUCIÓN, and AMBITO: NACIONAL. Below this, a list of other modules is shown with expand/collapse arrows: MÓDULO CARACTERIZACIÓN, MÓDULO DESCRIPCIÓN, MÓDULO FINANCIAMIENTO, MÓDULO RESPONSABLE, and MÓDULO INFORMACIÓN COMPLEMENTARIA. At the bottom, another navigation bar contains buttons for 'Exportar a PDF', 'Volver a Proyectos', and 'Nueva Búsqueda'.

- Incorporation of new reports and grouping into categories.
- Improvement of functionalities for the staff responsible for project management.
- Incorporation of the CMS module. For details of this module, see section 3 in this Annex.
- Creation of the Project Group files.

## 2. API STRUCTURED PROJECT DATABASE

The API Structured Project Database was created with the files of the structured projects, which were adjusted to the design and dynamics of the individual project files contained in the COSIPLAN Project Portfolio.

These structured project files are also organized in a structure of modules. The modules and their content are the following:

- Identification Module: This contains the Code and Name of the structured project, the Hub to which it belongs, the Countries involved, the Estimated Investment Amount, and the Source of Financing. The data in this module are automatically displayed and, in some cases, result from the aggregation of the information contained in the files of the individual projects making up the structured project; for instance, the estimated investment amount of the structured project is the sum of the investments in its component individual projects.
- Description Module: This contains the Rationale and Proposal for the structured project as well as a list of the individual projects that make it up. Both the rationale and proposal fields can be edited by each country's staff responsible for entering data.
- Continuous Monitoring Module: This shows a series of indicators that are the result of the aggregation of the information contained in the continuous monitoring module of the files of the individual projects that make up the structured project concerned. For details of this module, see section 3 in this Annex. Furthermore, the module contains a text field -edited by each country's staff responsible for the files- showing a summary of the overall status of the structured project based on the data entered in the files of the individual projects involved.
- Responsible Staff Module: This contains the contact details of the National Coordination of each country involved in the structured project as well as of the persons responsible for updating the structured project file data, in addition to the last update date.
- Complementary Information Module: This shows the structured project maps, and each country's staff responsible for entering data can publish documents, links to sites of interest concerning the projects, photos, videos, etc.

**Figure IV: Structured Project Files: Structure of Modules**  
(in Spanish)



**IDIOMA** | **Administración**  
Español English Português **INGRESAR**

## FICHA DE PROYECTO

Exportar a PDF Volver a Consulta Nueva Búsqueda

**MÓDULO IDENTIFICACIÓN**

**NOMBRE:** REHABILITACIÓN Y MEJORA DEL TRAMO PIEDRA SOLA - SALTO GRANDE **CODIGO:** HPP65

**EJE:** DE LA HIDROVÍA PARAGUAY-PARANÁ **GRUPO:** G03: G3 - RÍOS PARAGUAY - PARANÁ, ASUNCIÓN - DELTA DEL PARANÁ

**PAISES:** URUGUAY

**ETAPA DEL PROYECTO:** PRE-EJECUCIÓN **AMBITO:** NACIONAL

**MÓDULO CARACTERIZACIÓN**

**MÓDULO DESCRIPCIÓN**

**MÓDULO FINANCIAMIENTO**

**MÓDULO RESPONSABLE**

**MÓDULO INFORMACIÓN COMPLEMENTARIA**

Exportar a PDF Volver a Proyectos Nueva Búsqueda

The structured project files and the individual project files are interconnected, and each of them can be accessed from one another.

Furthermore, a series of reports on API were incorporated into the API Structured Project Database, which are grouped into the following categories:

- Summary of the Priority Project Agenda (API)
- API Project Life Cycle
- API Projects by Source of Financing
- Create your own Report

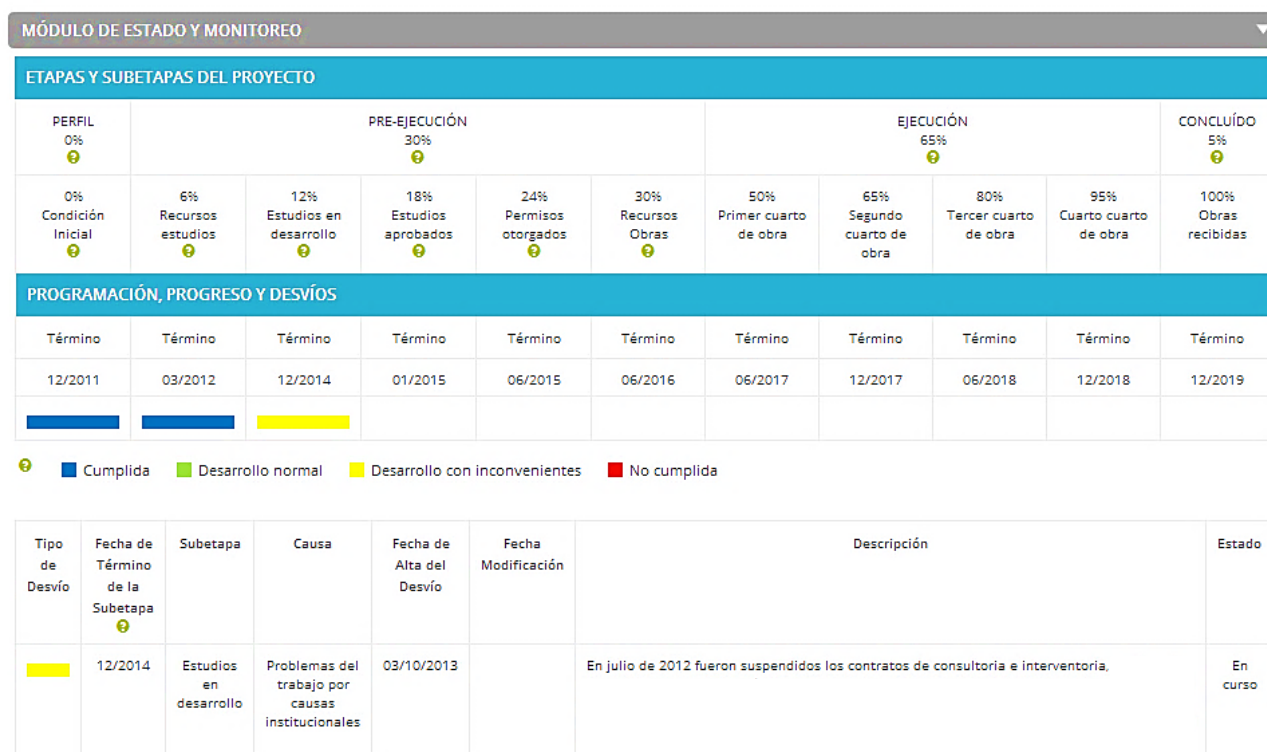
### 3. CONTINUOUS MONITORING SYSTEM

According to the CMS logic design, the monitoring of the structured projects (31 as of this date) requires a follow-up on the individual projects included (101 as of this date). Therefore, a continuous monitoring module was added to both the individual project and structured project files. The following is a description of the CMS content in each of these two types of files and of their interrelation.

a) The CMS in the Individual Project Files

The CMS module helps monitor the progress of a project throughout its life cycle (based on the Project Life Cycle Methodology described in Part I B.2 of this report), as well as identify any deviation and its causes as follows:

**Figure V: The CMS Module in the Individual Project Files**  
(Spanish)



As can be seen in the figure above, the Status and Monitoring Module shows a table with two major components: (i) Project Stages and Sub-stages, and (ii) Schedule, Progress and Deviations.

All the individual projects can display this module, for which purpose the file administrator must accept the relevant option. At present, only the API projects display this module. The projects that do not have the monitoring module in place show, instead, the Studies and Licenses Module with the following fields: “Environmental Projects,” “Sections,” and “Completed Studies.”

The individual project files that do display the monitoring module have a Stage descriptive field in the Identification Module: in such field, the system will include the stage at which the project is.

**i. Project Stages and Sub-stages**

The four project life cycle stages are Profiling, Pre-execution, Execution, and Completed, to which a relative weight is assigned. In addition, the Pre-execution and Execution stages are divided into sub-stages, which allow more detailed project monitoring. Each sub-stage is also assigned a relative weight, the sum of which is the weight of the stage. This percentage weight is used to obtain the average status and progress of the structured project (see below). The percentages are fixed and the same for all the individual projects that make up an API

structured project. Each sub-stage is identified with the aggregation of the relative weights of the preceding sub-stages. A project total weight is equal to 100%.

The status of a structured project must be adjusted as per the following principle: a project moves on to another stage if the first sub-stage of such stage is completed; otherwise, it remains in the preceding stage.

## **ii. Schedule, Progress and Deviations**

The module includes a field, which is edited by each country's staff responsible for updating the information in a file, where the Completion Date of each sub-stage is defined (MM/YYYY format). This information can be updated at any time. Such sub-stage Completion Date must be the same as or later than the Completion Date of the preceding sub-stage, as the sub-stages are consecutive.

The file administrator will also assign a status to each sub-stage as follows:

- Completed: The sub-stage was completed on the scheduled date (blue).
- Not Completed: The sub-stage was not completed on the scheduled date, and it is not possible to reschedule it yet (red).
- Normal: The sub-stage is expected to be completed on a future date (green).
- With Difficulties: The sub-stage is not expected to be completed on the scheduled date because there are known or anticipated difficulties (yellow).

Each status is identified with a color, as detailed above.

The blue and red status represent facts, while the green and yellow status represent estimates by the staff entering the information.

The status of the sub-stages will be chosen by the file administrator. Only a red status will be automatically assigned. In other words, if the last day of the scheduled month and year of completion of a sub-stage arrives and the file administrator has not updated it, the next day the system will assign a red (not completed) status to the sub-stage. This red status will remain until the file administrator signs in to: i) move the sub-stage to the completed (blue) status, in case the activities involved have actually finished; ii) leave the sub-stage in the red status because it is actually not completed and a new completion date is unknown; or iii) reschedule the completion date of the sub-stage, which will appear in the green status if the sub-stage is expected to develop normally, or in the yellow status if any difficulty is anticipated.

For example, let us suppose that the scheduled completion date for a sub-stage is 01/2014 and no difficulties are expected (green status). If the responsible administrator does not sign into the file before such date, then on 01/02/2014 the system will move the sub-stage to the not completed (red) status. But if the administrator signs into the file and updates the status of the sub-stage before such date, the system will not change its status.

Whenever a file administrator assigns a sub-stage the status of With Difficulties (yellow) or Not Completed (red), the system will display the following confirmation message: "Are you certain you want to change this sub-stage status from Not Completed to With Difficulties?" (or the reverse, as appropriate). If the administrator clicks Yes, then the Deviation Type management screen will pop up.

Only when the table shows a With Difficulties (yellow) or Not Completed (red) sub-stage and such status has been confirmed by the administrator, as described in the paragraph above, will the system automatically display another box in which the deviation and its causes can be entered. The information shown in this box is the following:

- Deviation Type: If a sub-stage is already in the With Difficulties (yellow) or the Not completed (red) status, the relevant color will be automatically displayed in the table so that the user does not have to select it and may proceed to enter the data required.
- Deviation Sub-Stage: The name of the sub-stage in a red or yellow status is automatically shown.
- Scheduled Completion Date: The system will automatically provide this date based on the information in the project schedule box. This will be the completion date that appeared in the schedule in place for the sub-stage in the yellow or red status at the time the deviation occurred.
- Deviation Start Date: This shows the date on which the deviation occurred.
- Deviation Change Date: This shows the date on which the administrator signed in to change the deviation.
- Deviation Causes: The system will automatically display a cause (Other) so that the field is not empty. However, the file administrator can open a pop-up menu from which to select the general cause of the deviation. The list of causes -others may be added in the future- is the following:
  - Interrupted for natural reasons
  - Interrupted for institutional reasons
  - Cost increase
  - Delay in the disbursement of funds
  - Other
- Deviation Description: This descriptive field is filled out by the file administrator.
- Status: A pop-up menu will appear with a list of options to be chosen by the administrator:
  - Ongoing
  - Overcome

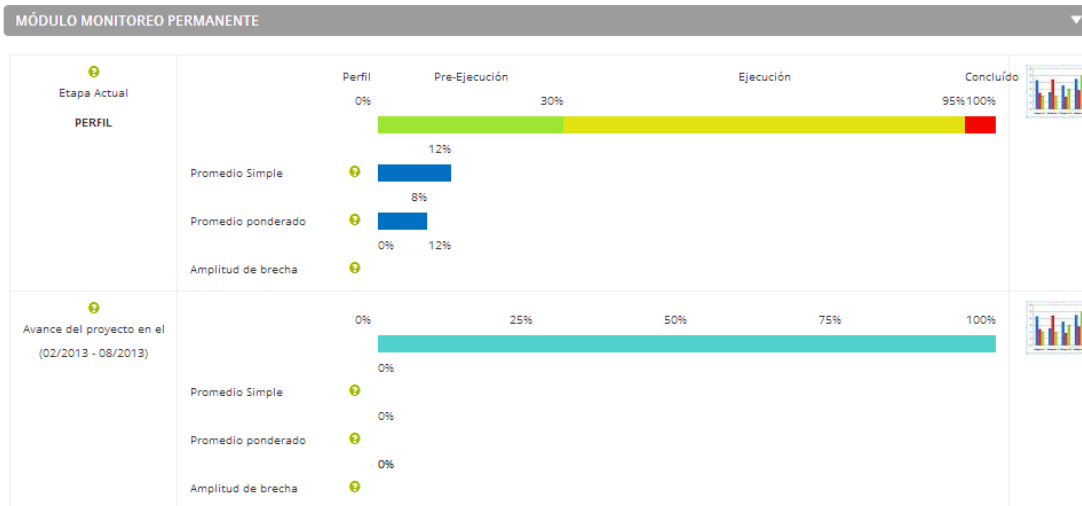
All the fields are mandatory and the system will not allow the administrator to save the changes unless they are completed. Furthermore, the box automatically displayed by the system will keep a history of all the times a sub-stage deviation (red or yellow) occurred. Should a sub-stage present more than one deviation, all of them will be recorded. The file administrator will not have the right to delete any deviation. Only the super administrator (the CCT Secretariat) will have the authorization level required to hide (but not to delete) a deviation in specific cases at a government's request. When hiding a deviation, the super administrator will have to enter a justification (text field) to account for such decision in the future.

#### *b) The CMS in the Structured Project Files*

The Continuous Monitoring System presents two major types of fields in the structured project files: (i) an automatic one, the results of which are generated by the system by consolidating or aggregating the information entered in the relevant module of the individual projects that make up each structured project, such as the investment amount, countries involved, or current stage fields, and (ii) another one that must be completed/updated by the file administrator, such as the progress analysis and assessment field.

The figure below shows the components of this module.

**Figure VI: The CMS Module in the Structured Project Files**  
(in Spanish)



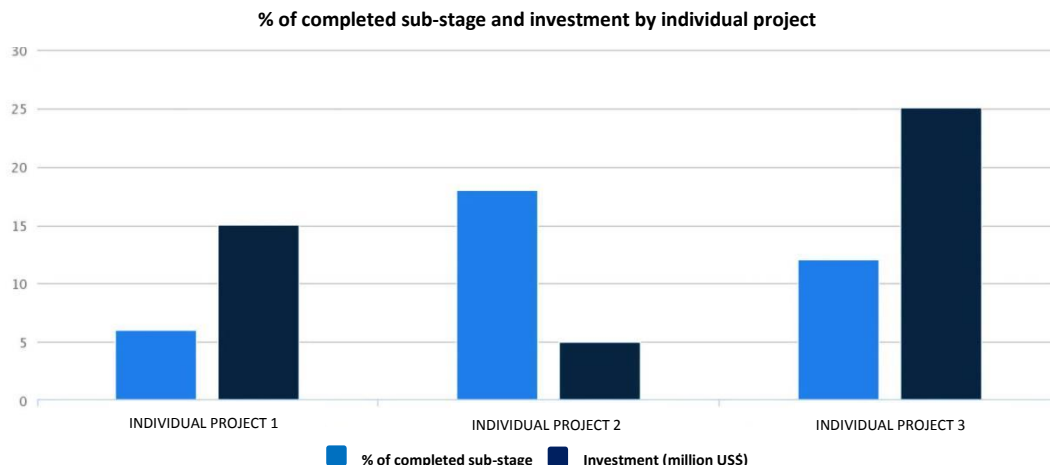
#### i. Current Stage

The stage shown by the system (Profiling, Pre-execution, Execution, or Completed) is a simple average. For instance, in the figure above, the simple average of all the individual projects that make up the structured project is 12%. According to the relative weights assigned to each stage in the files of such projects, the 12% figure falls in the Pre-execution stage.

Three indicators are shown in this information field: the Simple Average, the Weighted Average (using the investment amount as the weight), and the Gap Size. The system automatically calculates these indicators and presents them in a chart, as shown in the figure above. The formula used in each case can be seen by clicking the relevant question mark.

Along with these graphically displayed indicators, the system offers another chart that helps analyze the status of the structured project. This chart is displayed by clicking the icon on the right (see figure above). Examples of the current stage charts are included (the first one appears in the project file and the second one is displayed by clicking the already-mentioned icon).

**Figure VII: Structured Project File - Current Stage Indicators: Charts**



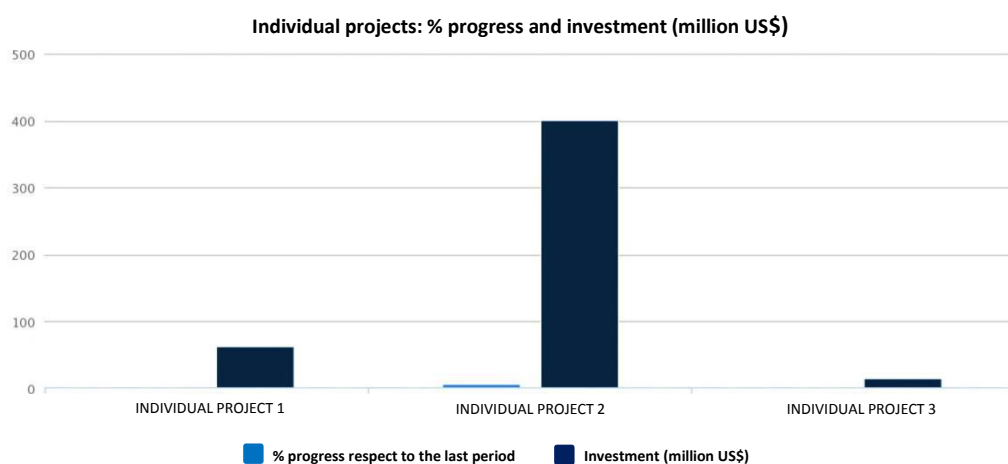
## ii. Progress in the Last Period

Three indicators are used to show the progress of a structured project between two points in time: the system displays the progress made by the structured project -based on the progress of the individual projects that make it up- between the query date and six months before.

Such indicators are the Simple Average, the Weighted Average, and the Gap Size, and are automatically calculated by the system. The formula used can be seen by clicking the relevant question mark.

In addition to these indicators, as in the case of the Current Stage, the system offers other charts that help analyze the status of the structured project. The figure below shows one of these additional charts for the Progress in the Last Period component:

**Figure VIII: Structured Project File – Progress in the Last Period Indicators: Chart**



## iii. Progress Analysis and Assessment

The third information field in the monitoring module of the structured project files is the Progress Analysis and Assessment field. This is a descriptive field that must be completed by each country's responsible staff.

It should be mentioned that for the system to be a "live" system, the National Coordinators and the staff responsible for entering structured project data will receive email alerts in the following cases:

- Each time a country's user responsible for entering data updates the structured project file or an individual project file if this affects the structured project information (amount, source of financing, etc.). In this case, the system will send an email to the addresses selected informing of: i) the user that made the update, including his/her country; ii) the file to which the change was made (code and name); and iii) the fields that were updated and their new content.
- When the scheduled completion date of a sub-stage of an individual project is near. Here, 10 days before the scheduled completion date, the system will send an email reminder provided such date has not been updated during the preceding days. This email alert will also be sent the first day of the month immediately following the scheduled completion date to inform that the deadline has expired and that the system has automatically change the sub-stage status to red (not completed) since no update has been made. The date and the sub-stage involved will also be informed.

# ANNEX III

## DETAILED LIST OF THE STRUCTURED AND INDIVIDUAL PROJECTS WITHIN API

#	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
1	AMA	PAITA - TARAPOTO - YURIMAGUAS ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS	PERU	478.4	AMA16	TARAPOTO - YURIMAGUAS ROAD	PE	G3	COMPLETED*	231,712,828
					AMA20	PAITA LOGISTICS CENTER	PE	G3	PROFILING	47,650,000
					AMA21	YURIMAGUAS LOGISTICS CENTER	PE	G3	PROFILING	15,000,000
					AMA24	PAITA PORT	PE	G3	EXECUTION	266,922,000
					AMA25	PAITA - TARAPOTO ROAD	PE	G3	COMPLETED*	0
					AMA40	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE HUALLAGA RIVER WATERWAY, BETWEEN YURIMAGUAS AND THE CONFLUENCE WITH MARAÑÓN RIVER	PE	G6	PRE-EXECUTION	33,000,000
					AMA41	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MARAÑÓN RIVER WATERWAY, BETWEEN SARAMERIZA AND THE CONFLUENCE WITH UCAYALI RIVER	PE	G6	PRE-EXECUTION	11,000,000
					AMA44	IQUITOS LOGISTICS CENTER	PE	G6	PROFILING	15,000,000
					AMA56	MODERNIZATION OF IQUITOS PORT	PE	G6	PRE-EXECUTION	39,550,000
					AMA102	CONSTRUCTION OF NEW YURIMAGUAS PORT	PE	G3	PRE-EXECUTION	50,325,762
2	AMA	CALLAO - LA OROYA - PUCALLPA ROAD, PORTS, LOGISTICS CENTERS AND WATERWAYS	PERU	2,936.2	AMA104	CONSTRUCTION OF NEW PUCALLPA PORT	PE	G4	PRE-EXECUTION	117,763,000
					AMA26	IMPROVEMENT OF TINGO MARÍA - PUCALLPA ROAD	PE	G4	EXECUTION	462,451,169
					AMA30	PUCALLPA INTERMODAL LOGISTICS CENTER	PE	G4	PROFILING	15,000,000
					AMA31	MODERNIZATION OF EL CALLAO PORT (NEW CONTAINER DOCK)	PE	G4	EXECUTION	704,835,670
					AMA32	LIMA - RICARDO PALMA EXPRESSWAY	PE	G4	PROFILING	242,000,000
					AMA43	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE UCAYALI RIVER WATERWAY, BETWEEN PUCALLPA AND THE CONFLUENCE WITH MARAÑÓN RIVER	PE	G6	PRE-EXECUTION	19,000,000
					AMA63	IIRSA CENTER, SECTION 2: RICARDO PALMA - LA OROYA - TURN OFF TO CERRO DE PASCO / LA OROYA - HUANCAYO	PE	G4	PRE-EXECUTION	100,000,000
					AMA64	IIRSA CENTER, SECTION 3: TURN OFF TO CERRO DE PASCO - TINGO MARÍA	PE	G4	PROFILING	115,606,060
					AMA65	EL CALLAO LOGISTICS ACTIVITIES ZONE (ZAL CALLAO)	PE	G4	PROFILING	155,755,500
					AMA66	EL CALLAO MULTI-PURPOSE NORTHERN TERMINAL	PE	G4	EXECUTION	883,482,448
					AMA67	EL CALLAO MINERAL SHIPPING TERMINAL	PE	G4	EXECUTION	120,300,000

#	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
3	AMA	NORTHEASTERN ACCESS TO THE AMAZON RIVER	BRAZIL/ COLOMBIA /ECUADOR/ PERU	60.8	AMA37	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE IÇÁ RIVER	BR	G6	PROFILING	8,000,000
					AMA38	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PUTUMAYO RIVER	CO - EC - PE	G6	PRE-EXECUTION	15,000,000
					AMA39	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MORONA RIVER	EC - PE	G6	PROFILING	2,000,000
					AMA42	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NAPO RIVER	EC - PE	G6	PROFILING	5,759,000
					AMA45	MORONA FREIGHT TRANSFER PORT	EC	G7	PRE-EXECUTION	5,000,000
					AMA71	PROVIDENCIA PORT	EC	G2	PRE-EXECUTION	25,000,000
4	AND	CARACAS - BOGOTÁ - BUENAVENTURA / QUITO ROAD CORRIDOR	COLOMBIA/ ECUADOR/ VENEZUELA	3,350.0	AND05	BOGOTÁ - CÚCUTA ROAD CORRIDOR	CO	G2	EXECUTION	1,559,000,000
					AND07	BOGOTÁ - BUENAVENTURA ROAD CORRIDOR	CO	G2	EXECUTION	1,791,000,000
5	AND	COLOMBIA - ECUADOR BORDER INTERCONNECTION	COLOMBIA/ ECUADOR	228.5	AND31	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT SAN MIGUEL	CO - EC	G6	PRE-EXECUTION	25,000,000
					AND79	IMPROVEMENT AND PAVING OF THE MOCOYA - SANTA ANA - SAN MIGUEL ROAD SECTION	CO	G6	EXECUTION	133,629,000
					AND82	IMPLEMENTATION OF THE BINATIONAL BORDER SERVICE CENTER (CEBAF) AT THE TULCÁN - IPIALES (RUMICHACA) BORDER CROSSING	CO - EC	G2	PRE-EXECUTION	65,000,000
					AND91	CONSTRUCTION OF THE NEW INTERNATIONAL RUMICHACA BRIDGE AND IMPROVEMENT OF THE EXISTING BRIDGE	CO - EC	G2	EXECUTION	4,826,592
6	AND	COLOMBIA - VENEZUELA BORDER CROSSINGS CONNECTIVITY SYSTEM	COLOMBIA/ VENEZUELA	5.0	AND02	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT PARAGUACHÓN	VE	G1	EXECUTION	2,000,000
					AND13	IMPROVEMENT OF JOSÉ ANTONIO PÁEZ BRIDGE	CO	G3	COMPLETED*	1,280,000
					AND19	PUERTO CARREÑO BORDER CROSSING	VE	G4	PROFILING	1,000,000
					AND81	IMPROVEMENT OF THE BORDER CROSSINGS IN THE NORTHERN DEPARTMENT OF SANTANDER AND THE TÁCHIRA STATE	CO - VE	G2	PROFILING	2,000,000
7	AND	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	BOLIVIA/ PERU	40.2	AND47	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	BO - PE	G8	PRE-EXECUTION	40,231,927
8	AND	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)	PERU	70.4	AND28	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)	PE	G5	PRE-EXECUTION	70,450,845

#	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
9	CAP	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	ARGENTINA/ BOLIVIA	23.0	CAP10	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	AR - BO	G2	PRE-EXECUTION	23,000,000
10	CAP	ARGENTINA - BOLIVIA WEST CONNECTION	ARGENTINA/ BOLIVIA	477.0	CAP11	REHABILITATION OF JUJUY - LA QUIACA RAILWAY	AR	G2	PRE-EXECUTION	62,000,000
					CAP50	PAVING OF NATIONAL ROUTE No. 40, MINING CORRIDOR PATH (BORDER WITH BOLIVIA)	AR	G2	PRE-EXECUTION	400,000,000
					CAP81	LA QUIACA - VILLAZÓN BRIDGE AND BORDER CENTER	AR - BO	G2	PROFILING	15,000,000
11	CAP	PARANAGUÁ - ANTOFAGASTA BIOCEANIC RAILWAY CORRIDOR	ARGENTINA/ BRAZIL/ CHILE/ PARAGUAY	2,740.8	CAP20	CASCADE - FOZ DO IGUAÇU BIOCEANIC RAILWAY CORRIDOR	BR	G3	PROFILING	324,000,000
					CAP23	OPTIMIZATION OF THE ÑEEMBUCÚ - BERMEJO BRIDGE NODE	AR - PA	G4	PRE-EXECUTION	61,206,392
					CAP29	CONSTRUCTION OF CIUDAD DEL ESTE - PILAR RAILWAY	PA	G4	PRE-EXECUTION	438,600,000
					CAP37	REHABILITATION OF THE C3 RAILWAY BRANCH LINE: RESISTENCIA - AVIA TERAI - PINEDO	AR	G1	PRE-EXECUTION	104,000,000
					CAP38	REHABILITATION OF THE C12 RAILWAY BRANCH LINE: AVIA TERAI - METÁN	AR	G1	PRE-EXECUTION	212,000,000
					CAP39	REHABILITATION OF THE C14 RAILWAY BRANCH LINE: SALTA - SOCOMPA	AR	G1	PRE-EXECUTION	60,000,000
					CAP52	RAILWAY BRIDGE WITH FREIGHT YARD (CIUDAD DEL ESTE - FOZ DO IGUAÇU)	BR - PA	G3	PROFILING	40,971,000
					CAP53	BIOCEANIC RAILWAY CORRIDOR: PARANAGUÁ - CASCADE SECTION AND GUARAPUAVA - INGENIERO BLEY RAILWAY BYPASS	BR	G3	PRE-EXECUTION	1,500,000,000
					CAP91	BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA - SOCOMPA)	CH	G1	COMPLETED*	0
12	CAP	FOZ DO IGUAÇU - CIUDAD DEL ESTE - ASUNCIÓN - CLORINDA ROAD CONNECTION	ARGENTINA/ BRAZIL/ PARAGUAY	237.2	CAP07	OPTIMIZATION OF THE CLORINDA - ASUNCIÓN NODE	AR - PA	G1	PRE-EXECUTION	101,206,392
					CAP14	NEW PUERTO PRESIDENTE FRANCO - PORTO MEIRA BRIDGE, WITH A PARAGUAY - BRAZIL INTEGRATED CONTROL AREA	BR - PA	G3	PRE-EXECUTION	0
					CAP18	CONCESSION FOR THE IMPROVEMENT OF ROUTES No. 2 AND 7 (ASUNCIÓN - CIUDAD DEL ESTE)	PA	G3	PRE-EXECUTION	136,000,000
13	CAP	ITAIPU - ASUNCIÓN - YACYRETÁ 500-KV TRANSMISSION LINE	PARAGUAY/ BRAZIL	755.0	CAP67	500-KV TRANSMISSION LINE (ITAIPU - ASUNCIÓN)	BR - PA	G3	EXECUTION	555,000,000
					CAP68	500-KV TRANSMISSION LINE (YACYRETÁ - AYOLAS - CARAYAO)	PA	G3	PRE-EXECUTION	200,000,000

#	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
14	GUY	REHABILITATION OF THE CARACAS - MANAUS ROAD	BRAZIL/ VENEZUELA	407.0	GUY01	REHABILITATION OF THE CARACAS - MANAUS ROAD	BR - VE	G1	EXECUTION	407,000,000
15	GUY	BOA VISTA - BONFIM - LETHEM - LINDEN - GEORGETOWN ROAD	BRAZIL/ GUYANA	250.0	GUY09	LETHEM - LINDEN ROAD	GU	G2	PRE-EXECUTION	250,000,000
					GUY42	BOA VISTA - BONFIM ROAD	BR	G2	COMPLETED*	0
					GUY43	LINDEN - GEORGETOWN ROAD	GU	G2	COMPLETED*	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	GUYANA/ SURINAME/ VENEZUELA	301.8	GUY18	ROUTES INTERCONNECTING VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (APURA - ZANDERIJ - PARAMARIBO)	GU - SU - VE	G3	PROFILING	300,800,000
					GUY24	CONSTRUCTION OF THE BRIDGE OVER THE CORENTYNE RIVER	GU - SU	G3	PROFILING	1,000,000
17	HPP	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE RIVERS OF THE PLATA BASIN	ARGENTINA/ BOLIVIA/ BRAZIL/ PARAGUAY/ URUGUAY	1,158.3	HPP07	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (BETWEEN APA AND CORUMBÁ)	BO - BR - PA	G1	PRE-EXECUTION	39,000,000
					HPP09	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (ASUNCIÓN - APA)	PA	G1	PRE-EXECUTION	88,250,835
					HPP19	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE TIETÊ RIVER	BR	G2	PRE-EXECUTION	800,000,000
					HPP42	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER, FROM CONFLUENCIA TO ASUNCIÓN	AR - PA	G3	EXECUTION	45,498,216
					HPP44	DEEPENING OF THE FAIRWAY IN THE PARANÁ RIVER FROM CONFLUENCIA TO THE PLATA RIVER	AR	G3	EXECUTION	110,000,000
					HPP72	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER	AR - PA	G4	PROFILING	0
					HPP88	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE URUGUAY RIVER	AR - UR	G5	PRE-EXECUTION	40,000,000
					HPP106	SYSTEM FOR WATER LEVEL PREDICTION IN THE PARAGUAY RIVER (APA - ASUNCIÓN)	BO - PA	G1	PRE-EXECUTION	0
					HPP108	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER (UPSTREAM OF SALTOS DEL GUAIRÁ)	BR	G2	EXECUTION	25,000,000
					HPP122	REHABILITATION AND MAINTENANCE OF THE TAMENGO CANAL	BO	G1	PROFILING	10,500,000

#	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
18	HPP	PARAGUAY - ARGENTINA - URUGUAY RAILWAY INTERCONNECTION	ARGENTINA/ PARAGUAY/ URUGUAY	293.3	HPP65	REHABILITATION AND IMPROVEMENT OF THE PIEDRA SOLA - SALTO GRANDE SECTION	UR	G3	PRE-EXECUTION	127,300,000
					HPP82	REHABILITATION OF THE ZÁRATE - POSADAS RAILWAY BRANCH LINE	AR	G5	PROFILING	0
					HPP103	CONSTRUCTION AND REHABILITATION OF THE ASUNCIÓN - POSADAS RAILWAY	AR - PY	G3	PRE-EXECUTION	166,000,000
19	HPP	REHABILITATION OF THE CHAMBERLAIN - FRAY BENTOS RAILWAY BRANCH LINE	URUGUAY	100.0	HPP120	REHABILITATION OF THE ALGORTA - FRAY BENTOS RAILWAY BRANCH LINE	UR	G5	PRE-EXECUTION	100,000,000
20	HPP	NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK	URUGUAY	15.0	HPP97	NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK	UR	G5	PRE-EXECUTION	15,000,000
21	IOC	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)	BOLIVIA	20.0	IOC78	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)	BO	G3	PROFILING	20,000,000
22	IOC	IMPROVEMENT OF ROAD CONNECTIVITY IN THE CENTRAL INTEROCEANIC HUB	BOLIVIA/ BRAZIL	431.5	IOC14	CAMPO GRANDE BYPASS	BR	G2	EXECUTION	30,000,000
					IOC25	PUERTO SUÁREZ - CORUMBÁ INTEGRATED CONTROL AREA	BO - BR	G3	EXECUTION	2,000,000
					IOC32	TOLEDO - PISIGA ROAD	BO	G5	EXECUTION	130,500,000
					IOC80	UPGRADE OF LA PAZ - SANTA CRUZ ROUTE TO A FOUR-LANE ROAD	BO	G5	EXECUTION	269,000,000
23	IOC	INFANTE RIVAROLA - CAÑADA OROURO BORDER CROSSING	BOLIVIA/ PARAGUAY	2.0	IOC09	INFANTE RIVAROLA - CAÑADA OROURO BORDER CROSSING	BO - PA	G1	PRE-EXECUTION	2,000,000
24	IOC	CENTRAL BIOCEANIC RAILWAY CORRIDOR (BOLIVIAN SECTION)	BOLIVIA	6.7	IOC81	CENTRAL BIOCEANIC RAILWAY CORRIDOR	BO	G5	PRE-EXECUTION	6,700,000

#	HUB	STRUCTURED PROJECT NAME	COUNTRIES	API AMOUNT (million US\$)	DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	PROJECT STAGE	AMOUNT US\$
25	MCC	NORTHEASTERN ARGENTINA GAS PIPELINE	ARGENTINA/ BOLIVIA	1,000.0	MCC68	NORTHEASTERN ARGENTINA GAS PIPELINE	AR	G5	PRE-EXECUTION	1,000,000,000
26	MCC	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	BRAZIL/ URUGUAY	93.5	MCC22	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	BR - UR	G2	PRE-EXECUTION	93,500,000
27	MCC	MULTIMODAL TRANSPORTATION IN THE LAGUNA MERÍN AND LAGOA DOS PATOS SYSTEM	BRAZIL/ URUGUAY	14.0	MCC85	DREDGING OF MIRIM LAKE	BR	G2	EXECUTION	0
					MCC157	DREDGING OF THE TACUARÍ RIVER	BR	G2	PRE-EXECUTION	0
					MCC158	DREDGING OF AND INSTALLATION OF SIGNS, MARKERS AND AIDS TO NAVIGATION ON THE MIRIM LAKE - DOS PATOS LAKE SYSTEM	BR	G2	PROFILING	0
					MCC159	LA CHARQUEADA PORT TERMINAL AND DREDGING OF THE CEBOLLATI RIVER	UR	G2	PRE-EXECUTION	7,000,000
					MCC160	PORT TERMINAL AND DREDGING OF TACUARÍ	UR	G2	PRE-EXECUTION	7,000,000
28	MCC	MONTEVIDEO - CACEQUI RAILWAY CORRIDOR	BRAZIL/ URUGUAY	139.8	MCC30	REHABILITATION OF THE MONTEVIDEO - RIVERA RAILWAY	UR	G2	PRE-EXECUTION	134,831,000
					MCC115	REHABILITATION OF THE RIVERA - SANTANA DO LIVRAMENTO - CACEQUI RAILWAY SECTION	BR - UR	G2	COMPLETED	5,000,000
29	MCC	OPTIMIZATION OF THE CRISTO REDENTOR BORDER CROSSING SYSTEM	ARGENTINA/ CHILE	143.0	MCC151	INTEGRATED FREIGHT CONTROL CENTER AT USPALLATA	AR	G3	PRE-EXECUTION	90,000,000
					MCC152	PASSENGER CONTROL CENTER AT LOS HORCONES	AR	G3	PRE-EXECUTION	35,000,000
					MCC153	NEW LOS LIBERTADORES BORDER COMPLEX	CH	G3	PRE-EXECUTION	0
					MCC154	REHABILITATION OF THE CRISTO REDENTOR TUNNEL AND CARACOLES	AR - CH	G3	PRE-EXECUTION	4,000,000
					MCC155	BINATIONAL MANAGEMENT CONTROL SYSTEM AT THE CRISTO REDENTOR BORDER CROSSING	AR - CH	G3	PRE-EXECUTION	14,000,000
30	MCC	AGUA NEGRA BINATIONAL TUNNEL	ARGENTINA/ CHILE	850.0	MCC110	AGUA NEGRA BINATIONAL TUNNEL	AR - CH	G4	PRE-EXECUTION	850,000,000
31	PBB	PORTO VELHO - PERUVIAN COAST CONNECTION	BRAZIL/PERU	85.4	PBB64	BRIDGE OVER THE MADEIRA RIVER IN ABUNÃ (BR-364/RO)	BR	G2	PRE-EXECUTION	85,350,000

\* Individual project completed before the creation of API and incorporated into the Agenda because it supplements the connectivity network of the structured project.

**API INDIVIDUAL PROJECTS DISAGGREGATED DURING 2013****MERCOSUR-CHILE HUB**

- The individual project “Optimization of the Cristo Redentor Border Crossing System” (MCC34) was subdivided into the following five projects: INTEGRATED FREIGHT CONTROL CENTER AT USPALLATA (MCC151); PASSENGER CONTROL CENTER AT LOS HORCONES (MCC152); NEW LOS LIBERTADORES BORDER COMPLEX (MCC153); REHABILITATION OF THE CRISTO REDENTOR TUNNEL AND CARACOL (MCC154); and BINATIONAL MANAGEMENT CONTROL SYSTEM AT THE CRISTO REDENTOR BORDER CROSSING (MCC155).
- The individual project “Multimodal Transportation in the Laguna Merín and Lagoa Dos Patos System” (MCC85) was subdivided into the following five projects: DREDGING OF MIRIM LAKE (MCC85); DREDGING OF THE TACUARÍ RIVER (MCC157); DREDGING OF AND INSTALLATION OF SIGNS, MARKERS AND AIDS TO NAVIGATION ON THE MIRIM LAKE - DOS PATOS LAKE SYSTEM (MCC158); LA CHARQUEADA PORT TERMINAL AND DREDGING OF THE CEBOLLATI RIVER (MCC159); and PORT TERMINAL AND DREDGING OF TACUARÍ (MCC160).

**AMAZON HUB**

- The individual project “Tarapoto - Yurimaguas Road and Yurimaguas Port” (AMA16) was subdivided into the following two projects: TARAPOTO - YURIMAGUAS ROAD (AMA16); and CONSTRUCTION OF NEW YURIMAGUAS PORT (AMA102).
- The individual project “Tingo María - Pucallpa Road and Pucallpa Port” (AMA26) was subdivided into the following two projects: IMPROVEMENT OF TINGO MARÍA - PUCALLPA ROAD (AMA26); and CONSTRUCTION OF NEW PUCALLPA PORT (AMA104).

**GUIANESE SHIELD HUB**

- The individual project “Boa Vista - Bonfim - Lethem - Linden - Georgetown Road” (GUY09) was subdivided into the following three projects: LETHEM - LINDEN ROAD (GUY09); BOA VISTA - BONFIM ROAD (GUY42); and LINDEN - GEORGETOWN ROAD (GUY43).

**ANDEAN HUB**

- The individual project “Implementation of the Binational Border Service Center (CEBAF) at the Tulcán - Ipiales (Rumichaca) Border Crossing, including Improvement of the Rumichaca Bridge” (AND82) was subdivided into the following two projects: IMPLEMENTATION OF THE BINATIONAL BORDER SERVICE CENTER (CEBAF) AT THE TULCÁN - IPIALES (RUMICHACA) BORDER CROSSING (AND82); and CONSTRUCTION OF THE NEW INTERNATIONAL RUMICHACA BRIDGE AND IMPROVEMENT OF THE EXISTING BRIDGE (AND91).



## TYPES OF WORKS INVOLVED IN THE API INDIVIDUAL PROJECTS

## Road Transport

	No. of Projects		% of Projects		Investment (million US\$)		% of Investment	
	2012	2013	2012	2013	2012	2013	2012	2013
Expansion of road capacity	7	7	26.9	23.3	4,272.4	3,997.0	55.1	53.2
Road and structure rehabilitation	4	5	15.5	16.7	628.0	752.5	8.1	10.0
Paving (new works)	5	7	19.2	23.3	1,184.4	1,214.9	15.3	16.2
Bridges (new and rehabilitation works)	6	7	23.1	23.3	442.5	245.9	5.7	3.3
Bypasses and access roads	2	2	7.7	6.8	32.0	45.0	0.4	0.6
Tunnels (new and rehabilitation works)	1	1	3.8	3.3	850.0	850.0	10.9	11.3
Road maintenance	1	1	3.8	3.3	350.0	407.0	4.5	5.4
<b>TOTAL</b>	<b>26</b>	<b>30</b>	<b>100.0</b>	<b>100.0</b>	<b>7,759.4</b>	<b>7,512.3</b>	<b>100.0</b>	<b>100.0</b>

## Rail Transport

	No. of Projects		% of Projects		Investment (million US\$)		% of Investment	
	2012	2013	2012	2013	2012	2013	2012	2013
Railway construction	6	6	37.5	37.5	2,310.3	2,310.3	70.4	70.4
Railway rehabilitation	10	10	62.5	62.5	971.1	971.1	29.6	29.6
<b>TOTAL</b>	<b>16</b>	<b>16</b>	<b>100.0</b>	<b>100.0</b>	<b>3,281.4</b>	<b>3,281.4</b>	<b>100.0</b>	<b>100.0</b>

## River Transport

	No. of Projects		% of Projects		Investment (million US\$)		% of Investment	
	2012	2013	2012	2013	2012	2013	2012	2013
Upgrade of existing river ports	2	2	10.0	7.7	64.2	64.6	3.6	4.3
Construction of new river ports	0	4	0.0	15.4	0.0	182.1	0.0	12.2
Improvement of navigation conditions	18	20	90.0	76.9	1,728.0	1,252.0	96.4	83.5
<b>TOTAL</b>	<b>20</b>	<b>26</b>	<b>100.0</b>	<b>100.0</b>	<b>1,792.2</b>	<b>1,498.7</b>	<b>100.0</b>	<b>100.0</b>

### Sea Transport

	No. of Projects		% of Projects		Investment (million US\$)		% of Investment	
	2012	2013	2012	2013	2012	2013	2012	2013
Expansion of land infrastructure in sea ports	2	2	50.0	50.0	933.9	971.8	48.2	49.2
Upgrade of sea ports	2	2	50.0	50.0	1,004.3	1,003.8	51.8	50.8
<b>TOTAL</b>	<b>4</b>	<b>4</b>	<b>100.0</b>	<b>100.0</b>	<b>1,938.2</b>	<b>1,975.6</b>	<b>100.0</b>	<b>100.0</b>

### Multimodal Transport

	No. of Projects		% of Projects		Investment (million US\$)		% of Investment	
	2012	2013	2012	2013	2012	2013	2012	2013
Transfer stations	6	6	100.0	100.0	222.3	253.4	100.0	100.0
<b>TOTAL</b>	<b>6</b>	<b>6</b>	<b>100.0</b>	<b>100.0</b>	<b>222.3</b>	<b>253.4</b>	<b>100.0</b>	<b>100.0</b>

### Border Crossings

	No. of Projects		% of Projects		Investment (million US\$)		% of Investment	
	2012	2013	2012	2013	2012	2013	2012	2013
Infrastructure for the implementation of border control centers	8	9	66.7	60.0	116.0	152.2	23.6	36.5
Expansion of border control center infrastructure/capacity	4	6	33.3	40.0	376.2	265.2	76.4	63.5
<b>TOTAL</b>	<b>12</b>	<b>15</b>	<b>100.0</b>	<b>100.0</b>	<b>492.2</b>	<b>417.4</b>	<b>100.0</b>	<b>100.0</b>

### Energy Interconnection

	No. of Projects		% of Projects		Investment (million US\$)		% of Investment	
	2012	2013	2012	2013	2012	2013	2012	2013
Construction of new energy interconnection facilities	3	3	100.0	100.0	1,755.0	1,755.0	100.0	100.0
<b>TOTAL</b>	<b>3</b>	<b>3</b>	<b>100.0</b>	<b>100.0</b>	<b>1,755.0</b>	<b>1,755.0</b>	<b>100.0</b>	<b>100.0</b>

### Air Transport

	No. of Projects		% of Projects		Investment (million US\$)		% of Investment	
	2012	2013	2012	2013	2012	2013	2012	2013
Expansion of airports	1	1	100.0	100.0	20.0	20.0	100.0	100.0
<b>TOTAL</b>	<b>1</b>	<b>1</b>	<b>100.0</b>	<b>100.0</b>	<b>20.0</b>	<b>20.0</b>	<b>100.0</b>	<b>100.0</b>

## API 2013 INDIVIDUAL PROJECTS AT THE PROFILING STAGE

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	AMOUNT US\$
AMA20	PAITA LOGISTICS CENTER	PE	G3	47,650,000
AMA21	YURIMAGUAS LOGISTICS CENTER	PE	G3	15,000,000
AMA44	IQUITOS LOGISTICS CENTER	PE	G6	15,000,000
AMA30	PUCALLPA INTERMODAL LOGISTICS CENTER	PE	G4	15,000,000
AMA32	LIMA - RICARDO PALMA EXPRESSWAY	PE	G4	242,000,000
AMA64	IIRSA CENTER, SECTION 3: TURN OFF TO CERRO DE PASCO - TINGO MARÍA	PE	G4	115,606,060
AMA65	EL CALLAO LOGISTICS ACTIVITIES ZONE (ZAL CALLAO)	PE	G4	155,755,500
AMA37	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE IÇÁ RIVER	BR	G6	8,000,000
AMA39	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MORONA RIVER	EC - PE	G6	2,000,000
AMA42	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NAPO RIVER	EC - PE	G6	5,759,000
AND19	PUERTO CARREÑO BORDER CROSSING	VE	G4	1,000,000
AND81	IMPROVEMENT OF THE BORDER CROSSINGS IN THE NORTHERN DEPARTMENT OF SANTANDER AND THE TÁCHIRA STATE	CO - VE	G2	2,000,000
CAP81	LA QUIACA - VILLAZÓN BRIDGE AND BORDER CENTER	AR - BO	G2	15,000,000
CAP20	CASCADEL - FOZ DO IGUAÇU BIOCEANIC RAILWAY CORRIDOR	BR	G3	324,000,000
CAP52	RAILWAY BRIDGE WITH FREIGHT YARD (CIUDAD DEL ESTE - FOZ DO IGUAÇU)	BR - PA	G3	40,971,000
GUY18	ROUTES INTERCONNECTING VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (APURA - ZANDERIJ - PARAMARIBO)	GU - SU - VE	G3	300,800,000
GUY24	CONSTRUCTION OF THE BRIDGE OVER THE CORENTYNE RIVER	GU - SU	G3	1,000,000
HPP72	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER	AR - PA	G4	0
HPP122	REHABILITATION AND MAINTENANCE OF THE TAMENGO CANAL	BO	G1	10,500,000
HPP82	REHABILITATION OF THE ZÁRATE - POSADAS RAILWAY BRANCH LINE	AR	G5	0
IOC78	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)	BO	G3	20,000,000
MCC158	DREDGING OF AND INSTALLATION OF SIGNS, MARKERS AND AIDS TO NAVIGATION ON THE MIRIM LAKE - DOS PATOS LAKE SYSTEM	BR	G2	0



## API 2013 INDIVIDUAL PROJECTS AT THE PRE-EXECUTION STAGE

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	AMOUNT US\$
AMA102	CONSTRUCTION OF NEW YURIMAGUAS PORT	PE	G3	50,325,762
AMA104	CONSTRUCTION OF NEW PUCALLPA PORT	PE	G4	117,763,000
AMA38	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PUTUMAYO RIVER	CO - EC - PE	G6	15,000,000
AMA40	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE HUALLAGA RIVER WATERWAY, BETWEEN YURIMAGUAS AND THE CONFLUENCE WITH MARAÑÓN RIVER	PE	G6	33,000,000
AMA41	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MARAÑÓN RIVER WATERWAY, BETWEEN SARAMERIZA AND THE CONFLUENCE WITH UCAYALI RIVER	PE	G6	11,000,000
AMA43	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE UCAYALI RIVER WATERWAY, BETWEEN PUCALLPA AND THE CONFLUENCE WITH MARAÑÓN RIVER	PE	G6	19,000,000
AMA45	MORONA FREIGHT TRANSFER PORT	EC	G7	5,000,000
AMA56	MODERNIZATION OF IQUITOS PORT	PE	G6	39,550,000
AMA63	IIRSA CENTER, SECTION 2: RICARDO PALMA - LA OROYA - TURN OFF TO CERRO DE PASCO / LA OROYA - HUANCAYO	PE	G4	100,000,000
AMA71	PROVIDENCIA PORT	EC	G2	25,000,000
AND28	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE SULLANA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)	PE	G5	70,450,845
AND31	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT SAN MIGUEL	CO - EC	G6	25,000,000
AND47	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	BO - PE	G8	40,231,927
AND82	IMPLEMENTATION OF THE BINATIONAL BORDER SERVICE CENTER (CEBAF) AT THE TULCÁN - IPIALES (RUMICHACA) BORDER CROSSING	CO - EC	G2	65,000,000
CAP07	OPTIMIZATION OF THE CLORINDA - ASUNCIÓN NODE	AR - PA	G1	101,206,392
CAP10	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	AR - BO	G2	23,000,000
CAP11	REHABILITATION OF JUJUY - LA QUIACA RAILWAY	AR	G2	62,000,000

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	AMOUNT US\$
CAP14	NEW PUERTO PRESIDENTE FRANCO - PORTO MEIRA BRIDGE, WITH A PARAGUAY - BRAZIL INTEGRATED CONTROL AREA	BR - PA	G3	0
CAP18	CONCESSION FOR THE IMPROVEMENT OF ROUTES No. 2 AND 7 (ASUNCIÓN - CIUDAD DEL ESTE)	PA	G3	136,000,000
CAP23	OPTIMIZATION OF THE ÑEEMBUCÚ - BERMEJO BRIDGE NODE	AR - PA	G4	61,206,392
CAP29	CONSTRUCTION OF CIUDAD DEL ESTE - PILAR RAILWAY	PA	G4	438,600,000
CAP37	REHABILITATION OF THE C3 RAILWAY BRANCH LINE: RESISTENCIA - AVIA TERAI - PINEDO	AR	G1	104,000,000
CAP38	REHABILITATION OF THE C12 RAILWAY BRANCH LINE: AVIA TERAI - METÁN	AR	G1	212,000,000
CAP39	REHABILITATION OF THE C14 RAILWAY BRANCH LINE: SALTA - SOCOMPA	AR	G1	60,000,000
CAP50	PAVING OF NATIONAL ROUTE No. 40, MINING CORRIDOR PATH (BORDER WITH BOLIVIA)	AR	G2	400,000,000
CAP53	BIOCEANIC RAILWAY CORRIDOR: PARANAGUÁ - CASCAVEL SECTION AND GUARAPUAVA - INGENIERO BLEY RAILWAY BYPASS	BR	G3	1,500,000,000
CAP68	500-KV TRANSMISSION LINE (YACYRETÁ - AYOLAS - CARAYAO)	PA	G3	200,000,000
GUY09	LETHEM - LINDEN ROAD	GU	G2	250,000,000
HPP07	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (BETWEEN APA AND CORUMBÁ)	BO - BR - PA	G1	39,000,000
HPP09	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (ASUNCIÓN - APA)	PA	G1	88,250,835
HPP103	CONSTRUCTION AND REHABILITATION OF THE ASUNCIÓN - POSADAS RAILWAY	AR - PY	G3	166,000,000
HPP106	SYSTEM FOR WATER LEVEL PREDICTION IN THE PARAGUAY RIVER (APA - ASUNCIÓN)	BO - PA	G1	0
HPP120	REHABILITATION OF THE ALGORTA - FRAY BENTOS RAILWAY BRANCH LINE	UR	G5	100,000,000
HPP19	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE TIETÊ RIVER	BR	G2	800,000,000
HPP65	REHABILITATION AND IMPROVEMENT OF THE PIEDRA SOLA - SALTO GRANDE SECTION	UR	G3	127,300,000
HPP88	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE URUGUAY RIVER	AR - UR	G5	40,000,000
HPP97	NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK	UR	G5	15,000,000
IOC09	INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING	BO - PA	G1	2,000,000
IOC81	CENTRAL BIOCEANIC RAILWAY CORRIDOR	BO	G5	6,700,000
MCC110	AGUA NEGRA BINATIONAL TUNNEL	AR - CH	G4	850,000,000
MCC151	INTEGRATED FREIGHT CONTROL CENTER AT USPALLATA	AR	G3	90,000,000

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	AMOUNT US\$
MCC152	PASSENGER CONTROL CENTER AT LOS HORCONES	AR	G3	35,000,000
MCC153	NEW LOS LIBERTADORES BORDER COMPLEX	CH	G3	0
MCC154	REHABILITATION OF THE CRISTO REDENTOR TUNNEL AND CARACOLAS	AR - CH	G3	4,000,000
MCC155	BINATIONAL MANAGEMENT CONTROL SYSTEM AT THE CRISTO REDENTOR BORDER CROSSING	AR - CH	G3	14,000,000
MCC157	DREDGING OF THE TACUARÍ RIVER	BR	G2	0
MCC159	LA CHARQUEADA PORT TERMINAL AND DREDGING OF THE CEBOLLATI RIVER	UR	G2	7,000,000
MCC160	PORT TERMINAL AND DREDGING OF TACUARÍ	UR	G2	7,000,000
MCC22	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	BR - UR	G2	93,500,000
MCC30	REHABILITATION OF THE MONTEVIDEO - RIVERA RAILWAY	UR	G2	134,831,000
MCC68	NORTHEASTERN ARGENTINA GAS PIPELINE	AR	G5	1,000,000,000
PBB64	BRIDGE OVER THE MADEIRA RIVER IN ABUNÃ (BR-364/RO)	BR	G2	85,350,000



## API 2013 INDIVIDUAL PROJECTS AT THE EXECUTION STAGE

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	AMOUNT US\$
AMA24	PAITA PORT	PE	G3	266,922,000
AMA26	IMPROVEMENT OF TINGO MARÍA - PUCALLPA ROAD	PE	G4	462,451,169
AMA31	MODERNIZATION OF EL CALLAO PORT (NEW CONTAINER DOCK)	PE	G4	704,835,670
AMA66	EL CALLAO MULTI-PURPOSE NORTHERN TERMINAL	PE	G4	883,482,448
AMA67	EL CALLAO MINERAL SHIPPING TERMINAL	PE	G4	120,300,000
AND05	BOGOTÁ - CÚCUTA ROAD CORRIDOR	CO	G2	1,559,000,000
AND07	BOGOTÁ - BUENAVENTURA ROAD CORRIDOR	CO	G2	1,791,000,000
AND79	IMPROVEMENT AND PAVING OF THE MOCOA - SANTA ANA - SAN MIGUEL ROAD SECTION	CO	G6	133,629,000
AND91	CONSTRUCTION OF THE NEW INTERNATIONAL RUMICHACA BRIDGE AND IMPROVEMENT OF THE EXISTING BRIDGE	CO - EC	G2	4,826,592
AND02	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT PARAGUACHÓN	VE	G1	2,000,000
CAP67	500-KV TRANSMISSION LINE (ITAIPU - ASUNCIÓN)	PA - BR	G3	555,000,000
GUY01	REHABILITATION OF THE CARACAS - MANAUS ROAD	BR - VE	G1	407,000,000
HPP42	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER, FROM CONFLUENCIA TO ASUNCIÓN	AR - PA	G3	45,498,216
HPP44	DEEPENING OF THE FAIRWAY IN THE PARANÁ RIVER FROM CONFLUENCIA TO THE PLATA RIVER	AR	G3	110,000,000
HPP108	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER (UPSTREAM OF SALTOS DEL GUAIRÁ)	BR	G2	25,000,000
IOC14	CAMPO GRANDE BYPASS	BR	G2	30,000,000
IOC25	PUERTO SUÁREZ - CORUMBÁ INTEGRATED CONTROL AREA	BO - BR	G3	2,000,000
IOC32	TOLEDO - PISIGA ROAD	BO	G5	130,500,000
IOC80	UPGRADE OF LA PAZ - SANTA CRUZ ROUTE TO A FOUR-LANE ROAD	BO	G5	269,000,000
MCC85	DREDGING OF MIRIM LAKE	BR	G2	0



## ANNEX IX

### API 2013 INDIVIDUAL PROJECTS AT THE COMPLETED STAGE

DB CODE	NAME OF THE INDIVIDUAL PROJECTS	COUNTRIES INVOLVED	PG	AMOUNT US\$
AMA16	TARAPOTO - YURIMAGUAS ROAD <sup>(*)</sup>	PE	G3	231,712,828
AMA25	PAITA - TARAPOTO ROAD <sup>(*)</sup>	PE	G3	0
AND13	IMPROVEMENT OF JOSÉ ANTONIO PÁEZ BRIDGE <sup>(*)</sup>	CO	G3	1,280,000
CAP91	BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA - SOCOMPA) <sup>(*)</sup>	CH	G1	0
GUY42	BOA VISTA - BONFIM ROAD <sup>(*)</sup>	BR	G2	0
GUY43	LINDEN - GEORGETOWN ROAD <sup>(*)</sup>	GU	G2	0
MCC115	REHABILITATION OF THE RIVERA - SANTANA DO LIVRAMENTO - CACEQUI RAILWAY SECTION	BR - UR	G2	5,000,000

<sup>(\*)</sup> Individual project completed before the creation of API and incorporated into the Agenda because it supplements the connectivity network of the structured project. Therefore, its investment amount will not be added to the structured project.



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NOTES OF THE MEETINGS OF THE EXECUTIVE TECHNICAL GROUPS ON THE INTEGRATION AND DEVELOPMENT HUBS, THE INTEGRATION PRIORITY PROJECT AGENDA, AND THE API CONTINUOUS MONITORING SYSTEM HELD BETWEEN 2004 AND 2013.

## WEBSITES

COSIPLAN Information System

<http://www.iirsa.org/proyectos>

Initiative for the Integration of Regional Infrastructure in South America – IIRSA

<http://www.iirsa.org>



## ACRONYMS AND ABBREVIATIONS

AABSA	Aguirre Agro Bolivia S.A.
ACI	Integrated Control Area
ACIUS	Integrated Control Center at Uspallata
AIC	Implementation Agenda Based on Consensus
ALL	América Latina Logística do Brasil S.A.
AMA	Amazon Hub
AND	Andean Hub
ANTT	Brazil's National Land Transport Agency
API	Integration Priority Project Agenda
BNDES	Brazilian National Development Bank
CAF	CAF, Latin American Development Bank
CAN	Andean Community of Nations
CAP	Capricorn Hub
CAPSA	Central Aguirre Portuaria S.A.
CCT	Technical Coordination Committee
CEBAF	Binational Border Service Center
CENAF	National Border Service Center
COPIAF	Venezuela's Presidential Commission on Integration and Border Affairs
COSIPLAN	South American Infrastructure and Planning Council
DINAMA	Uruguay's National Environment Agency
EASE	Strategic Environmental and Social Evaluation Methodology
EBITAN	Agua Negra Border Crossing International Tunnel Binational Entity
ENABOL	Empresa Naviera Boliviana
FONPLATA	Financial Fund for the Development of the Plata Basin
FPTC	Free Port Terminal Company
GP	Project Group
GTE	Executive Technical Group

GUY	Guianese Shield Hub
HPP	Paraguay-Paraná Waterway Hub
IDB	Inter-American Development Bank
IIRSA	Initiative for the Integration of Regional Infrastructure in South America
INVIAS	National Institute of Roads
IOC	Central Interoceanic Hub
MCC	MERCOSUR-Chile Hub
MERCOSUR	Southern Common Market
PAC	Brazil's Growth Acceleration Program
PAE	Strategic Action Plan 2012-2022
PBB	Peru-Brazil-Bolivia Hub
PIT	Intermodal Transportation Plan
PTIs	Integration Territorial Programs
SENAMIG	National Migration Service
SENASAG	National Service for Agricultural Health and Food Safety
SENIAT	Venezuela's National Integrated Customs and Tax Administration Service
SMP	Continuous Monitoring System
UNASUR	Union of South American Nations







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