UNASUR
COSIPLAN

Project
Portfolio 2015

SOUTH AMERICAN
INFRASTRUCTURE AND
PLANNING COUNCIL

UNASUR
COSIPLAN

Project Portfolio 2015

PRESIDENCY PRO TEMPORE URUGUAY 2014-2016

IIRSA Technical Forum
Technical Coordination Committee

IDB

CAF DEVELOPMENT BANK OF LATIN AMERICA

FONPLATA

VI Ordinary Meeting of COSIPLAN Ministers
Montevideo, Uruguay, December 3, 2015

Note

The information about the projects presented here is built on the data contained in the COSIPLAN Project Information System (PIS) (www.iirsa.org/proyectos) as of August 18, 2015. The information in such system is permanently updated by the UNASUR Member States.

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

1. Projects

- Navigability
- Oil / Gas Pipeline
- Electric Transmission Line
- Road
- Rail
- Telecommunications Line
- Border Crossing, CEBAF
- Port
- Logistics Center
- Airport
- Ring Road
- Ring Railway
- Tunnel
- Navigability
- Bridge
- Environmental Program Multimodal
- Transportation
- Inland Port
- Electricity Generation
- Gas Project
- River
- Telecommunications Infrastructure

2. Geographical References

- Country Capital
- City
- Country Border
- Existing Waterway
- Existing Railroad
- Existing Road

LEGEND

1. Project Life Cycle Stages


Profiling


Pre-execution


Execution


Completed

2. Integration and Development Hubs

Southern Andean

Amazon

Andean

Capricorn

Southern

Guianese Shield

Paraguay-Paraná Waterway

Central Interoceanic

MERCOSUR Chile

Peru Brazil Bolivia

3. Sectors


Transport


Energy


Communications

4. Subsectors

Transport


Air


Road


Rail


River


Sea


Multimodal


Border Crossing

Energy


Energy Interconnection


Energy Generation

Communications


Communications Interconnection

5. Types of Financing


Public


Private


Public/Private

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CHAPTERS

Overview

This Fifth Report on the COSIPLAN Project Portfolio, provided for in the COSIPLAN-IIRSA Work Plan 2015, presents an overall assessment of the Portfolio and reflects the results of the territorial planning work conducted by the Country.

Chapter 1 analyzes the progress made by the Portfolio projects. First, it describes the evolution of the Portfolio throughout more than a decade (2004-2015) and then presents the changes that took place between 2014 and 2015 as a result of the update process undertaken by the Country this year.

Chapter 2 organizes the COSIPLAN Project Portfolio into three sections: i) the total portfolio, including its 593 projects; ii) the active portfolio, i.e. the projects that are at the profiling, pre-execution and execution stages; and iii) the completed projects.

Chapter 3 describes the projects of each of the nine Integration and Development Hubs, including a brief socioeconomic and environmental characterization of the Hub.

Chapter 4 presents the territorial planning process undertaken in South America. It stresses the importance of the territory as a space to achieve sustainable development, and explains the concept of the Integration and Development Hubs. Next, it describes the Indicative Territorial Planning Methodology and its application, which led to the creation of the Project Portfolio. Furthermore, the COSIPLAN territorial planning tools and methodologies are reviewed, emphasizing their main objectives and concepts.

Executive Summary

The Union of South American Nations (UNASUR) was created by the South American presidents in 2008 as a forum for high-level political dialogue and coordination among the twelve Country of the region. In 2009, within this institutional framework, a number of sectoral councils at ministerial level, one of which is the South American Infrastructure and Planning Council (COSIPLAN), were created. COSIPLAN is the forum where political and strategic discussions are held with a view to implementing the UNASUR Member Country' regional infrastructure integration.

The work undertaken by the Initiative for the Integration of Regional Infrastructure in South America (IIRSA) between 2000 and 2010 and by COSIPLAN since 2011 has focused from the start on infrastructure project planning as a key component of territorial development.

The creation of the Integration Infrastructure Project Portfolio (hereinafter, the COSIPLAN Project Portfolio) was possible thanks to the Indicative Territorial Planning Methodology. The COSIPLAN Project Portfolio is a set of works with a powerful impact on regional integration and socioeconomic development. It is made up of transport, energy and communications projects that promote regional connectivity and create sustainable economic and social development in South America.

1. Evolution of the COSIPLAN Project Portfolio

At present, the COSIPLAN Project Portfolio includes 593 integration projects amounting to an investment estimated at US$182,436 million, distributed throughout the whole South American territory and organized into 48 Project Groups and nine Integration and Development Hubs.

Between 2004 and 2015, the portfolio grew, on average, by 29 projects and US$16,110 million per year. This growth rate includes a 9% increase in the estimated investment between 2014 and 2015. In the 2008-2015 period, completed projects more than doubled each year.

Results of the Project Portfolio Updates in 2015

The focuses of the Country' action related to the COSIPLAN Project Portfolio are defined jointly through several tools: the Strategic Action Plan (PAE), the work plans designed by consensus on an annual basis, and the COSIPLAN meeting occasions. In 2015, the Country laid particular emphasis on the following three activities:

Virtual Meetings: For the first time, virtual meetings of the Executive Technical Groups to Update the Projects in the COSIPLAN Portfolio and API were held. A meeting was held for each Integration and Development Hub[1] using an online video-conferencing tool.

COSIPLAN Project Information System Update: In preparation for the above-mentioned meetings and as a result of the discussions held at them, the Country worked on the update of the Portfolio projects in the COSIPLAN Project Information System. As of the date of this report, 71.5% (424 of 593) of the projects are updated as of 2015.

Changes in the Project Portfolio between 2014 and 2015: Between 2014 and 2015, the total number of projects in the portfolio increased from 579 to 593, as 23 projects were excluded and 37 included. The total estimated amount grew from US$163,324.5 million to US$182,435.7 million.

1 The only meeting that did not take place was that concerned with the Guianese Shield Hub. The Country were requested to update the information on their projects directly in the COSIPLAN Project Information System (PIS).

2. The Project Portfolio in 2015

The COSIPLAN Project Portfolio: In terms of the territorial scope of the projects in the Portfolio, 82.4% are national, while only 16.4% and 1.2% are binational and multinational, respectively. There are 52 anchor projects, amounting to an investment estimated at US$19,780 million, which means 11% of the financial investment in the whole Portfolio. Regarding the subsector-based breakdown, most of the Portfolio projects fall in the transport sector: 89%. These works account for 71% of the estimated investment, while energy projects account for 29%. Of the total investment, 63% is provided by the public sector, while the rest comes from the private sector (19%) and from public-private initiatives (18%). As for the project stages, almost a third of the total projects are at the execution stage, of which more than 90% involve transportation works. The estimated investment of the works in execution accounts for almost 40% of the total Portfolio.

The Active Portfolio: The projects in the active portfolio, i.e. the projects underway (at the profiling, pre-execution or execution stage), are 478 and account for an investment estimated at US$156,323 million. The 10 projects with the greatest estimated investment represent 42.5% of the total estimated investment for this set of projects. There are 114 projects at the profiling stage, accounting for an investment estimated at US$30,974 million. Three quarters of these projects have been at the profiling stage for more than three years (since before 2012). Of the 124 projects that include information on their estimated completion date, 84% will be completed in the next three years (before the end of 2018), which involves the implementation of US$28,908 million, based on the investment estimated for these projects.

Completed Projects: There are 115 completed projects in the Portfolio for a total investment of US$26,113 million. This means that almost 20% of the physical integration projects prioritized by the Country have already been completed. Regarding their characteristics, almost half of the completed projects (45%) fall in the road subsector, and as for the investment amount, they account for 40% of the set of projects. Of the total completed works, 82% were financed with public funds. In terms of investment amount, the public sector contributed 65%. Most completed projects are national in scope (83%), while the other ones are binational. This ratio rises in relation to the investment amount, with the national share accounting for 94%. However, several national projects must be seen in terms of their contribution to cross-national connectivity.

3. The Integration and Development Hubs

The **Amazon Hub** comprises 74 projects organized into eight project groups for an investment estimated at US$22,421 million. There are 57 projects in the active portfolio of the Hub, amounting to an investment estimated at US$15,992 million. It is expected that 74% of the investment amount estimated for the Hub's portfolio will be implemented by the end of 2018. The 17 completed projects in the Hub demanded a total investment of US$6,429 million, equal to almost 30% of the total investment for the Portfolio.

The **Andean Hub** comprises 67 projects organized into 10 project groups for an investment estimated at US$28,614. There are 67 projects in the active portfolio of the Hub, amounting to an investment estimated at US$27,784 million. Thirteen of these projects will be completed in the next four years (2015-2018), involving 8.9% of the investment amount estimated for the Hub's portfolio. The 18 completed projects of the Hub demanded a US$830 million investment.

The **Capricorn Hub** comprises 82 projects organized into five project groups for an investment estimated at US$16,315 million. There are 68 projects in the active portfolio of the Hub, amounting to an investment estimated at US$14,176 million. It is expected that 30% of the investment amount estimated for the Hub's portfolio will be implemented by the end of 2018. The 14 completed projects of the Hub demanded a total investment of US$2,139 million, equal to 13% of the total projected investment.

The **Guianese Shield Hub** comprises 20 projects organized into four project groups for an investment estimated at US$4,581 million. There are 14 projects in the active portfolio of the Hub, amounting to an investment estimated at US$4,495 million. Two of these projects will be completed in the next four years (2015-2018), involving 17.3% of the investment amount estimated for the Hub's portfolio. The six completed projects of the Hub demanded a total investment of US$86 million, equal to almost 2% of the total investment for the Portfolio.

The **Paraguay-Paraná Waterway Hub** comprises 92 projects organized into five project groups for an investment estimated at US$7,328 million. There are 79 projects in the active portfolio of the Hub,

amounting to an investment estimated at US$5,697 million. Fourteen of these projects will be completed in the next four years (2015-2018), involving 43% of the investment amount estimated for the Hub's portfolio. The 13 completed projects of the Hub demanded a total investment of US$1,631 million.

The **Central Interoceanic Hub** comprises 63 projects organized into five project groups for an investment estimated at US$11,615 million. There are 49 projects in the active portfolio of the Hub, amounting to an investment estimated at US$11,392 million. Twelve of these projects will be completed in the next four years (2015-2018), involving 61% of the investment amount estimated for the Hub's portfolio. The 14 completed projects of the Hub demanded a total investment of US$223 million.

The **MERCOSUR-Chile Hub** comprises 124 projects organized into six project groups for an investment of US$56,169 million. There are 101 projects in the active portfolio of the Hub, amounting to an investment estimated at US$47,818 million. Nineteen of these projects will be completed in the next four years (2015-2018), involving about 25% of the investment amount estimated for the Hub's portfolio.

The **Peru-Brazil-Bolivia Hub** comprises 24 projects organized into three project groups for an investment estimated at US$31,432 million. There are 19 projects in the active portfolio of the Hub, amounting to an investment estimated at US$25,452 million. Taking into account the eight projects currently at the execution stage, it is expected that, once they are completed, almost 80% of the investment amount estimated for the Hub's portfolio will have been implemented. The five completed projects of the Hub demanded a total of US$5,980 million.

The **Southern Hub** comprises 49 projects organized into two project groups for an investment estimated at US$4,147 million. There are 44 projects in the active portfolio of the Hub, amounting to an investment estimated at US$3,704 million. Taking into account the 18 projects that would be completed before 2018, which are currently in execution, it is expected that, once they are completed, 46% of the estimated investment amount for the Hub's portfolio will have been implemented. The five completed projects of the Hub demanded a total of US$443 million; two of them involved electric interconnection works that account for 95% of the amount invested.

4. The Territory and Integration Infrastructure Planning

The distinctive feature of the cooperation and dialogue process aimed at securing a greater and more sustainable physical integration in the region has been infrastructure planning in the transportation, energy and communications sectors with a regional perspective. With a focus on the territory, this process is intended to enhance the competitiveness of the economies of the region, contribute to reducing regional disparities and social inequality, and improve life expectancy and quality of life in every country and in the region as a whole.

In order to frame infrastructure planning, theoretical and practical tools linking the territory and infrastructure were used, which helped set up the Integration Infrastructure Project Portfolio. This was possible thanks to the development and application of the Indicative Territorial Planning Methodology. This methodology is based on the identification of Integration and Development Hubs, which organize the South American territory and structure the Portfolio.

In 2011, the Country approved the Integration Priority Project Agenda (API), which is made up of a subset of COSIPLAN Portfolio projects. In order to record the progress made in the implementation of the API projects, it became necessary to add 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, based on the Methodology for Scheduling the Life Cycle of the API individual 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 Project Information System (PIS), comprising three online interconnected components for both access and data entry, was developed in 2013.

In 2015, small adjustments were made to the PIS to improve the performance of the new elements developed the previous year. An advanced search option with new search filters was created, including a new criteria selection methodology. Some information fields in the project files were improved, and new fields were added, such as "Risks and Hazards" and "Estimated Completion Date." Several reports were enhanced and created. The charts of the API structured projects were modified, and the API Structured Projects CMS was opened to public access.

Introduction

The origins of South American physical integration can be traced as far back as more than a decade ago. Indeed, since 2000, the South American governments have been making a major effort of cooperation and dialogue with the purpose of securing a greater and more sustainable physical integration in the region. The First South American Presidential Summit, held in Brazilia that year, marked the beginning of an integration and cooperation process in different fields among the twelve independent South American Country: Argentina, Bolivia, Brazil, Chile, Colombia, Ecuador, Guyana, Paraguay, Peru, Suriname, Uruguay, and Venezuela. Among other actions, the Initiative for the Integration of Regional Infrastructure in South America (IIRSA)[1] was launched that same year.

In 2008, the South American presidents created the Union of South American Nations (UNASUR) as a forum for high-level political and strategic discussion involving the twelve Country in the region. In this institutional context, several sectoral councils at ministerial level were established in 2009, and one of them was the South American Infrastructure and Planning Council (COSIPLAN),[2] which is the forum for political and strategic discussion aimed at planning and implementing the integration of regional infrastructure in the UNASUR Member States.

In 2012, the presidents approved the COSIPLAN Strategic Action Plan (PAE) 2012-2022[3] and the COSIPLAN Integration Priority Project Agenda (API),[4] the two instruments that would structure its work in the next ten years.

The work undertaken by IIRSA between 2000 and 2010 and by COSIPLAN since 2011 focuses on infrastructure project planning as a key component of territorial development.

The Indicative Territorial Planning Methodology was the instrument that enabled to set up an Integration Infrastructure Project Portfolio (hereinafter, the COSIPLAN Project Portfolio). This methodology is based on the identification of Integration and Development Hubs, which organize the South American territory and structure the Project Portfolio.

The COSIPLAN Project Portfolio consists in a set of high-impact works for the integration and socioeconomic development of the region. It is made up of transport, energy and communications projects that promote regional connectivity and create sustainable economic and social development in South America.

This Portfolio is reviewed and updated on a yearly basis by the South American Country and is one of the main tools of COSIPLAN to implement the integration of South American infrastructure.

1 For more information, visit http://www.iirsa.org.
2 For more information, visit http://www.iirsa.org/cosiplan.asp.
3 For more information, visit http://www.iirsa.org/pae.asp.
4 For more information, visit http://www.iirsa.org/api.asp.

Chapter 1
Evolution of the COSIPLAN Project Portfolio

The physical integration of South America is a key issue for the Country of the region and a priority to government agencies. COSIPLAN is constantly working on the update and analysis of its projects, the improvement of its information quality, and the dissemination of its results and benefits.

This chapter analyzes the progress made by the Portfolio projects. First, it describes the evolution of the Portfolio throughout more than a decade (2004-2015) and then presents the changes that took place between 2014 and 2015 as a result of the update process undertaken by the Country this year.

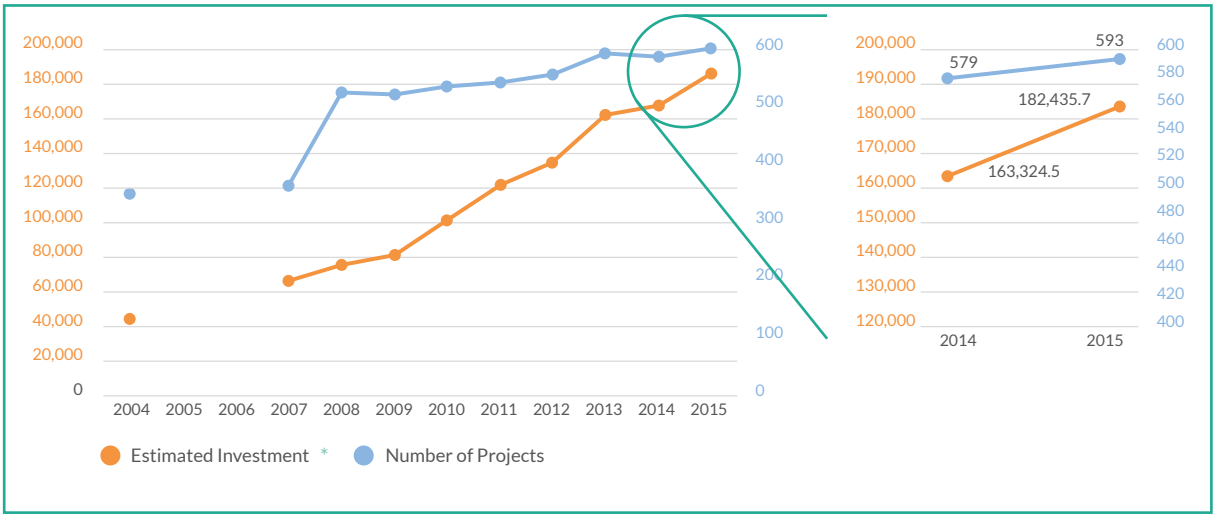
1.1. Evolution of the Project Portfolio between 2004 and 2015

Throughout the last decade, the original structuring of the Project Portfolio was modified and was subject to successive updates as a result of the territorial planning process undertaken by the Country. The number of projects and estimated investment grew year after year, except for 2014, when, as a result of a thorough analysis by the Country, projects that had not made any progress since 2008 or before were excluded. In 2015, the number of projects increased again.

At present, the COSIPLAN Project Portfolio includes 593 integration projects amounting to an investment estimated at US$182,436 million, distributed over the whole South American territory.

EVOLUTION OF THE PROJECT PORTFOLIO IN 2014-2015

* US$ million



The portfolio grew, on average, by 29 projects and US$16,110 million per year between 2004 and 2015. This growth rate includes a 9% increase in the estimated investment between 2014 and 2015.

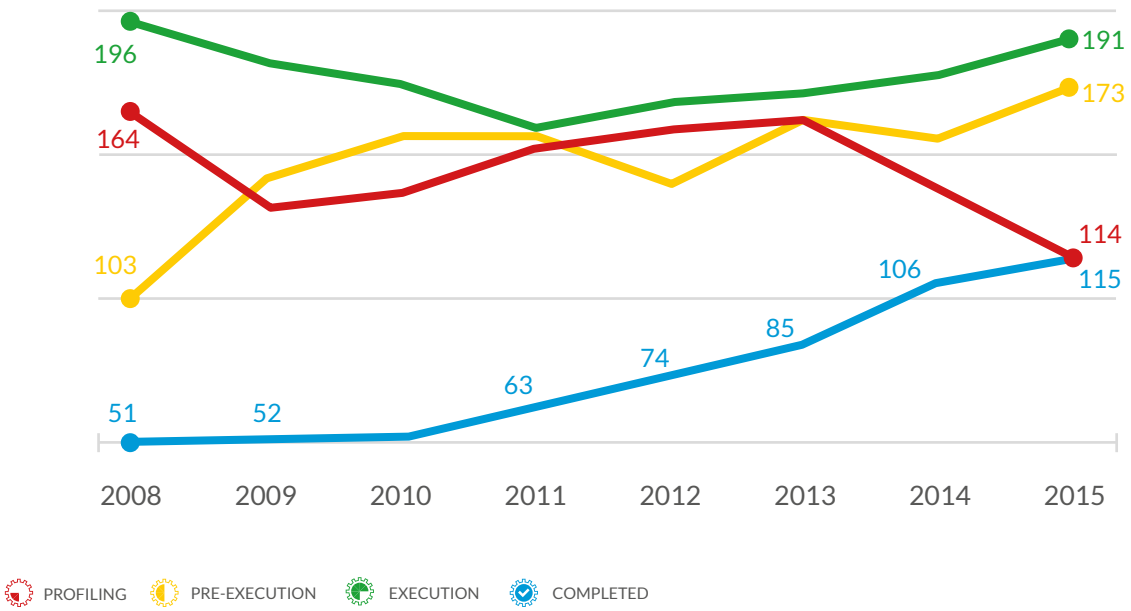
ANNUAL CHANGES IN THE PROJECTS BY HUB (2004-2015)

	Integration and Development Hubs									Total
	AMA	AND	CAP	GUY	HPP	IOC	MCC	PBB	DES	
	2003-2004									
No.	44	74	34	32		44	68	18	21	335
US$ million	2,011.0	4,975.0	2,031.0	366.0		3,306.0	12,076.0	11,588.0	1,072.0	37,425.0
	2005-2006									
No.	54	73	36	32		44	71	18	21	349
US$ million	2,382.0	4,975.0	2,031.0	366.0		3,306.0	12,161.0	11,588.0	1,071.0	37,880.0
	2007									
No.	57	65	63	32	98	49	91	23	26	504
US$ million	3,208.4	6,097.0	6,083.0	5,847.0	2,829.0	4,651.0	19,465.0	17,561.0	2,530.0	68,271.4
	2008-2009									
No.	57	65	69	25	88	54	105	23	26	510
US$ million	5,281.0	7,050.0	7,945.0	927.0	3,974.0	4,576.0	29,399.0	12,888.0	2,533.0	74,542.0
	2010									
No.	58	64	72	25	95	55	107	23	27	524
US$ million	5,401.9	7,478.0	9,421.4	1,694.9	6,677.4	5,525.1	35,836.2	21,402.3	2,713.0	96,119.2
	2011									
No.	64	64	76	18	93	61	105	25	27	531
US$ million	6,099.9	9,343.5	8,979.1	4,540.3	6,514.7	4,112.7	44,389.8	29,557.8	2,738.0	116,120.6
	2012									
No.	64	64	80	18	94	61	113	25	27	544
US$ million	8,867.6	8,692.4	11,959.1	4,465.4	8,460.7	5,209.2	50,974.4	28,878.7	2,817.0	130,139.1
	2013									
No.	88	65	80	20	94	62	122	26	28	583
US$ million	28,948.9	9,183.5	13,974.6	4,560.4	7,865.1	8,830.5	52,701.1	29,089.8	2,762.0	157,730.5
	2014									
No.	82	64	83	20	95	61	123	25	28	579
US$ million	25,070.2	9,962.1	17,929.5	4,581.3	7,574.4	8,907.6	54,608.3	32,131.9	2,744.6	163,324.5
	2015									
No.	74	67	82	20	92	63	124	24	49	593
US$ million	22,420.8	28,614.0	16,314.7	4,581.3	7,328.2	11,614.8	56,168.9	31,431.9	4,146.6	182,435.7

Concerning the number of projects, some Hubs have remained relatively unchanged since 2007, such as the Andean and the Peru-Brazil-Bolivia Hubs. Other Hubs have gradually reduced the number of projects, such as the Guianese Shield Hub, whereas a third group experienced a constant increase: the most representative example is the MERCOSUR-Chile Hub, which in the period under consideration almost doubled its original number of projects.

As it is not a closed portfolio, the total number of projects changes year after year, either because new projects are added or because existing projects are removed. New projects at different life cycle stages[1] may be added, thus making it impossible to set 2004 as the baseline year to make year-to-year comparisons and analyze the Portfolio progress accordingly.

ANNUAL CHANGES IN THE PROJECTS BY STAGE (2008-2015)



The Portfolio projects make headway at a different pace depending on the following particular features of the physical integration works involved:

- their size and technical complexity;
- the need for inter-governmental coordination in the case of binational or multinational projects;
- their investment amount and the budget constraints faced by some governments, as well as competition for the resources available with other initiatives in the Country;
- the reformulation of their scope, which may involve moving back to previous life cycle stages.

In addition, some projects may appear as if they had remained stagnant as they have been at the pre-execution stage for a long period. This is because, according to what the Country have agreed, this stage includes the studies required to define the project as well as the arrangements required to secure the funds. Therefore, these projects may be making headway within the stage, and this progress is recorded in the Continuous Monitoring System.[2]

Hence, a way of measuring the progress made by the Project Portfolio is to consider the completed projects. As shown in the figure above, the completed projects more than doubled in the 2008-2015 period.

1 The life cycle stages of the Portfolio projects are: profiling, pre-execution, execution and completed. For more information, see Chapter 4 in this report.
2 For more information, see Chapter 4 in this report.

1.2 Results of the Project Portfolio Updates in 2015

The focuses of the Country' action related to the COSIPLAN Project Portfolio are defined jointly through several tools: the Strategic Action Plan (PAE), the work plans designed by consensus on an annual basis, and the COSIPLAN meeting occasions. In 2015, the Country laid particular emphasis on the following three activities:

1.2.1. Virtual Meetings

For the first time, virtual meetings of the Executive Technical Groups to Update the Projects in the COSIPLAN Portfolio were held. A meeting was held for each Integration and Development Hub[3] using an online video-conferencing tool. The advantages of this new form of work are the following:

- Considerable savings in financial and human resources relating the logistical arrangements vis-à-vis face-to-face meetings
- Participation of multidisciplinary technical teams
- Maximization of the use of time to update the information by Hub, as the meetings are held in different weeks

GTE MEETINGS TO UPDATE THE COSIPLAN PROJECT PORTFOLIO AND API IN 2015

Date	Hub	Countries
may-26	Andean Hub	BO - CO - EC - PE - VE
may-28	MERCOSUR-Chile Hub	AR - BR - CH - PY - UY
jun-02	Central Interoceanic and Peru-Brazil-Bolivia Hubs	BO - BR - CH - PE - PY
jun-16	Capricorn and Southern Hubs	AR - BO - BR - CH - PY
jun-18	Amazon Hub	BR - CO - EC - PE
jun-24	Paraguay-Paraná Waterway Hub	AR - BO - BR - PY - UY

The main objectives of the meetings were: i) review the projects reported to be at the profiling stage since 2011; ii) review the projects not updated after 2013; iii) review the projects, the files of which are empty or incomplete; and iv) analyze the projects proposed to be added and removed, as well as those requiring specific revision.

1.2.2. COSIPLAN Project Information System Update

In preparation for the above-mentioned meetings and as a result of the discussions held at them, the Country worked on the update of the portfolio projects in the COSIPLAN Project Information System.

As of the date of this report, 71.5% (424 of 593) of the projects are updated as of 2015.[4]

In addition, progress was made in the entry of information on each project life cycle in the Continuous Monitoring System (CMS), as well as on the completed projects, as agreed by the Country in 2014.[5]

3 The only meeting that did not take place was that concerned with the Guianese Shield Hub. The Country were requested to update the information on their projects directly in the COSIPLAN Project Information System (PIS).
4 The cutoff date for completing the information was August 18, 2015.
5 As part of the Work Plan 2014, the Country carried out specific actions intended to enhance the quality and standardization of the Portfolio and API project data, and to better communicate their progress and outcomes. This resulted in the following: (i) the organization of the fields in the project files; (ii) specific descriptors by sector, subsector and type of works; (iii) results indicators for the projects already completed; (iv) the application of the Project Monitoring System (PMS) to the Project Portfolio; and (v) API progress indicators. For more information about the CMS and the PIS, see Annex II of the Report on the COSIPLAN Project Portfolio 2014.

1.2.3. Changes in the Project Portfolio between 2014 and 2015

23 projects were excluded, and 37 included. The total estimated amount grew from US$163,325 million to US$182,436 million.

The increase in the number of projects is mainly linked to the inclusion of projects in Groups 1 and 2 of the Southern Hub, which broadened its area of influence.

Furthermore, the 12% increase in the Portfolio estimated investment is almost fully explained by the inclusion of one project in the Andean Hub: Ecuador's Electric Freight Train, currently at the profiling stage and amounting to an investment estimated at US$17.8 billion.

CHANGES IN THE PROJECT PORTFOLIO IN 2014-2015 BY HUB

* US$ million

	Number of Projects			Estimated Investment*		
Hub	2014	2015	Change	2014	2015	Change
Amazon Hub	82	74	-8	25,070.2	22,420.8	-2,649.4
Andean Hub	64	67	3	9,962.1	28,614.0	18,651.9
Capricorn Hub	83	82	-1	17,929.5	16,314.7	-1,614.8
Guianese Shield Hub	20	20	0	4,581.3	4,581.3	0.0
Paraguay-Paraná Waterway Hub	95	92	-3	7,574.4	7,328.2	-246.2
Central Interoceanic Hub	61	63	2	8,907.6	11,614.8	2,707.2
MERCOSUR-Chile Hub	123	124	1	54,608.3	56,168.9	1,560.6
Peru-Brazil-Bolivia Hub	25	24	-1	32,131.9	31,431.9	-700.0
Southern Hub	28	49	21	2,744.6	4,146.6	1,402.0
TOTAL (1)(2)	**579**	**593**	**14**	**163,324.5**	**182,435.7**	**19,111.2**

1) Investments made in two existing projects before IIRSA was launched are not included. These projects are Road Corridor Connecting Santa Marta - Paraguachón - Maracaibo - Barquisimeto - Acarigua, in the Andean Hub, and Itaipu System, in the MERCOSUR-Chile Hub.
2) Since, there are two so-called hinge projects falling within two Hubs, the totals in the No. of Projects and Estimated Investment columns do not match the arithmetic sum of the totals by Hub. These projects are: (i) Pircas Negras Border Crossing, belonging to the Capricorn and MERCOSUR - Chile Hubs, and (ii) Paving of the Potosí - Tupiza - Villazón Road, belonging to the Capricorn and Central Interoceanic Hubs. (A hinge project articulates two or more Integration and Development Hubs, plays a role in more than one Hub, or falls within two or more project groups in one Hub.)

Concerning changes in project life cycle stages, the following can be stated:

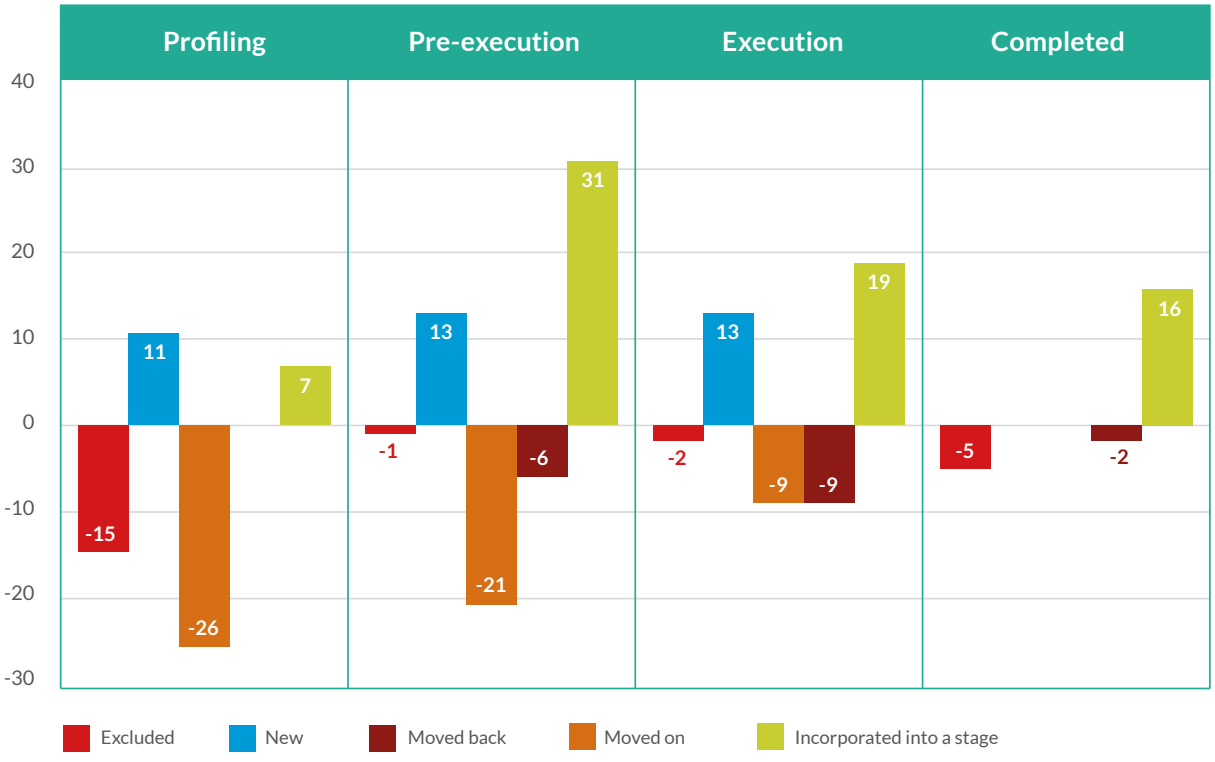
- Twenty-six projects that were at the profiling stage moved on as follows: 23 to the pre-execution stage and three to the execution stage.
- Twenty-seven projects that were at the pre-execution stage changed as follows: 21 moved on to another stage, whereas six projects underwent a change in their scope and are currently at the profiling stage.
- Eighteen projects that were at the execution stage changed as follows: nine were completed and other nine projects underwent a change in their scope and are now at the pre-execution stage.
- Five projects recorded as completed were removed from the Portfolio, while two changed their scope and are now at the execution stage.

CHANGES IN THE PROJECT PORTFOLIO BY STAGE (2014-2015)

	Profiling	Pre-Execution	Execution	Completed	Total
Projects in 2014	**137**	**157**	**179**	**106**	**579**
Excluded	-15	-1	-2	-5	-23
Included	11	13	13		37
Moved on to another stage	-26	-21	-9		-68
Moved back to another stage		-6	-9	-2	
Incorporated into a stage	7	31	19	16	68
Projects in 2015	**114**	**173**	**191**	**115**	**593**

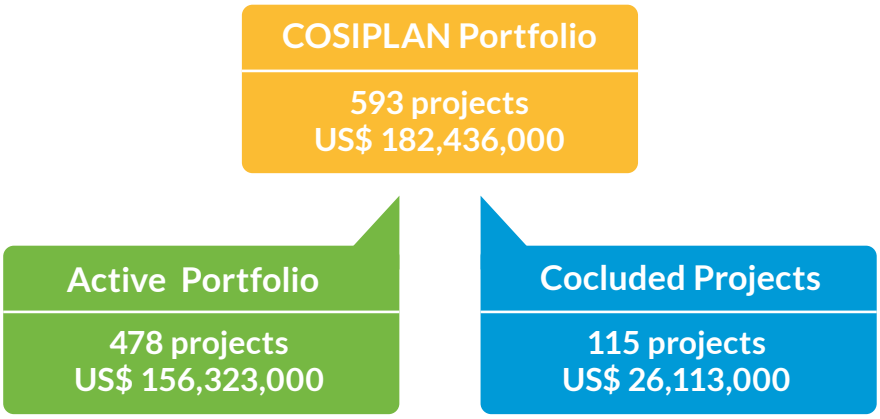
The number of projects included, excluded, incorporated into a stage, and of those that moved on is shown below. It should be noted that most of the projects incorporated into a stage belong now to the pre-execution stage and that the stage from which more projects were removed last year was the profiling stage, with 41 projects excluded. Furthermore, it should be stated that five previously completed projects were removed from the Portfolio, as the country involved (Brazil) deemed it unnecessary to keep them among the other projects.

CHANGES IN THE PROJECT PORTFOLIO (2014-2015)



Chapter 2
The Project Portfolio in 2015

This chapter presents the COSIPLAN Project Portfolio organized into three sections: i) the total Portfolio, including its 593 projects; ii) the active portfolio, i.e. the projects that are at the profiling, pre-execution and execution stages; and iii) the completed projects.



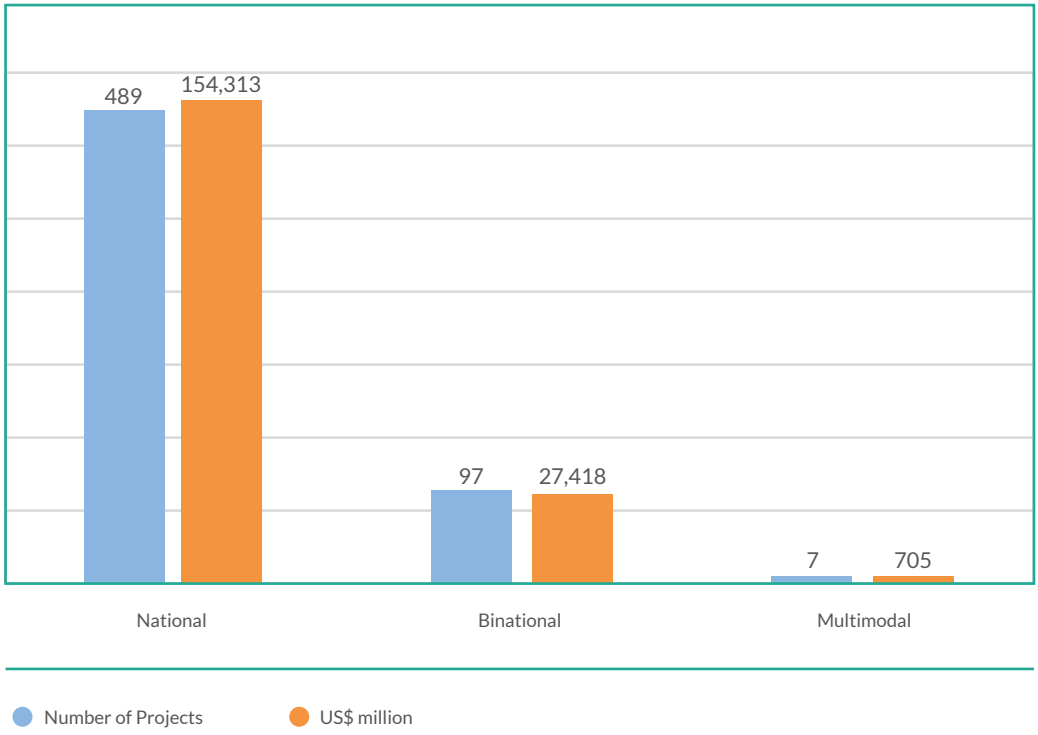
2.1 The COSIPLAN Project Portfolio

2.1.1. Territorial Scope of the Projects

Of all the Portfolio projects, 83% are national, while only 17% and 1% are binational and multinational, respectively. Similar percentages hold for their estimated investments (84.6%, 15%, and 0.4%, respectively).

Many national projects are essential to solve cross-national connectivities; in many cases, several national projects together provide a solution to the same, e.g. cross-border, connectivity.

TERRITORIAL SCOPE OF THE PROJECTS



Multinational projects involve, firstly, Venezuela (participating in four projects); secondly, Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, and Suriname (each one participating in three projects); and finally Paraguay, involved in only one multinational project.

As for national and binational projects, Argentina and Brazil include more projects than all the other Country. If only national projects are considered, Chile ranks third. Peru and Paraguay also stand out for the number of national and binational projects in which they are involved.

TERRITORIAL SCOPE OF THE PROJECTS BY COUNTRY

	National	Binational	Multinational
ARGENTINA	150	35	
BOLIVIA	31	19	3
BRAZIL	71	25	3
CHILE	57	17	
COLOMBIA	18	15	3
ECUADOR	20	19	3
GUYANA	3	2	3
PARAGUAY	43	22	1
PERU	51	21	3
SURINAME	3	1	3
URUGUAY	33	9	
VENEZUELA	9	9	4

2.1.2. Anchor Projects

Anchor Projects give meaning to the grouping process and make synergies viable. They are identified as the bottleneck or missing link in the infrastructure network hindering the optimum use of the combined effects of the group for the sake of economic and social development. They are not necessarily the largest-sized projects or those involving the greatest estimated investment.

There are 52 anchor projects, amounting to an investment estimated at US$19,781 million, which means 11% of the financial investment in the whole Portfolio.

All the project groups include an anchor project. However, in some groups, the Country identified two anchor projects to effectively coordinate the other projects involved.

ANCHOR PROJECTS STAGES

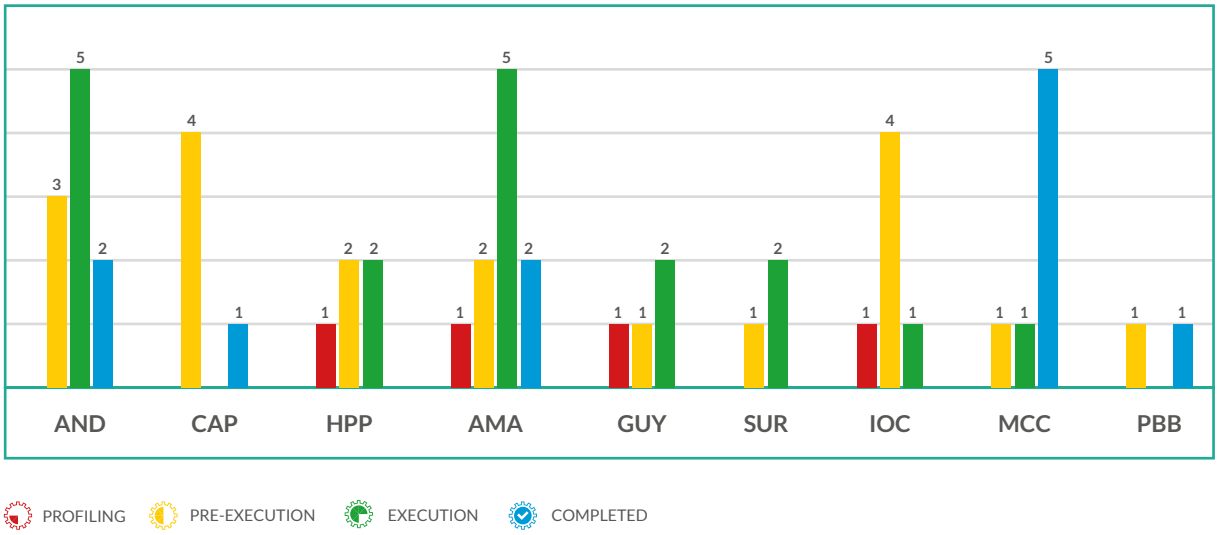
* US$ million

	No. of Projects	% of Projects	Estimated Investment*	% of Investment
PROFILING	4	7.7	300.8	1.5
PRE-EXECUTION	19	36.5	8,215.4	41.5
EXECUTION	18	34.6	7,822.6	39.5
COMPLETED	11	21.2	3,441.8	17.4
TOTAL	**52**	**100**	**19,780.5**	**100**

Most of the anchor projects (29) are at the execution stage or have already been completed, accounting for 57% of the investment estimated for this set. Completed anchor projects are located mainly in the MERCOSUR-Chile Hub, although they are also found in the Andean, Capricorn, Amazon, and Peru-Brazil-Bolivia Hubs. The greatest number of anchor projects at the execution stage belongs to the Andean and Amazon Hubs.

ANCHOR PROJECTS STAGES BY HUB

No. of Projects



Nearly all the projects (50) fall in the transport sector, there being only one energy and one communications projects.

With regard to the transport projects, most of them fall in the road subsector (26), followed by the river and border crossings subsectors (eight projects each), the rail subsector (six) and multimodal projects (2).

ANCHOR PROJECTS – SUBSECTORS

* US$ million

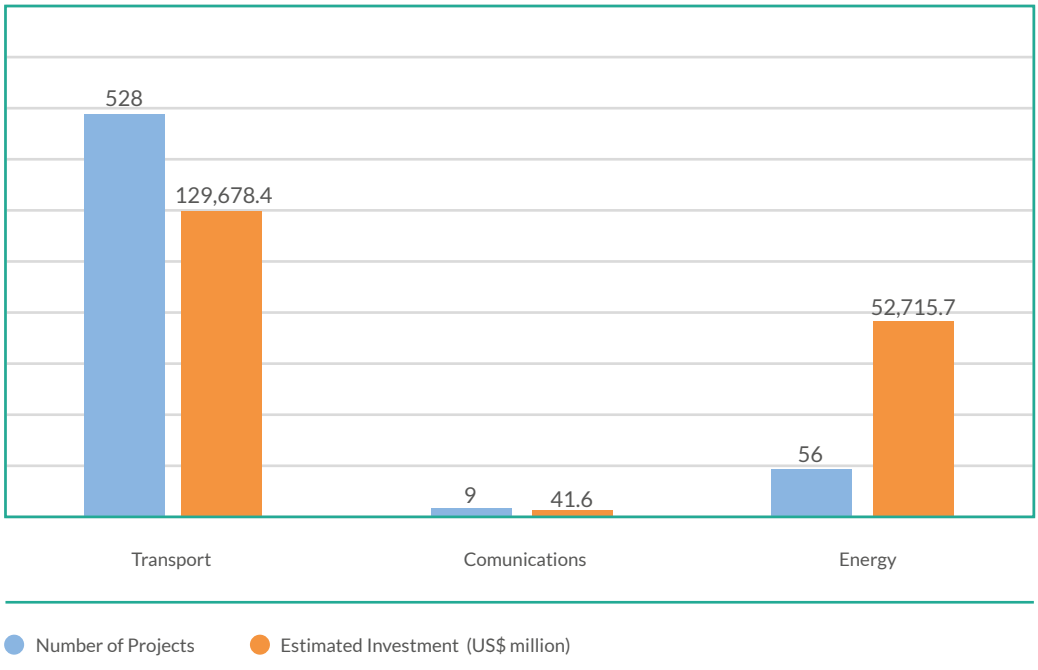
	No. of Projects	% of Projects	Estimated Investment*	% of Investment
Road	26	50.0	7,549.4	38.2
Rail	6	11.5	11,650.0	58.9
River	8	15.4	336.5	1.7
Multimodal	2	3.9	25.0	0.1
Border Crossings	8	15.4	219.5	1.1
Energy Generation	1	1.9	0.0	0.0
Communications Interconnection	1	1.9	0.1	0.0
TOTAL	**52**	**100**	**19,780.5**	**100**

Although most anchor projects fall in in the road subsector, those in the rail subsector are the ones that require the greatest financial effort, as with only 12% of the projects, it involves almost 60% of the total estimated investment.

2.1.3. Sectors and Subsectors

The COSIPLAN Project Portfolio is mostly made up of transport projects, accounting for 89% of the Portfolio. However, transport works alone account for 71% of the estimated investment, as energy projects account for 29% given their scope and nature.

PROJECT SECTORS



PROJECT SUBSECTORS

* US$ million

	No. of Projects	% of Projects	Estimated Investment*	% Investment
Air	25	4.2	6,929.5	3.8
Road	262	44.2	59,473.1	32.6
Rail	67	11.3	47,903.4	26.3
River	75	12.7	2,887.0	1.6
Sea	38	6.4	10,944.5	6.0
Multimodal	14	2.4	623.7	0.3
Border Crossings	47	7.9	917.3	0.5
Energy Generation	25	4.2	42,065.5	23.1
Energy Interconnection	31	5.2	10,650.2	5.8
Communications Interconnection	9	1.5	41.6	0.0
TOTAL	**593**	**100**	**182,435.7**	**100**

Air subsector: More than half of the air projects belong to the MERCOSUR-Chile and Central Interoceanic Hubs (32% and 24%, respectively), and in terms of their estimated investment, the former accounts for 94% of the total amount of the subsector. Six projects have already been completed and another 11 are at an advanced stage, which means that almost 70% of the subsector projects are advancing satisfactorily. The Enlargement of Campinas Airport project stands out, as it is the sixth project with the highest investment of the Portfolio.

Road subsector: This is the subsector involving the largest number of Portfolio projects, almost half of the total, and accounting for one third of the estimated investment amount.

Road projects are mainly located in the MERCOSUR-Chile and Capricorn Hubs. Half of the projects and of their investment involve the improvement, expansion or maintenance of existing roads, whereas 34% of the projects involve the construction of new roads (accounting for 20% of the total investment in the subsector). Twenty-eight bridges, 16 beltways and two tunnels complete the picture. Forty-three percent of the projects are at the execution stage and 20% have already been completed. Only 10% of the projects are at the profiling stage, which means that all these projects have made substantial progress.

Rail subsector: The rail projects, unlike the road-related ones, are mostly at an early stage of development (39% are at the profiling or pre-execution stage). The other projects are equally distributed between the execution and completed stages. Almost half of the projects entail the rehabilitation of existing rail tracks, 43% are new railroad works, and the remaining 9% are ring railway works. However, due to the striking difference in the magnitude of the works involved, new rail construction projects represent more than 70% of the investment. The greatest amount of estimated investment is allocated to the Andean Hub (38%), which, however, accounts for only 3% of the subsector in terms of the number of projects involved. Instead, this subsector is much more relevant in the Capricorn Hub (27%) and in the Paraguay-Paraná Waterway Hub (21%).

River subsector: Most river projects fall within the Paraguay-Paraná Waterway Hub (56% of the projects involving 75% of the investment) and in the Amazon Hub (25% of the projects involving 13% of the investment), on account of the nature of their territories. There are very few completed projects, as most of them are at the pre-execution stage (37%). They involve the construction of 10 ports, upgrade works in 32 existing ports, and the improvement of the navigation conditions on 33 river sections.

Sea subsector: Of the 38 projects included, only seven involve new works, whereas the others consist in the enlargement of existing sea port land infrastructure. Most projects are located in the Amazon and MERCOSUR-Chile Hubs, each of them including nine projects. Forty percent of the ports are at the execution stage and, so far, only 16% have been completed.

Multimodal subsector: There are no multimodal projects completed; in fact, most of them are still at an early stage of development (profiling and pre-execution). Most multimodal centers are located in the Amazon Hub, while the largest share of the estimated investment is allocated only to a small number of projects in the Paraguay-Paraná Waterway and Central Interoceanic Hubs.

Border crossings subsector: There are 34 projects involving new border control centers, whereas 13 projects consist in the upgrade or enlargement of existing centers. Most of the projects belong to the Andean Hub, due to the nature of its territory. However, the investment is higher in the MERCOSUR-Chile Hub projects. Thirty-four percent of the border crossings are at the pre-execution stage, and 23% of the works are completed.

Energy generation subsector: Of the 25 projects in this subsector, 21 are evenly distributed among the pre-execution, execution and completed stages. However, more than half of the estimated investment is allocated to projects at the execution stage (54%). Nearly half of the plants to be built are hydroelectric power plants, which helps modify the energy matrix of the region. More than half of the projects belong to the MERCOSUR-Chile Hub, although more than half of the resources are allocated to the only three projects that are located in the Peru-Brazil-Bolivia Hub.

Energy interconnection subsector: Most energy interconnection projects are located in the Andean Hub (32%), and almost all of them involve new connections, half of which (51%) have already been completed (investing 77% of the total investment amount).

Communications interconnection subsector: This subsector includes only nine projects, six of which concern two or more Country. Normally, these projects do not require a huge financial effort, which is currently allocated to the three projects at the execution stage. Most projects fall within the Paraguay-Paraná Waterway Hub (three).

2.1.4. Project Financing

The main type of financing of the Portfolio projects is public (63% of the investment), while the rest of the financing is divided between the private sector (19% of the total amount) and public-private initiatives (the remaining 18%). When analyzed from the point of view of the number of projects, the participation of the public sector becomes even more evident: 81% are financed with public funds, 12% with private funds, and only 7% through public-private partnerships.

As far as the sources of financing are concerned, it is important to underscore the role of national governments in the execution of the Portfolio projects. Almost 40% of the total projects are financed by the Country themselves, which proves their commitment to making headway with the physical integration of the region.

The private sector ranks second, as it finances 24% of the Portfolio projects, whereas the remaining 26% have no specified source of financing yet.

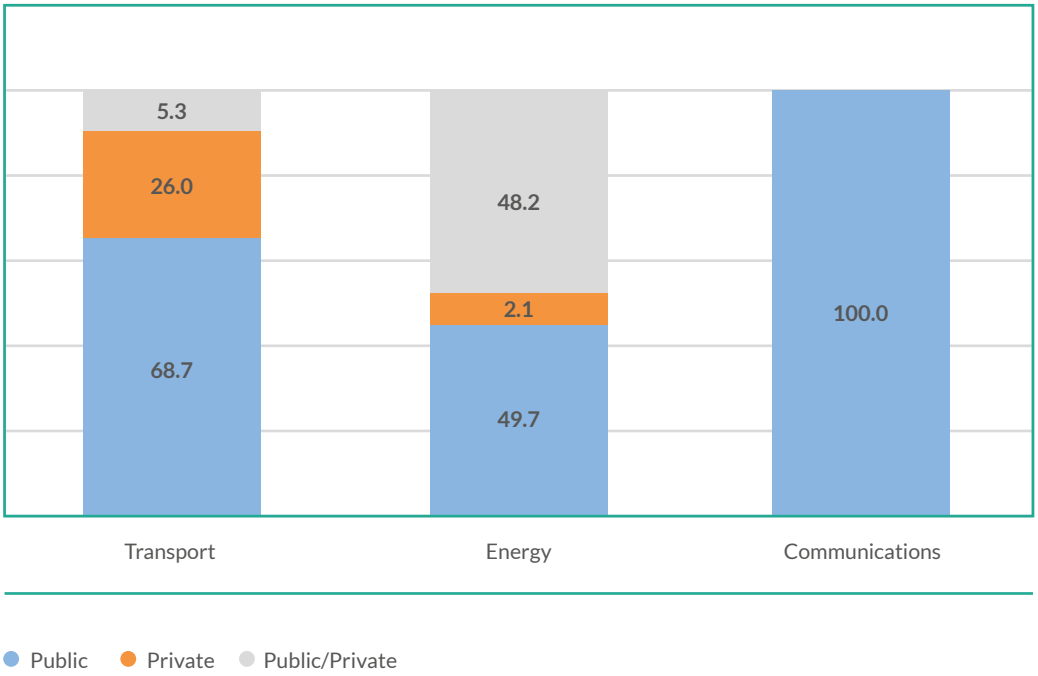
SOURCE OF FINANCING

* US$ million

	No. of Projects	Estimated Investment*	Amount Invested in Completed Projects
National Government	330	69,735.6	13,747.6
Private Sector	85	42,900.1	4,650.3
IDB	37	4,629.2	1,150.9
CAF	30	2,856.0	795.1
Miscellaneous	13	3,279.9	1,342.0
Binational	11	5,847.8	1,408.8
Provincial Government	11	2,071.0	200.0
FOCEM	10	819.0	404.3
FONPLATA	6	298.9	0.0
European Union	4	179.5	75.3
Private Banks	3	118.0	0.0
Chinese Government	3	400.0	0.0
World Bank	3	172.5	68.5
BNDES	2	157.1	0.0
JBIC	2	185.9	0.0
Local Government	1	2,100.0	2,100.0
To be defined	80	46,685.2	170.0
Total		**182,435.7**	**26,112.8**

Most transportation projects are financed by the public sector, while the public sector and public-private initiatives have a similar share in the financing of works related to energy integration. Instead, the communications sector is entirely financed by the public sector.

TYPE OF FINANCING BY SECTOR



The private sector is more consistently involved in the transport sector —particularly in the MERCOSUR-Chile Hub (accounting for almost 40% of the private resources committed)— and in the rail subsector (more than 40%).

As for the number of projects, the Hub including the greatest number of privately financed projects is the Amazon Hub. However, private projects in this Hub do not involve huge amounts, as most of them are river projects.

Furthermore, most public-private initiatives fall in the MERCOSUR-Chile and Amazon Hubs. However, if investment amounts allocated are analyzed, the highest percentage goes to the Peru-Brazil-Bolivia Hub, which receives 68% of public-private financing in only two projects. This is justified as these two projects are the ones with the highest investment amounts estimated for the COSIPLAN Portfolio. One is the Madeira River Hydroelectric Power Complex (Santo Antonio and Jirau Hydroelectric Power Stations), and the other, a project already completed, the Transmission Line between the two Madeira River Hydroelectric Power Stations and the Central System, in which US$3,823 million were spent.

TYPE OF FINANCING BY HUB

	AMA	AND	CAP	DES	GUY	HPP	IOC	MCC	PBB
PRIVATE	28%	6%	10%	2%	0%	2%	22%	12%	21%
PUBLIC	59%	82%	87%	96%	90%	98%	70%	79%	71%
PUBLIC-PRIVATE	12%	12%	4%	2%	10%	0%	8%	9%	8%
No. of Projects	74	67	82	49	20	92	63	124	24

Note: Reddish shades: from 0% to 6% of the investment. Yellowish shades: from 7% to 30% of the investment. Greenish shades: from 31% to 100%.

2.1.5. Project Stages by Sector

Almost a third of the total projects are at the execution stage, of which more than 90% involve transportation works. The estimated investment in the works in execution accounts for almost 40% of the total Portfolio.

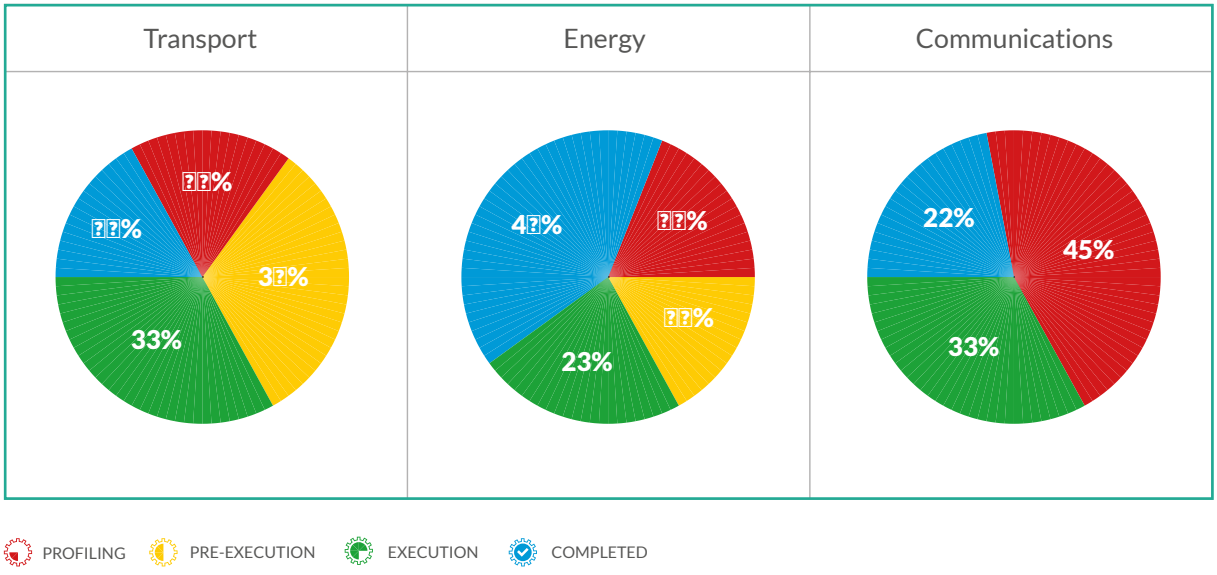
The completed projects represent almost 20% of the total, and the same holds true for projects at the profiling stage. Among the completed projects, 78% fall in the transport sector, 20% in the energy sector, and only 2% in the communications sector.

A third of the transport projects are at the execution stage and, if the completed projects of the sector are also considered, the number rises to half of the projects. Almost the same ratio is observed among the communications projects, as the ones at the execution stage and the ones already completed account for 55% of the total. However, all the other projects (45%) are at the profiling stage.

The energy sector features a high percentage of completed projects (more than 40%), and if the projects at the execution stage are taken into account, the percentage rises to almost 75% of the total.

PROJECT STAGES BY SECTOR

	Projects					Estimated Investment	
	Transport	Energy	Communica-tions	Total	%	US$ Million	%
Profiling	100	10	4	114	19.2	30,973.6	17.0
Pre-execution	163	10	0	173	29.2	53,666.0	29.4
Execution	175	13	3	191	32.2	71,683.4	39.3
Completed	90	23	2	115	19.4	26,112.8	14.3
TOTAL	528	56	9	593	100.0	182,435.7	100.0



2.2 The Active Portfolio

The projects in the active portfolio, i.e. the projects underway (at the profiling, pre-execution or execution stage), are 478 and account for an investment estimated at US$156,323 million.

2.2.1. The 10 Projects with the Highest Estimated Investment

The 10 projects with the greatest estimated investment represent 42.5% of the total estimated investment for the active projects of the COSIPLAN Portfolio.

THE FIRST 10 PROJECTS RANKED IN ORDER OF ESTIMATED INVESTMENT

Code	Name	Group	Stage	Estimated Investment*	Countries
PBB16	MADEIRA RIVER HYDROELECTRIC POWER COMPLEX (SANTO ANTONIO AND JIRAU HYDROELECTRIC POWER STATIONS)	G03		18,209	BR
AND95	ECUADOR'S ELECTRIC FREIGHT TRAIN	G05		17,800	EC
MCC33	RAILWAY PROJECT BETWEEN LOS ANDES, CHILE AND MENDOZA, ARGENTINA (CENTRAL TRANS-ANDEAN RAILWAY)	G03		5,100	AR - CH
PBB17	BINATIONAL HYDROELECTRIC POWER STATION (BOLIVIA - BRAZIL)	G03		5,000	BO - BR
MCC62	CONSTRUCTION OF THE CORPUS CHRISTI HYDROELECTRIC POWER STATION	G05		4,200	AR - PY
IOC17	IMPROVEMENT OF THE CORUMBÁ SANTOS (SP) RAILWAY SECTION	G02		3,700	BR
MCC06	ENLARGEMENT OF CAMPINAS AIRPORT	G01		3,550	BR
GUY40	INTEGRATED MASTERPLAN OF COASTAL PROTECTION ALBINA-NICKERIE	G04		3,020	SU
AMA73	NEW CROSS-NORTHEASTERN RAILWAY PHASE I (SUAPE - SALGUEIRO / PECÉM - ELISEU MARTINS)	G05		3,000	BR
MCC132	CONSTRUCTION OF THE SAN PABLO RING ROAD (NORTHERN SECTION)	G01		2,810	BR
TOTAL				**66,389**	

Of the ten projects listed, it is important to point out that the first six involve hydroelectric or railroad works. Seven of the ten projects belong to one of these two subsectors, showing that the works in these subsectors demand the greatest financial effort.

The other three projects involve the enlargement of an airport, an integrated coast protection plan, and the construction of a road ring. The first three projects in terms of investment are described below:

Madeira River Hydroelectric Power Complex (Santo Antonio and Jirau Hydroelectric Power Stations) is the project with the highest estimated investment of all the 593 projects in the COSIPLAN Portfolio, with US$18,209 million. This new complex in Brazil involves the construction of two hydroelectric power stations fed by the water resources of the Madeira river with a view to diversifying the energy matrix of the territory. It is being financed by the BNDES (Brazilian Development Bank) and by a consortium of private banks. Being at an advanced execution stage, it is scheduled to be completed in October 2016.

Project Ecuador's Electric Freight Train was added to the Portfolio in the last update process of the Andean Hub projects. It is at the profiling stage and consists in the construction of an electric rail network for freight transport in order to integrate current and future Ecuadorian production centers with the ports on the Pacific Ocean and with Ecuador's connections with Peru and Colombia.

The Railway Project between Los Andes (Chile) and Mendoza (Argentina) (Central Trans-Andean Railway) is privately financed and is currently at the pre-execution stage. It consists in the construction of a railway across the Andean range joining Luján de Cuyo, in Mendoza, Argentina, and Los Andes, in the V Chilean Region.

2.2.2. Projects at the Profiling Stage

There are 114 projects at the profiling stage, with an investment estimated at US$30,974 million. Three quarters of these projects have been at the profiling stage for more than three years (since some time before 2012). Most projects at the profiling stage are rail, road and river projects (23%, 22% and 20%, respectively).

PROJECTS AT THE PROFILING STAGE – YEAR OF INCLUSION IN THE PORTFOLIO

At the profiling stage since...	No. of Projects
2004	32
2007	25
2008	11
2009	3
2010	5
2011	9
2012	1
2013	4
2014	6
2015	18
Total	**114**

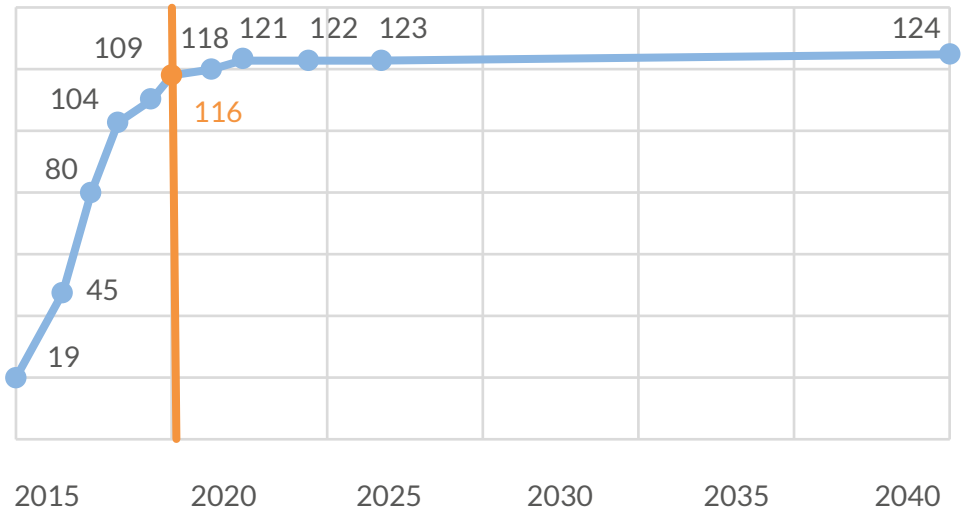
2.2.3. Estimated Completion Date

The estimated date of completion is known in the case of 26% of the active projects (478) within the Portfolio.

Of these 124 projects, 84% are scheduled to be completed in the next three years (before the end of 2018), which involves the expenditure of US$28,908 million, according to the estimated investment in these projects.

These figures can be represented in a diagram, as shown below. The curve shows an accelerated growth for the 2015-2020 period, since approximately 100 projects are expected to be completed in a five-year term. The other projects with available estimated completion dates are expected to be completed between 2020 and 2040.

PROJECT COMPLETION BY YEAR



2.3 Completed Projects

There are 115 completed projects in the portfolio for a total investment of US$26,113 million. This means that almost 20% of the physical integration projects prioritized by the Country have already been completed.

2.3.1. Completed Projects by Hub and by Country

All the Hubs, as well as 40 of the 48 project groups, include projects that have already been completed. The Hub with the greatest number of completed projects —23 (20%)— is MERCOSUR-Chile. In terms of investment, this Hub has an even bigger share, accounting for 32% of the total investment in the completed projects.

The opposite situation can be observed in the Central Interoceanic Hub: although completed projects amount to 12%, they only represent 1% of the investment.

COMPLETED PROJECTS BY HUB [1]

* US$ million

	No. of Groups	No. of Projects	% Projects (vis-à-vis the total completed projects)	Investment Amount*	% of Investment (vis-à-vis total completed projects)
ANDEAN	6	18	15.7	829.6	3.2
CAPRICORN	4	14	12.2	2,139.0	8.2
PARAGUAY-PARANÁ WATERWAY	5	13	11.3	1,631.3	6.2
AMAZON	7	17	14.8	6,428.8	24.6
GUIANESE SHIELD	3	6	5.2	86.5	0.3
SOUTHERN	2	5	4.3	443.1	1.7
CENTRAL INTEROCEANIC	5	14	12.2	223.1	0.9
MERCOSUR-CHILE	6	23	20.0	8,351.3	32.0
PERU-BRAZIL-BOLIVIA	2	5	4.3	5,980.0	22.9
TOTAL	**40**	**115**	**100**	**26,112.8**	**100**

COMPLETED PROJECTS BY COUNTRY

* US$ million

	No. of Total Projects	No. of Completed Projects	Investment Amount*
ARGENTINA	185	21	6,195.0
BOLIVIA	53	4	17.0
BRAZIL	99	28	13,296.6
CHILE	74	20	960.7
COLOMBIA	36	10	556.2
ECUADOR	42	15	788.5
GUYANA	8	2	10.0
PARAGUAY	66	11	1,994.8
PERU	75	15	3,214.2
URUGUAY	7	7	481.2
VENEZUELA	42	2	125.2

1 Investments in the project identified as MCC61 – Itaipu System (existing), in the MERCOSUR-Chile Hub, made before IIRSA was launched, are not considered.

2.3.2. Characteristics of the Completed Projects

Almost half of the completed projects (45%) fall in the road subsector, and as for the investment amount, they account for 40% of this set of projects. The energy interconnection projects already completed represent almost 14% of the total completed projects, although they demanded more than 30% of the total investment amount.

COMPLETED PROJECTS SUBSECTORS

* US$ million

	No. of Projects	% of Projects	Investment Amount*	% of Investment
Air	6	5.2	168.3	0.6
Road	52	45.2	10,490.6	40.2
Rail	8	7.0	3,238.0	12.4
River	7	6.1	55.0	0.3
Sea	6	5.2	585.0	2.2
Border Crossings	11	9.6	75.5	0.3
Energy Generation	7	6.1	3,324.0	12.7
Energy Interconnection	16	13.9	8,176.4	31.3
Communications Interconnection	2	1.7	0.0	0.0
TOTAL	**115**	**100**	**26,112.8**	**100**

Of the total completed works, 82% were financed with public funds. In terms of their investment amount, the public sector contributed 65%. The private sector financed 11% of the projects, accounting for 11% of the invested amount. Public-private partnerships financed 7% of the projects, but their contribution accounted for 23% of the total amount invested.

TYPE OF FINANCING OF THE COMPLETED PROJECTS

* US$ million

	No. of Projects	% of Projects	Investment Amount*	% of Investment
Private	13	11.3	3,026.0	11.6
Public	94	81.7	17,019.0	65.2
Public-private	8	7.0	6,067.8	23.2
	115	**100**	**26,112.8**	**100**

Most completed projects are national in scope (83%), while the other ones are binational. This ratio rises in relation to the investment amount, with the national share accounting for 94%.

TERRITORIAL SCOPE OF THE COMPLETED PROJECTS

* US$ million

	No. of Projects	% of Projects	Investment Amount*	% of Investment
NATIONAL	95	82.6	24,586.1	94.2
BINATIONAL	20	17.4	1,526.6	5.8
	115	**100**	**26.112,8**	**100**

Several national projects must be seen in terms of their contribution to cross-national connectivity. Some examples are described below.

Ecuador – Peru Connectivity

This connectivity involves projects in the Amazon and Andean Hubs and includes a total of seven synergistic completed projects and two additional projects that are already at an advanced degree of development. In this connectivity, the roads already completed help consolidate the road corridor along the coast or facilitate access to border centers. It should also be noted that anchor project Binational Border Service Center (CEBAF) Road Axis No. 1 is already operating.

ECUADOR-PERU CONNECTIVITY – COMPLETED PROJECTS

* US$ million

Code	Name	Investment Amount*	Countries	API	PG	Subsector
AMA46	IMPROVEMENT OF THE GUAYAQUIL - EL TRIUNFO - LA TRONCAL - ZHUD - EL TAMBO - CAÑAR - AZOGUES - PAUTE - AMALUZA - MÉNDEZ ROAD, AND ENLARGEMENT AND IMPROVEMENT OF THE MÉNDEZ - PUERTO MORONA ROAD SECTION	140.0	EC		7	ROAD
AMA47	IMPROVEMENT OF THE PUERTO BOLÍVAR - SANTA ROSA - BALSAS - CHAGUARPAMBA - LOJA - ZAMORA - YANTZAZA - EL PANGUI - GUALAQUIZA - GRAL. LEÓNIDAS PLAZA - MÉNDEZ ROAD SECTION	167.7	EC		7	ROAD
AMA48	IMPROVEMENT OF THE PUERTO BOLÍVAR - PASAJE - SANTA ISABEL - GIRÓN - CUENCA - PAUTE - AMALUZA - MÉNDEZ - PUERTO MORONA ROAD SECTION	26.8	EC		7	ROAD
AND21	BINATIONAL BORDER SERVICE CENTER (CEBAF) ROAD AXIS No.1	15.9	EC - PE		5	BORDER CROSSINGS
AND26	PUERTO INCA - HUAQUILLAS ROAD AND HUAQUILLAS - AGUAS VERDES INTERNATIONAL BRIDGE, HUAQUILLAS BYPASS	85.8	EC - PE		5	ROAD
AND88	SULLANA - EL ALAMOR ROAD	29.5	PE		5	ROAD
AND89	SULLANA - MACARA – LOJA ROAD	48.4	PE		5	ROAD
	TOTAL INVESTMENT	1,352.8				

ECUADOR-PERU CONNECTIVITY – PROJECTS UNDERWAY

* US$ million

Code	Name	Investment Amount*	Countries	API	PG	Subsector
AND93	BINATIONAL BORDER SERVICE CENTER (CEBAF) - ROAD AXIS No. 3 SULLANA - MACARÁ - LOJA	12.0	EC - PE		5	BORDER CROSSINGS
AND100	REHABILITATION AND CONSTRUCTION OF BRIDGES ALONG THE SULLANA – TUMBES – TURN-OFF TO THE INTERNATIONAL BYPASS ROAD	47.2	PE	8	5	ROAD

Argentina – Chile (Paraguay and Bolivia) Connectivity

This connectivity comprises ten completed projects in Project Group 1 of the Capricorn Hub that concern Argentina and Chile, but also influence the integration of Bolivia and Paraguay. These projects have a strategic impact on the development of socioeconomically backward areas, and their implementation will contribute to fulfilling the strategic function of the group.

As far as completed projects are concerned, it should be highlighted that anchor project Jama Border Crossing and project Implementation of Integrated (One-Stop) Border Control at Jama Border Crossing are both finished. This border crossing and National Route No. 81 in Argentina are deemed important for trade by land between Paraguay and Chile. Important ports on the Pacific Ocean complete this picture of a multimodal network.

ARGENTINA-CHILE CONNECTIVITY - COMPLETED PROJECTS

* US$ million

Code	Name	Investment Amount*	Countries	API	PG	Subsector
CAP01	ACCESS ROADS TO PASO DE JAMA BORDER CROSSING (NATIONAL ROUTE NO. 52 - INTERSECTION WITH NATIONAL ROUTE NO. 9 - BORDER WITH CHILE) CHILE)	54.0	AR		1	ROAD
CAP02	IMPLEMENTATION OF INTEGRATED (ONE-STOP) BORDER CONTROL AT JAMA BORDER CROSSING	4.0	AR - CH		1	BORDER CROSSINGS
CAP03	ELECTRICITY INTERCONNECTION BETWEEN THE ARGENTINE NORTHWESTERN AND NORTHEASTERN REGIONS	725.0	AR		1	ENERGY INTERCONNECTION
CAP06	PAVING OF NATIONAL ROUTE NO. 81 BETWEEN LAS LOMITAS AND THE INTERSECTION WITH NATIONAL ROUTE NO. 34	100.0	AR		1	ROAD
CAP08	ENLARGEMENT OF THE MEJILLONES PORT COMPLEX (PHASE I)	120.0	CH		1	SEA
CAP09	UPGRADE WORKS AT ANTOFAGASTA PORT	18.0	CH		1	SEA
CAP46	CONCESSION OF ANTOFAGASTA EXPRESSWAY	370.0	CH		1	ROAD
CAP80	MEJILLONES PORT COMPLEX	80.0	CH		1	SEA
CAP88	ANTOFAGASTA AIRPORT	28.0	CH		1	AIR
CAP91	BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA - SOCOMPA)	0.0	CH	11	1	RAIL
	TOTAL INVESTMENT	1,499.0				

ARGENTINA-CHILE CONNECTIVITY – PROJECTS UNDERWAY

* US$ million

Code	Name	Investment Amount*	Countries	API	PG	Subsector
CAP42	REHABILITATION OF NATIONAL ROUTE NO. 16 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE NO. 11 AND THE INTERSECTION WITH NATIONAL ROUTE NO. 34	350.0	AR		1	ROAD
CAP43	PAVING OF NATIONAL ROUTE NO. 86 BETWEEN GENERAL GÜEMES AND POZO HONDO	200.0	AR		1	ROAD
CAP44	PAVING OF NATIONAL ROUTE NO. 95 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE 81 AND VILLA ÁNGELA	90.0	AR		1	ROAD
CAP47	CONCESSION OF LOA ROUTE	389.0	CH		1	ROAD
CAP04	OPERATIONAL REHABILITATION OF THE BELGRANO FREIGHT RAILWAY	350.0	AR		1	RAIL

Argentina-Brazil-Uruguay Connectivity

This connectivity includes projects of both the MERCOSUR-Chile and the Paraguay-Paraná Waterway Hubs, with a total of seven completed projects, which could be divided into two associated connectivites, namely: Uruguay-Brazil and Uruguay-Argentina. Ten additional projects are at an advanced stage of development and, once completed, will contribute to attaining the strategic function objectives of the groups concerned.

Worthy of note is the fact that anchor project Upgrade Works of the Río Branco - Montevideo - Colonia - Nueva Palmira Road Corridor has been completed, and that this subset of projects includes all the transportation subsectors in order to optimize the multimodal network connecting this territory.

ARGENTINA-BRAZIL-URUGUAY CONNECTIVITY COMPLETED PROJECTS

* US$ million

Code	Name	Investment Amount*	Countries	API	PG	Subsector
MCC115	UPGRADE OF BRAZILIAN GAGE RAILWAY, RIVERA - SANTANA DO LIVRAMENTO - CACEQUI	5.0	BR - UY	28	2	RAIL
MCC139	OPTICAL FIBER CABLE BETWEEN BRAZIL AND URUGUAY	0.0	BR - UY		2	COMMU-NICATIONS INTER-CON-NECTION
MCC19	UPGRADE WORKS OF THE RÍO BRANCO - MONTEVIDEO - COLONIA - NUEVA PALMIRA ROAD CORRIDOR (ROUTES NO. 1, 11, 8, 17, 18 AND 26, ROUTES NO. 23 AND 12)	253.5	UY		2	ROAD
MCC26	PUNTAS DEL TIGRE COMBINED CYCLE THERMAL POWER PLANT	170.0	UY		2	ENERGY GENERA-TION
MCC86	EXPANSION OF COLONIA PORT (DOCKS, DREDGING AND INCORPORATION OF AREAS)	14.0	UY		2	SEA
HPP94	IMPROVEMENT OF NUEVA PALMIRA PORT ACCESSES AND INFRASTRUCTURE	10.0	UY		5	SEA
HPP95	REHABILITATION OF THE PAYSANDÚ PORT, ACCESSES AND STORAGE AREA	6.0	UY		5	SEA
	TOTAL INVESTMENT	**458.5**				

ARGENTINA-BRAZIL-URUGUAY CONNECTIVITY PROJECTS UNDERWAY

* US$ million

Code	Name	Investment Amount*	Countries	API	PG	Subsector
MCC157	DREDGING OF THE TACUARÍ RIVER	1.4	BR	27	2	RIVER
MCC27	REFITTING OF THE ROUTE: MONTEVIDEO - RIVERA	85.6	UY		2	ROAD
MCC20	ADAPTATION OF THE SECTION: RÍO GRANDE - PELOTAS (BR-392 / RS)	500.0	BR		2	ROAD
MCC21	ENLARGEMENT OF THE DOCKS IN RÍO GRANDE PORT	435.7	BR		2	SEA
MCC28	ROUTE N° 26: REFITTING OF THE SECTION: RÍO BRANCO - PAYSANDÚ	39.8	UY		2	ROAD
MCC29	REFITTING OF THE ROUTE: MONTEVIDEO - FRAY BENTOS, ROUTES No. 1, 3, 11, 23, 12 AND 2	38.0	UY		2	ROAD
MCC70	MODERNIZATION OF THE MONTEVIDEO PORT AND COMPLEMENTARY WORKS	189.0	UY		2	SEA
MCC87	ENLARGEMENT OF SAUCE PORT WITH NEW PLACES FOR BERTHING AND ENLARGEMENT OF ITS PORT FACILITY FOR THE DEVELOPMENT OF LOGISTIC ACTIVITIES	10.0	UY		2	SEA
MCC30	REFITTING OF THE RAILWAY BETWEEN MONTEVIDEO AND RIVERA	134.9	UY	28	2	RAIL
HPP96	NEW START-UP OF THE SALTO PORTS, ACCESSES AND STORAGE AREA	4.0	UY		5	SEA

Argentina-Brazil-Paraguay Connectivity

This connectivity comprises projects included in the Paraguay-Paraná Waterway and MERCOSUR-Chile Hubs, with a total of 10 completed projects and another nine at an advanced execution stage. It should be noted that this is one of the most important connectivities for trade by land in these Hubs and that anchor project Upgrade of National Route No. 14 to a Four-lane Road, between Paso de los Libres and Gualeguay-chú has already been completed.

ARGENTINA-BRAZIL-PARAGUAY CONNECTIVITY COMPLETED PROJECTS

* US$ million

Code	Name	Investment Amount*	Countries	API	PG	Subsector
HPP107	ENCARNACIÓN PORT	11.8	PY		4	RIVER
HPP73	ACCESS ROADS TO ENCARNACIÓN	26.0	PY		4	ROAD
HPP77	DIVERSION OF THE AGUAPEY STREAM	64.0	PY		4	RIVER
MCC01	UPGRADE OF NATIONAL ROUTE NO. 14 TO A FOUR-LANE ROAD, BETWEEN PASO DE LOS LIBRES AND GUALEGUAYCHÚ	780.0	AR		1	ROAD
MCC02	CONSTRUCTION OF FACILITIES FOR IMPLEMENTATION OF INTEGRATED CARGO CONTROL IN PASO DE LOS LIBRES	10.0	AR		1	BORDER CROSSINGS
MCC04	COMPLETION OF THE UPGRADE OF THE BELO HORIZONTE - SÃO PAULO ROAD SECTION (BR-381 / SP / MG) TO A FOUR-LANE ROA	1,300.0	BR		1	ROAD
MCC12	CONSTRUCTION OF THE SÃO PAULO RING ROAD (SOUTHERN SECTION)	2,700.0	BR		1	ROAD
MCC13	CONSTRUCTION AND PAVING OF ROUTE NO. BR-282 / SC BETWEEN FLORIANÓPOLIS AND THE BORDER WITH ARGENTINA	100.0	BR		1	ROAD
MCC14	CONSTRUCTION OF THE SANTA MARÍA - ROSARIO DO SUL ROAD SECTION (BR-158 / RS)	30.0	BR		1	ROAD
MCC84	ENCARNACIÓN AIRPORT	12.0	PY		1	AIR
	TOTAL INVESTMENT	5,033.8				

ARGENTINA-BRAZIL-PARAGUAY CONNECTIVITY PROJECTS UNDERWAY

* US$ million

Code	Name	Investment Amount*	Countries	API	PG	Subsector
MCC05	UPGRADE WORKS IN THE NAVEGANTES - RIO DO SUL ROAD SECTION (BR-470 / SC)	400.0	BR		1	ROAD
MCC06	ENLARGEMENT OF CAMPINAS AIRPORT	1,032.0	BR		1	AIR
MCC07	ENLARGEMENT OF GUARULHOS AIRPORT	970.0	BR		1	AIR
MCC08	ENLARGEMENT OF THE SÃO FRANCISCO DO SUL PORT INFRASTRUCTURE (CONSTRUCTION OF DOCK 401A, REHABILITATION OF DOCKS 101, 102, 103 AND 201, AND DREDGING OF THE PORT)	131.6	BR		1	SEA
MCC09	IMPROVEMENT OF THE ITAJAÍ (SC) PORT INFRASTRUCTURE (REHABILITATION OF NORTHERN DOCK AND DREDGING)	68.0	BR		1	SEA
MCC11	COMPLETION OF THE UPGRADE OF THE SÃO PAULO - CURITIBA ROAD SECTION TO A FOUR-LANE ROAD (BR-116 / SP)	350.0	BR		1	ROAD
MCC132	CONSTRUCTION OF THE SAN PABLO RING ROAD (NORTHERN SECTION)	2,810.0	BR		1	ROAD
MCC15	UPGRADE OF THE PALHOÇA - OSORIO ROAD SECTION TO A FOUR-LANE ROAD (BR-101 / SC / RS)	2,000.0	BR		1	ROAD
MCC18	REHABILITATION OF PORTO ALEGRE - URUGUAIANA ROAD SECTION (BR-290 / RS)	250.0	BR		1	ROAD

COSIPLAN PORTFOLIO

Estimated investment

* US$ million

182,435.7

82.5% National	16.3% Binational	1.2% Multinational
489	97	7

Projects per Sector

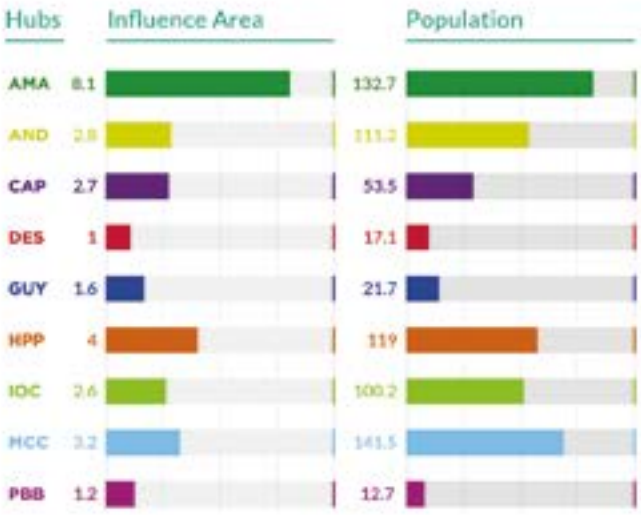
Transport	Energy	Communications
528	56	9
129,678.4	52,715.7	41.6

Projects per Types of Financing

Public	Private	Public Private
482	70	41
115,318.7	34,865.9	32,251.1

Projects per Stages

Profiling	Pre Execution	Execution	Concluded
114	173	191	115
30,973.6	53,665.9	71,683.4	26,112.8



US$million

Number of Projects

US$ millon ● Number of Projects ●

Projects per Subsectors

Transport

	Transport	Air	Road	Rail	River	Sea	Multimodal	Border Crossing
Amount of projects	528	25	262	67	75	38	14	47
Estimated Investment in US$ million	129,678.4	6,929.5	59,473.1	47,903.4	2,887	10,944.5	623.7	917.3

Energy

	Energy	Energy Interconnection	Energy Generation
Amount of projects	56	31	25
Estimated Investment in US$ million	54,715.7	10,650.2	42,065.5

Communications

	Communications	Communications Interconnection
Amount of projects	9	9
Inversión Estimada en millones de US$	41.6	41.6

Projects per Countries

	ARGENTINA	BOLIVIA	BRAZIL	CHILE	COLOMBIA	ECUADOR
Amount of projects	185	53	99	74	36	42
Estimated Investment in US$ million	44,845.5	10,604.4	78,438	14,393.2	5,812.4	19,590.4

	GUYANA	PARAGUAY	PERU	SURINAME	URUGUAY	VENEZUELA
	8	66	75	7	42	22
	911.9	14,197.6	11,534.8	3,831.9	5,040.7	2,077.9

Projects per HUB

	AMAZONAS	ANDEAN	CAPRICORN	SOUTHERN	GUIANESE SHIELD	PARAGUAY PARANA WATERWAY
Amount of projects	74	67	82	49	20	92
Estimated Investment in US$ million	22,420.8	28,613.9	16,314.7	4,146.6	4,581.3	7,328.2

	CENTRAL INTEROCANIC	MERCOSUR CHILE	PERU BRAZIL BOLIVIA
	63	124	24
	11,614.8	56,168.9	31,413.9

AMAZON HUB

INTEGRATION AND DEVELOPMENT HUB

Population:	132,687,257 inhabitants
Density:	16.5 inh./km²
Area:	8,059,085km²
GDP:	US$ 844,689 million
Services	75.1%
Industry	13%
Mines and quarries	6.1%
Agriculture	5.7%

BRAZIL COLOMBIA ECUADOR PERU

Estimated investment

* US$ million

22,420.8

93.2% National	5.4% Binational	1.4% Multinational
69	4	1

Brazil	26
Colombia	5
Ecuador	17
Peru	33

Projects per Sector

Transport	Energy
73	1
21,100.8	1,320.0

Projects per Types of Financing

Public	Private	Public Private
44	21	9
10,993.9	8,981.2	2,445.7

Projects per Stages

Profiling	Pre Execution	Execution	Concluded
17	16	24	17
197	4,570.1	11,224.9	6,428.8

US$ million ● Number of projects ●

COMPLETED PROJECTS OF THE HUB

* US$ million

Code	Name	Investment*	Countries
AMA78	NORTH-SOUTH RAILWAY PHASE PHASE II (AÇAILÂNDIA - PALMAS)	2,500	BR
AMA87	500-KV TRANSMISSION LINE (TUCURUÍ - MANAUS)	1,320	BR
AMA105	NORTH-SOUTH RAILWAY - PHASE III (PALMAS - CAMPINORTE)	600	BR
AMA55	RIO BRANCO - CRUZEIRO DO SUL ROAD CONNECTION (BR-364 / AC)	573	BR
AMA25	PAITA - TARAPOTO ROAD	273.6	PE
AMA16	TARAPOTO – YURIMAGUAS ROAD	231.7	PE
AMA24	PAITA PORT	176.7	PE
AMA47	IMPROVEMENT OF THE PUERTO BOLÍVAR - SANTA ROSA - BALSAS - CHAGUARPAMBA - LOJA - ZAMORA - YANTZAZA - EL PANGUI - GUALAQUIZA - GRAL, LEÓNIDAS PLAZA - MÉNDEZ ROAD SECTION	167.7	EC
AMA46	IMPROVEMENT OF THE GUAYAQUIL - EL TRIUNFO - LA TRONCAL - ZHUD - EL TAMBO - CAÑAR - AZOGUES - PAUTE - AMALUZA - MÉNDEZ ROAD. AND ENLARGEMENT AND IMPROVEMENT OF THE MÉNDEZ - PUERTO MORONA ROAD SECTION	140	EC
AMA67	EL CALLAO MINERAL SHIPPING TERMINAL	120.3	PE
AMA48	IMPROVEMENT OF THE PUERTO BOLÍVAR - PASAJE - SANTA ISABEL - GIRÓN - CUENCA - PAUTE - AMALUZA - MÉNDEZ - PUERTO MORONA ROAD SECTION	100	EC
AMA09	REHABILITATION AND PAVING OF THE SAN LORENZO - EL CARMEN ROAD SECTION	76	EC
AMA22	BAYÓVAR PORT	70	PE
AMA11	CONSTRUCTION OF A NEW AIRPORT IN TENA	54.6	EC
AMA34	ENVIRONMENTAL AND TERRITORIAL MANAGEMENT PROGRAM (CUIABÁ - SANTARÉM ROUTE) (BR-163 / MT / PA)	12	BR
AMA36	IMPROVEMENT OF NAVIGATION CONDITIONS IN THE SOLIMÕES - AMAZON RIVERS SYSTEM	8	BR
AMA39	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MORONA RIVER	5.2	EC - PE
17		**6,428.8**	

Presentation of the
AMAZON HUB

The Amazon Hub[1] comprises the Brazil's Amazon and northeastern regions and the states of Goiás and Tocantins; the central-southern area of Colombia; the entire continental territory of Ecuador, and the central-northern area of Peru.

This Hub is the largest of the nine Hubs of the Portfolio, its area —30% of which is under some type of environmental protection— being equivalent to 45% of that of the South American continent (8,059,085 km²).

Furthermore, this Hub ranks second in population and fifth in Gross Domestic Product (GDP), and accounts for 32% (132,687,257 inhabitants) of the population and 19% of the GDP of South America (US$ 844,689 million).[2]

MAP OF THE AREA OF INFLUENCE OF THE AMAZON HUB

In this Hub, existing and planned infrastructure is marked by the presence of the Andes and the vast Amazon Basin, the largest river basin in the world.

Thus, two rather different realities coexist. On the one hand, there is a territory framed between the Andes and the Pacific Ocean, where road transportation prevails, followed by a small proportion of railways, both of which enable a connection with a network of major ports located along the Pacific coast and shared by Colombia, Ecuador, and Peru. On the other hand, there is the Amazon basin, which has its source in the eastern slopes of the Andes and finds its way to the Atlantic ocean through a vast network of navigable rivers.

1 See "Caracterización Socio-Económica y Ambiental del Eje del Amazonas," COSIPLAN-IIRSA, 2015. www.iirsa.org/amazonas.asp.
2 At current prices in 2013.

As regards infrastructure, the total length of the **road network** of the Country involved in the Amazon Hub is 2,012,551 km, 12% of which (some 238,414 km) are paved. The **rail network** is 36,984 km long. The port system of the Hub is made up of 40 major ports, nine of which handle more than 10 million tons of bulk cargo per year. Most **river transportation activities** in the region are carried out along the Amazon basin and its major tributaries, such as the Negro, Putumayo, Ucayali, Madeira, Juruá, Purus and Madeira rivers, among others. Concerning **electricity generation**, as of 2012 the Country involved in the Hub had a joint installed power of about 147,186 MW.

The presence and diversity of **indigenous communities** is significant in the Hub, as there are more than 200 peoples living in the four Country, their relative share of the population being different in each nation. Peru has the most important share, as native peoples account for 34% of its population. This figure is 7% in Ecuador, 3% in Colombia, and less than 1% in Brazil.

At present, there are more than two thousand territorial units in the Hub with some degree of **environmental protection**. In Brazil, the states of Pará and Amazonas stand out, with more than 1,400,000 km² of protected territory, which accounts for approximately 60% of the Hub's total protected area.
The most frequent **natural hazards** in the Andean region are earthquakes, tsunamis and volcanic eruptions, whereas in the Amazon basin, in which the four Country are involved, the most recurring ones are large floods.

The Country involved in the Amazon Hub plan to invest US$22,421 million in 74 physical integration projects.

In relative terms, Ecuador contributes 91% of the Hub's GDP and Peru 73%. Brazil and Colombia are the Country that contribute less to the Hub's GDP: 24% and 17%, respectively. In absolute terms, Brazil accounts for 63% of the Hub's aggregate GDP, followed by Peru (18%), and by Ecuador and Colombia (11% and 8%, respectively).

A noticeable trend in the Hub's global economic performance is its growth rate in the 2007-2013 period, which reached an average of 5%, well above the growth rate of Latin America and the Caribbean in the same period, which was 3%.

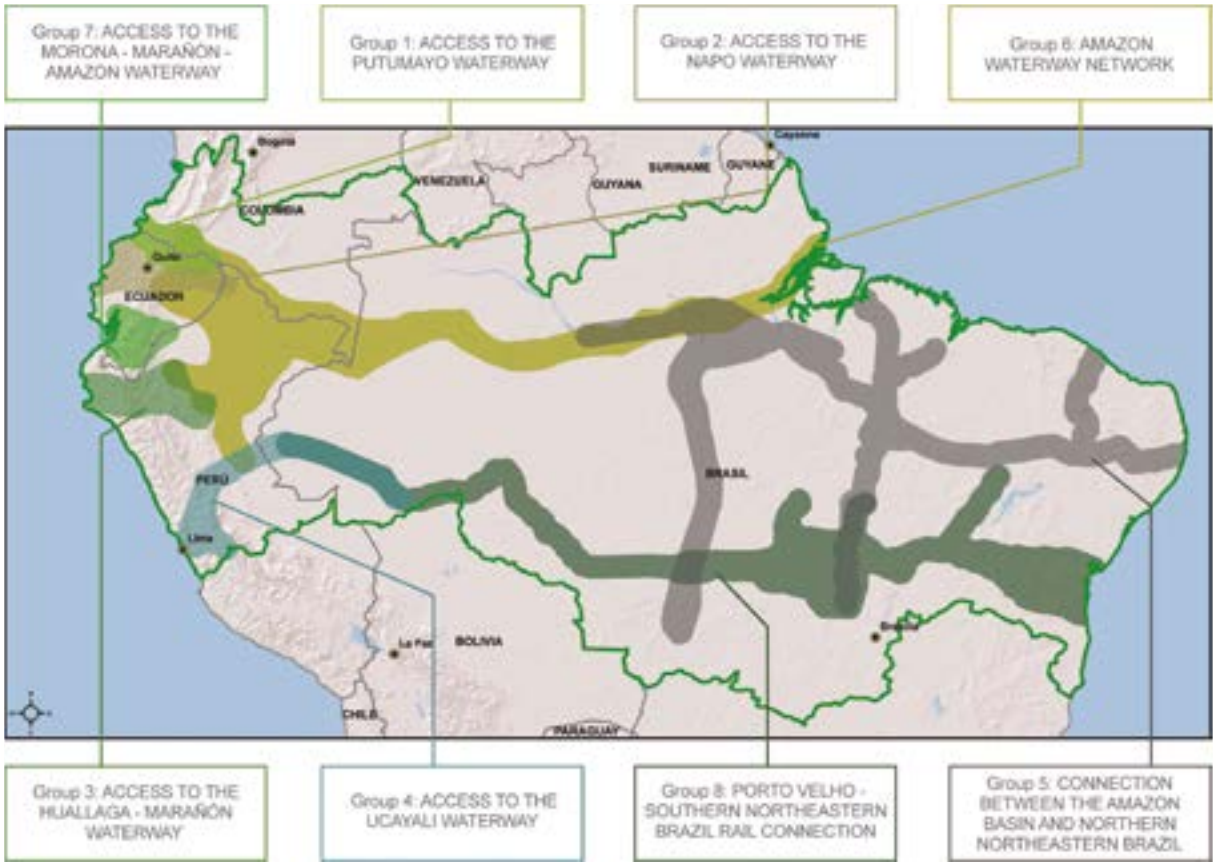
The Hub shares some regions of its area of influence with other five Hubs: the Guianese Shield, the Paraguay-Paraná Waterway, the Peru-Brazil-Bolivia, the Andean, and the Central Interoceanic Hubs.

Project Portfolio
AMAZON HUB

The development of the Amazon Hub depends on river connectivity, for which it is necessary to improve standards and consolidate the vast network of navigable rivers in this Hub. By developing a waterway system to structure the road, rail, and airport networks, it will be possible to interconnect the interior of the continent with its mountains and coasts, thus promoting local economies.

As stated above, the works to be carried out in the Amazon Hub are intended to: (i) reinforce the interconnection of a vast series of territories in the Hub with the Amazon basin through six waterways and a transcontinental train running across the southern and northern northeastern area of Brazil; (ii) improve the navigation conditions of the Amazon basin's rivers; (iii) strengthen the connection of scarcely populated Amazon territories with more economically developed areas of mountains and coasts; (iv) offer access to new ports and promote regional trade among economically complementary areas; (v) encourage rail transportation by enhancing its environmental benefits and energy efficiency; and (vi) design new routes as well as improve the existing ones.

MAP OF THE PROJECT GROUPS OF THE AMAZON HUB



PROJECT GROUPS OF THE AMAZON HUB

* US$ million

Group	Name	No. of Projects	Estimated Investment
1	ACCESS TO THE PUTUMAYO WATERWAY	6	497.8
2	ACCESS TO THE NAPO WATERWAY	6	104.5
3	ACCESS TO THE HUALLAGA - MARAÑÓN WATERWAY	10	1,240.6
4	ACCESS TO THE UCAYALI WATERWAY	14	3,633.4
5	CONNECTION BETWEEN THE AMAZON BASIN AND NORTHERN NORTHEASTERN BRAZIL	12	9,517.0
6	AMAZON WATERWAY NETWORK	12	159.8
7	ACCESS TO THE MORONA - MARAÑÓN - AMAZON WATERWAY	5	414.7
8	PORTO VELHO - SOUTHERN NORTHEASTERN BRAZIL RAIL CONNECTION	9	6,853.0
	TOTAL	**74**	**22,420.8**

There are 57 projects in the active portfolio of the Hub, amounting to an investment estimated at US$15,992 million.

Of the 57 active projects, there is information available on the completion date of 30. Twenty-six projects are scheduled to be completed in the next four years (2015-2018), and it is worth mentioning that all of them are national, namely: Peruvian (17), Brazilian (6) and Ecuadorian (3).

According to estimations, by the end of 2018, 74% of the investment amount estimated for the Hub will have been spent.

PROJECTS TO BE COMPLETED IN THE NEXT FOUR YEARS

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Estimated Completion Date
AMA71	PROVIDENCIA PORT	2		25.0	EC	Aug 31, 2015
AMA61	EXECUTION OF THE NEW COCA AIR-PORT	2		14.9	EC	Nov 11, 2015
AMA33	CUIABÁ - SANTARÉM ROAD (BR-163 / MT / PA)	5		1,000.0	BR	Dec 31, 2015
AMA66	EL CALLAO MULTI-PURPOSE NORTH-ERN TERMINAL	4		883.5	PE	Jan 31, 2016
AMA86	REHABILITATION OF ROAD BR-230 MARABÁ (PA) - ITAITUBA (PA)	5		1,000.0	BR	Mar 30, 2016
AMA89	WEST-EAST INTEGRATION RAILWAY - PHASE I (ILHÉUS - BARREIRAS)	8		2,000.0	BR	Jun 30, 2016
AMA72	IMPROVEMENT OF THE LIMA - CANTA - UNISH HIGHWAY I	4		308.1	PE	Jul 31, 2016
AMA26	IMPROVEMENT OF TINGO MARÍA - PU-CALLPA ROAD	4		438.4	PE	Sep 30, 2016
AMA102	CONSTRUCTION OF NEW YURIMAGUAS PORT	3		43.7	PE	Dec 31, 2016
AMA73	NEW CROSS-NORTHEASTERN RAILWAY PHASE I (SUAPE - SALGUEIRO/PECÉM - ELISEU MARTINS)	5		3,000.0	BR	Jan 31, 2017
AMA63	IIRSA CENTER, SECTION 2: RICARDO PALMA - LA OROYA - TURN-OFF TO CER-RO DE PASCO / LA OROYA - HUANCAYO	4		100.0	PE	Jul 31, 2017
AMA84	REHABILITATION OF ROAD BR-222 AÇAILÂNDIA (MA) - PORTO DE ITAQUI (MA)	5		0.0	BR	Nov. 15, 2017
AMA20	PAITA LOGISTICS CENTER	3		47.7	PE	Nov 30, 2017
AMA65	EL CALLAO LOGISTICS ACTIVITIES ZONE (ZAL CALLAO)	4		68.3	PE	Nov 30, 2017
AMA57	NETWORK OF RIVER TERMINALS IN THE AMAZON RAINFOREST	6		0.0	BR	Dec 31, 2017
AMA104	CONSTRUCTION OF NEW PUCALLPA PORT	4		55.0	PE	Dec 31,2017
AMA21	YURIMAGUAS LOGISTICS CENTER	3		15.0	PE	Dec 31,2017
AMA40	IMPROVEMENT OF NAVIGATION CON-DITIONS ON THE HUALLAGA RIVER WA-TERWAY, BETWEEN YURIMAGUAS AND THE CONFLUENCE WITH MARAÑÓN RIVER	6		33.0	PE	Dec 31,2017
AMA44	IQUITOS LOGISTICS CENTER	6		15.0	PE	Dec 31,2017
AMA31	MODERNIZATION OF EL CALLAO PORT (NEW CONTAINER DOCK)	4		704.8	PE	Mar 31, 2018
AMA43	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE UCAYALI RIVER WATERWAY, BETWEEN PUCALLPA AND THE CONFLUENCE WITH MARAÑÓN RIVER	6		19.0	PE	May 31, 2018
AMA30	PUCALLPA INTERMODAL LOGISTICS CENTER	4		15.0	PE	Jun 30, 2018
AMA41	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MARAÑÓN RIVER WATERWAY, BETWEEN SARAMIRIZA AND THE CONFLUENCE WITH UCAYALI RIVER	6		11.0	PE	Aug 31, 2018
AMA15	MANTA PORT	2		0.0	EC	Dec 31, 2018
AMA32	LIMA - RICARDO PALMA EXPRESSWAY	4		242.0	PE	Dec 31, 2018
AMA64	IIRSA CENTER, SECTION 3: TURN-OFF TO CERRO DE PASCO - TINGO MARIA	4		115.6	PE	Dec 31, 2018

PROFILING PRE-EXECUTION EXECUTION COMPLETED

The three projects with the highest estimated investment involve stages of the transcontinental train. The following two projects are concerned with works associated with the railway (a sea port and an important road). These five projects together account for 58% of the estimated investment in the active portfolio of the Hub.

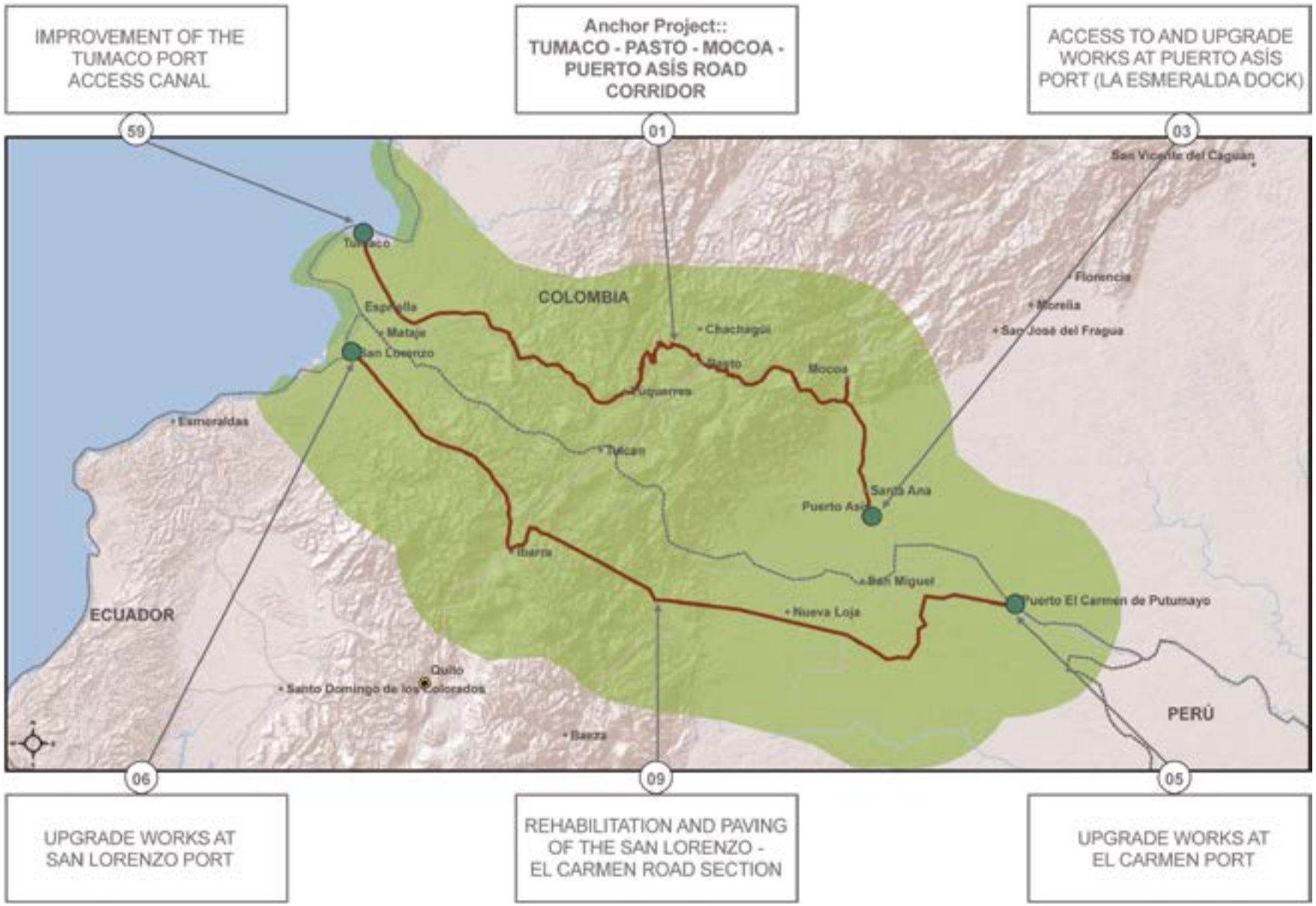
The five projects above mentioned are either at the pre-execution or execution stage, are predominantly financed by the private sector, and aim at integrating the Brazilian southern and northern northeastern region with the waterway system of the Amazon basin.

THE FIVE ACTIVE PORTFOLIO PROJECTS WITH THE GREATEST ESTIMATED INVESTMENT

Code	Name	Group	Stage	Estimated Investment	Countries	Type of Financing
AMA73	NEW CROSS-NORTHEASTERN RAILWAY PHASE I (SUAPE - SALGUEIRO / PECÉM - ELISEU MARTINS)	5		3,000.0	BR	PRIVATE
AMA89	WEST-EAST INTEGRATION RAILWAY - PHASE II (BARREIRAS - ILHÉUS)	8		2,000.0	BR	PUBLIC
AMA90	CENTER-WEST INTEGRATION RAILWAY - PHASE I (CAMPINORTE - LUCAS DO RIO VERDE)	8		2,000.0	BR	PRIVATE
AMA101	NEW PORT IN THE AREA OF ILHÉUS	8		1,400.0	BR	PRIVATE
AMA33	CUIABÁ - SANTARÉM ROAD (BR-163 / MT / PA)	5		1,000.0	BR	PUBLIC

The Hub features 17 completed projects, having demanded a total investment of US$6,428 million, equivalent to almost 30% of the total Portfolio investment.

Among the projects already completed, two anchor projects stand out: Improvement of Navigation Conditions in the Solimões - Amazon Rivers System, which is vitally important as this section of the Amazon river flows to Manaus and receives the traffic from the waterway network, and project Tarapoto - Yurimaguas Road, which offers access to one of the five waterways involved in the Portfolio projects.


IMPROVEMENT OF THE TUMACO PORT ACCESS CANAL
59
Anchor Project::
TUMACO - PASTO - MOCOA - PUERTO ASÍS ROAD CORRIDOR
01
ACCESS TO AND UPGRADE WORKS AT PUERTO ASÍS PORT (LA ESMERALDA DOCK)
03
COLOMBIA
Tumaco
Espriella
Mataje
San Lorenzo
Chachagüí
Pasto
Mocoa
Puquerres
Esmeraldas
Tulcan
Santa Ana
Puerto Asís
Ibarra
San Miguel
Puerto El Carmen de Putumayo
Nueva Loja
ECUADOR
Quito
Santo Domingo de los Colorados
Baeza
PERÚ
San Vicente del Caguán
Florencia
Morelia
San José del Fragua
06
09
05
UPGRADE WORKS AT SAN LORENZO PORT
REHABILITATION AND PAVING OF THE SAN LORENZO - EL CARMEN ROAD SECTION
UPGRADE WORKS AT EL CARMEN PORT

AMA Group 1

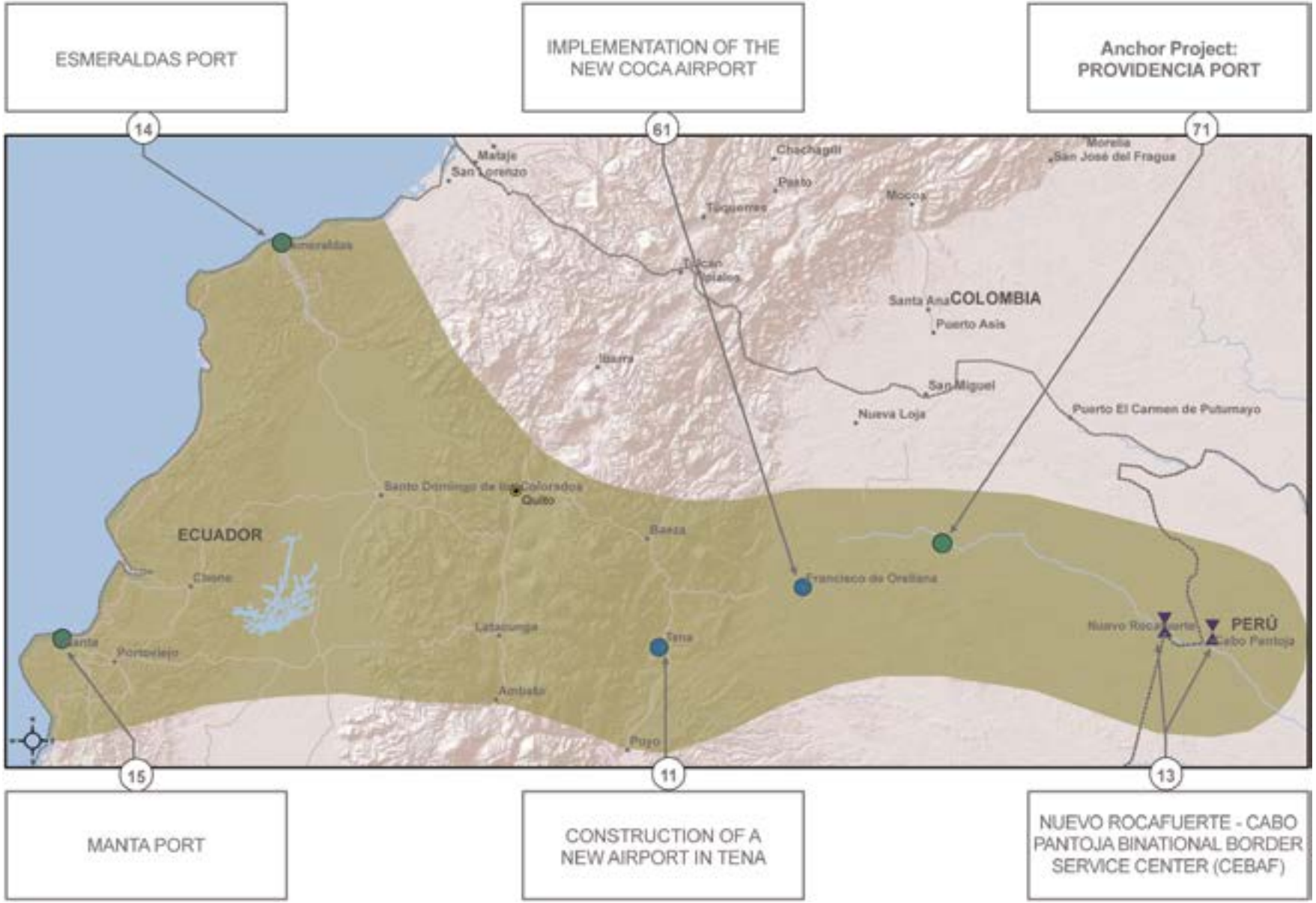
Strategic Function

- Improve the logistics of national integration between production areas of the south of Colombia, department of Nariño, and the Amazon departments of Putumayo and Amazonas, and their integration with areas of northern Ecuador (especially the province of Sucumbíos).
- Improve the logistics of integration with Brazil and Peru.
- Reinforce the interconnection of the continent's hinterlands with the Pacific Basin.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AMA01	**TUMACO - PASTO - MOCOA - PUERTO ASÍS ROAD CORRIDOR**		**404.9**	**CO**
AMA03	ACCESS TO AND UPGRADE WORKS AT PUERTO ASÍS PORT (LA ESMERALDA DOCK)		3.0	CO
AMA05	UPGRADE WORKS AT EL CARMEN PORT		3.0	EC
AMA06	UPGRADE WORKS AT SAN LORENZO PORT		6.0	EC
AMA09	REHABILITATION AND PAVING OF THE SAN LORENZO - EL CARMEN ROAD SECTION		76.0	EC
AMA59	IMPROVEMENT OF THE TUMACO PORT ACCESS CANAL		5.0	CO
6			**497.9**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED


ESMERALDAS PORT
14
IMPLEMENTATION OF THE NEW COCA AIRPORT
61
Anchor Project: PROVIDENCIA PORT
71
Mataje
San Lorenzo
Chachagüí
Pasto
Tuquerres
Mocoa
Morelia
San José del Fragua
Esmeraldas
Tulcán
Ipiales
Santa Ana
COLOMBIA
Puerto Asís
Ibarra
San Miguel
Nueva Loja
Puerto El Carmen de Putumayo
Santo Domingo de los Colorados
Quito
ECUADOR
Baeza
Chone
Francisco de Orellana
Latacunga
Tena
Portoviejo
Ambato
Nuevo Rocafuerte
PERÚ
Cabo Pantoja
Pujo
15
11
13
MANTA PORT
CONSTRUCTION OF A NEW AIRPORT IN TENA
NUEVO ROCAFUERTE - CABO PANTOJA BINATIONAL BORDER SERVICE CENTER (CEBAF)

AMA Group 2

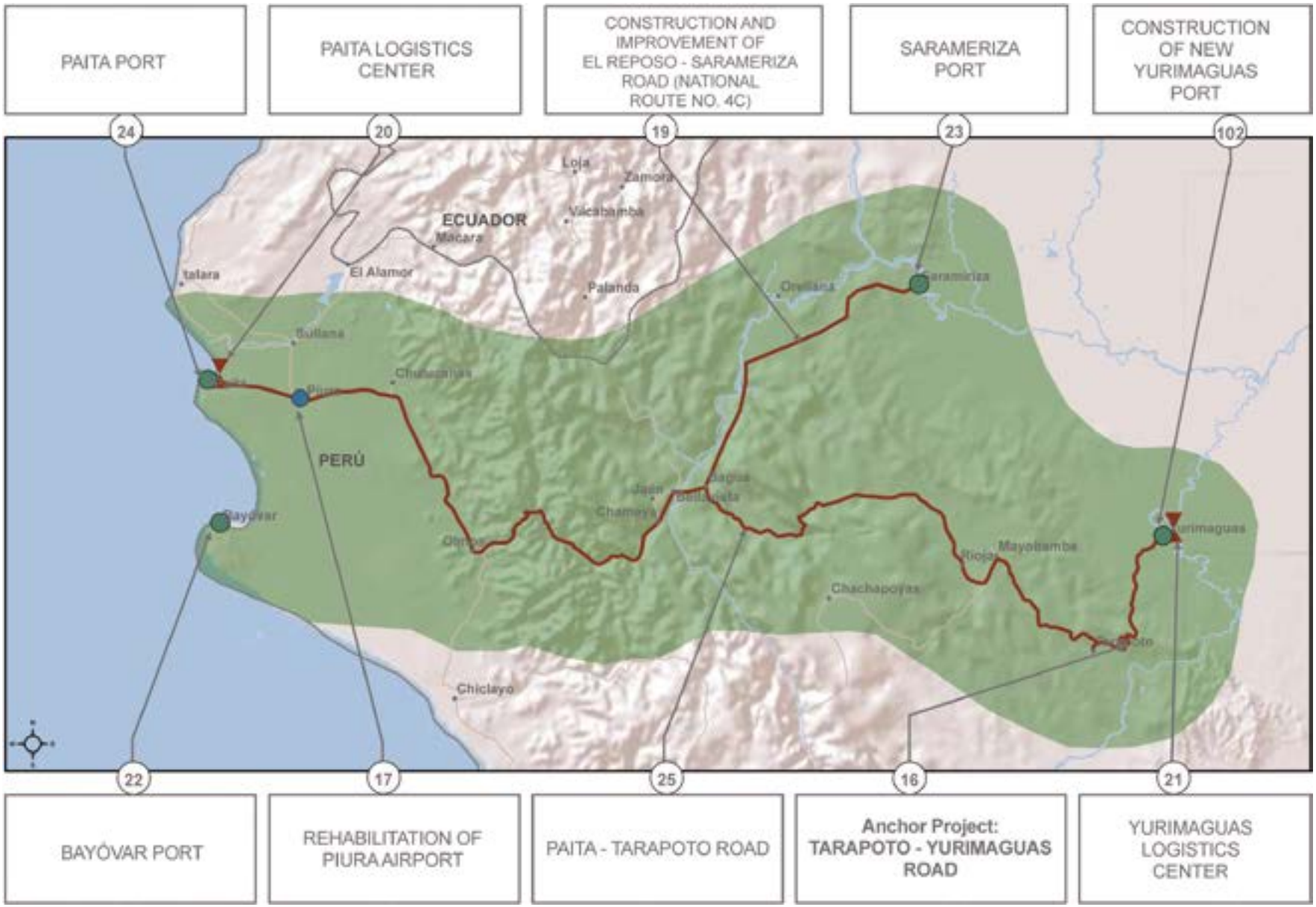
Strategic Function

- Strengthen national Ecuadorian integration in the Amazon area, provinces of Napo and Orellana, with the sierras and coast in the central and northern part of the country and consolidate the opportunity of having an Ecuadorian river for Amazon international integration towards Manaus.
- Reinforce the interconnection of the continent's hinterlands with the Pacific Basin.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AMA11	CONSTRUCTION OF A NEW AIRPORT IN TENA		54.6	EC
AMA13	NUEVO ROCAFUERTE - CABO PANTOJA BINATIONAL BORDER SERVICE CENTER (CEBAF)		10.0	EC - PE
AMA14	ESMERALDAS PORT		0.0	EC
AMA15	MANTA PORT		0.0	EC
AMA61	IMPLEMENTATION OF THE NEW COCA AIRPORT		14.9	EC
AMA71	**PROVIDENCIA PORT**		**25.0**	**EC**
6			**104.5**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED


PAITA PORT
PAITA LOGISTICS CENTER
CONSTRUCTION AND IMPROVEMENT OF EL REPOSO - SARAMERIZA ROAD (NATIONAL ROUTE NO. 4C)
SARAMERIZA PORT
CONSTRUCTION OF NEW YURIMAGUAS PORT
24
20
19
23
102
ECUADOR
PERÚ
Loja
Zamora
Macara
Valcabamba
El Alamor
Palanda
Sullana
Chulucanas
Piura
Jaen
Chamaya
Bagua Grande
Chachapoyas
Mayobamba
Chiclayo
Yurimaguas
22
17
25
16
21
BAYÓVAR PORT
REHABILITATION OF PIURA AIRPORT
PAITA - TARAPOTO ROAD
Anchor Project: TARAPOTO - YURIMAGUAS ROAD
YURIMAGUAS LOGISTICS CENTER

AMA Group 3

Strategic Functions

- Improve the navigation conditions and access logistics to the Huallaga and Marañón Waterways so as to consolidate the Corridor as a factor for integrating the Sierra and the Amazonia in Peru and its complementariness with the states of Amazonas and Pará, Brazil.

- Articulate the south and southeastern regions of Ecuador with the Peruvian Amazon to become the interconnection road with the Atlantic Basin.

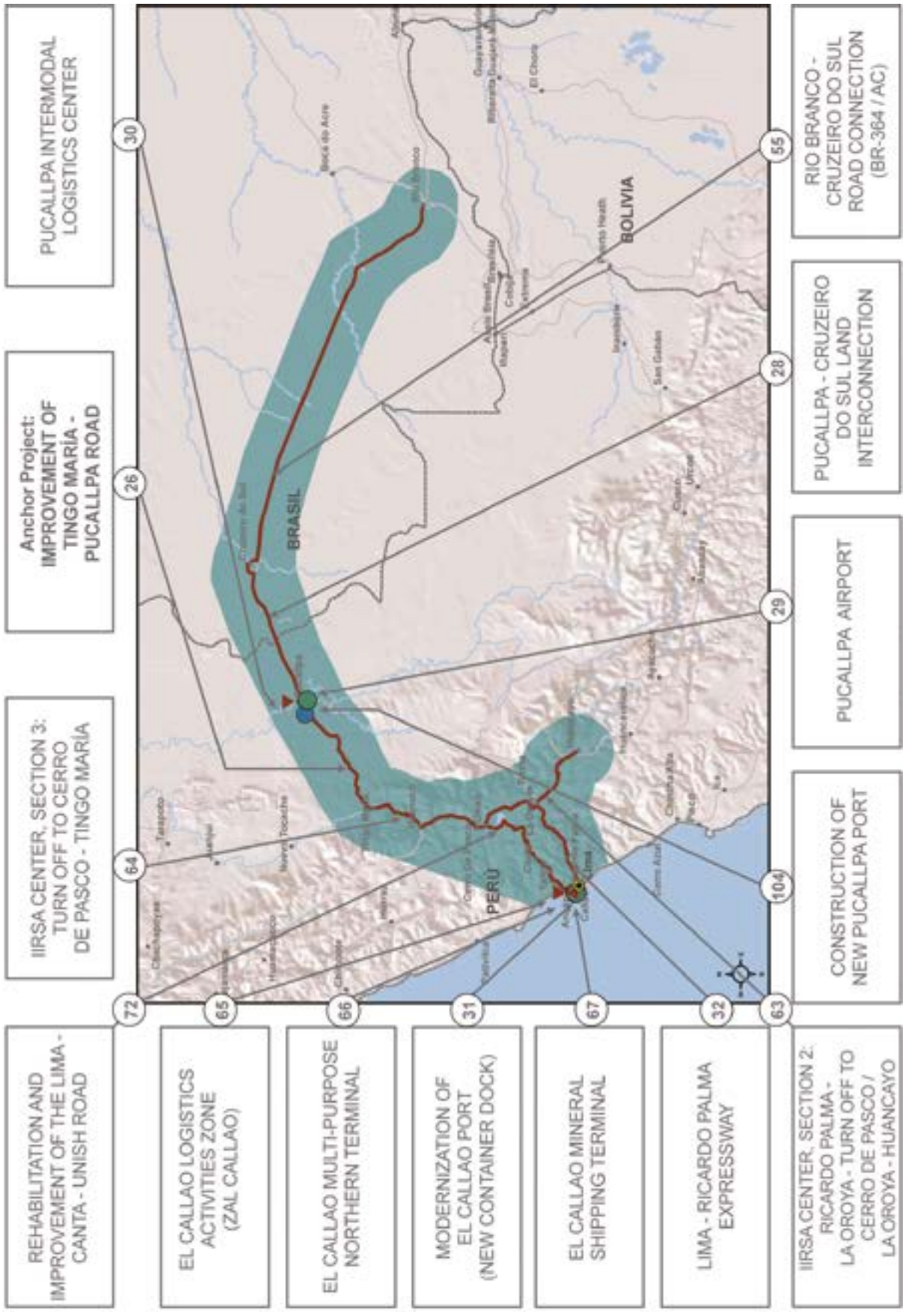
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AMA16	**TARAPOTO – YURIMAGUAS ROAD**		**231.7**	**PE**
AMA17	REHABILITATION OF PIURA AIRPORT		7.2	PE
AMA19	CONSTRUCTION AND IMPROVEMENT OF EL REPOSO - SARAMERIZA ROAD (NATIONAL ROUTE NO. 4C)		371.5	PE
AMA20	PAITA LOGISTICS CENTER		47.6	PE
AMA21	YURIMAGUAS LOGISTICS CENTER		15.0	PE
AMA22	BAYÓVAR PORT		70.0	PE
AMA23	SARAMIRIZA PORT		3.5	PE
AMA24	PAITA PORT		176.7	PE
AMA25	PAITA - TARAPOTO ROAD		273.7	PE
AMA102	CONSTRUCTION OF NEW YURIMAGUAS PORT		43.7	PE
10			**1,240.6**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Access to the Ucayali Waterway

Brazil - Peru



AMA Group 4

Strategic Function

- Consolidate the Peruvian coast – sierra – rainforest association and integration and interconnect the main urban/industrial center and the central area of the country with the states of Amazonas and Pará, Brazil
- Reinforce the interconnection of the central eastern area of the continent with the Pacific and Atlantic basins.

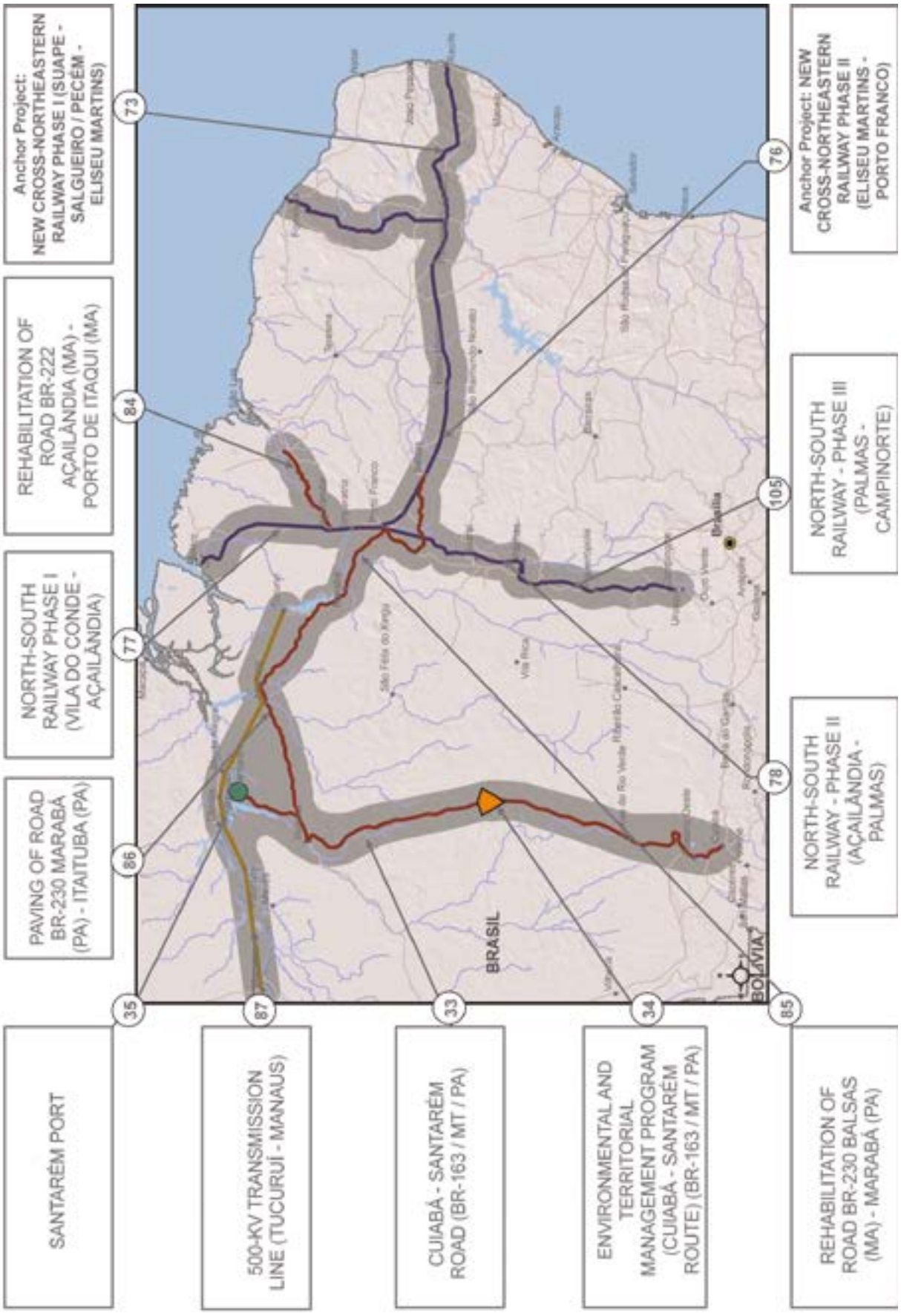
* US$ million

Code	Name	Stage	Estimated Investment*	Coun-tries
AMA26	**IMPROVEMENT OF TINGO MARÍA – PUCALLPA ROAD**		**438.4**	**PE**
AMA28	PUCALLPA - CRUZEIRO DO SUL LAND INTERCONNECTION		0.0	BR - PE
AMA29	PUCALLPA AIRPORT		9.4	PE
AMA30	PUCALLPA INTERMODAL LOGISTICS CENTER		15.0	PE
AMA31	MODERNIZATION OF EL CALLAO PORT (NEW CONTAINER DOCK)		704.8	PE
AMA32	LIMA - RICARDO PALMA EXPRESSWAY		242.0	PE
AMA55	RIO BRANCO - CRUZEIRO DO SUL ROAD CONNECTION (BR-364 / AC)		573.0	BR
AMA63	IIRSA CENTER, SECTION 2: RICARDO PALMA - LA OROYA – TURN-OFF TO CERRO DE PASCO / LA OROYA - HUANCAYO		100.0	PE
AMA64	IIRSA CENTER, SECTION 3: TURN-OFF TO CERRO DE PASCO - TINGO MARÍA		115.6	PE
AMA65	EL CALLAO LOGISTICS ACTIVITIES ZONE (ZAL CALLAO)		68.3	PE
AMA66	EL CALLAO MULTI-PURPOSE NORTHERN TERMINAL		883.5	PE
AMA67	EL CALLAO MINERAL SHIPPING TERMINAL		120.3	PE
AMA72	REHABILITATION AND IMPROVEMENT OF LIMA - CANTA - UNISH ROAD		308.1	PE
AMA104	CONSTRUCTION OF NEW PUCALLPA PORT		55.0	PE
14			**3,633.4**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Connection between the Amazon Basin and Northern Northeastern Brazil

Brazil



AMA Group 5

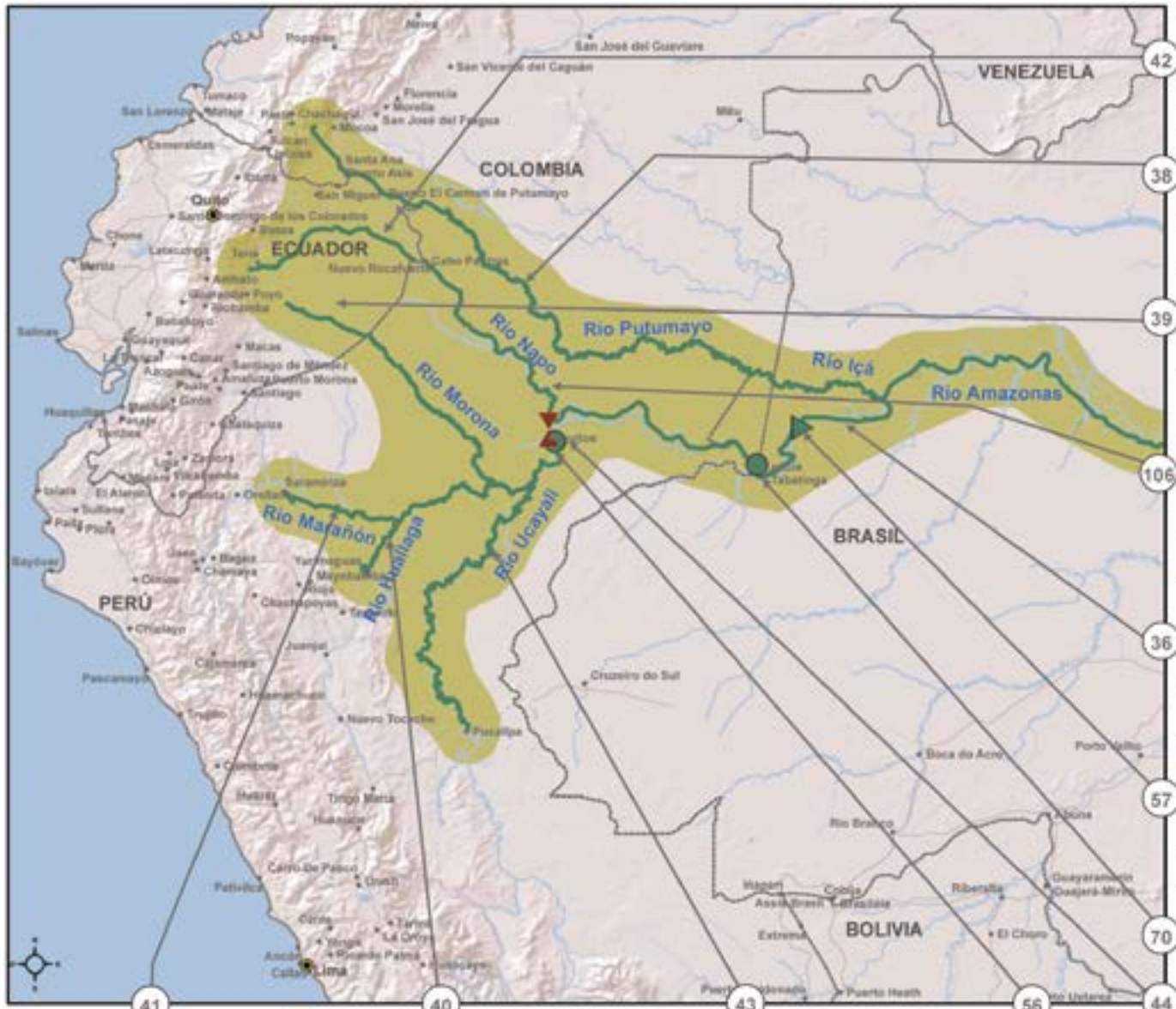
Strategic Function

- Enlarge the connection and transportation alternatives between Central-Western and Northern Northeastern Brazil, and the access to new ports and markets in the region.
- Reduce the logistics costs associated with the supply of raw materials and the distribution of products to facilitate the integration between Northern Northeastern Brazil and the Amazon basin.
- Provide an efficient transportation infrastructure to attract productive activities to the region.
- Incorporate Manaus to the Brazilian interconnected electric system, with positive impacts on the economy and environment.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AMA33	CUIABÁ - SANTARÉM ROAD (BR-163 / MT / PA)		1,000.0	BR
AMA34	ENVIRONMENTAL AND TERRITORIAL MANAGEMENT PROGRAM (CUIABÁ - SANTARÉM ROUTE) (BR-163 / MT / PA)		12.0	BR
AMA35	SANTARÉM PORT		85.0	BR
AMA73	**NEW CROSS-NORTHEASTERN RAILWAY PHASE I (SUAPE - SALGUEIRO / PECÉM - ELISEU MARTINS)**		**3,000.0**	**BR**
AMA76	**NEW CROSS-NORTHEASTERN RAILWAY PHASE II (ELISEU MARTINS - PORTO FRANCO)**		**0.0**	**BR**
AMA77	NORTH-SOUTH RAILWAY PHASE I (VILA DO CONDE - AÇAILÂNDIA)		0.0	BR
AMA78	NORTH-SOUTH RAILWAY PHASE PHASE II (AÇAILÂNDIA - PALMAS)		2,500.0	BR
AMA84	REHABILITATION OF ROAD BR-222 AÇAILÂNDIA (MA) - PORTO DE ITAQUI (MA)		0.0	BR
AMA85	REHABILITATION OF ROAD BR-230 BALSAS (MA) - MARABÁ (PA)		0.0	BR
AMA86	PAVING OF ROAD BR-230 MARABÁ (PA) - ITAITUBA (PA)		1,000.0	BR
AMA87	500-KV TRANSMISSION LINE (TUCURUÍ - MANAUS)		1,320.0	BR
AMA105	NORTH-SOUTH RAILWAY - PHASE III (PALMAS - CAMPINORTE)		600.0	BR
12			**9,517.0**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED



42	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NAPO RIVER
38	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PUTUMAYO - IÇÁ RIVER
39	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MORONA RIVER
106	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NAPO RIVER (PERUVIAN SECTION)
36	**Anchor Project: IMPROVEMENT OF NAVIGATION CONDITIONS IN THE SOLIMÕES - AMAZON RIVERS SYSTEM**
57	NETWORK OF RIVER TERMINALS IN THE AMAZON RAINFOREST
70	LETICIA DOCK
44	IQUITOS LOGISTICS CENTER
56	MODERNIZATION OF IQUITOS PORT
43	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE UCAYALI RIVER WATERWAY, BETWEEN PUCALLPA AND THE CONFLUENCE WITH MARAÑÓN RIVER
40	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE HUALLAGA RIVER WATERWAY, BETWEEN YURIMAGUAS AND THE CONFLUENCE WITH MARAÑÓN RIVER
41	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MARAÑÓN RIVER WATERWAY, BETWEEN SARAMERIZA AND THE CONFLUENCE WITH UCAYALI RIVER

AMA Group 6

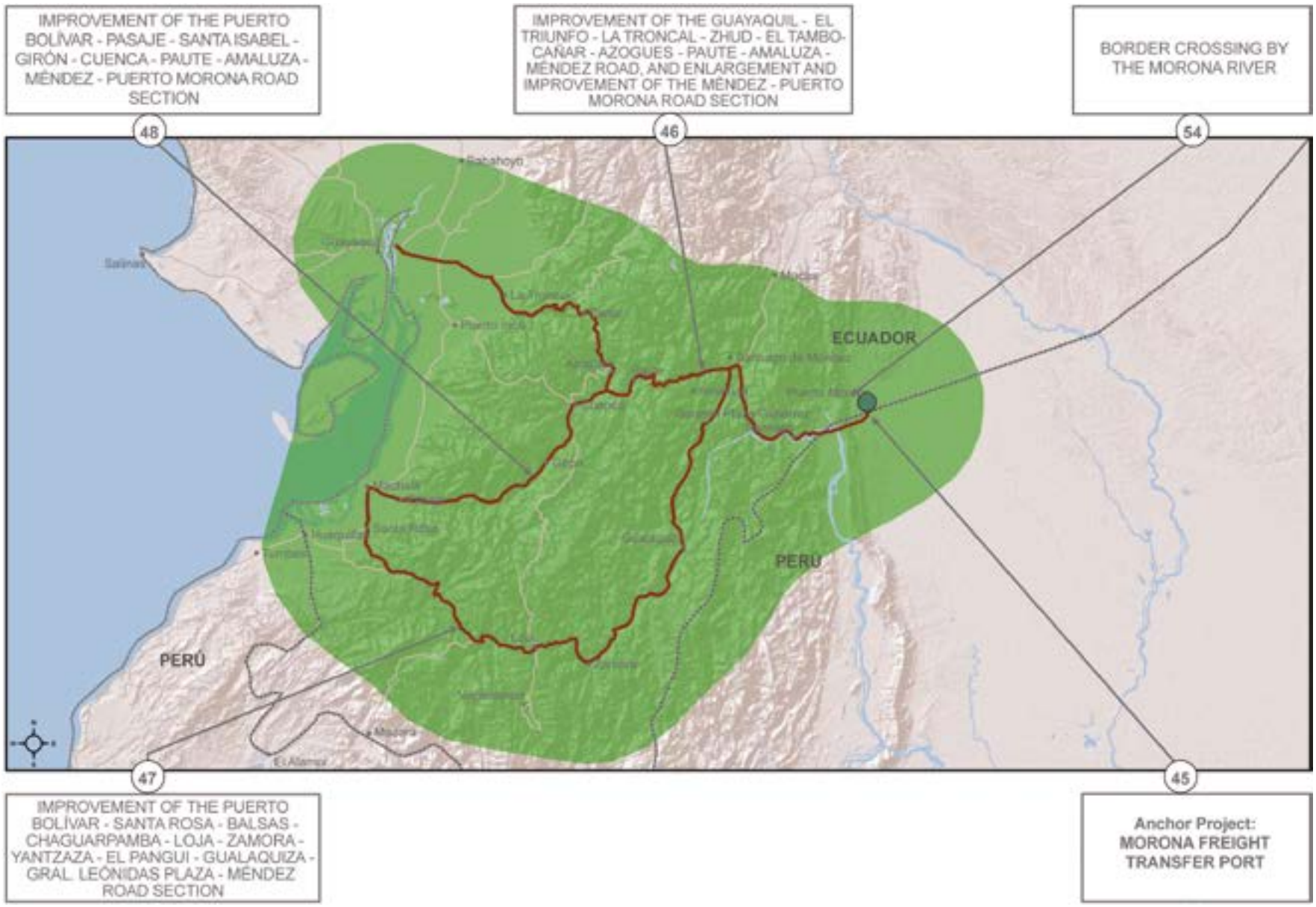
Strategic Function

- Improve the navigation condition of the Amazon basin's rivers in order to promote the sustainable integration and development of the region in the economic, social and environmental dimensions and generate long distance transport flows.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AMA36	**IMPROVEMENT OF NAVIGATION CONDITIONS IN THE SOLIMÕES - AMAZON RIVERS SYSTEM**		**8.0**	**BR**
AMA38	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PUTUMAYO - IÇÁ RIVER		15.0	BR - CO - EC - PE
AMA39	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MORONA RIVER		5.2	EC - PE
AMA40	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE HUALLAGA RIVER WATERWAY, BETWEEN YURIMAGUAS AND THE CONFLUENCE WITH MARAÑÓN RIVER		33.0	PE
AMA41	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MARAÑÓN RIVER WATERWAY, BETWEEN SARAMIRIZA AND THE CONFLUENCE WITH UCAYALI RIVER		11.0	PE
AMA42	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NAPO RIVER (ECUADORIAN SECTION)		5.8	EC
AMA43	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE UCAYALI RIVER WATERWAY, BETWEEN PUCALLPA AND THE CONFLUENCE WITH MARAÑÓN RIVER		19.0	PE
AMA44	IQUITOS LOGISTICS CENTER		15.0	PE
AMA56	MODERNIZATION OF IQUITOS PORT		39.5	PE
AMA57	NETWORK OF RIVER TERMINALS IN THE AMAZON RAINFOREST		0.0	BR
AMA70	LETICIA DOCK		2.5	CO
AMA106	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NAPO RIVER (PERUVIAN SECTION)		5.8	PE
12			**159.8**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED


IMPROVEMENT OF THE PUERTO BOLÍVAR - PASAJE - SANTA ISABEL - GIRÓN - CUENCA - PAUTE - AMALUZA - MÉNDEZ - PUERTO MORONA ROAD SECTION
48
IMPROVEMENT OF THE GUAYAQUIL - EL TRIUNFO - LA TRONCAL - ZHUD - EL TAMBO-CAÑAR - AZOGUES - PAUTE - AMALUZA - MÉNDEZ ROAD, AND ENLARGEMENT AND IMPROVEMENT OF THE MÉNDEZ - PUERTO MORONA ROAD SECTION
46
BORDER CROSSING BY THE MORONA RIVER
54
ECUADOR
PERU
PERÚ
47
IMPROVEMENT OF THE PUERTO BOLÍVAR - SANTA ROSA - BALSAS - CHAGUARPAMBA - LOJA - ZAMORA - YANTZAZA - EL PANGUI - GUALAQUIZA - GRAL. LEÓNIDAS PLAZA - MÉNDEZ ROAD SECTION
45
Anchor Project:
MORONA FREIGHT TRANSFER PORT

AMA Group 7

Strategic Function

- Improve the logistics of integration among the southern provinces of Ecuador and the northeastern portion of Peru with the state of Amazonas in Brazil through a river route towards Manaus.

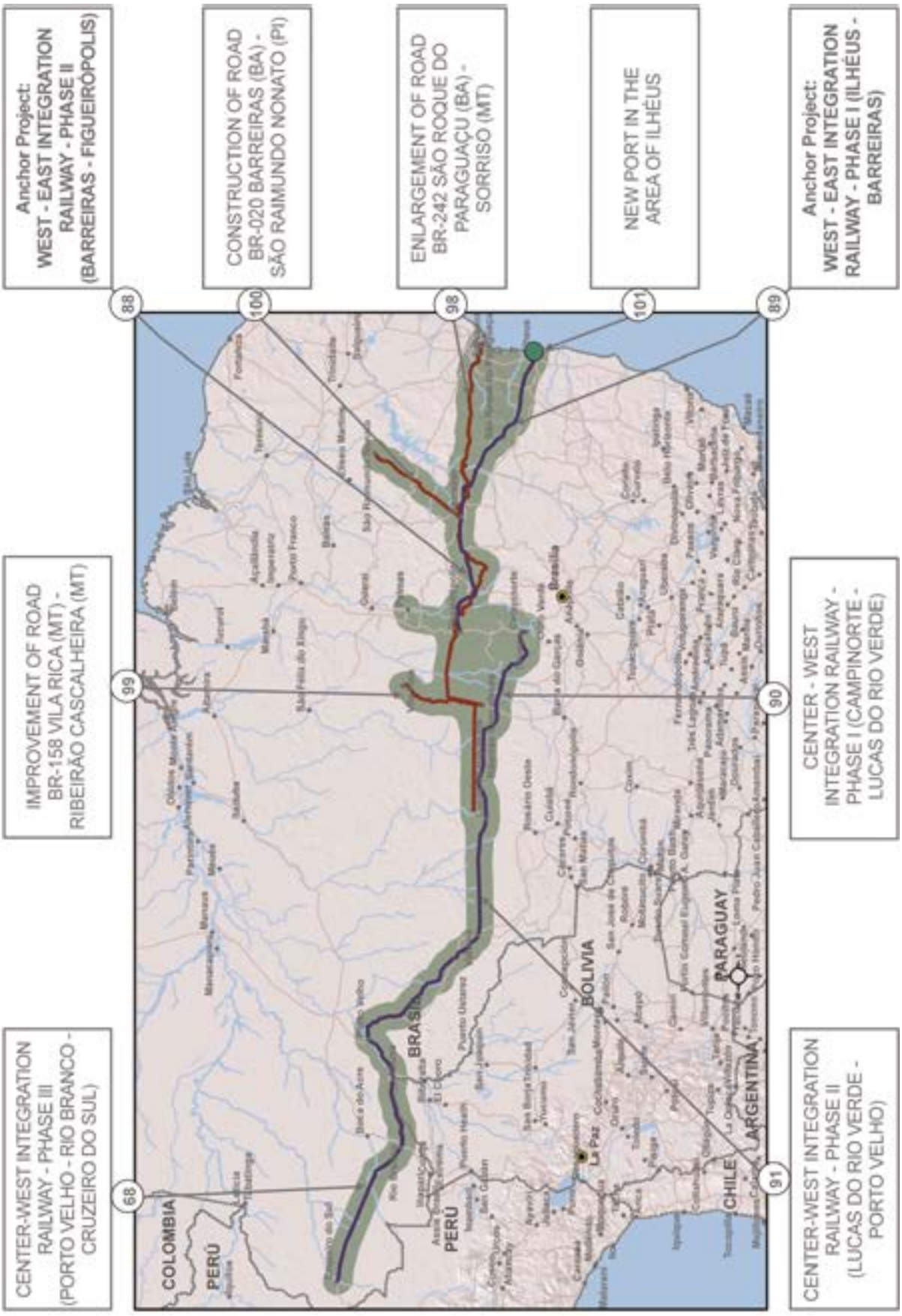
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AMA45	MORONA FREIGHT TRANSFER PORT		5.0	EC
AMA46	IMPROVEMENT OF THE GUAYAQUIL - EL TRIUNFO - LA TRONCAL - ZHUD - EL TAMBO - CAÑAR - AZOGUES - PAUTE - AMALUZA - MÉNDEZ ROAD, AND ENLARGEMENT AND IMPROVEMENT OF THE MÉNDEZ - PUERTO MORONA ROAD SECTION		140.0	EC
AMA47	IMPROVEMENT OF THE PUERTO BOLÍVAR - SANTA ROSA - BALSAS - CHAGUARPAMBA - LOJA - ZAMORA - YANTZAZA - EL PANGUI - GUALAQUIZA - GRAL. LEÓNIDAS PLAZA - MÉNDEZ ROAD SECTION		167.7	EC
AMA48	IMPROVEMENT OF THE PUERTO BOLÍVAR - PASAJE - SANTA ISABEL - GIRÓN - CUENCA - PAUTE - AMALUZA - MÉNDEZ - PUERTO MORONA ROAD SECTION		100.0	EC
AMA54	BORDER CROSSING BY THE MORONA RIVER		2.0	EC - PE
5			414.7	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Porto Velho - Southern Northeastern Brazil Rail Connection

Brazil



AMA Group 8

Strategic Function

- Reduce the logistics costs associated with the supply of raw materials and the distribution of products, and facilitate access to the regional markets and the ports on the Atlantic and Pacific.
- Encourage railway transportation to enhance environmental and energy efficiency benefits.
- Create better conditions for intra-regional trade.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AMA68	CENTER-WEST INTEGRATION RAILWAY - PHASE III (PORTO VELHO – RIO BRANCO - CRUZEIRO DO SUL)		0.0	BR
AMA88	**WEST-EAST INTEGRATION RAILWAY - PHASE II (BARREIRAS - FIGUEIROPOLIS)**		**550.0**	**BR**
AMA89	**WEST-EAST INTEGRATION RAILWAY - PHASE I (ILHEUS - BARREIRAS)**		**2,000.0**	**BR**
AMA90	CENTER-WEST INTEGRATION RAILWAY - PHASE I (CAMPINORTE - LUCAS DO RIO VERDE)		2,000.0	BR
AMA91	CENTER-WEST INTEGRATION RAILWAY - PHASE II (LUCAS DO RIO VERDE - PORTO VELHO)		0.0	BR
AMA98	ENLARGEMENT OF ROAD BR-242 SÃO ROQUE DO PARAGUAÇU (BA) - SORRISO (MT)		200.0	BR
AMA99	IMPROVEMENT OF ROAD BR-158 VILA RICA (MT) - RIBEIRÃO CASCALHEIRA (MT)		183.0	BR
AMA100	CONSTRUCTION OF ROAD BR-020 BARREIRAS (BA) - SÃO RAIMUNDO NONATO (PI)		520.0	BR
AMA101	NEW PORT IN THE AREA OF ILHÉUS		1,400.0	BR
9			**6,853.0**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

ANDEAN HUB

INTEGRATION AND DEVELOPMENT HUB

Population:	111,195,797 inhabitants
Density:	39.1 Inh./km²
Area:	2,845,658 km²
GDP:	US$ 857,037 million
Services	62.9%
Mines and quarries	16.8%
Industry	13.5%
Agriculture	6.8%

BOLIVIA COLOMBIA ECUADOR PERÚ VENEZUELA

Estimated investment

* US$ million

28,613.9

59.7% National	37.3% Binational	3% Multinational
40	25	2

Bolivia	5
Colombia	31
Ecuador	25
Peru	24
Venezuela	15

Projects per Sector

Transport	Energy	Communications
51	14	2
26,282.6	2,331.2	0.1

Projects per Types of Financing

Public	Private	Public Private
55	4	8
25,367.8	1,385.8	1,860.3

Projects per Stages

Profiling	Pre Execution	Execution	Concluded
12	10	27	18
19,308.8	1,420.8	7,054.7	829.6

US$ million ● Number of projects ●

COMPLETED PROJECTS OF THE HUB

* US$ million

Code	Name	Investment	Countries
AND61	GAS INTERCONNECTION PROJECTS	335	CO
AND56	STRENGTHENING OF THE CUATRICENTENARIO - CUESTECITAS AND EL COROZO - SAN MATEO INTERCONNECTIONS	125.2	CO - VE
AND26	PUERTO INCA - HUAQUILLAS ROAD AND HUAQUILLAS - AGUAS VERDES INTERNATIONAL BRIDGE, HUAQUILLAS BYPASS	85.8	EC - PE
AND89	SULLANA - MACARA - LOJA ROAD	48.4	PE
AND25	NEW SANTA ROSA REGIONAL AIRPORT	47.1	EC
AND57	ELECTRICITY INTERCONNECTION PROJECT BETWEEN COLOMBIA AND ECUADOR: A 230-KV LINE BETWEEN PASTO (COLOMBIA) AND QUITO (ECUADOR) SUBSTATIONS	45.4	CO - EC
AND88	SULLANA - EL ALAMOR ROAD	29.5	PE
AND18	PAVING OF SECTIONS BETWEEN VILLAVICENCIO AND PUERTO LÓPEZ	26	CO
AND38	IMPROVEMENT AND REHABILITATION OF THE NARUPA - GUAMANIYACU ROAD SECTION	23.5	EC
AND35	IMPROVEMENT AND REHABILITATION OF THE BELLA UNIÓN - GUALAQUIZA ROAD SECTION	23.2	EC
AND21	BINATIONAL BORDER SERVICE CENTER (CEBAF) ROAD AXIS NO. 1	15.9	EC - PE
AND14	COMPLETION OF THE PAVING OF THE TAME - ARAUCA ROAD	10.6	CO
AND64	ELECTRICITY INTERCONNECTION PROJECT BETWEEN PUERTO NUEVO - PUERTO PÁEZ (VENEZUELA) AND PUERTO CARREÑO (COLOMBIA)	5	CO
AND91	CONSTRUCTION OF THE NEW INTERNATIONAL RUMICHACA BRIDGE AND IMPROVEMENT OF THE EXISTING BRIDGE	4.1	CO - EC
AND12	COMPLETION OF THE PAVING OF THE TAME - VILLAVICENCIO ROAD	3.6	CO
AND13	IMPROVEMENT OF JOSÉ ANTONIO PÁEZ BRIDGE	1.3	CO
AND31	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT SAN MIGUEL	0	CO - EC
AND60	EXTENSION OF THE NOR-PERUANO OIL PIPELINE	0	EC - PE
18		829.6	

Presentation of the
ANDEAN HUB

The Andean Hub[1] extends from the coasts of the Caribbean Sea in Venezuela and Colombia to the border in the south between Bolivia and Argentina, including the Andes in Colombia, Ecuador, Peru, and Bolivia, all the territory of Venezuela, with the exception of the state of Amazonas, as well as the Pacific coasts of Colombia, Ecuador and Peru.

The Hub accounts for 14% of the South American territory (2,845,658 km²) and 28% of its population (111,195,797 inhabitants), i.e. it is the second more densely populated Hub after the MERCOSUR-Chile Hub. Furthermore, it contributes 19% to the GDP of the region (US$857,037 million). [2]

MAP OF THE AREA OF INFLUENCE OF THE ANDEAN HUB

1 See "Caracterización Socio-Económica y Ambiental del Eje del Andino,", COSIPLAN-IIRSA, 2015. www.iirsa.org//andino.asp.
2 At 2012 current prices.

The Hub's infrastructure is determined by the presence of the Andes, a monumental geographic accident, which gives rise to two distinct territorial spaces.

On the one hand, the western side of the Andes along the Pacific coast and the Caribbean sea has a vast infrastructure network made up of 30 sea ports, and a great number of roads connecting them with one another and with the interior of the Country. The national capital cities, other important cities and centers of economic activity are located here.
On the other hand, the eastern side of the Andes extends up to the Amazon basin and, in general, features administrative units with limited infrastructure in terms of land connectivity, lower population density, and less economic development.

The matrix of pre-existing and planned connectivity infrastructure focuses mainly on the road and, to a lesser extent, on the rail subsectors.

Although river transportation is present in the Hub, it is not significant enough, as the tributaries of the Amazon basin are at their source and, therefore, are not deep enough for vessel draft. Thus, when the river depth so allows it, deeper draft vessels that navigate regularly are in the area of influence of the Amazon Hub.

The Hub is also characterized by the presence of a great number of ports distributed along the Pacific and Atlantic coasts, which determines that the transportation of goods is mainly carried out by sea given its lower costs and better operational facilities.

The Andean Hub features the two large north-south road corridors that connect the main cities of the Country that make it up (Bolivia, Colombia, Ecuador, Peru and Venezuela): the Pan-American Highway, and the Marginal Highway of the Jungle. 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 entire **road network** of the Country that make up the Hub covers 443,588 km, 16% of which are paved (about 69,986 km). The **railway network** totals 11,216 km, 75% of which are active lines. The **sea port system** of the Andean Hub features 30 major ports, most of them located on the Pacific ocean, except for those on the Caribbean coasts of Venezuela and Colombia. Most **river transportation** activities in the region are carried out along the Orinoco, Magdalena and Amazon basins and its tributaries. Concerning **electricity generation**, as of 2012 the Country involved in the Hub had a joint installed power of about 53,747 MW.

The presence and diversity of **indigenous communities** is significant in the Hub, as there are approximately 270 peoples living in the five Country that make it up, reaching a total population of about 7,000,000 inhabitants. This situation is very important in many subnational administrative units, where the population accounts for more than 70% of the total.

Regarding the **protected areas** in the Hub, there are more than six hundred administrative units with some degree of environmental protection, totaling approximately 774,000 km2, which accounts for 27% of the Hub's total area. Many of these administrative units are inhabited by native communities and are characterized by their high biological diversity, a low degree of human intervention and the presence of high flora and fauna endemism rates. Of the **natural hazards** affecting the Hub, four global and/or regional hazards have been considered, namely: earthquakes, volcanoes, tsunamis and floods of large basins. In addition, in the Cordilleran areas, a localized though frequent and damaging hazard, as are landslides, is considered.

The Country involved in the Andean Hub plan investments for almost US$29 billion in 67 physical integration projects. The Andean Hub ranks third in terms of estimated investment.

Ecuador contributes almost 95% to the Hub's GDP, and Peru almost 90%, Venezuela approximately 80%, Colombia 76% and Bolivia 54%. In absolute terms, Venezuela and Colombia contribute 35% and 33%, respectively, to the Hub's aggregate GDP. Peru accounts for 21%, while Ecuador and Bolivia for only 9% and 2%, respectively.

A noteworthy trend in the Hub's global economic performance is its growth rate in the 2008-2012 period, which reached an average of 4%.

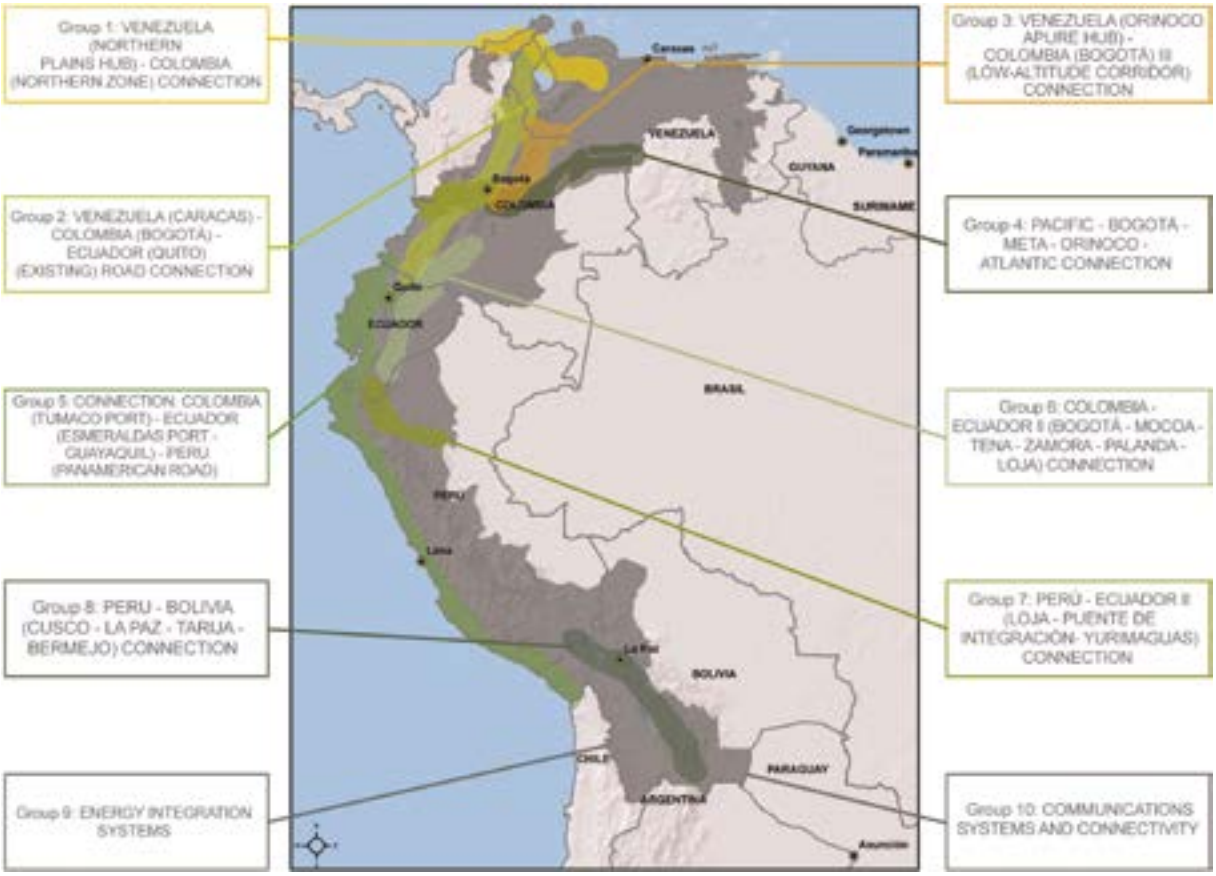
The Hub shares some regions of its area of influence with other six Hubs: the Amazon, the Guianese Shield, the Peru-Brazil-Bolivia, the Central Interoceanic, the Paraguay-Paraná Waterway and the Capricorn Hubs.

Project Portfolio

ANDEAN HUB

The projects of this Hub are intended to: (i) create and improve road corridors to enhance regional trade and tourism as well as incorporate new regions to international trade, for example, through a bioceanic corridor; (ii) improve the operation of the border crossings between Ecuador, Colombia and Venezuela that create bottlenecks to the traffic of goods and services; (iii) integrate the energy systems to promote the development of high value-added sectors as well as the development of populations in border areas; (iv) eliminate deficits in telephone coverage and allow the expansion of value-added services (e-government, distance learning, remote health care, and so on) as well as incorporate urban and rural populated areas that still lack these services.

MAP OF THE PROJECT GROUPS OF THE ANDEAN HUB



PROJECT GROUPS IN THE ANDEAN HUB

* US$ million

Group	Name	No. of Projects	Estimated Investment*
1	VENEZUELA (NORTHERN PLAINS HUB) - COLOMBIA (NORTHERN ZONE) CONNECTION	2	2.0
2	VENEZUELA (CARACAS) - COLOMBIA (BOGOTÁ) - ECUADOR (QUITO) (EXISTING) ROAD CONNECTION	11	4,265.6
3	VENEZUELA (ORINOCO APURE HUB) - COLOMBIA (BOGOTÁ) III (LOW-ALTITUDE CORRIDOR) CONNECTION	5	24.3
4	PACIFIC - BOGOTÁ - META - ORINOCO - ATLANTIC CONNECTION	3	135.0
5	CONNECTION: COLOMBIA (TUMACO PORT) - ECUADOR (ESMERALDAS PORT - GUAYAQUIL) - PERU (PAN-AMERICAN HIGHWAY)	19	20,388.8
6	COLOMBIA - ECUADOR II (BOGOTÁ - MOCOA - TENA - ZAMORA - PALANDA - LOJA) CONNECTION	5	465.0
7	PERU - ECUADOR II (LOJA - PUENTE DE INTEGRACIÓN - YURIMAGUAS) CONNECTION	3	153.6
8	PERU - BOLIVIA (CUSCO - LA PAZ - TARIJA - BERMEJO) CONNECTION	4	851.1
9	ENERGY INTEGRATION SYSTEMS	13	2,328.4
10	COMMUNICATIONS SYSTEMS AND CONNECTIVITY	2	0.1
TOTAL		**67**	**28,613.9**

The Hub's active portfolio features 49 projects with an estimated investment of US$27,784 million.

These projects are distributed in 10 groups presenting two main purposes: land connectivity in eight groups, and two groups that seek to reinforce the energy matrix and communications network of the Hub.

Of the 49 active projects, 17 have information available on their estimated completion date, 13 of which are scheduled to be completed in the next four years (2015-2018).

After having completed these 13 projects, it is expected that only 9% of the investment amount estimated for the Hub's portfolio will have been spent, which is easily understandable as almost 70% of the investment (US$19,489 million) estimated for the Hub is targeted for projects at the profiling stage. In other words, investments in projects that are currently at some degree of advanced development amount to US$9,125 million.

PROJECTS TO BE COMPLETED IN THE NEXT FOUR YEARS

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Estimated Completion Date
AND39	PAVING OF VILCABAMBA - PUENTE DE INTEGRACIÓN (INTEGRATION BRIDGE) - JAÉN	7		126.7	EC - PE	Oct 31,2015
AND93	BINATIONAL BORDER SERVICE CENTER (CEBAF) ROAD AXIS NO. 3 SULLANA - MACARÁ - LOJA	5		12.0	EC - PE	Dec 31, 2015
AND47	DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)	8		29.9	BO - PE	Jan 31,2016
AND75	UPGRADE OF THE CERRO AZUL - ICA ROAD SECTION TO A FOUR-LANE ROAD	5		293.9	PE	May 06,2016
AND27	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE ANCÓN - PATIVILCA SECTION	5		75.1	PE	May 31,2016
AND100	REHABILITATION AND CONSTRUCTION OF BRIDGES ALONG THE SULLANA - TUMBES - TURN-OFF TO THE INTERNATIONAL BYPASS ROAD	5		47.2	PE	Jun 30,2016
AND23	LA ESPRIELLA - MATAJE PROJECT, INCLUDING A BRIDGE OVER THE MATAJE RIVER	5		25.0	CO - EC	Aug 31, 2016
AND79	IMPROVEMENT AND PAVING OF THE MOCOA - SANTA ANA - SAN MIGUEL ROAD SECTION	6		179.0	CO	Dec 31,2016
AND22	MATAJE RIVER BINATIONAL BORDER SERVICE CENTER (CEBAF)	5		4.0	CO - EC	Mar 31, 2017
AND24	REHABILITATION OF THE BORBÓN - SAN LORENZO SECTION (MATAJE)	5		0.0	EC	May 15,2017
AND29	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE PATIVILCA - TRUJILLO SECTION	5		456.4	PE	Dec 31,2017
AND81	IMPROVEMENT OF THE BORDER CROSSINGS IN THE NORTHERN DEPARTMENT OF SANTANDER AND THE TÁCHIRA STATE	2		14.0	CO - VE	Dec 31,2017
AND30	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE TRUJILLO - SULLANA SECTION	5		441.2	PE	Dec 31,2018

The five projects with the greatest estimated investment account for 80% of the investment in the Hub's active portfolio, and the project with the highest investment of all accounts for 64%.

It should be noted that all the projects are national in scope and are almost entirely financed by the public sector. One of the projects mentioned is a hinge project, i.e. it articulates two project groups within the Hub, thus being key to their connectivity. One is the Bogotá - Buenaventura Road Corridor, which will connect the Pacific and Atlantic oceans through links to river waterways and multimodal projects.

Four of these five projects are at the execution stage, while the Ecuador's Freight Electric Train is at the profiling stage. An analysis by sector and subsector shows that there are two projects serving the purpose of generating energy: a hydroelectric project, intended to diversify the Hub's energy matrix, and a coal-fired power plant. The other three projects concern transportation: two road and one rail projects.

PROFILING PRE-EXECUTION EXECUTION COMPLETED

THE FIVE PROJECTS OF THE ACTIVE PORTFOLIO WITH THE GREATEST ESTIMATED INVESTMENT

Code	Name	Group	Stage	Estimated Investment*	Countries	Type of Financing
AND95	ECUADOR'S FREIGHT ELECTRIC TRAIN	5		17,800.0	EC	PUBLIC
AND07	BOGOTÁ - BUENAVENTURA ROAD CORRIDOR	2-4		1,791.0	CO	PUBLIC
AND05	BOGOTÁ - CÚCUTA ROAD CORRIDOR	2		1,559.0	CO	PUBLIC
AND62	SANTO DOMINGO COAL-FIRED POWER PLANT	9		625.0	VE	PRIVATE
AND97	CHONTAL HYDROELECTRIC PROJECT (194 MW)	9		595.0	EC	PUBLIC

There are 18 completed projects in the Hub for a total investment of US$830 million.

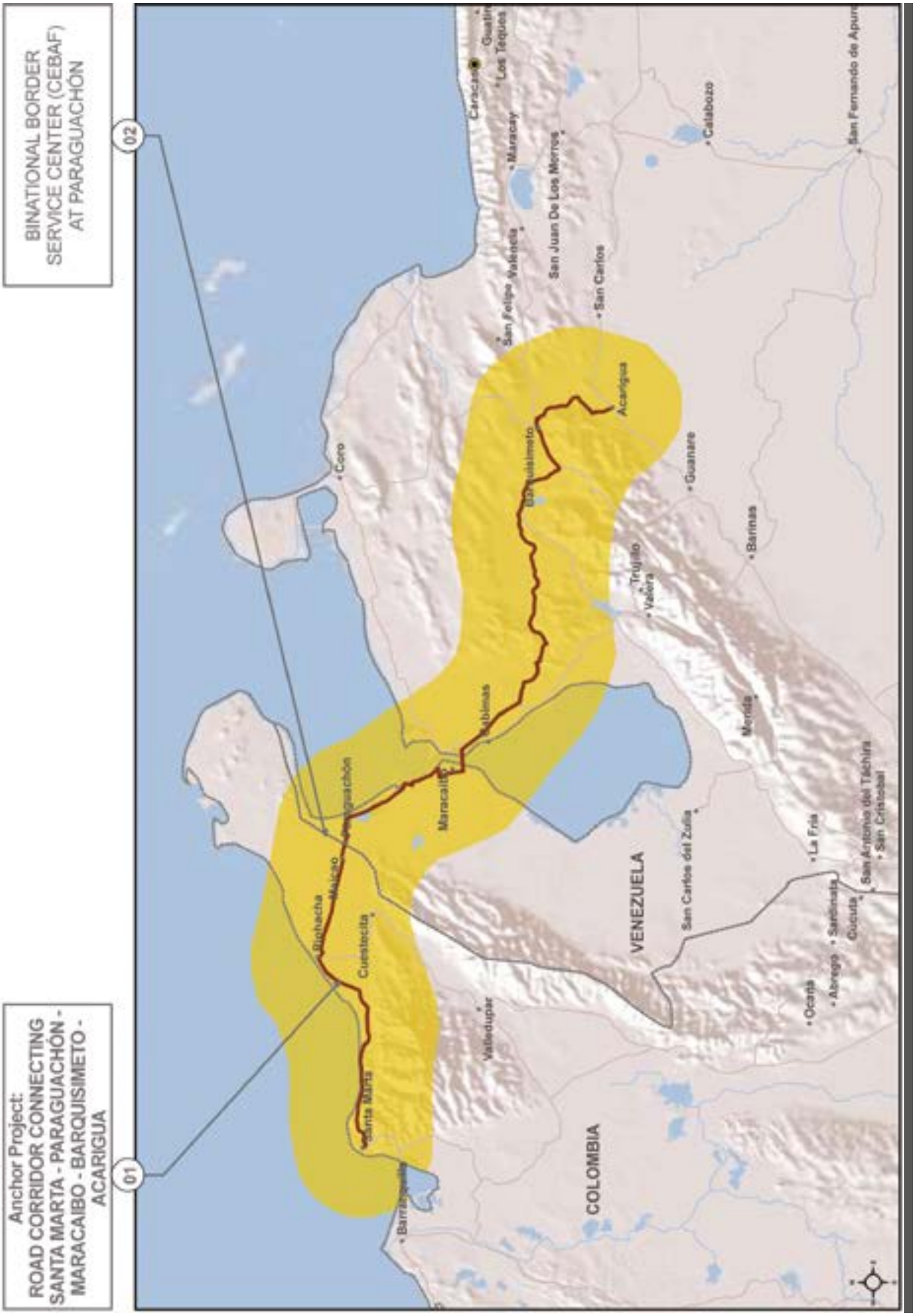
Seventeen of such projects were financed by the public sector, which invested more than half of the amount in the energy sector and the rest in transportation projects.

Among the 18 completed projects, there is a Binational Center categorized as an Anchor Project, and three roads that, together with other three roads in the Amazon Hub, provide an advanced regional connectivity between Peru and Ecuador. The roads already completed in this connectivity consolidate the road axis along the coast and facilitate access to the other border centers.

Code	Name	Investment Amount	Countries	Group	Subsector
AND21	**Binational Border Service Center (CEBAF) Road Axis No. 1**	**15.9**	**EC - PE**	**5**	**BORDER CROSSINGS**
AND26	PUERTO INCA - HUAQUILLAS ROAD AND HUAQUILLAS - AGUAS VERDES INTERNATIONAL BRIDGE, HUAQUILLAS BYPASS	85.8	EC - PE	5	ROAD
AND88	SULLANA - EL ALAMOR ROAD	29.5	PE	5	ROAD
AND89	SULLANA - MACARA - LOJA ROAD	48.4	PE	5	ROAD
AMA46	IMPROVEMENT OF THE GUAYAQUIL - EL TRIUNFO - LA TRONCAL - ZHUD - EL TAMBO - CAÑAR - AZOGUES - PAUTE - AMALUZA - MÉNDEZ ROAD, AND ENLARGEMENT AND IMPROVEMENT OF THE MÉNDEZ - PUERTO MORONA ROAD SECTION	140.0	EC	7	ROAD
AMA47	IMPROVEMENT OF THE PUERTO BOLÍVAR - SANTA ROSA - BALSAS - CHAGUARPAMBA - LOJA - ZAMORA - YANTZAZA - EL PANGUI - GUALAQUIZA - GRAL. LEÓNIDAS PLAZA - MÉNDEZ ROAD SECTION	167.7	EC	7	ROAD
AMA48	IMPROVEMENT OF THE PUERTO BOLÍVAR - PASAJE - SANTA ISABEL - GIRÓN - CUENCA - PAUTE - AMALUZA - MÉNDEZ - PUERTO MORONA ROAD SECTION	26.8	EC	7	ROAD
Total		**1,352.8**			

Venezuela (northern Plains hub)
Colombia (Northern Zone) Connection

Colombia – Venezuela



AND Group 1

Strategic Function

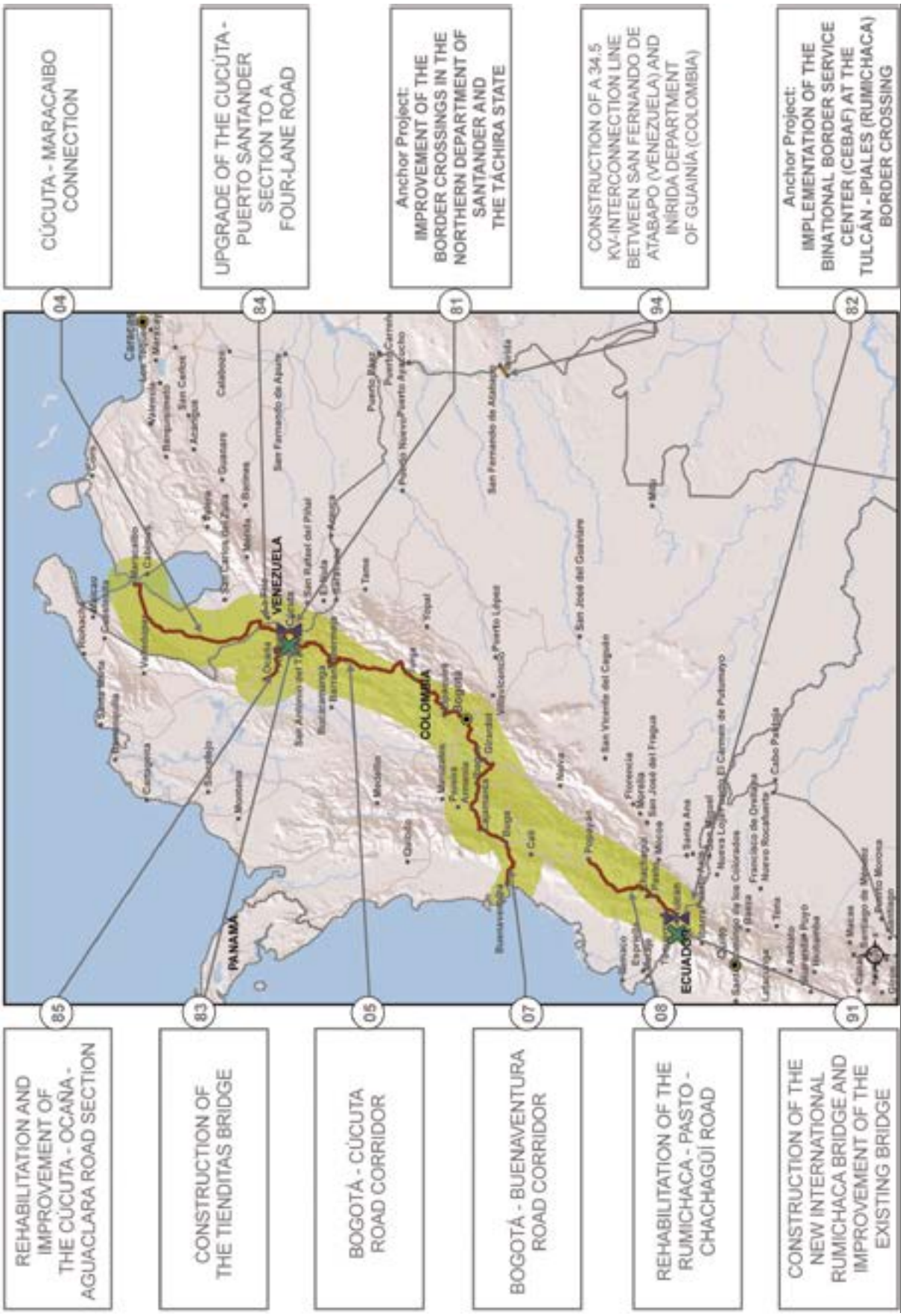
- Consolidate the economic integration between Colombia's northern Atlantic area and Venezuela's northern plains through an existing paved road.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AND01	ROAD CORRIDOR CONNECTING SANTA MARTA - PARAGUACHÓN - MARACAIBO - BARQUISIMETO - ACARIGUA		0.0	CO - VE
AND02	BINATIONAL BORDER SERVICE CENTER (CEBAF) AT PARAGUACHÓN		2.0	VE
2			2.0	

Venezuela (Caracas) - Colombia (Bogotá) Ecuador (Quito))Existing) Road Connection

Colombia – Ecuador – Venezuela



AND Group 2

Strategic Function

- Reinforce the socioeconomic relations of Ecuador, Colombia, and Venezuela through existing paved roads, which entails improving their border crossings and finding solutions to specific bottlenecks.

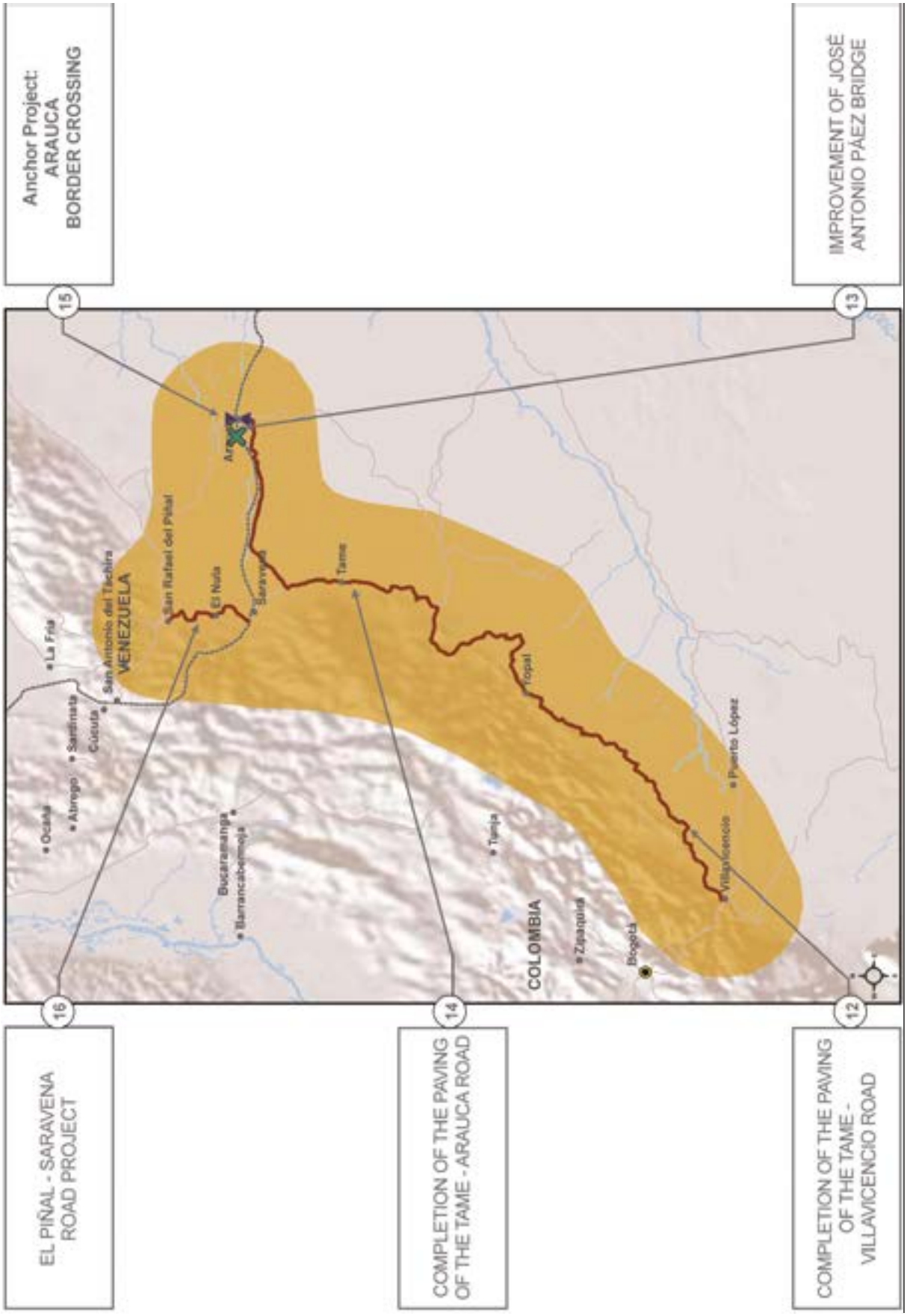
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AND04	CÚCUTA - MARACAIBO CONNECTION		0.3	CO - VE
AND05	BOGOTÁ - CÚCUTA ROAD CORRIDOR		1,559.0	CO
AND07	BOGOTÁ - BUENAVENTURA ROAD CORRIDOR		1,791.0	CO
AND08	REHABILITATION OF THE RUMICHACA - PASTO - CHACHAGÜÍ ROAD		221.0	CO
AND81	**IMPROVEMENT OF THE BORDER CROSSINGS IN THE NORTHERN DEPARTMENT OF SANTANDER AND THE TÁCHIRA STATE**		**14.0**	**CO - VE**
AND82	**IMPLEMENTATION OF THE BINATIONAL BORDER SERVICE CENTER (CEBAF) AT THE TULCÁN - IPIALES (RUMICHACA) BORDER CROSSING**		**104.7**	**CO - EC**
AND83	CONSTRUCTION OF THE TIENDITAS BRIDGE		0.9	CO - VE
AND84	UPGRADE OF THE CUCUTÁ - PUERTO SANTANDER SECTION TO A FOUR-LANE ROAD		1.8	CO
AND85	REHABILITATION AND IMPROVEMENT OF THE CÚCUTA - OCAÑA - AGUACLARA ROAD SECTION		566.0	CO
AND91	CONSTRUCTION OF THE NEW INTERNATIONAL RUMICHACA BRIDGE AND IMPROVEMENT OF THE EXISTING BRIDGE		4.1	CO - EC
AND94	CONSTRUCTION OF A 34.5-KV INTERCONNECTION LINE BETWEEN SAN FERNANDO DE ATABAPO (VENEZUELA) AND INÍRIDA DEPARTMENT OF GUAINIA (COLOMBIA)		2.9	CO - VE
11			**4,265.7**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Venezuela (Orinoco Apure Hub)
Colombia (Bogotá) III (Low-Altitude Corridor) Connection

Colombia - Venezuela



AND Group 3

Strategic Function

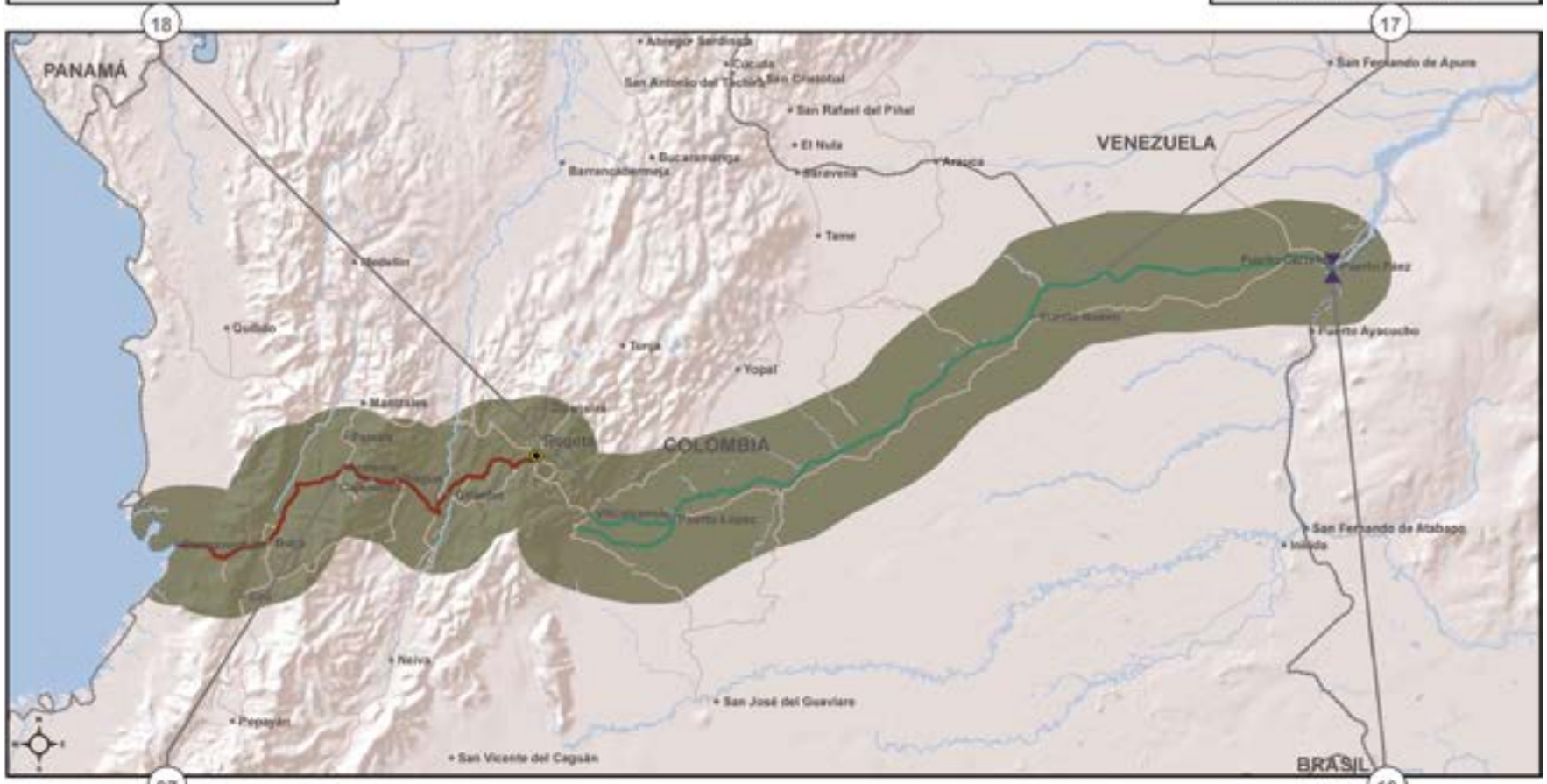
- Develop an international corridor for long-distance cargo transport with significantly lower operating costs and traveling times than the current Caracas - Bogotá corridor.
- This corridor will allow the participation in international trade of new regions in Colombia (Arauca) and Venezuela (Barinas).

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AND12	COMPLETION OF THE PAVING OF THE TAME - VILLAVICENCIO ROAD		3.6	CO
AND13	IMPROVEMENT OF JOSÉ ANTONIO PÁEZ BRIDGE		1.3	CO
AND14	COMPLETION OF THE PAVING OF THE TAME - ARAUCA ROAD		10.5	CO
AND15	**ARAUCA BORDER CROSSING**		**2.0**	**CO - VE**
AND16	EL PIÑAL - SARAVENA ROAD PROJECT		6.8	VE
5			24.2	

PAVING OF SECTIONS BETWEEN VILLAVICENCIO AND PUERTO LÓPEZ

Anchor Project:
PUERTO GAITÁN – PUERTO CARREÑO MULTIMODAL PROJECT, INCLUDING IMPROVEMENT OF THE NAVIGATION CONDITIONS ON THE META RIVER



BOGOTÁ - BUENAVENTURA ROAD CORRIDOR

PUERTO CARREÑO BORDER CROSSING

AND Group 4

Strategic Function

- Develop a Pacific - Bogotá - Meta - Orinoco - Atlantic bioceanic corridor for fostering trade among regions in Colombia (Orinoquía, Andina, and Pacífico) and Venezuela (the Plains, including the states of Anzoátegui and Monagas, Guayana, Orinoco Delta) and for opening up these regions to international markets.

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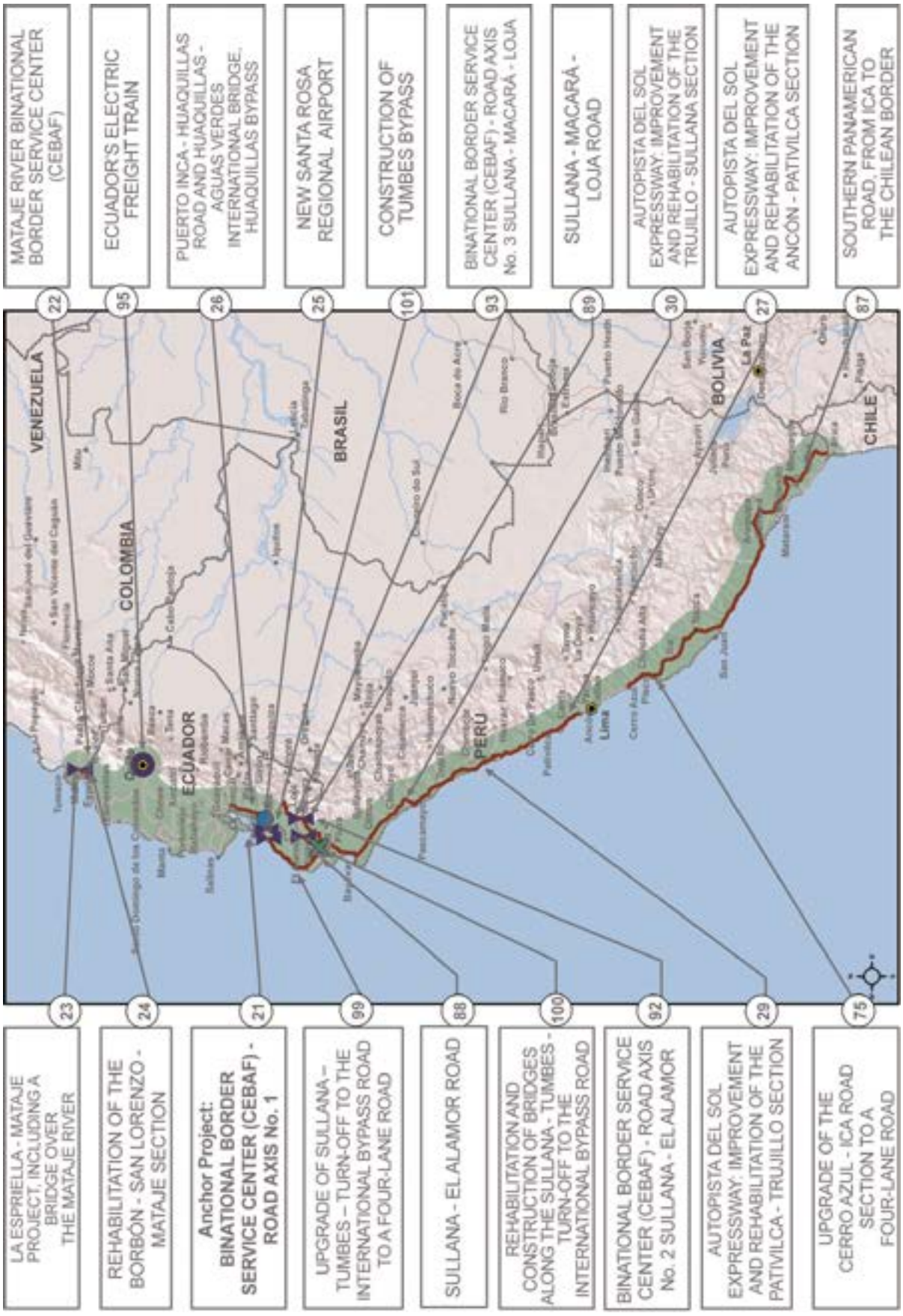
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AND07	BOGOTÁ - BUENAVENTURA ROAD CORRIDOR*		1,791.0	CO
AND17	**PUERTO GAITÁN - PUERTO CARREÑO MULTIMODAL PROJECT, INCLUDING IMPROVEMENT OF THE NAVIGATION CONDITIONS ON THE META RIVER**		**108.0**	**CO**
AND18	PAVING OF SECTIONS BETWEEN VILLAVICENCIO AND PUERTO LÓPEZ		26.0	CO
AND19	PUERTO CARREÑO BORDER CROSSING		1.0	VE
4			**1,926.0**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Connection: Colombia (Tumaco Port)
Ecuador (Esmeraldas Port - Guayaquil) - Peru (Pan-American Highway)

Colombia – Ecuador - Peru



AND Group 5

Strategic Function

- Reinforce programs and projects of the main road corridor articulating the coastal areas of Peru and Ecuador as well as the Southern Pacific Colombian areas in order to make the production and trade capacity more dynamic and improve the quality of life of populations in border areas.

* US$ million

Code	Name	Stage	Estimated Investment *	Countries
AND21	**BINATIONAL BORDER SERVICE CENTER (CEBAF) ROAD AXIS NO. 1**		**15.9**	**EC - PE**
AND22	MATAJE RIVER BINATIONAL BORDER SERVICE CENTER (CEBAF)		4.0	CO - EC
AND23	LA ESPRIELLA - MATAJE PROJECT, INCLUDING A BRIDGE OVER THE MATAJE RIVER		25.0	CO - EC
AND24	REHABILITATION OF THE BORBÓN - SAN LORENZO SECTION (MATAJE)		0.0	EC
AND25	NEW SANTA ROSA REGIONAL AIRPORT		47.1	EC
AND26	PUERTO INCA - HUAQUILLAS ROAD AND HUAQUILLAS - AGUAS VERDES INTERNATIONAL BRIDGE, HUAQUILLAS BYPASS		85.8	EC - PE
AND27	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE ANCÓN - PATIVILCA SECTION		75.0	PE
AND29	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE PATIVILCA - TRUJILLO SECTION		456.4	PE
AND30	AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE TRUJILLO - SULLANA SECTION		441.2	PE
AND75	UPGRADE OF THE CERRO AZUL - ICA ROAD SECTION TO A FOUR-LANE ROAD		293.9	PE
AND87	SOUTHERN PANAMERICAN ROAD, FROM ICA TO THE CHILEAN BORDER		460.0	PE
AND88	SULLANA - EL ALAMOR ROAD		29.5	PE
AND89	SULLANA - MACARA - LOJA ROAD		48.4	PE
AND92	BINATIONAL BORDER SERVICE CENTER (CEBAF) - ROAD AXIS No. 2 SULLANA - EL ALAMOR		20.0	EC - PE
AND93	BINATIONAL BORDER SERVICE CENTER (CEBAF) - ROAD AXIS No. 3 SULLANA - MACARÁ - LOJA		12.0	EC - PE
AND95	ECUADOR'S FREIGHT ELECTRIC TRAIN		17,800.0	EC
AND99	UPGRADE OF SULLANA – TUMBES – TURN-OFF TO THE INTERNATIONAL BYPASS ROAD TO A FOUR-LANE ROAD		472.4	PE
AND100	REHABILITATION AND CONSTRUCTION OF BRIDGES ALONG THE SULLANA - TUMBES - TURN-OFF TO THE INTERNATIONAL BYPASS ROAD		47.2	PE
AND101	CONSTRUCTION OF TUMBES BYPASS		54.9	PE
19			20,388.7	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Colombia - Ecuador II (Bogotá - Mocoa - Tena - Zamora - Palanda - Loja) Connection

Colombia – Ecuador

31 **Anchor Project: BINATIONAL BORDER SERVICE CENTER (CEBAF) AT SAN MIGUEL**

90 PAVING AND IMPROVEMENT OF THE SAN VICENTE DEL CAGUÁN - SAN JOSÉ DE FRAGUA - EL PORVENIR ROAD SECTION

79 IMPROVEMENT AND PAVING OF THE MOCOA - SANTA ANA - SAN MIGUEL ROAD SECTION

38 IMPROVEMENT AND REHABILITATION OF THE NARUPA - GUAMANIYACU ROAD SECTION

35 IMPROVEMENT AND REHABILITATION OF THE BELLA UNIÓN - GUALAQUIZA ROAD SECTION

AND Group 6

Strategic Function

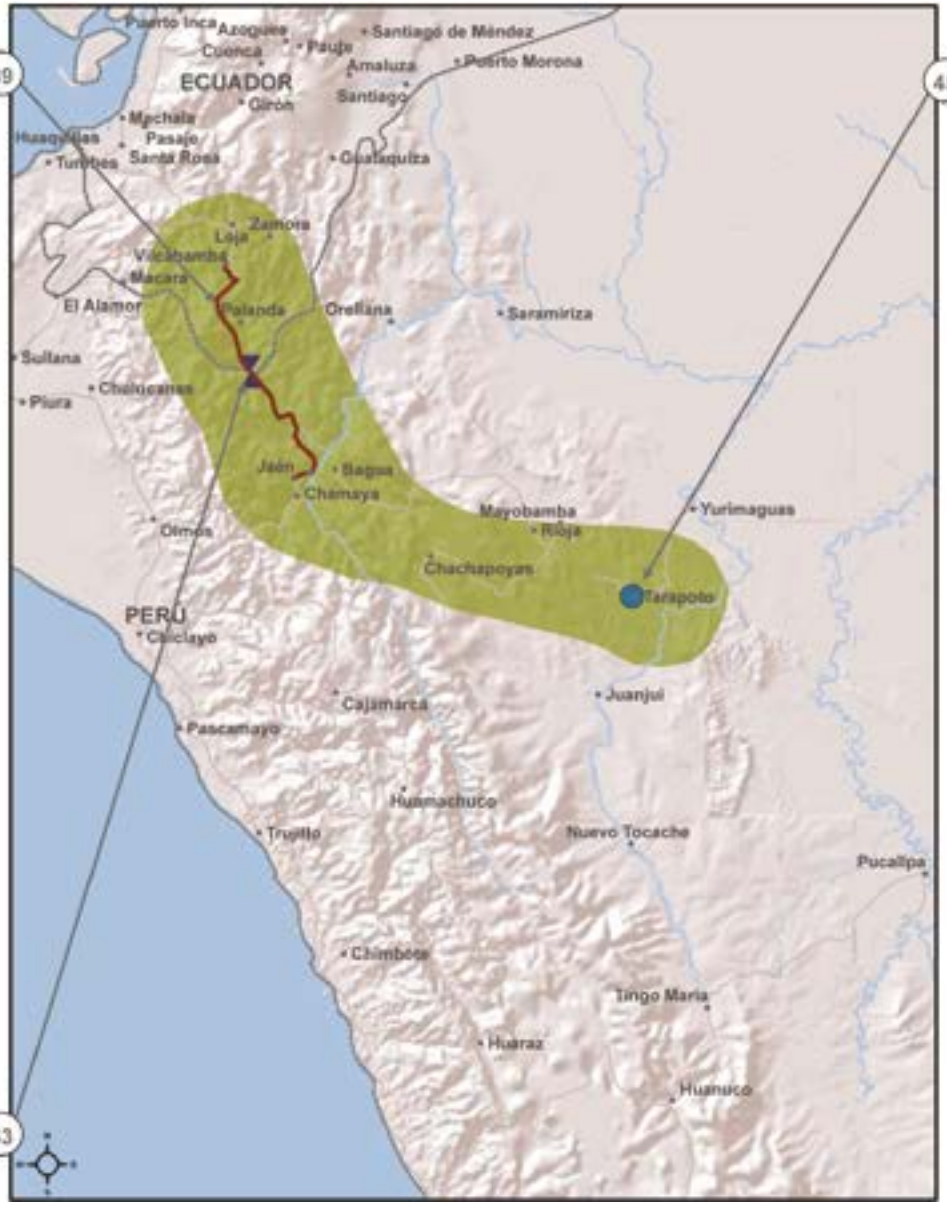
- Develop a corridor that would enhance the trade relations in central and southern Colombia with Amazon provinces of northern and central Ecuador.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AND31	**BINATIONAL BORDER SERVICE CENTER (CEBAF) AT SAN MIGUEL**		**0.0**	**CO - EC**
AND35	IMPROVEMENT AND REHABILITATION OF THE BELLA UNIÓN - GUALAQUIZA ROAD SECTION		23.2	EC
AND38	IMPROVEMENT AND REHABILITATION OF THE NARUPA - GUAMANI-YACU ROAD SECTION		23.5	EC
AND79	IMPROVEMENT AND PAVING OF THE MOCOA - SANTA ANA - SAN MIGUEL ROAD SECTION		179.0	CO
AND90	PAVING AND IMPROVEMENT OF THE SAN VICENTE DEL CAGUÁN - SAN JOSÉ DE FRAGUA - EL PORVENIR ROAD SECTION		239.3	CO
5			465.0	

Anchor Project:
PAVING OF VILCABAMBA - PUENTE DE INTEGRACIÓN (INTEGRATION BRIDGE) - JAÉN

39



45

IMPROVEMENT OF THE TARAPOTO AIRPORT

BINATIONAL BORDER SERVICE CENTER (CEBAF) - ROAD AXIS No. 4 PUENTE DE INTEGRACIÓN (INTEGRATION BRIDGE)

43

AND Group 7

Strategic Function

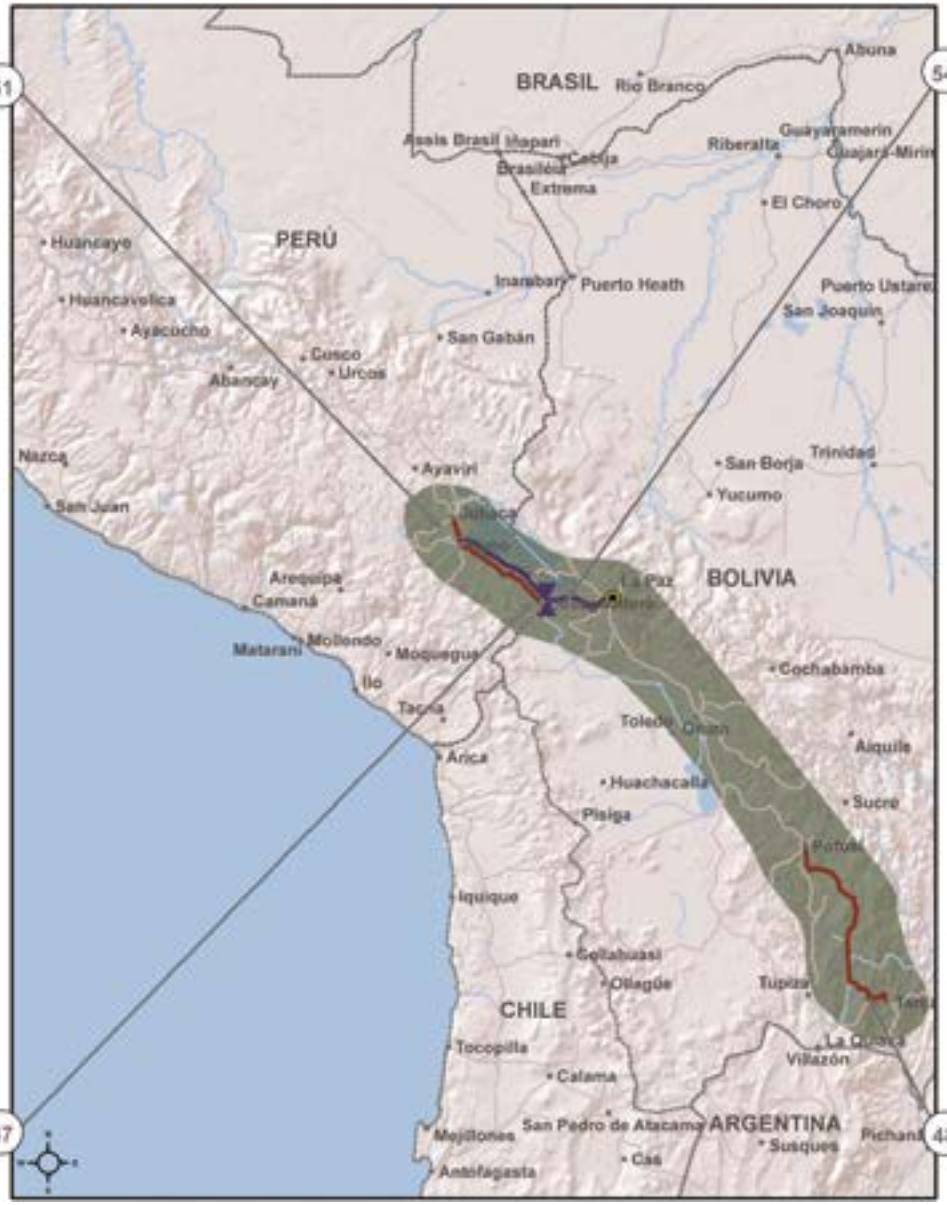
- Develop an international trade corridor by improving the roads that connect the cities of Loja Vilcabamba and Tarapoto, and Yurimaguas. This corridor will join the southern Andean region of Ecuador with the northern rainforest of Peru and its projection to the Amazon waterways.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AND39	**PAVING OF VILCABAMBA - PUENTE DE INTEGRACIÓN (INTEGRATION BRIDGE) - JAÉN**		**126.7**	**EC - PE**
AND43	BINATIONAL BORDER SERVICE CENTER (CEBAF) - ROAD AXIS No. 4 PUENTE DE INTEGRACIÓN (INTEGRATION BRIDGE)		20.0	EC - PE
AND45	IMPROVEMENT OF THE TARAPOTO AIRPORT		6.9	PE
3			**153.6**	

EXPANSION AND REHABILITATION OF THE JULIACA - DESAGUADERO ROAD

51



54

CONSTRUCTION OF THE RAILWAY CONNECTION BETWEEN BOLIVIA AND PERU

Anchor Project: DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)

47

48

COMPLETION OF THE PAVING OF THE POTOSÍ - TARIJA ROAD

AND Group 8

Strategic Function

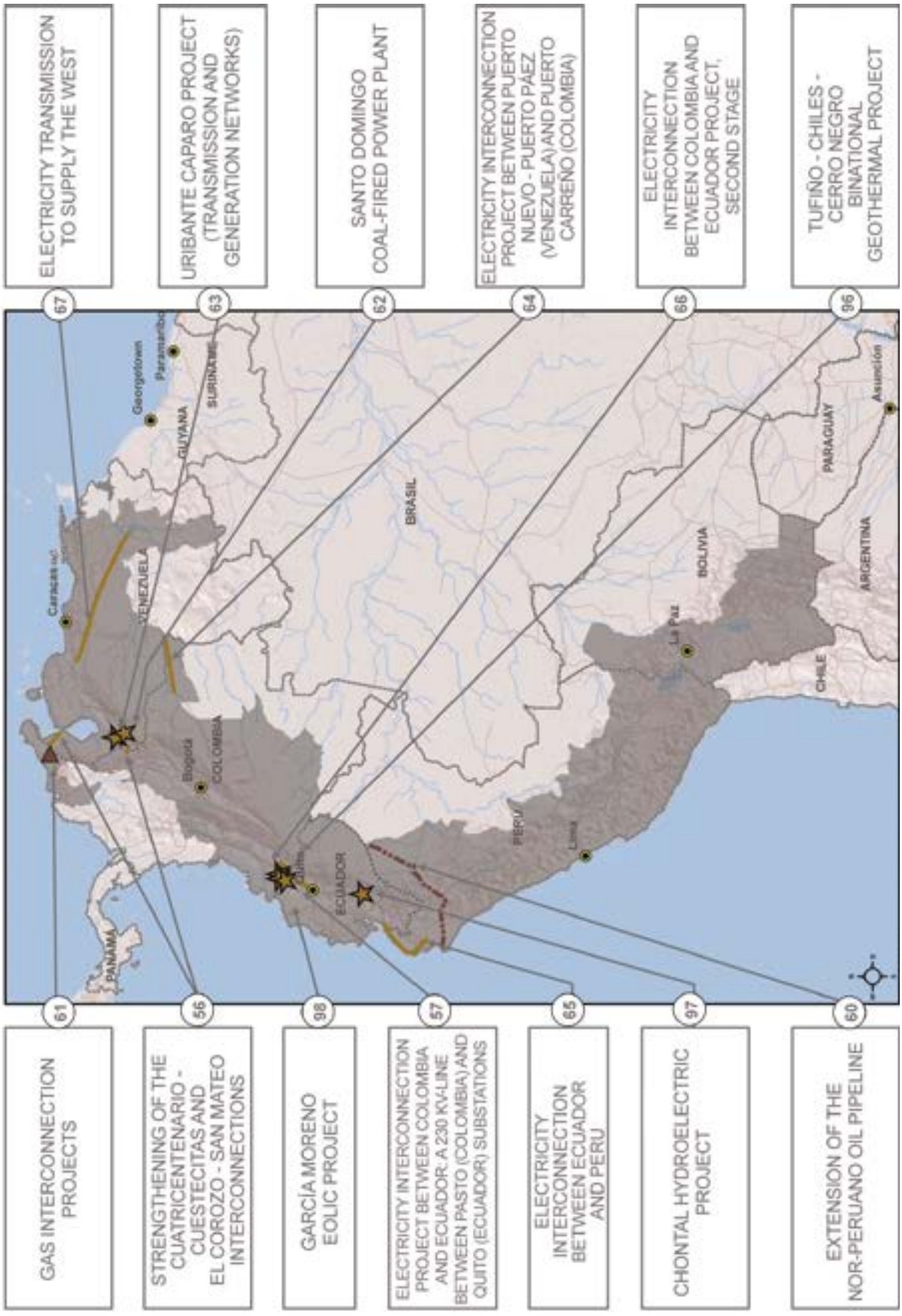
- Reinforce tourism and economic relations among the Andean cities of Peru (Cusco, Puno) and Bolivia (La Paz, Tarija) through existing paved routes, and extend these to the central Andean area of Peru and northwestern Argentina.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AND47	**DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)**		**29.9**	**BO - PE**
AND48	COMPLETION OF THE PAVING OF POTOSÍ - TARIJA ROAD		238.2	BO
AND51	EXPANSION AND REHABILITATION OF THE JULIACA - DESAGUADERO ROAD		193.0	PE
AND54	CONSTRUCTION OF THE RAILWAY CONNECTION BETWEEN BOLIVIA AND PERU		390.0	BO - PE
4			851.1	

Energy Integration Systems

Colombia – Ecuador – Peru - Venezuela



AND Group 9

Strategic Function

- Integrate energy systems to improve the efficiency and reliability of energy generation, transmission and distribution in order to promote the development of high value-added sectors, as well as the development of populations in border areas.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AND56	STRENGTHENING OF THE CUATRICENTENARIO - CUESTECITAS AND EL COROZO - SAN MATEO INTERCONNECTIONS		125.2	CO - VE
AND57	ELECTRICITY INTERCONNECTION PROJECT BETWEEN COLOMBIA AND ECUADOR: A 230-KV LINE BETWEEN PASTO (COLOMBIA) AND QUITO (ECUADOR) SUBSTATIONS		45.4	CO - EC
AND60	EXTENSION OF THE NOR-PERUANO OIL PIPELINE		0.0	EC - PE
AND61	GAS INTERCONNECTION PROJECTS		335.0	CO
AND62	SANTO DOMINGO COAL-FIRED POWER PLANT		625.0	VE
AND63	URIBANTE CAPARO PROJECT (TRANSMISSION AND GENERATION NETWORKS)		0.0	VE
AND64	ELECTRICITY INTERCONNECTION PROJECT BETWEEN PUERTO NUEVO - PUERTO PÁEZ (VENEZUELA) AND PUERTO CARREÑO (COLOMBIA)		5.0	CO
AND65	ELECTRICITY INTERCONNECTION BETWEEN ECUADOR AND PERU		0.0	EC - PE
AND66	ELECTRICITY INTERCONNECTION BETWEEN COLOMBIA AND ECUADOR PROJECT, SECOND STAGE		0.0	CO - EC
AND67	ELECTRICITY TRANSMISSION TO SUPPLY THE WEST		590.0	VE
AND96	TUFIÑO - CHILES - CERRO NEGRO BINATIONAL GEOTHERMAL PROJECT		6.9	CO - EC
AND97	CHONTAL HYDROELECTRIC PROJECT		595.0	EC
AND98	GARCÍA MORENO EOLIC PROJECT		0.9	EC
13			2,328.4	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

OPTICAL FIBER CABLES FOR TELECOMMUNICATIONS IN TRANSMISSION NETWORKS
69
Anchor Project:
USE OF EXISTING INFRA-STRUCTURE AND NEW CONNECTIONS TO ENHANCE COMMUNICATIONS INFRASTRUCTURE
68
GUYANA
SURINAME
BRASIL
VENEZUELA
COLOMBIA
ECUADOR
PERU
BOLIVIA
PARAGUAY
ARGENTINA
CHILE
PANAMA

AND Group 10

Strategic Function

- Incorporate urban and rural populated areas into the telecommunications system, eliminating the deficit in telephone coverage and allowing the expansion of value-added services (e-government, distance learning, remote health care, and so on) as a tool to develop isolated areas, and improve quality of life and cultural integration.
- Furthermore, expand the use of communication services to foster development, trade, and regional integration.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
AND68	USE OF EXISTING INFRASTRUCTURE AND NEW CONNECTIONS TO ENHANCE COMMUNICATIONS INFRASTRUCTURE		0.1	BO - CO - EC - PE -VE
AND69	OPTICAL FIBER CABLES FOR TELECOMMUNICATIONS IN TRANSMISSION NETWORKS		0.0	BO - CO - EC - PE - VE
2			0.1	

CAPRICORN HUB

INTEGRATION AND DEVELOPMENT HUB

Population:	53,509,280 inhabitants
Density:	19.7 Inh./km²
Area:	2,722,534 km²
GDP:	US$ 575,422 million
Services	75.0%
Industry	13.9%
Agriculture	5.9%
Mines and quarries	5.2%

ARGENTINA BOLIVIA BRAZIL CHILE PARAGUAY

Estimated investment

* US$ million

16,314.7

82
Projects

86.6%
National

71

Argentina	43
Bolivia	3
Brazil	8
Chile	18
Paraguay	21

13.4%
Binational

11

Projects per Sector

Transport	Energy
79	3
14,737.7	1,577

Projects per Types of Financing

Public	Private	Public Private
71	8	3
14,131.1	1,861.7	322

Projects per Stages

Profiling	Pre Execution	Execution	Concluded
12	37	19	14
2,689	8,803.1	2,683.7	2,139

US$ million Number of projects

COMPLETED PROJECTS OF THE HUB

* US$ million

Code	Name	Investment*	Countries
CAP03	ELECTRICITY INTERCONNECTION BETWEEN THE ARGENTINE NORTHWESTERN AND NORTHEASTERN REGIONS	725	AR
CAP67	500-KV TRANSMISSION LINE (ITAIPU - VILLA HAYES)	555	PY
CAP46	CONCESSION OF ANTOFAGASTA EXPRESSWAY	370	CH
CAP08	ENLARGEMENT OF THE MEJILLONES PORT COMPLEX (PHASE I)	120	CH
CAP06	PAVING OF NATIONAL ROUTE NO. 81 BETWEEN LAS LOMITAS AND THE INTERSECTION WITH NATIONAL ROUTE NO. 34	100	AR
CAP80	MEJILLONES PORT COMPLEX	80	CH
CAP01	ACCESS ROADS TO PASO DE JAMA BORDER CROSSING (NATIONAL ROUTE NO. 52 - INTERSECTION WITH NATIONAL ROUTE NO. 9 - BORDER WITH CHILE)	54	AR
CAP61	PAVING OF NATIONAL ROUTE NO. 95 BETWEEN VILLA ÁNGELA AND THE INTERSECTION WITH PROVINCIAL (SANTA FE) ROUTE NO. 286	37	AR
CAP56	CONSTRUCTION OF A BYPASS OF NATIONAL ROUTE NO. 12 AROUND POSADAS CITY (MISIONES PROVINCE)	35	AR
CAP88	ANTOFAGASTA AIRPORT	28	CH
CAP09	UPGRADE WORKS AT ANTOFAGASTA PORT	18	CH
CAP89	HITO CAJÓN BORDER COMPLEX	13	CH
CAP02	IMPLEMENTATION OF INTEGRATED (ONE-STOP) BORDER CONTROL AT JAMA BORDER CROSSING	4	AR - CH
CAP91	BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA - SOCOMPA)	0	CH
14		2,139	

Presentation of the
CAPRICORN HUB

The Capricorn Hub[1] runs along the Pacific coast of Chile, cuts across the Andean region of Bolivia, reaches the north of Argentina, covers the Republic of Paraguay, and includes the Brazilian states on the Atlantic coast. It accounts for 14% of the territory (2,722,534 km^2), 14% of the population (53,509,280 inhabitants), and 13% of the Gross Domestic Product (GDP) of South America, amounting to US$575,422 million.[2]

The Capricorn Hub ranks sixth in terms of the population, territory, and GDP of South America.

MAP OF THE AREA OF influence OF THE CAPRICORN HUB

The **road network** of the Country involved in the Hub covers a total length of 2,117,539 km, of which only 15% are paved. There are several road corridors connecting agricultural production areas and mineral extraction centers located in the central region of the Hub with ports on the Paraguay and Paraná rivers as well as ports located on the Brazilian Atlantic coastline. The **railway network** covers 61,424 km, of which approximately 87% are in operating condition. There are important railway connections in different degree of preservation and condition for operation running mostly from east to west, connecting the ports on both oceans with the interior of the Country. However, it is necessary to extend the existing sections in order to connect the ports of Paranaguá on the Atlantic and Antofagasta on the Pacific. The **sea and river port system** is made up of 25 major ports —four of which handle more than 10,000,000 tons— that are located mainly on the coasts of the Atlantic ocean and along the Paraná and Paraguay rivers, to which the Chilean ports on the Pacific should be added. Most **river transportation activities** in the region are carried out along the Paraná and Paraguay rivers, which jointly make up the major river communication route in the region and which are vitally important for Paraguayan and Bolivian agricultural production to reach the sea ports. The **airport system** features 39 major airports, 17 of which are international. Passenger service is adequate, with good airport infrastructure and several connections to the main cities in the interior of the Country. Cargo transportation by air is very

1 See "Caracterización Socio-Económica y Ambiental del Eje de Capricornio," COSIPLAN-IIRSA, 2014. www.iirsa.org/capricornio.asp.
2 At 2013 current prices.

limited and is mainly concerned with the import of industrial manufactures from Country other than those included in the Hub. Concerning **electricity generation**, as of 2013 the Country involved in the Hub had a joint installed power of about 184,656 MW.

The presence of **indigenous communities** in the territory of the Capricorn Hub is very significant, particularly in Bolivia and the northern area of Argentina and, to a lesser extent, in the eastern region of Paraguay, whereas their presence is limited in Brazil and Chile.

At present, there are approximately four hundred **administrative units with some degree of environmental protection**, totaling about 162.100 km², which account for 6% of the total area of the Hub.

The **natural hazards** affecting the Capricorn Hub include seismic movements in the form of earthquakes, volcanoes, tsunamis, and floods of large basins. Landslides are also considered, which though localized, are frequent and highly damaging.

The Country involved in the Capricorn Hub plan investments for US$16 billion in 82 physical integration projects.

Paraguay contributes 100% of its economy, whereas the other Country contribute about 14% and 17% of their GDP to the Hub. In absolute terms, Brazil contributes 68% to the Hub's aggregate GDP, followed by Argentina (19%), Chile (7%), and Paraguay and Bolivia (4% and 1%, respectively).

Brazil and Argentina account for more than 74% of the trade among the Country in the Hub. In particular, Brazil is the main destination of the other four Country' exports, receiving more than 60% of their foreign trade. The main destination of Brazilian exports within the Hub is Argentina, accounting for 68% of its total export operations.

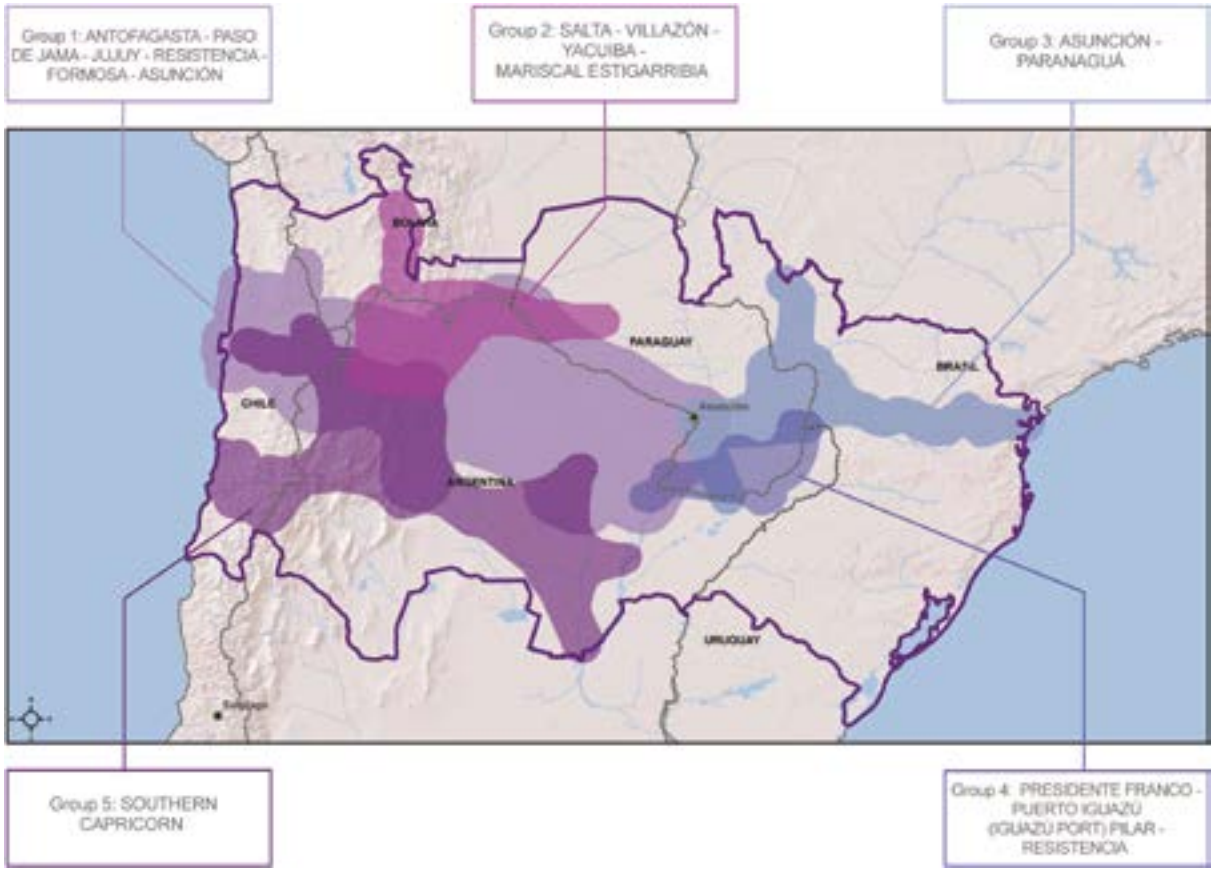
The Hub shares some regions of its area of influence with the MERCOSUR-Chile, Central Interoceanic, and Paraguay-Paraná Waterway Hubs.

Project Portfolio
CAPRICORN HUB

The projects of this Hub are intended to: (i) reinforce the connectivity of the territories involved toward the Pacific and the Paraguay-Paraná Waterway; (ii) improve the conditions for production integration and competitiveness in the northwestern region of Argentina, the southern area of Bolivia, and Paraguay; (iii) reinforce the socioeconomic development of the territories involved; and (iv) take profit from the complementary opportunities for the development of integrated tourism (northwestern Argentina, south of Bolivia and north of Chile).

An important percentage of the road and rail projects of this Hub is located in the Argentine territory, which shows the willingness to support the relatively less developed regions of the country (the northwestern and northeastern areas), as well as to promote the integration process of the Hub taking into account its bioceanic condition. Furthermore, the projects seek to coordinate the connectivities of the Capricorn, MERCOSUR-Chile, Central Interoceanic, and Paraguay-Paraná Waterway Hubs.

MAP OF THE PROJECT GROUPS OF THE CAPRICORN HUB



PROJECT GROUPS OF THE CAPRICORN HUB

* US$ million

Group	Name	No. of Projects	Estimated Investment*
1	ANTOFAGASTA - PASO DE JAMA BORDER CROSSING - JUJUY - RESISTENCIA - FORMOSA - ASUNCIÓN	25	3,879.2
2	SALTA - VILLAZÓN - YACUIBA - MARISCAL ESTIGARRIBIA	10	1,289.6
3	ASUNCIÓN - PARANAGUÁ	16	4,264.5
4	PRESIDENTE FRANCO - PUERTO IGUAZÚ - PILAR - RESISTENCIA	13	4,110.5
5	SOUTHERN CAPRICORN	18	2,771.0
	TOTAL	**82**	**16,314.7**

The Hub's active portfolio features 68 projects with an estimated investment of US$14,175.7 million.

Of the Hub's active portfolio, 83.8% are transport projects, the road subsector being the one with the largest number and highest investment, followed closely by the rail subsector in terms of estimated investment but with notably fewer projects (21% less). Of the 68 active projects, there is information available on the estimated completion date of 21. Fifteen of them are scheduled to be completed in the next four years (2015-2018), and it is worthy of note that almost all of these (13) are national in scope: Argentina ranks first (10), followed by Paraguay (5) and Brazil (1).

According to estimations, by the end of 2018, 29.9% of the investment planned for the portfolio of the Hub will have been spent vis-à-vis the 13.1% spent so far.

PROJECTS TO BE COMPLETED IN THE NEXT FOUR YEARS

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Estimated Completion Date
CAP26	IMPROVEMENT OF THE BORDER CENTER AT PUERTO IGUAZÚ	4		2.0	AR	Jul 29, 2016
CAP32	CONSTRUCTION OF NATIONAL ROUTE NO. 8, FROM CAAZAPÁ TO CORONEL BOGADO	4		212.0	PY	Sep 30, 2016
CAP100	PAVING OF THE GUARANÍ - CORPUS CHRISTI - PINDOTY PORÁ INTERSECTION ROAD	3		43.0	PY	Feb 28, 2017
CAP43	PAVING OF NATIONAL ROUTE NO. 86 BETWEEN GENERAL GÜEMES AND POZO HONDO	1		200.0	AR	Jun 31, 2017
CAP63	PAVING OF NATIONAL ROUTE NO. 38, RÍO MARAPA - BEGINNING OF EXPRESSWAY - CAMPO DE HERRERA (TUCUMAN) SECTION	5		300.0	AR	Jun 31, 2017
CAP68	500-KV TRANSMISSION LINE (YACYRETÁ - VILLA HAYES)	3		297.0	PY	Aug 31, 2017
CAP14	NEW PUERTO PRESIDENTE FRANCO - PORTO MEIRA BRIDGE, WITH A PARAGUAY - BRAZIL INTEGRATED CONTROL AREA	3		173.0	BR - PY	Dec 31, 2017
CAP42	REHABILITATION OF NATIONAL ROUTE NO. 16 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE NO. 11 AND THE INTERSECTION WITH NATIONAL ROUTE NO. 34	1		350.0	AR	May 31, 2018
CAP78	PAVING OF NATIONAL ROUTE NO. 51, CAMPO QUIJANO - SICO BORDER CROSSING SECTION	5		180.0	AR	May 31, 2018
CAP10	CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER	2		45.0	AR - BO	Dec 31, 2018

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Code	Name	Group	Stage	Estimated Investment*	Countries	Estimated Completion Date
CAP33	IMPROVEMENT AND CONCESSION OF NATIONAL ROUTE NO. 6, CIUDAD DEL ESTE - ENCARNACIÓN SECTION	4		136.0	PY	Dec 31, 2018
CAP37	REHABILITATION OF THE C3 RAILWAY BRANCH LINE: RESISTENCIA - AVIA TERAI - PINEDO	1		100.0	AR	Dec 31,2018
CAP38	REHABILITATION OF THE C12 RAILWAY BRANCH LINE: AVIA TERAI - METÁN	1		200.0	AR	Dec 31,2018
CAP39	REHABILITATION OF THE C14 RAILWAY BRANCH LINE: SALTA - SOCOMPA	1		100.0	AR	Dec 31,2018
CAP50	PAVING OF NATIONAL ROUTE NO. 40, MINING CORRIDOR PATH (BORDER WITH BOLIVIA)	2		400.0	AR	Dec 31,2018

The first two projects with the highest estimated investment involve the construction of rail corridors. The two that follow are road projects. The fifth place is occupied by another railway project. All the projects are national in scope with the participation of Paraguay (3), Brazil (1) and Argentina (1), and are mainly financed by the public sector. These five projects account for 43% of the estimated investment for the Hub's active portfolio.

The Construction of Ciudad del Este - Pilar Ñeembucú Railway is the project with the greatest investment in the Hub and is currently at the pre-execution stage. Its aim is to diversify the Hub's infrastructure in connection with the second bridge between Paraguay and Brazil, the "Guaraní" Airport in the city of Minga Guazú, the Ñeembucú - Río Bermejo Bridge, and the Multimodal Port designed to be built in the area.

The Bioceanic Railway Corridor: Paranaguá - Cascavel Section and Guarapuava - Ingeniero Bley Railway Bypass is the second project with the highest estimated investment in the Hub, for approximately half the amount of the first project. It is at the profiling stage and its goal is to integrate the southern region of Brazil in order to promote the development of the grain-producing areas of the country.

THE FIVE PROJECTS OF THE ACTIVE PORTFOLIO WITH THE GREATEST ESTIMATED INVESTMENT

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Type of Financing
CAP29	CONSTRUCTION OF THE CIUDAD DEL ESTE - ÑEEMBUCÚ RAILWAY	4		2,800.0	PY	Public
CAP53	BIOCEANIC RAILWAY CORRIDOR: PARANAGUÁ - CASCAVEL SECTION AND GUARAPUAVA - INGENIERO BLEY RAILWAY BYPASS	3		1,500.0	BR	Public
CAP60	RECONQUISTA - GOYA ROAD BRIDGE	5		850.0	AR	Public
CAP18	CONCESSION FOR THE IMPROVEMENT OF ROUTES NO. 2 AND 7 (ASUNCIÓN - CIUDAD DEL ESTE)	3		500.0	PY	Private
CAP19	CONSTRUCTION OF ASUNCIÓN - CIUDAD DEL ESTE RAILWAY	3		500.0	PY	Public

he Hub features 14 completed projects, having demanded a total investment of US$2,139 million, equivalent to 13% of the total investment estimated for the Portfolio projects of the Hub.

Ten of these projects, amounting to about US$1,500 million, relate to a connectivity deemed strategically important for the development of socioeconomically disadvantaged areas in Chile, Paraguay, and northern Argentina.

The completed projects that required the greatest investment effort enabled the electric interconnection of the northern areas of Argentina and the laying of a 500-kV transmission line in Paraguay. Furthermore, more than 200 km of roads leading to Paso de Jama, the second most important border crossing between Chile and Argentina, were paved. This road is the Group's anchor project, which together with the implementation of an integrated (one-stop) border control, has improved access from Jujuy, the northwestern and northeastern provinces of Argentina, the southern area of Bolivia, Paraguay, and the southern states of Brazil to the deep-water ports on the Pacific in three regions (Tarapacá, Antofagasta and Atacama). The remaining six projects have improved the ports in two of these regions (Atacama and Antofagasta), an airport, as well as rail and road sections.

* US$ million

Code	Name	Estimated Investment*	Countries	Subsector
CAP01	ACCESS ROADS TO PASO DE JAMA BORDER CROSSING (NATIONAL ROUTE NO. 52 - INTERSECTION WITH NATIONAL ROUTE NO. 9 - BORDER WITH CHILE)	54.0	AR	Road
CAP02	IMPLEMENTATION OF INTEGRATED (ONE-STOP) BORDER CONTROL AT JAMA BORDER CROSSING	4.0	AR – CH	Border Crossings
CAP03	ELECTRICITY INTERCONNECTION BETWEEN THE ARGENTINE NORTHWESTERN AND NORTHEASTERN REGIONS	725.0	AR	Energy Interconnection
CAP06	PAVING OF NATIONAL ROUTE NO. 81 BETWEEN LAS LOMITAS AND THE INTERSECTION WITH NATIONAL ROUTE NO. 34	100.0	AR	Road
CAP08	ENLARGEMENT OF THE MEJILLONES PORT COMPLEX (PHASE I)	120.0	CH	Sea
CAP09	UPGRADE WORKS AT ANTOFAGASTA PORT	18.0	CH	Sea
CAP46	CONCESSION OF ANTOFAGASTA EXPRESSWAY	370.0	CH	Road
CAP80	MEJILLONES PORT COMPLEX	80.0	CH	Sea
CAP88	ANTOFAGASTA AIRPORT	28.0	CH	Air
CAP91	BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA - SOCOMPA)	0.0	CH	Rail
Total		**1,499.0**		

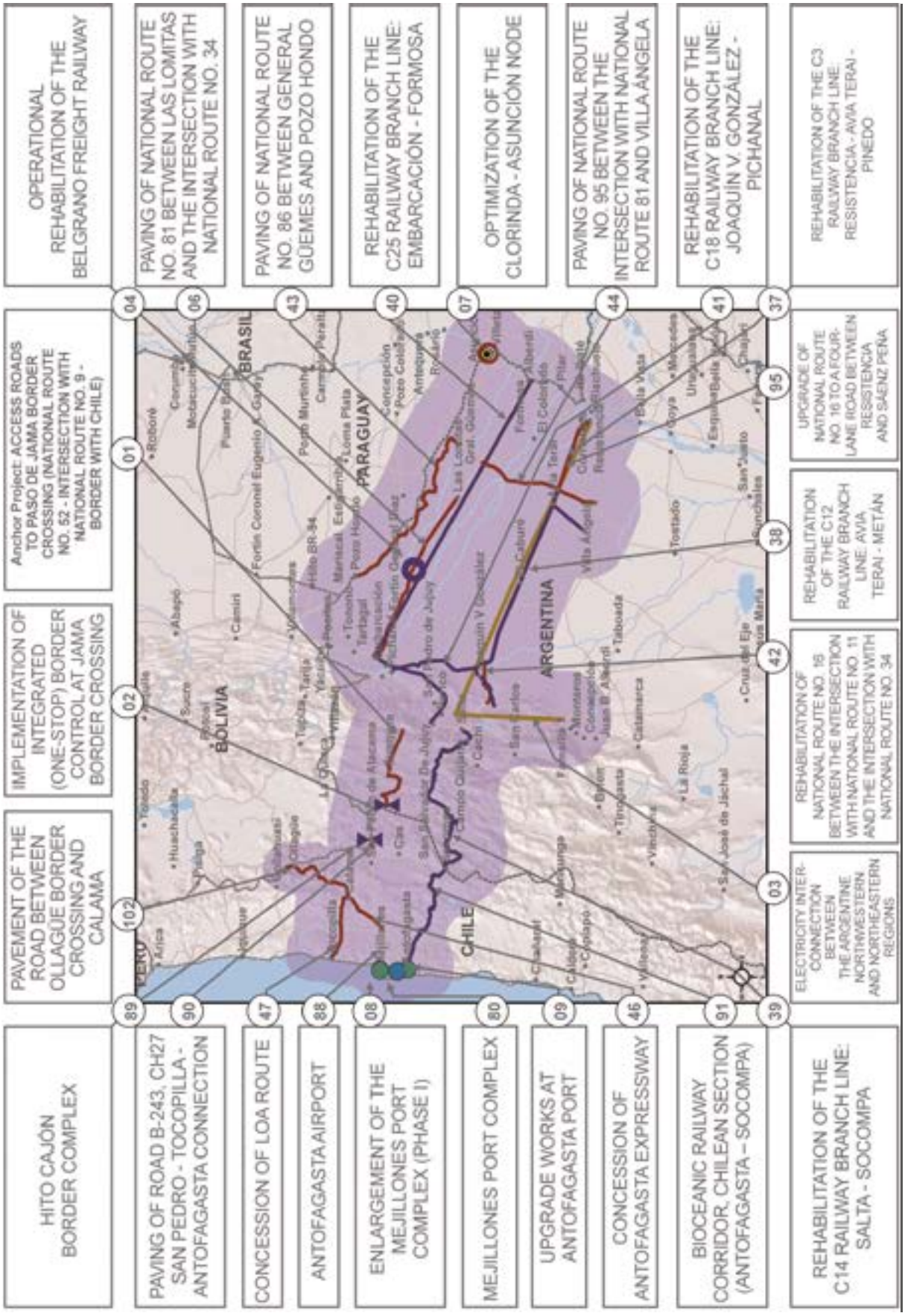
Other active projects amounting to US$2,294 million that form part of this connectivity are the following:

* US$ million

Code	Name	Estimated Investment	Stage	Countries	Subsector
CAP42	REHABILITATION OF NATIONAL ROUTE NO. 16 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE NO. 11 AND THE INTERSECTION WITH NATIONAL ROUTE NO. 34	350.0	EXECUTION	AR	Road
CAP43	PAVING OF NATIONAL ROUTE NO. 86 BETWEEN GENERAL GÜEMES AND POZO HONDO	200.0	EXECUTION	AR	Road
CAP44	PAVING OF NATIONAL ROUTE NO. 95 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE 81 AND VILLA ÁNGELA	90.0	EXECUTION	AR	Road
CAP47	CONCESSION OF LOA ROUTE	389.0	EXECUTION	CH	Road

Antofagasta Paso de Jama Border Crossing
Jujuy - Resistencia - Formosa - Asunción

Argentina – Chile – Paraguay



CAP Group 1

Strategic Function

- Improve the production integration and competitiveness conditions in the northwest region in Argentina, the south of Bolivia and Paraguay.
- Reinforce the connectivity of the territories involved toward the Pacific and the Paraná-Paraguay Waterway.
- Take profit from the complementary opportunities for the development of integrated tourism (northwestern Argentina, south of Bolivia and north of Chile).
- Facilitate the flow of people among the Country of the Group.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
CAP01	**ACCESS ROADS TO PASO DE JAMA BORDER CROSSING (NATIONAL ROUTE NO. 52 - INTERSECTION WITH NATIONAL ROUTE NO. 9 - BORDER WITH CHILE)**		**54.0**	**AR**
CAP02	IMPLEMENTATION OF INTEGRATED (ONE-STOP) BORDER CONTROL AT JAMA BORDER CROSSING		4.0	AR - CH
CAP03	ELECTRICITY INTERCONNECTION BETWEEN THE ARGENTINE NORTH-WESTERN AND NORTHEASTERN REGIONS		725.0	AR
CAP04	OPERATIONAL REHABILITATION OF THE BELGRANO FREIGHT RAILWAY		350.0	AR
CAP06	PAVING OF NATIONAL ROUTE NO. 81 BETWEEN LAS LOMITAS AND THE INTERSECTION WITH NATIONAL ROUTE NO. 34		100.0	AR
CAP07	OPTIMIZATION OF THE CLORINDA - ASUNCIÓN NODE		101.2	AR - PY
CAP08	ENLARGEMENT OF THE MEJILLONES PORT COMPLEX (PHASE I)		120.0	CH
CAP09	UPGRADE WORKS AT ANTOFAGASTA PORT		18.0	CH
CAP37	REHABILITATION OF THE C3 RAILWAY BRANCH LINE: RESISTENCIA - AVIA TERAI - PINEDO		100.0	AR
CAP38	REHABILITATION OF THE C12 RAILWAY BRANCH LINE: AVIA TERAI - METÁN		200.0	AR
CAP39	REHABILITATION OF THE C14 RAILWAY BRANCH LINE: SALTA - SOCOMPA		100.0	AR
CAP40	REHABILITATION OF THE C25 RAILWAY BRANCH LINE: EMBARCACIÓN - FORMOSA		64.0	AR
CAP41	REHABILITATION OF THE C18 RAILWAY BRANCH LINE: JOAQUÍN V. GONZÁLEZ - PICHANAL		50.0	AR
CAP42	REHABILITATION OF NATIONAL ROUTE NO. 16 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE NO. 11 AND THE INTERSECTION WITH NATIONAL ROUTE NO. 34		350.0	AR
CAP43	PAVING OF NATIONAL ROUTE NO. 86 BETWEEN GENERAL GÜEMES AND POZO HONDO		200.0	AR
CAP44	PAVING OF NATIONAL ROUTE NO. 95 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE 81 AND VILLA ÁNGELA		90.0	AR
CAP46	CONCESSION OF ANTOFAGASTA EXPRESSWAY		370.0	CH
CAP47	CONCESSION OF LOA ROUTE		389.0	CH
CAP80	MEJILLONES PORT COMPLEX		80.0	CH
CAP88	ANTOFAGASTA AIRPORT		28.0	CH
CAP89	HITO CAJÓN BORDER COMPLEX		13.0	CH

PROFILING PRE-EXECUTION EXECUTION COMPLETED

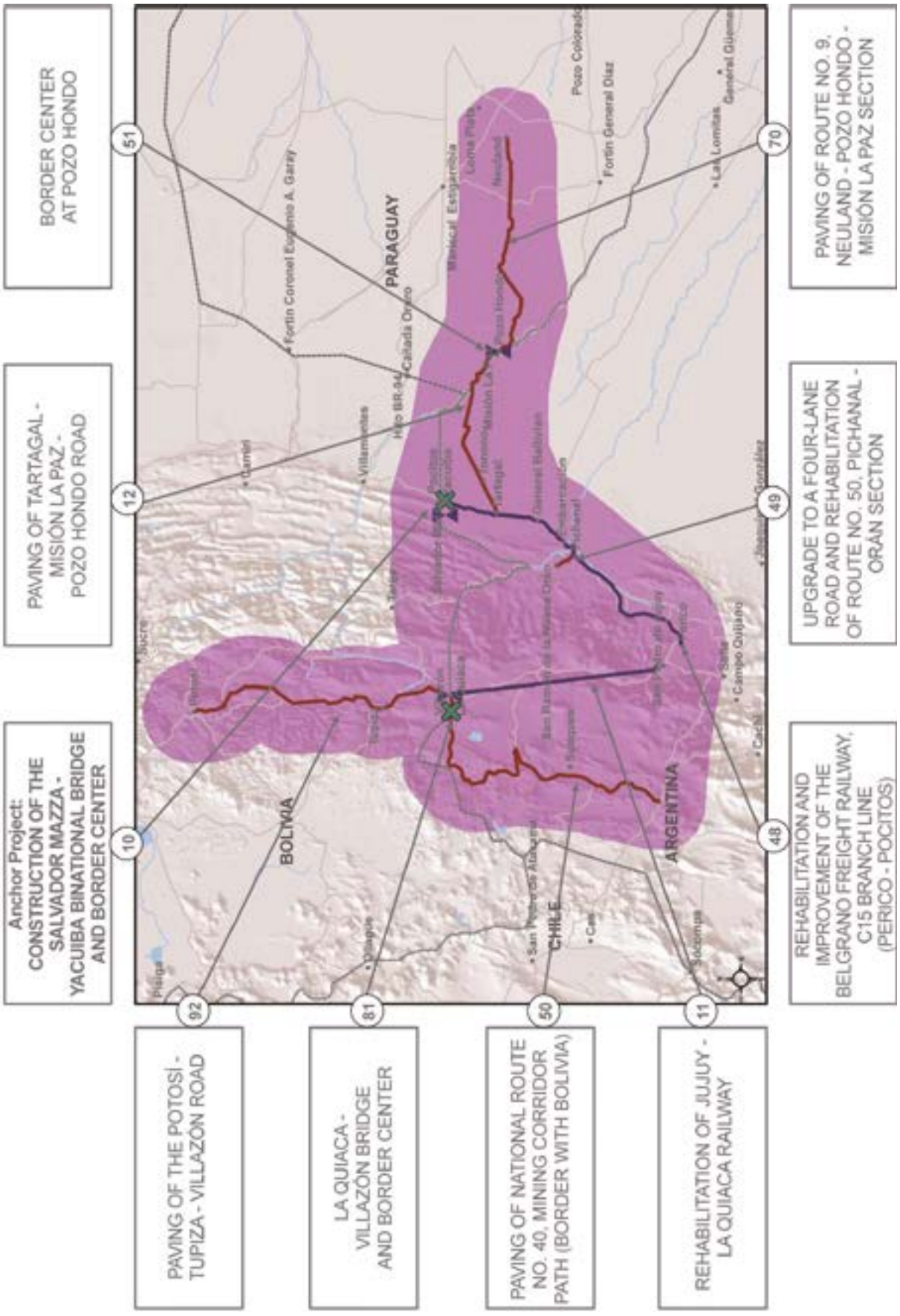
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
CAP90	PAVING OF ROAD B-243, CH27 SAN PEDRO - TOCOPILLA - ANTOFAGASTA CONNECTION		3.0	CH
CAP91	BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA - SOCOMPA)		0.0	CH
CAP95	UPGRADE OF NATIONAL ROUTE NO. 16 TO A FOUR-LANE ROAD BETWEEN RESISTENCIA AND SÁENZ PEÑA		300.0	AR
CAP102	PAVEMENT OF THE ROAD BETWEEN OLLAGÜE BORDER CROSSING AND CALAMA		70.0	CH
25			3,879.2	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Salta - Villazón - Yacuiba - Mariscal Estigarribia

Argentina – Bolivia - Paraguay



CAP Group 2

Strategic Function

- Reduce costs and provide greater security to trade in goods and services among Argentina - Bolivia - Paraguay.
- Facilitate the flow of people among the Country of the Group.
- Articulate the Central Interoceanic and Capricorn Hubs
- Organization of territorial dynamics and reduction of its environmental impact.

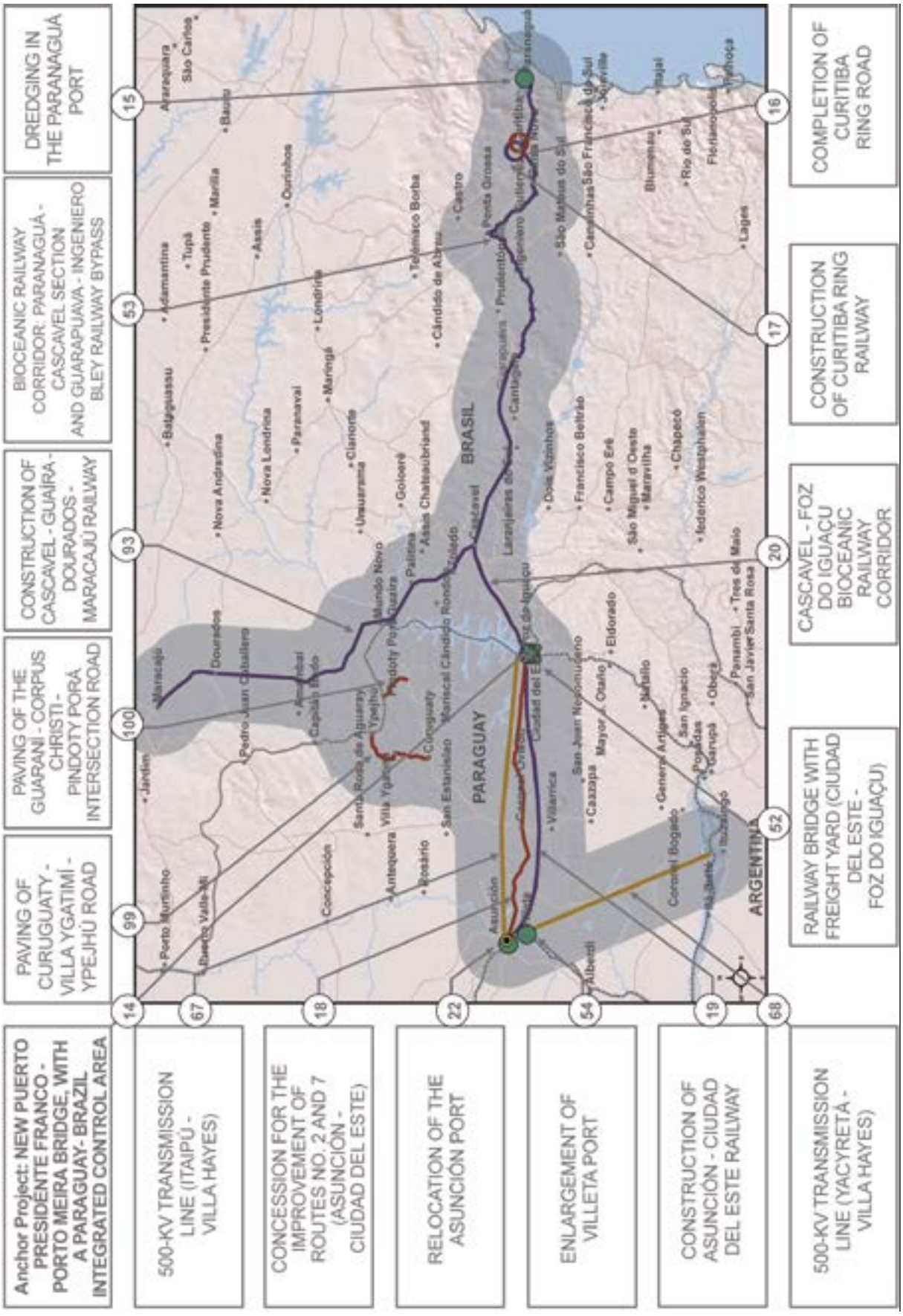
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
CAP10	**CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER**		**45.0**	**BO - PE**
CAP11	REHABILITATION OF JUJUY - LA QUIACA RAILWAY		62.0	BO - PE
CAP12	PAVING OF TARTAGAL - MISIÓN LA PAZ - POZO HONDO ROAD		150.0	BO - PE
CAP48	REHABILITATION AND IMPROVEMENT OF THE BELGRANO FREIGHT RAILWAY, C15 BRANCH LINE (PERICO - POCITOS)		60.0	BO - PE
CAP49	UPGRADE TO A FOUR-LANE ROAD AND REHABILITATION OF ROUTE NO. 50, PICHANAL - ORÁN SECTION		35.0	CH
CAP50	PAVING OF NATIONAL ROUTE NO. 40, MINING CORRIDOR PATH (BORDER WITH BOLIVIA)		400.0	BO - PE
CAP51	BORDER CENTER AT POZO HONDO		1.5	BO - PE
CAP70	PAVING OF ROUTE NO. 9, NEULAND - POZO HONDO - MISIÓN LA PAZ SECTION		340.7	BO - PE
CAP81	LA QUIACA - VILLAZÓN BRIDGE AND BORDER CENTER		15.0	BO - PE
CAP92	PAVING OF THE POTOSÍ - TUPIZA - VILLAZÓN ROAD		180.4	CH
10			**1,289.6**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Asunción - Paranaguáy

Brazil – Paraguay



CAP Group 3

Strategic Function

- Consolidate a high-capacity, low-cost system for moving bulk cargo from the region to international markets.
- Promote socioeconomic regional development.

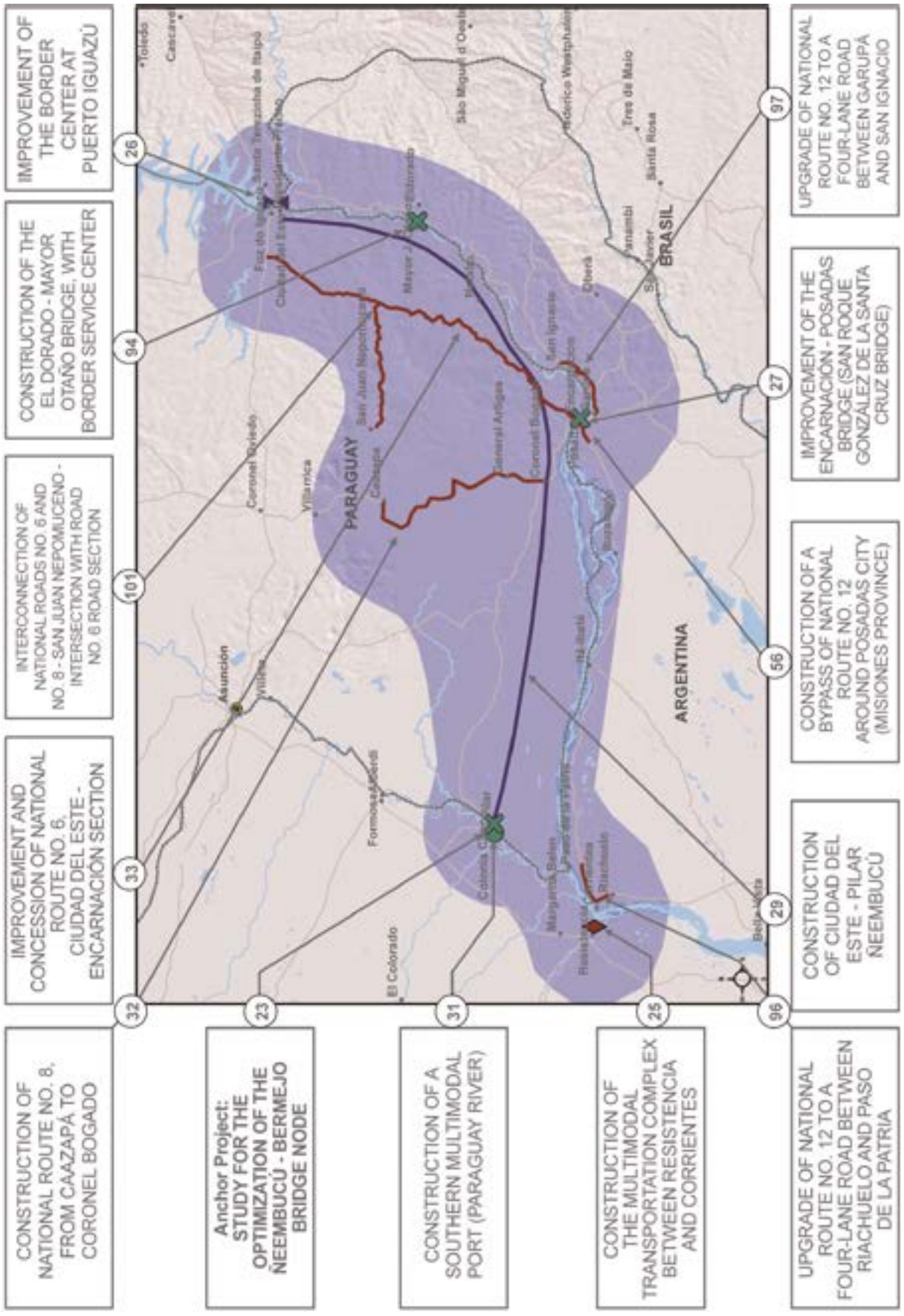
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
CAP14	**NEW PUERTO PRESIDENTE FRANCO - PORTO MEIRA BRIDGE, WITH A PARAGUAY - BRAZIL INTEGRATED CONTROL AREA**		**173.0**	**BR - PY**
CAP15	DREDGING IN THE PARANAGUÁ PORT		100.0	BR
CAP16	COMPLETION OF CURITIBA RING ROAD		140.0	BR
CAP17	CONSTRUCTION OF CURITIBA RING RAILWAY		0.0	BR
CAP18	CONCESSION FOR THE IMPROVEMENT OF ROUTES NO. 2 AND 7 (ASUNCIÓN - CIUDAD DEL ESTE)		500.0	PY
CAP19	CONSTRUCTION OF ASUNCIÓN - CIUDAD DEL ESTE RAILWAY		500.0	PY
CAP20	CASCAVEL - FOZ DO IGUAÇU BIOCEANIC RAILWAY CORRIDOR		324.0	BR
CAP22	RELOCATION OF THE ASUNCIÓN PORT		25.0	PY
CAP52	RAILWAY BRIDGE WITH FREIGHT YARD (CIUDAD DEL ESTE - FOZ DO IGUAÇU)		0.0	BR - PY
CAP53	BIOCEANIC RAILWAY CORRIDOR: PARANAGUÁ - CASCAVEL SECTION AND GUARAPUAVA - INGENIERO BLEY RAILWAY BYPASS LINE BETWEEN GUARAPUAVA AND ENGENHEIRO BLEY)		1,500.0	BR
CAP54	ENLARGEMENT OF VILLETA PORT		30.0	PY
CAP67	500-KV TRANSMISSION LINE (ITAIPU - VILLA HAYES)		555.0	PY
CAP68	500-KV TRANSMISSION LINE (YACYRETÁ - VILLA HAYES)		297.0	PY
CAP93	CONSTRUCTION OF CASCAVEL - GUAÍRA - DOURADOS - MARACAJÚ RAILWAY		0.0	BR
CAP99	PAVING OF CURUGUATY - VILLA YGATIMÍ - YPEJHÚ ROAD		77.5	PY
CAP100	PAVING OF THE GUARANÍ - CORPUS CHRISTI - PINDOTY PORÁ INTERSECTION ROAD		43.0	PY
16			**4,264.5**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Presidente Franco - Puerto Iguazú - Pilar - Resistencia

Argentina - Paraguay



CAP Group 4

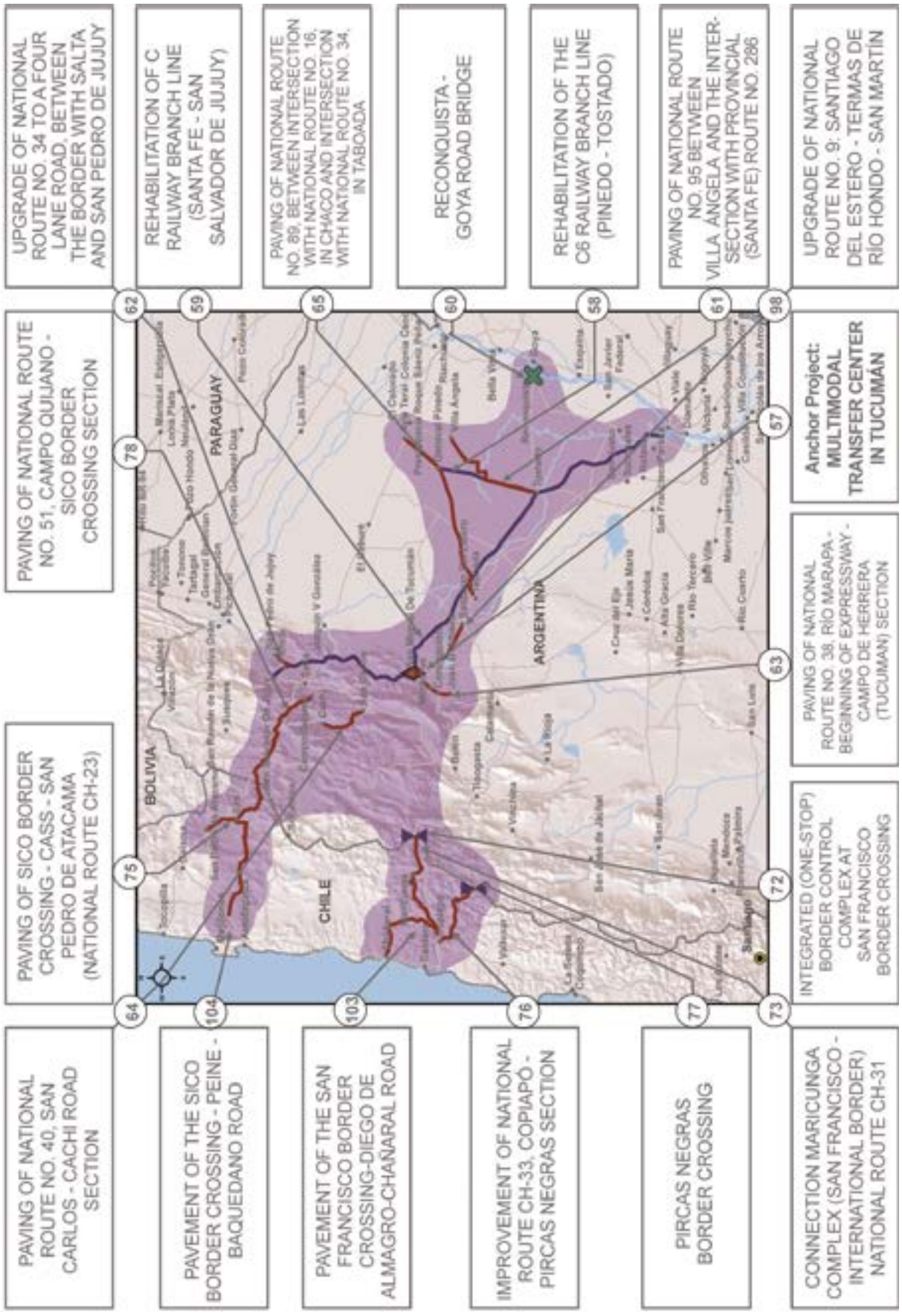
Strategic Function

- Make intra-regional economic development more dynamic.
- Improve options so as to have outlets for the region's products towards the Paraguay-Paraná Waterway.
- Provide basic conditions for border facilitation.
- Facilitate the flow of people among the Country of the Group.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
CAP23	**STUDY FOR THE OPTIMIZATION OF THE ÑEEMBUCÚ -BERMEJO NODE**		**301.2**	**AR - PY**
CAP25	CONSTRUCTION OF THE MULTIMODAL TRANSPORTATION COMPLEX BETWEEN RESISTENCIA AND CORRIENTES		175.0	AR
CAP26	IMPROVEMENT OF THE BORDER CENTER AT PUERTO IGUAZÚ		2.0	AR
CAP27	IMPROVEMENT OF THE ENCARNACIÓN - POSADAS BRIDGE (SAN ROQUE GONZÁLEZ DE LA SANTA CRUZ BRIDGE)		52.3	AR - PY
CAP29	CONSTRUCTION OF THE RAILWAY FROM CIUDAD DEL ESTE TO ÑEEMBUCÚ		2,800.0	PY
CAP31	CONSTRUCTION OF A SOUTHERN MULTIMODAL PORT (PARAGUAY RIVER)		120.0	PY
CAP32	CONSTRUCTION OF NATIONAL ROUTE NO. 8, FROM CAAZAPÁ TO CORONEL BOGADO		212.0	PY
CAP33	IMPROVEMENT AND CONCESSION OF NATIONAL ROUTE NO. 6, CIUDAD DEL ESTE - ENCARNACIÓN SECTION		136.0	PY
CAP56	CONSTRUCTION OF A BYPASS OF NATIONAL ROUTE NO. 12 AROUND POSADAS CITY (MISIONES PROVINCE)		35.0	AR
CAP94	CONSTRUCTION OF THE EL DORADO - MAYOR OTAÑO BRIDGE, WITH BORDER SERVICE CENTER		0.0	AR - PY
CAP96	UPGRADE OF NATIONAL ROUTE NO. 12 TO A FOUR-LANE ROAD BETWEEN RIACHUELO AND PASO DE LA PATRIA		80.0	AR
CAP97	UPGRADE OF NATIONAL ROUTE NO. 12 TO A FOUR-LANE ROAD BETWEEN GARUPÁ AND SAN IGNACIO		92.0	AR
CAP101	INTERCONNECTION OF NATIONAL ROADS NO. 6 AND NO. 8 - SAN JUAN NEPOMUCENO - INTERSECTION WITH ROAD NO. 6 ROAD SECTION		105.0	PY
13			**4,110.5**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED


UPGRADE OF NATIONAL ROUTE NO. 34 TO A FOUR LANE ROAD, BETWEEN THE BORDER WITH SALTA AND SAN PEDRO DE JUJUY
REHABILITATION OF C RAILWAY BRANCH LINE (SANTA FE - SAN SALVADOR DE JUJUY)
PAVING OF NATIONAL ROUTE NO. 89, BETWEEN INTERSECTION WITH NATIONAL ROUTE NO. 16, IN CHACO AND INTERSECTION WITH NATIONAL ROUTE NO. 34, IN TABOADA
RECONQUISTA - GOYA ROAD BRIDGE
REHABILITATION OF THE C6 RAILWAY BRANCH LINE (PINEDO - TOSTADO)
PAVING OF NATIONAL ROUTE NO. 95 BETWEEN VILLA ANGELA AND THE INTERSECTION WITH PROVINCIAL (SANTA FE) ROUTE NO. 286
UPGRADE OF NATIONAL ROUTE NO. 9: SANTIAGO DEL ESTERO - TERMAS DE RÍO HONDO - SAN MARTÍN
PAVING OF NATIONAL ROUTE NO. 51, CAMPO QUIJANO - SICO BORDER CROSSING SECTION
Anchor Project: MULTIMODAL TRANSFER CENTER IN TUCUMÁN
PAVING OF SICO BORDER CROSSING - CASS - SAN PEDRO DE ATACAMA (NATIONAL ROUTE CH-23)
PAVING OF NATIONAL ROUTE NO. 38, RÍO MARAPA - BEGINNING OF EXPRESSWAY - CAMPO DE HERRERA (TUCUMAN) SECTION
INTEGRATED (ONE-STOP) BORDER CONTROL COMPLEX AT SAN FRANCISCO BORDER CROSSING
PAVING OF NATIONAL ROUTE NO. 40, SAN CARLOS - CACHI ROAD SECTION
PAVEMENT OF THE SICO BORDER CROSSING - PEINE - BAQUEDANO ROAD
PAVEMENT OF THE SAN FRANCISCO BORDER CROSSING-DIEGO DE ALMAGRO-CHAÑARAL ROAD
IMPROVEMENT OF NATIONAL ROUTE CH-33, COPIAPÓ - PIRCAS NEGRAS SECTION
PIRCAS NEGRAS BORDER CROSSING
CONNECTION MARICUNGA COMPLEX (SAN FRANCISCO - INTERNATIONAL BORDER) NATIONAL ROUTE CH-31
62
59
65
60
58
61
98
57
78
75
64
104
103
76
77
73
72
63
BOLIVIA
PARAGUAY
ARGENTINA
CHILE

CAP Group 5

Strategic Function

- Implement intermodal articulation among the groups of the Capricorn Hub, the MERCOSUR-Chile Hub, the Central Interoceanic Hub, and the Paraguay-Paraná Waterway Hub.
- Improve sustainable social and economic development, connectivity, and intra-regional integration.
- Enable a new option for trade flows between the region and the Pacific markets.
- Facilitate the flow of people among the Country in the Group.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
CAP57	**MULTIMODAL TRANSFER CENTER IN TUCUMÁN**		**20.0**	**AR**
CAP58	REHABILITATION OF THE C6 RAILWAY BRANCH LINE (PINEDO - TOSTADO)		100.0	AR
CAP59	REHABILITATION OF C RAILWAY BRANCH LINE (SANTA FE - SAN SALVADOR DE JUJUY)		270.0	AR
CAP60	RECONQUISTA - GOYA ROAD BRIDGE		850.0	AR
CAP61	PAVING OF NATIONAL ROUTE NO. 95 BETWEEN VILLA ÁNGELA AND THE INTERSECTION WITH PROVINCIAL (SANTA FE) ROUTE NO. 286		37.0	AR
CAP62	UPGRADE OF NATIONAL ROUTE NO. 34 TO A FOUR-LANE ROAD, BETWEEN THE BORDER WITH SALTA AND SAN PEDRO DE JUJUY		140.0	AR
CAP63	PAVING OF NATIONAL ROUTE NO. 38, RÍO MARAPA - BEGINNING OF EXPRESSWAY - CAMPO DE HERRERA (TUCUMAN) SECTION		300.0	AR
CAP64	PAVING OF NATIONAL ROUTE NO. 40, SAN CARLOS - CACHI ROAD SECTION		250.0	AR
CAP65	PAVING OF NATIONAL ROUTE NO. 89, BETWEEN INTERSECTION WITH NATIONAL ROUTE NO. 16, IN CHACO AND INTERSECTION WITH NATIONAL ROUTE NO. 34, IN TABOADA		95.0	AR
CAP72	INTEGRATED (ONE-STOP) BORDER CONTROL COMPLEX AT SAN FRANCISCO BORDER CROSSING		4.0	AR - CH
CAP73	CONNECTION MARICUNGA COMPLEX (SAN FRANCISCO - INTERNATIONAL BORDER) NATIONAL ROUTE CH-31		70.0	CH
CAP75	PAVING OF SICO BORDER CROSSING - CASS- SAN PEDRO DE ATACAMA (NATIONAL ROUTE CH-23)		30.0	CH
CAP76	IMPROVEMENT OF NATIONAL ROUTE CH-33, COPIAPÓ - PIRCAS NEGRAS SECTION		30.0	CH
CAP77	PIRCAS NEGRAS BORDER CROSSING (*)		5.0	AR - CH
CAP78	PAVING OF NATIONAL ROUTE NO. 51, CAMPO QUIJANO - SICO BORDER CROSSING SECTION		180.0	AR
CAP98	UPGRADE OF NATIONAL ROUTE NO. 9: SANTIAGO DEL ESTERO - TERMAS DE RÍO HONDO - SAN MARTÍN		275.0	AR
CAP103	PAVEMENT OF THE SAN FRANCISCO BORDER CROSSING - DIEGO DE ALMAGRO - CHAÑARAL ROAD		25.0	CH
CAP104	PAVEMENT OF THE SICO BORDER CROSSING-PEINE-BAQUEDANO ROAD		90.0	CH
18			**2,771.0**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

DES

SOUTHERN HUB

INTEGRATION AND DEVELOPMENT HUB

Population:	6,473,238 inhabitants
Density:	9.4 Inh./km²
Area:	686,527 km²
GDP:	US$ 238,141 millones
Services	72.5%
Industry	13.8%
Mines and quarries	6.5%
Agriculture	7.2%

ARGENTINA CHILE

Estimated investment

* US$ million

4,146.6

89.8%
National

44

Argentina 35
Chile 19

10.2%
Binational

5

Projects per Sector

Transport	Energy
46	3
3,696.6	450

Projects per Types of Financing

Public	Private	Public Private
47	1	1
3,803.6	53	290

Projects per Stages

Profile	Pre Execution	Execution	Concluded
12	14	18	5
1,143.5	1,112	1,448	443.1

US$ milion

Number of projects

COMPLETED PROJECTS OF THE HUB

* US$ million

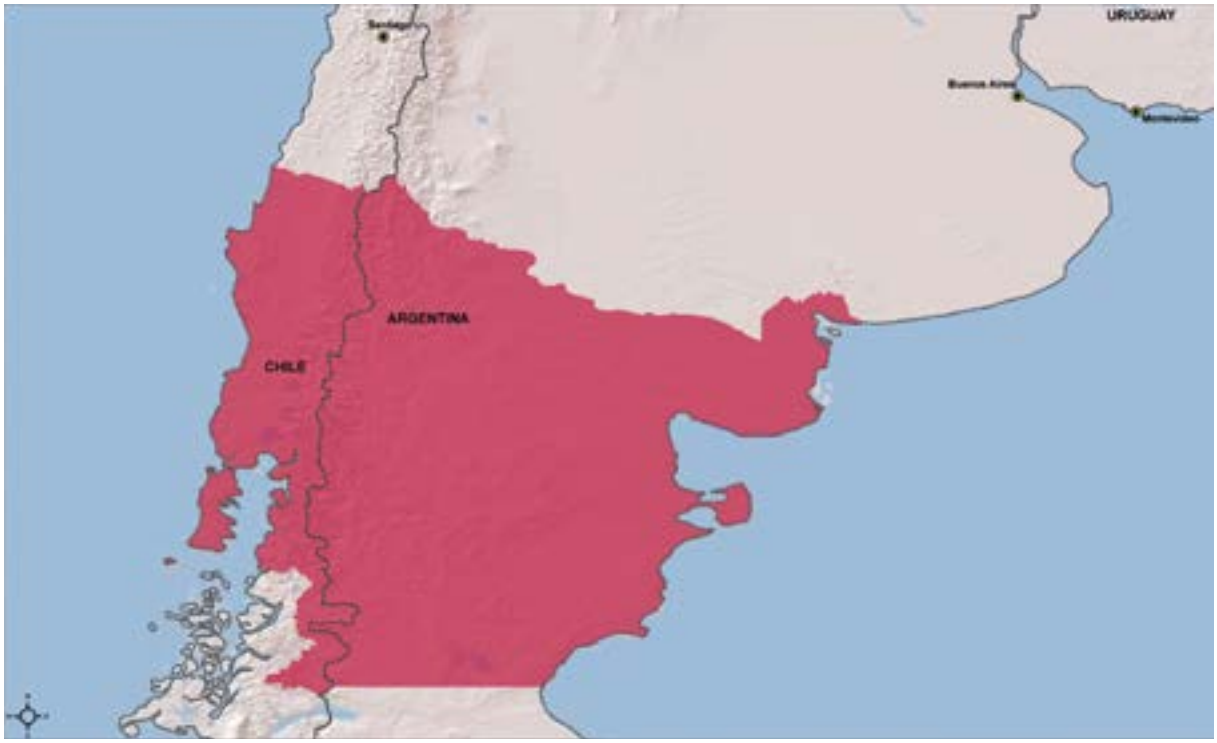
Code	Name	Investment*	Countries
DES06	CONSTRUCTION OF A 500-KV COMAHUE CUYO REGION ELECTRICITY INTERCONNECTION	350	AR
DES07	CONSTRUCTION OF A 500-KV CHOELE CHOEL PUERTO MADRYN ELECTRICITY INTERCONNECTION	70	AR
DES13	REPAIR WORKS AT LAS RAÍCES TUNNEL	10.5	CH
DES28	CONSTRUCTION OF THE HUA HUM BORDER COMPLEX	7.6	CH
DES11	PAVING OF ROUTE NO. CH-181 UP TO THE ARGENTINE BORDER, ACCESS TO PINO HACHADO	5	CH
5		**443.1**	

Presentation of the
SOUTHERN HUB

The Southern Hub[1] covers regions and provinces in the south of Argentina and Chile.

The Hub accounts for 3% of the territory (686,527 km²), 2% of the population (6,473,238 inhabitants), and 5% of the GDP of South America (US$238,141 million),[2] ranking last and next to last in such dimensions vis-à-vis the other Hubs. Furthermore, it is the least densely populated Hub, with 9.4 inhabitants per km².

MAP OF THE AREA OF influence OF THE SOUTHERN HUB



With regard to infrastructure, the **road network** of the Country that make up the Southern Hub is 323,009 km long, 27% of which are paved. The **rail network** totals 34,857 km. The **sea port system** of the Southern Hub is made up of 12 major ports distributed along the Pacific and Atlantic coasts. Four of these ports handle more than 5 million tons per year. The **airport system** features 17 airports, six of which are international and 11 domestic. As far as **electricity generation** is concerned, as of 2012 the Country involved in the Hub had an installed power capacity of about 53,141 MW.

Argentina contributes 37% of its economy to the Hub, and Chile, 13%. In absolute terms, Argentina contributes 85% to the Hub's GDP, while the rest is contributed by Chile.

The Country that make up the Southern Hub plan investments for US$4,147 million in 49 physical integration projects.

The Hub shares some regions of its area of influence with the Andean Hub.

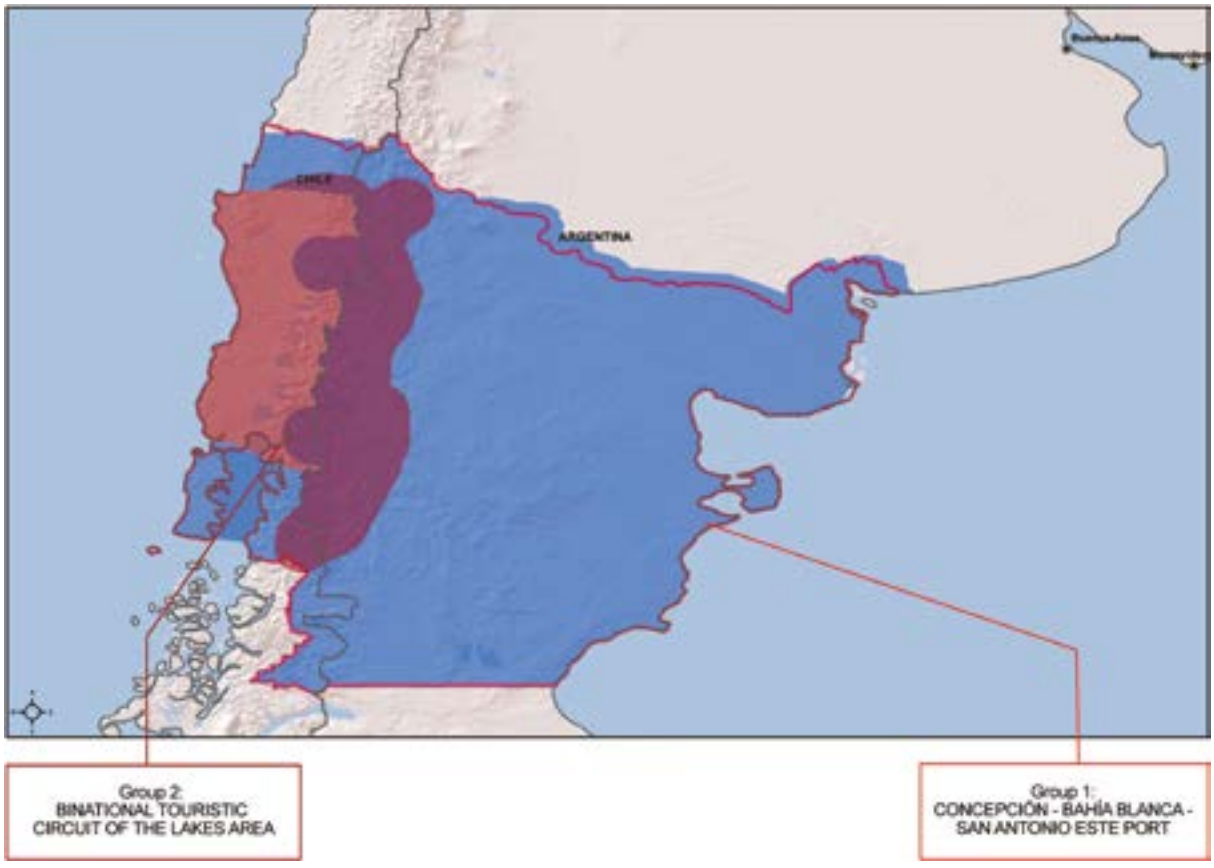
1 See "Caracterización Socio-Económica y Ambiental del Eje del Sur," COSIPLAN-IIRSA, 2015. www.irsa.org/del-sur.asp.
2 At 2013 current prices.

Project Portfolio
SOUTHERN HUB

The projects included in the Southern Hub are intended to reduce transportation costs in order to increase trade in goods and services between Argentina and Chile, taking into account the preservation of environmental resources and the strengthening of a binational tourist system in the lakes area.

It should be noted that in the last meeting of the Executive Technical Group on the Southern Hub to Update the COSIPLAN Portfolio and API, the Argentine and Chilean National Coordinators enlarged the Hub's area of influence by incorporating the Province of Chubut (Argentina) and the Aysén Region of General Carlos Ibáñez del Campo up to the Province of Coihaique (Chile).

MAP OF THE PROJECT GROUPS OF THE SOUTHERN HUB



PROJECT GROUPS OF THE SOUTHERN HUB

* US$ million

Group	Name	No. of Projects	Estimated Investment*
1	CONCEPCIÓN - BAHÍA BLANCA - SAN ANTONIO ESTE PORT	27	2,288.0
2	BINATIONAL TOURIST CIRCUIT OF THE LAKES AREA	22	1,858.6
TOTAL		**49**	**4,146.6**

The active portfolio of the Hub includes 44 projects with an estimated investment of US$3,704 million.

Of the 44 active projects included, there is information available on the estimated completion date of only two, which are scheduled to be completed in the next three years (2015-2017). National Route 3 —where it connects the Bahía Blanca port with San Antonio Este— covers approximately 259 km along which, on an annual average, daily traffic is 8,000 vehicles. Improvements are expected to be finished by mid-2016.

The upgrade of the 300-km Interlagos Route will contribute to the international integration of Chilean and Argentine regions that stand out for their high-quality tourist sites. By mid-2017, connectivity improvements will encourage tourism even further as well as the development of production and commercial activities associated with tourism.

These two projects, together with other 16 projects currently at the execution stage and another five already completed, account for 46% of the investment amount estimated for the Hub's Portfolio. In other words, more than half of the investment planned is allocated to 26 projects that are presently at their early (profiling and pre-execution) stages.

PROJECTS TO BE COMPLETED IN THE NEXT FOUR YEARS

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Estimated Completion Date
DES09	IMPROVEMENT OF NATIONAL ROUTE NO. 3 BETWEEN BAHÍA BLANCA AND CARMEN DE PATAGONES	1		68.0	AR	May 31, 2016
DES18	UPGRADE AND MAINTENANCE OF THE INTERLAGOS ROUTE IN ARGENTINA	2		200.0	AR	May 31, 2017

The five projects with the greatest estimated investment account for 40% of the total investment in the Hub's active portfolio.

It should be noted that most of them (3) are at an early stage of their life cycle: the Bahía Blanca - San Carlos de Bariloche Railway Branch Line is at the profiling stage, and projects Enlargement of Bahía Blanca Port as well as Railway Ring and Accesses to Bahía Blanca Port are at the pre-execution stage. The three projects are aimed at enhancing connectivity in the Bahía Blanca hub towards both the Andes and international markets.

The other two projects are at the execution stage and both seek to reinforce land connectivity in Argentina and Chile.

All the projects belong to the transport sector, and fall in the road, rail and/or sea subsectors. Also, they are all national in scope, Argentina having a greater share (4) than Chile (1). Almost all the projects are financed by the public sector, except for the Bahía Blanca port, the investment in which comes from a public-private partnership.

THE FIVE PROJECTS OF THE ACTIVE PORTFOLIO WITH THE GREATEST ESTIMATED INVESTMENT

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Type of Financing
DES26	BAHÍA BLANCA - SAN CARLOS DE BARILOCHE RAILWAY BRANCH LINE	2		400.0	AR	PUBLIC
DES46	IMPROVEMENT OF ROUTE CH-181 BETWEEN CURACAUTÍN AND PINO HACHADO AND RESTRUCTURING OF LAS RAÍCES TUNNEL	2		303.0	CH	PUBLIC
DES25	ENLARGEMENT OF BAHÍA BLANCA PORT	1		290.0	AR	PUBLIC-PRIVATE
DES22	RAILWAY RING AND ACCESSES TO BAHÍA BLANCA PORT	1		250.0	AR	PUBLIC
DES10	PAVING OF NATIONAL ROUTE NO. 23 BETWEEN VALCHETA - INTERSECTION WITH NATIONAL ROUTE NO. 237	1		225.0	AR	PUBLIC

The Hub features five completed projects for a total amount of US$443 million: two of them involve electricity interconnections, accounting for 95% of the investments.

The Portfolio of this Hub includes only one additional energy project, also involving electricity interconnection, which is at its profiling stage.

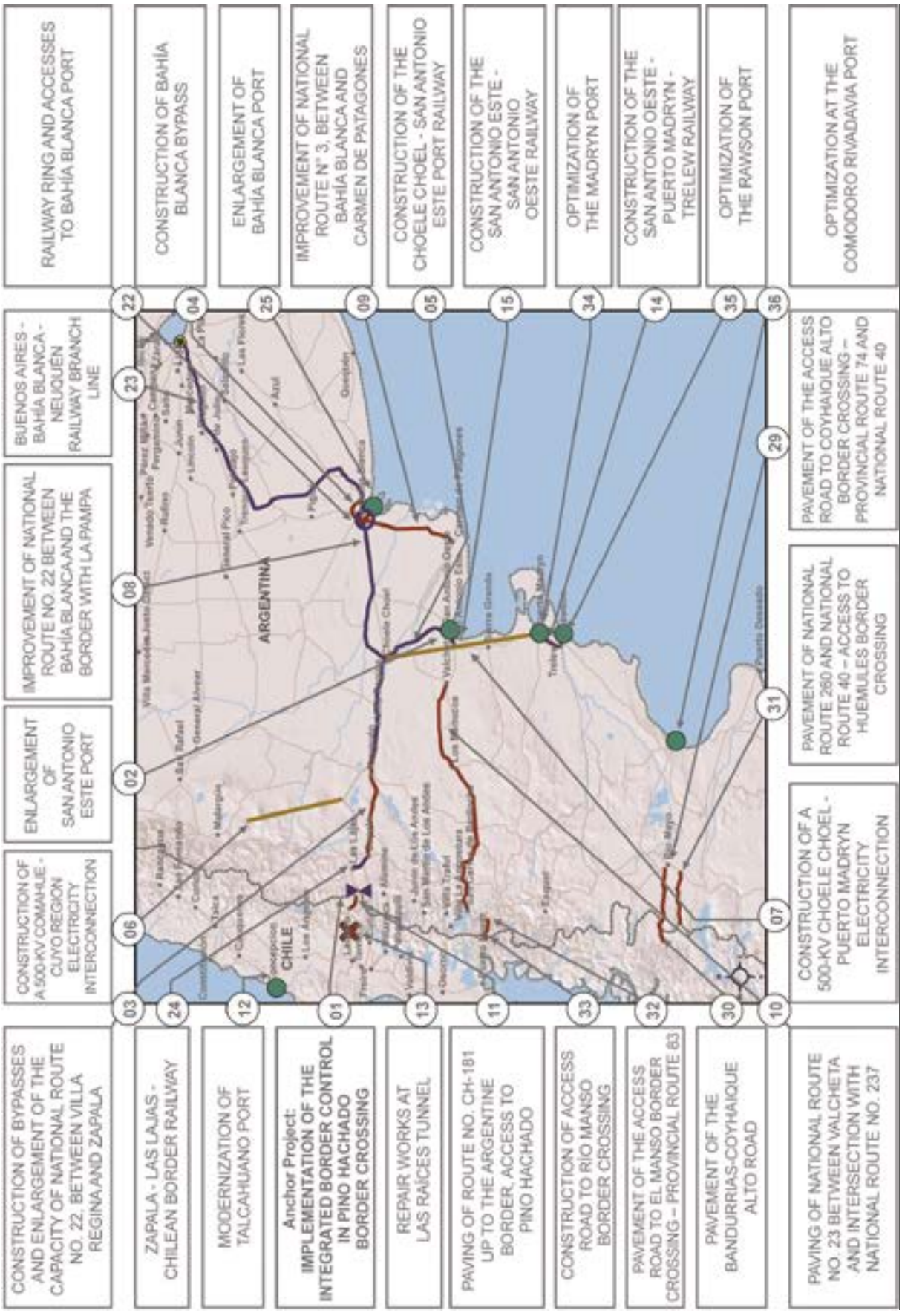
The interconnection between Comahue and Cuyo for US$350 million ranks second in terms of the investment amount estimated or made within this Hub, considering all 49 projects. It consists in a 707-km long, 500-kV transmission line, already completed, which decreased substantially the risks of a collapse as a result of isolation and energy costs in the area of Cuyo. Furthermore, the chances for interconnection with the Central System of Chile increased.

Another completed energy project, which amounts to US$70 million, is a 500-kV electricity interconnection line that runs along 350 km between Choele Choel and Puerto Madryn, which may be extended in the future to the town of Pico Truncado, in Santa Cruz. The other three projects deal with the transport sector and are located in the Chilean-Argentine border region, on the Chilean side, and favor the flow of goods, services and people between both Country.

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Concepción - Bahía Blanca - San Antonio Este Port

Argentina – Chile



DES Group 1

Strategic Function

- Reduce transportation costs and thus enhance trade in goods and services and economic complementariness between the Country.
- Create sustainable economic and social development opportunities.
- Facilitate the flow of people between the Country of the Group.

* US$ million

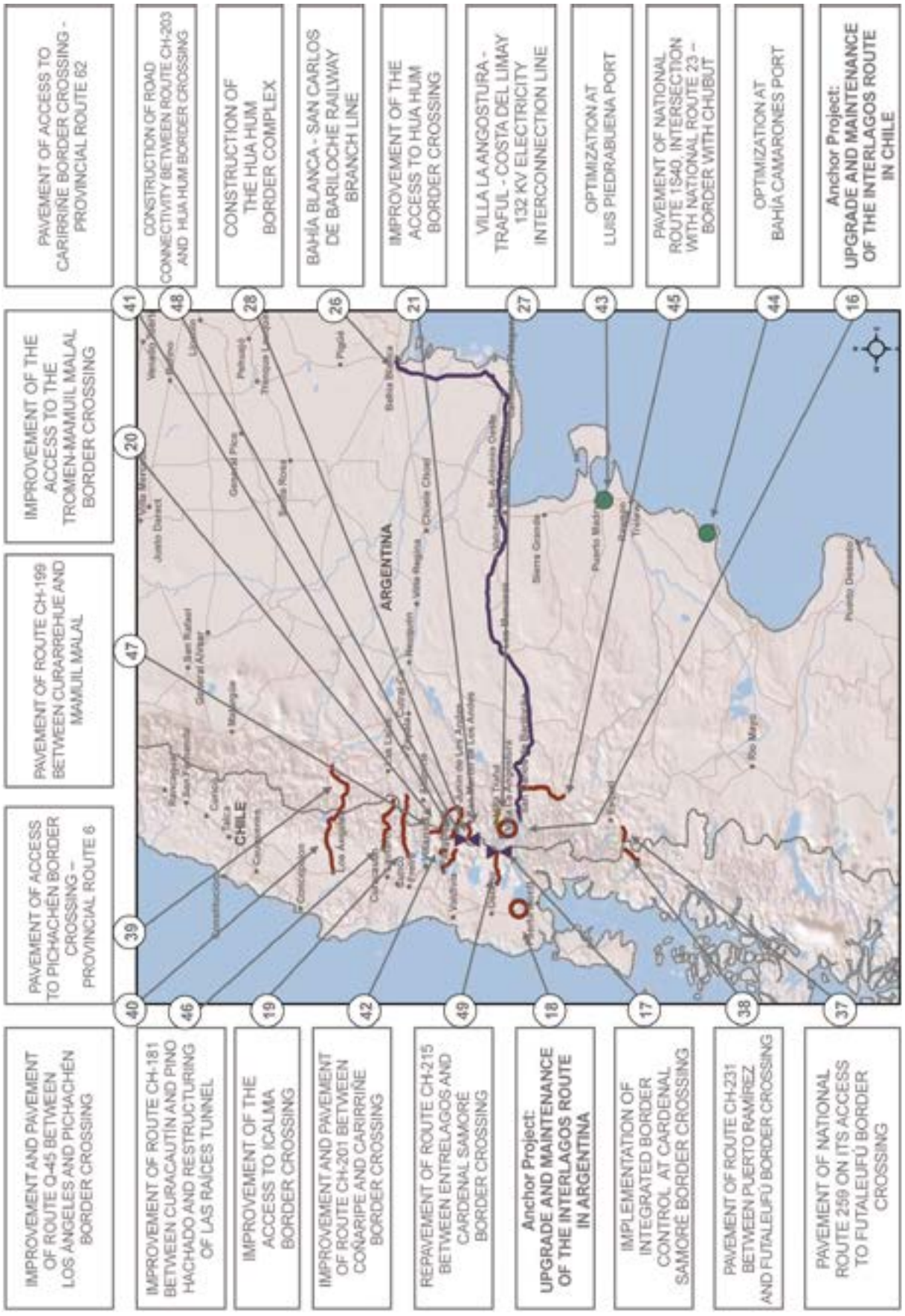
Code	Name	Stage	Estimated Investment*	Countries
DES01	**IMPLEMENTATION OF INTEGRATED BORDER CONTROL IN PINO HACHADO BORDER CROSSING**		**8.0**	**AR – CH**
DES02	ENLARGEMENT OF SAN ANTONIO ESTE PORT		0.0	AR
DES03	CONSTRUCTION OF BYPASSES AND ENLARGEMENT OF THE CAPACITY OF NATIONAL ROUTE NO. 22, BETWEEN VILLA REGINA AND ZAPALA		100.0	AR
DES04	CONSTRUCTION OF BAHÍA BLANCA BYPASS		8.0	AR
DES05	CONSTRUCTION OF THE CHOELE CHOEL - SAN ANTONIO ESTE PORT RAILWAY		40.0	AR
DES06	CONSTRUCTION OF A 500-KV COMAHUE - CUYO REGION ELECTRICITY INTERCONNECTION		350.0	AR
DES07	CONSTRUCTION OF A 500-KV CHOELE CHOEL - PUERTO MADRYN ELECTRICITY INTERCONNECTION		70.0	AR
DES08	IMPROVEMENT OF NATIONAL ROUTE NO. 22 BETWEEN BAHÍA BLANCA AND THE BORDER WITH LA PAMPA		30.0	AR
DES09	IMPROVEMENT OF NATIONAL ROUTE NO. 3 BETWEEN BAHÍA BLANCA AND CARMEN DE PATAGONES		68.0	AR
DES10	PAVING OF NATIONAL ROUTE NO. 23 BETWEEN VALCHETA AND INTERSECTION WITH NATIONAL ROUTE NO. 237		225.0	AR
DES11	PAVING OF ROUTE NO. CH-181 UP TO THE ARGENTINE BORDER, ACCESS TO PINO HACHADO		5.0	CH
DES12	MODERNIZATION OF TALCAHUANO PORT		53.0	CH
DES13	REPAIR WORKS AT LAS RAÍCES TUNNEL		10.5	CH
DES14	CONSTRUCTION OF THE SAN ANTONIO OESTE - PUERTO MADRYN - TRELEW RAILWAY		48.0	AR
DES15	CONSTRUCTION OF THE SAN ANTONIO ESTE - SAN ANTONIO OESTE RAILWAY		8.5	AR
DES22	RAILWAY RING AND ACCESSES TO BAHÍA BLANCA PORT		250.0	AR
DES23	BUENOS AIRES - BAHÍA BLANCA - NEUQUÉN RAILWAY BRANCH LINE		180.0	AR
DES24	ZAPALA - LAS LAJAS - CHILEAN BORDER RAILWAY		70.0	AR
DES25	ENLARGEMENT OF BAHÍA BLANCA PORT		290.0	AR
DES29	PAVEMENT OF THE ACCESS ROAD TO COYHAIQUE ALTO BORDER CROSSING - PROVINCIAL ROUTE 74 AND NATIONAL ROUTE 40		5.0	AR
DES30	PAVEMENT OF THE BANDURRIAS - COYHAIQUE ALTO ROAD		36.0	CH
DES31	PAVEMENT OF NATIONAL ROUTE 260 AND NATIONAL ROUTE 40 - ACCESS TO HUEMULES BORDER CROSSING		24.0	AR
DES32	PAVEMENT OF THE ACCESS ROAD TO EL MANSO BORDER CROSSING - PROVINCIAL ROUTE 83		112.0	AR
DES33	CONSTRUCTION OF ACCESS ROAD TO RÍO MANSO BORDER CROSSING		51.0	CH

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Code	Name	Stage	Estimated Investment*	Countries
DES34	OPTIMIZACIÓN OF THE MADRYN PORT		85.0	AR
DES35	OPTIMIZATION OF THE RAWSON PORT		7.0	AR
DES36	OPTIMIZATION AT THE COMODORO RIVADAVIA PORT		154.0	AR
27			2,288.0	

Binational Tourist Circuit of the Lakes Area

Argentina – Chile



DES Group 2

Strategic Function

- Reinforce the binational tourism system in the lakes area.
- Create sustainable economic and social development opportunities.
- Favor the preservation of the area's environmental resources.
- Facilitate the flow of people between the Country of the Group.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
DES16	**UPGRADE AND MAINTENANCE OF THE INTERLAGOS ROUTE IN CHILE**		**175.0**	**CH**
DES17	IMPLEMENTATION OF INTEGRATED BORDER CONTROL AT CARDENAL SAMORÉ BORDER CROSSING		**2.0**	**AR - CH**
DES18	**UPGRADE AND MAINTENANCE OF THE INTERLAGOS ROUTE IN ARGENTINA**		**200.0**	**AR**
DES19	IMPROVEMENT OF THE ACCESS TO ICALMA BORDER CROSSING		18.0	AR - CH
DES20	IMPROVEMENT OF THE ACCESS TO THE TROMEN-MAMUIL MALAL BORDER CROSSING		45.0	AR - CH
DES21	IMPROVEMENT OF THE ACCESS TO HUA HUM BORDER CROSSING		42.0	AR - CH
DES26	BAHÍA BLANCA - SAN CARLOS DE BARILOCHE RAILWAY BRANCH LINE		400.0	AR
DES27	VILLA LA ANGOSTURA - TRAFUL - COSTA DEL LIMAY 132-KV ELECTRICITY INTERCONNECTION LINE		30.0	AR
DES28	CONSTRUCTION OF THE HUA HUM BORDER COMPLEX		7.6	CH
DES37	PAVEMENT OF NATIONAL ROUTE 259 ON ITS ACCESS TO FUTALEUFÚ BORDER CROSSING		18.0	AR
DES38	PAVEMENT OF ROUTE CH-231 BETWEEN PUERTO RAMÍREZ AND FUTALEUFÚ BORDER CROSSING		71.0	CH
DES39	PAVEMENT OF ACCESS TO PICHACHÉN BORDER CROSSING - PROVINCIAL ROUTE 6		162.0	AR
DES40	IMPROVEMENT AND PAVEMENT OF ROUTE Q-45 BETWEEN LOS ÁNGELES AND PICHACHÉN BORDER CROSSING		91.0	CH
DES41	PAVEMENT OF ACCESS TO CARIRRIÑE BORDER CROSSING - PROVINCIAL ROUTE 62		3.0	AR
DES42	IMPROVEMENT AND PAVEMENT OF ROUTE CH-201 BETWEEN COÑARIPE AND CARIRRIÑE BORDER CROSSING		54.0	CH
DES43	OPTIMIZATION AT LUIS PIEDRABUENA PORT		17.0	AR
DES44	OPTIMIZATION AT BAHÍA CAMARONES PORT		75.0	AR
DES45	PAVEMENT OF NATIONAL ROUTE 1S40, INTERSECTION WITH NATIONAL ROUTE 23 - BORDER WITH CHUBUT		3.0	AR
DES46	IMPROVEMENT OF ROUTE CH-181 BETWEEN CURACAUTÍN AND PINO HACHADO AND RESTRUCTURING OF LAS RAÍCES TUNNEL		303.0	CH
DES47	PAVEMENT OF ROUTE CH-199 BETWEEN CURARREHUE AND MAMUIL MALAL		45.0	CH
DES48	CONSTRUCTION OF ROAD CONNECTIVITY BETWEEN ROUTE CH-203 AND HUA HUM BORDER CROSSING		42.0	CH
DES49	REPAVEMENT OF ROUTE CH-215 BETWEEN ENTRELAGOS AND CARDENAL SAMORÉ BORDER CROSSING		55.0	CH
22			**1,858.6**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

GUY

GUIANESE SHIELD

INTEGRATION AND DEVELOPMENT HUB

Population:	17,100,505 inhabitants
Density:	10.7 Inh./km²
Area:	1,603,643 km²
GDP:	US$ 333,851 million
Services	76.7%
Industry	11.2%
Mines and quarries	6.5%
Agriculture	5.6%

BRAZIL GUYANA SURINAME VENEZUELA

Estimated Investment

* US$ million

4,581.3

65% National	20% Binational	15% Multinational
13	4	3

Argentina	8
Brazil	8
Paraguay	7
Uruguay	7

UY

Projects per Sector

Transport	Energy	Communications
18	1	1
4,581.3		

Projects per Types of Financing

Public	Private
18	2
3,930.4	650.9

Projects per Stages

Profiling	Pre Execution	Execution	Concluded
7	2	5	6
351.8	3,270	873	86.5

US$ million Number of projects

COMPLETED PROJECTS OF THE HUB

* US$ million

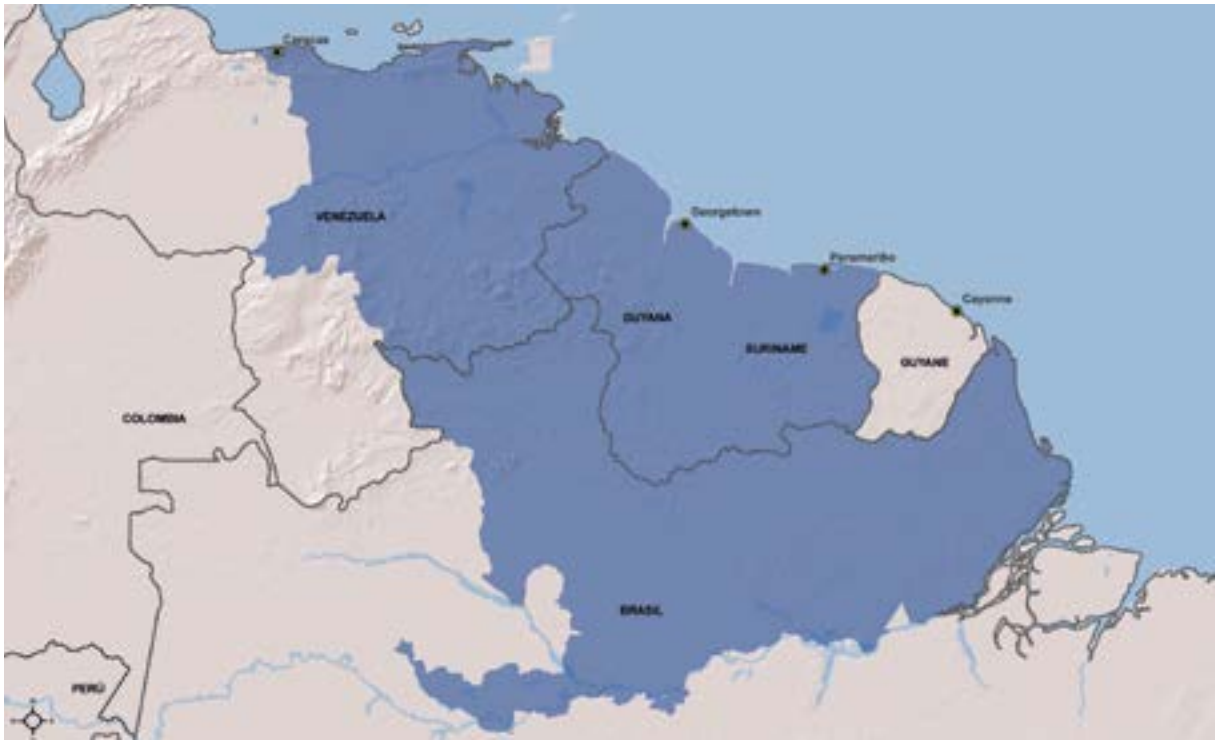
Code	Name	Investment	Countries
GUY35	INTERNATIONAL BRIDGE OVER THE OYAPOCK RIVER	60	BR
GUY42	BOA VISTA - BONFIM ROAD	15	BR
GUY11	BRIDGE OVER THE TAKUTU RIVER	10	BR - GU
GUY10	BRIDGE OVER THE ARRAYA RIVER	1.5	BR
GUY08	CARACAS - NORTHERN BRAZIL CONNECTION THROUGH OPTICAL FIBER LINES OR OTHER SUITABLE TECHNOLOGY	0	BR - VE
GUY43	LINDEN - GEORGETOWN ROAD	0	GU
6		86.5	

Presentation of the
GUIANESE SHIELD HUB

The Guianese Shield Hub[1] 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 Hub accounts for 8% of the territory (1,603,643 km²) and 4% of the population (17,100,505 inhabitants) of South America, thus being the second Hub with the lowest population density, fewer than 11 inhabitants per km². The GDP of the Country that make up the Hub accounts for 7% of the region's GDP (US$333,851 million).[2]

MAP OF THE AREA OF influence OF THE GUIANESE SHIELD HUB



With regard to infrastructure, the **road network** of the Country involved in the Guianese Shield Hub covers a total length of 1,705,747 km, 25% of which are paved. The **rail network** is 30,608 km long. The **port system** of the Hub is made up of 28 major ports, three of which handle more than 3 million tons per year, and Porto Trombetas stands out as it handles more than 17 million tons in Brazil. Most **river transportation** activities in the region are carried out along the Amazon river and the rivers that flow into the Atlantic ocean.

The **airport system** features 30 airports, 15 of which are located in the Venezuelan territory. Of these 30 airports, nine are international and 21 are domestic. Concerning **electricity generation**, as of 2012 the Country involved in the Hub had a joint installed power capacity of about 249,541 MW, 51% of which was contributed by Venezuela and 49% by Brazil.

1 See "Caracterización Socio-Económica y Ambiental del Eje del Escudo Guayanés," COSIPLAN-IIRSA, 2015. www.iirsa.org/escudo-guayanes.asp.
2 At 2013 current prices.

The Country that make up the Guianese Shield Hub plan investments for US$4,500 million in 20 physical integration projects.

Guyana and Suriname contribute 100% of their economies to the Hub, Venezuela 40%, and Brazil 4%. In absolute terms, Venezuela contributes 69% to the Hub's aggregate GDP, Brazil 29%, Suriname 2%, and Guyana 1%.

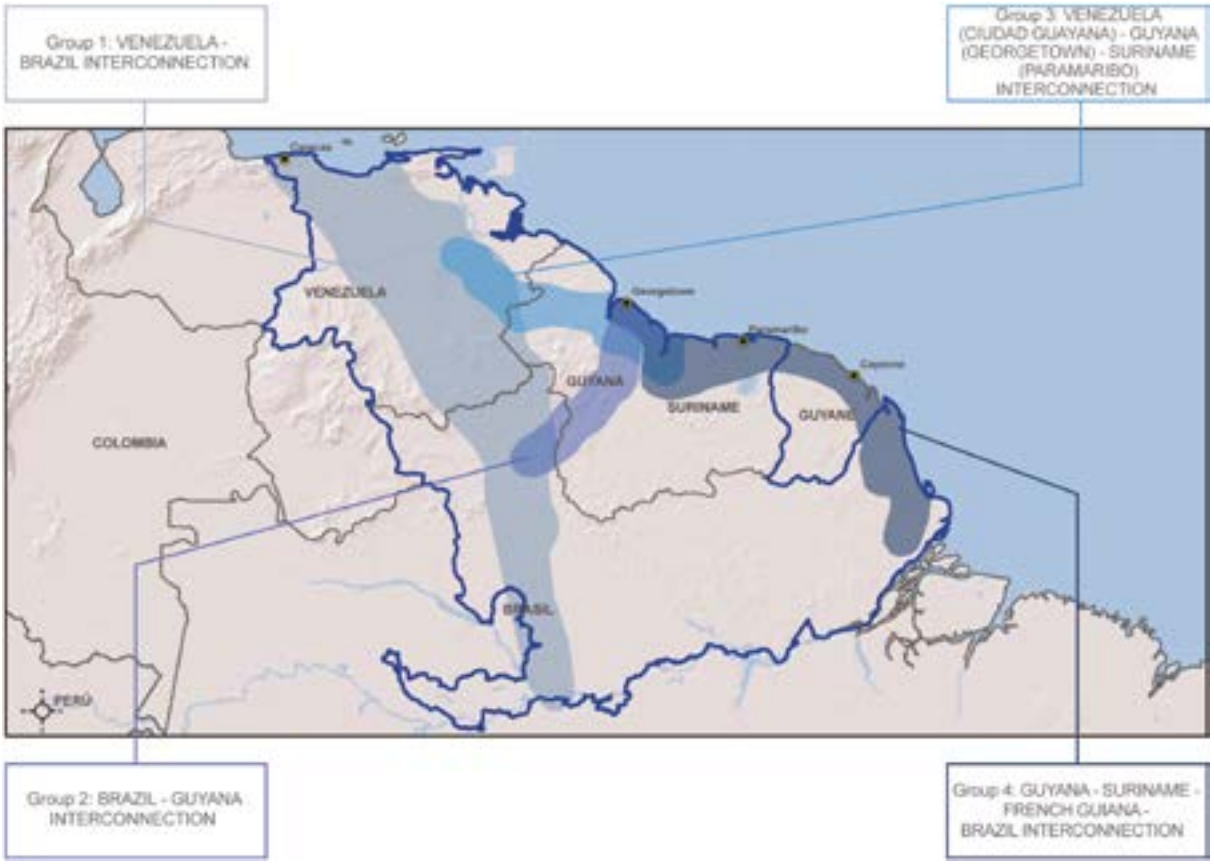
The Hub shares some regions of its area of influence with the Amazon and Andean Hubs.

Project Portfolio

GUIANESE SHIELD HUB

The projects of the Guianese Shield Hub are intended to strengthen the physical connection to promote the sustainable development and integration of economic sectors having high potential, such as heavy industry, durable goods, mining and jewelry, agribusiness and tourism (both ecotourism and Caribbean-style tourism). The connectivities involved are the following: i) Venezuela-Brazil (Caracas and Manaus, Guri and Boa Vista, Manaus and the south of Venezuela); ii) Brazil-Guyana (Amazonas and Roraima, and Guyana), and Venezuela-Guyana-Suriname; and iv) Guyana–Suriname-French Guiana-Brazil (particularly, the states of Amapá and Pará).

MAP OF THE PROJECT GROUPS OF THE GUIANESE SHIELD HUB



PROJECT GROUPS OF THE GUIANESE SHIELD HUB

* US$ million

Group	Name	No. of Projects	Estimated Investment*
1	VENEZUELA - BRAZIL INTERCONNECTION	5	407.0
2	BRAZIL - GUYANA INTERCONNECTION	6	276.5
3	VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (PARAMARIBO) INTERCONNECTION	3	301.8
4	GUYANA - SURINAME - FRENCH GUIANA - BRAZIL INTERCONNECTION	6	3,596.0
	TOTAL	**20**	**4,581.3**

The active portfolio of the Hub includes 14 projects for an estimated investment of US$4,495 million.

Of the 14 active projects, there is information available on the estimated completion date of three. Two of these will be completed in the next four years (2015-2018).

According to estimations, upon the completion of these two projects, 17% of the investment amount estimated for the Hub's Portfolio will have been spent. If the projects at an advanced (execution) stage are added, the percentage of investment made rises to 28%.

PROJECTS TO BE COMPLETED IN THE NEXT FOUR YEARS

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Estimated Completion Date
GUY01	REHABILITATION OF THE CARACAS - MANAUS ROAD	1		407.0	BR - VE	Dec 31, 2015
GUY18	ROUTES INTERCONNECTING VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (APURA - ZANDERIJ - PARAMARIBO)	3		300.8	GU - SU - VE	Sep 30, 2018

PROFILING PRE-EXECUTION EXECUTION COMPLETED

The five projects with the greatest estimated investment account for 96% of the active portfolio of the Hub, made up of 14 projects, among which the one that ranks first —the Integrated Masterplan of Coastal Protection Albina-Nickerie— represents 67% on its own.

The other four projects involve considerably lower investment amounts: the project that ranks second in the Group —the Rehabilitation of the Caracas - Manaus Road— requires an investment that only accounts for 13% of the investment required for the Masterplan.

It should be stated that most projects are binational, except for the Masterplan, which concerns only Suriname, and the Lethem-Linden Road, which belongs to Guyana.
The first project deals with sea transportation, whereas the other four involve road works. For the five projects, public as well as public-private financing sources are considered.

THE FIVE PROJECTS OF THE ACTIVE PORTFOLIO WITH THE GREATEST ESTIMATED INVESTMENT

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Type of Financing
GUY40	INTEGRATED MASTERPLAN OF COASTAL PROTECTION ALBINA - NICKERIE	4		3,020.0	SU	PUBLIC
GUY01	REHABILITATION OF THE CARACAS - MANAUS ROAD	1		407.0	BR - VE	PUBLIC
GUY26	IMPROVEMENT OF THE GEORGE-TOWN - ALBINA ROAD, AND OF THE SECTION FERREIRA GOMES - OYAPOCK OF THE MACAPÁ - OYAPOCK ROAD	4		350.1	BR - GU - SU	PUBLIC-PRIVATE
GUY18	ROUTES INTERCONNECTING VEN-EZUELA (CIUDAD GUAYANA) - GUY-ANA (GEORGETOWN) - SURINAME (APURA - ZANDERIJ - PARAMARIBO)	3		300.8	GU SU - VE	PUBLIC-PRIVATE
GUY09	LETHEM - LINDEN ROAD	2		250.0	GU	PUBLIC

There are six completed projects in the Hub for a total investment of US$87 million, accounting for almost 2% of the Portfolio's total investment.

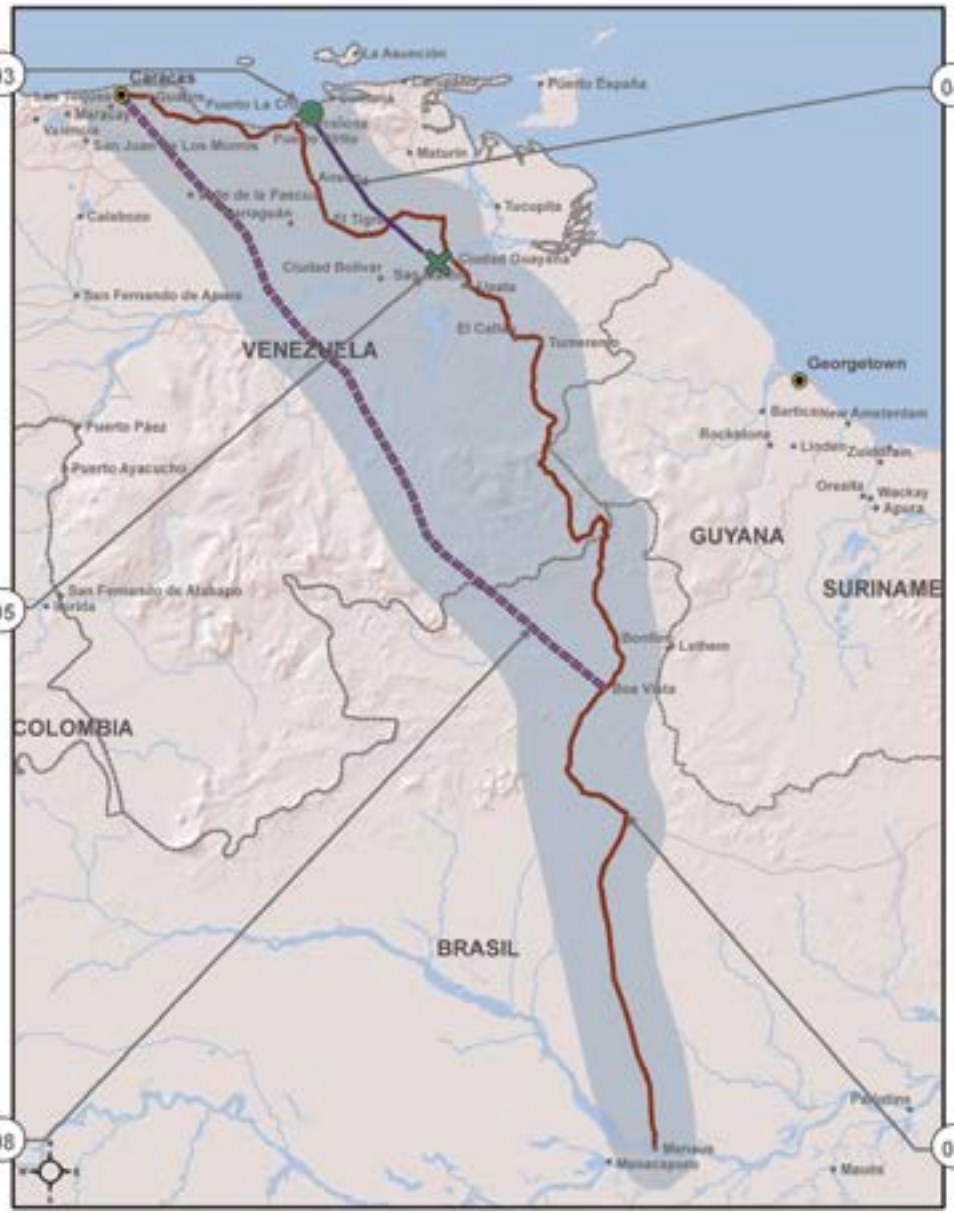
All the completed projects were financed by the public sector and belong to or involve Brazil, except for a project that belongs to Guyana. In addition, five of the six projects fall in the transport sector, more precisely in the road subsector. Three projects involved bridges built over rivers, whereas two were road sections.

DEEP WATER PORT IN THE NORTH-EAST OF THE CARIBBEAN COAST IN VENEZUELA OR IMPROVEMENT OF THE GUANTA PORT

03

RAILWAY CONNECTING THE DEEP WATER PORT OR THE GUANTA PORT WITH CIUDAD GUAYANA

04



SECOND BIMODAL BRIDGE OVER THE ORINOCO RIVER

05

CARACAS - NORTHERN BRAZIL CONNECTION THROUGH OPTICAL FIBER LINES OR OTHER SUITABLE TECHNOLOGY

08

01

Anchor Project:
REHABILITATION OF THE CARACAS - MANAUS ROAD

GUY
Group 1

Strategic Function

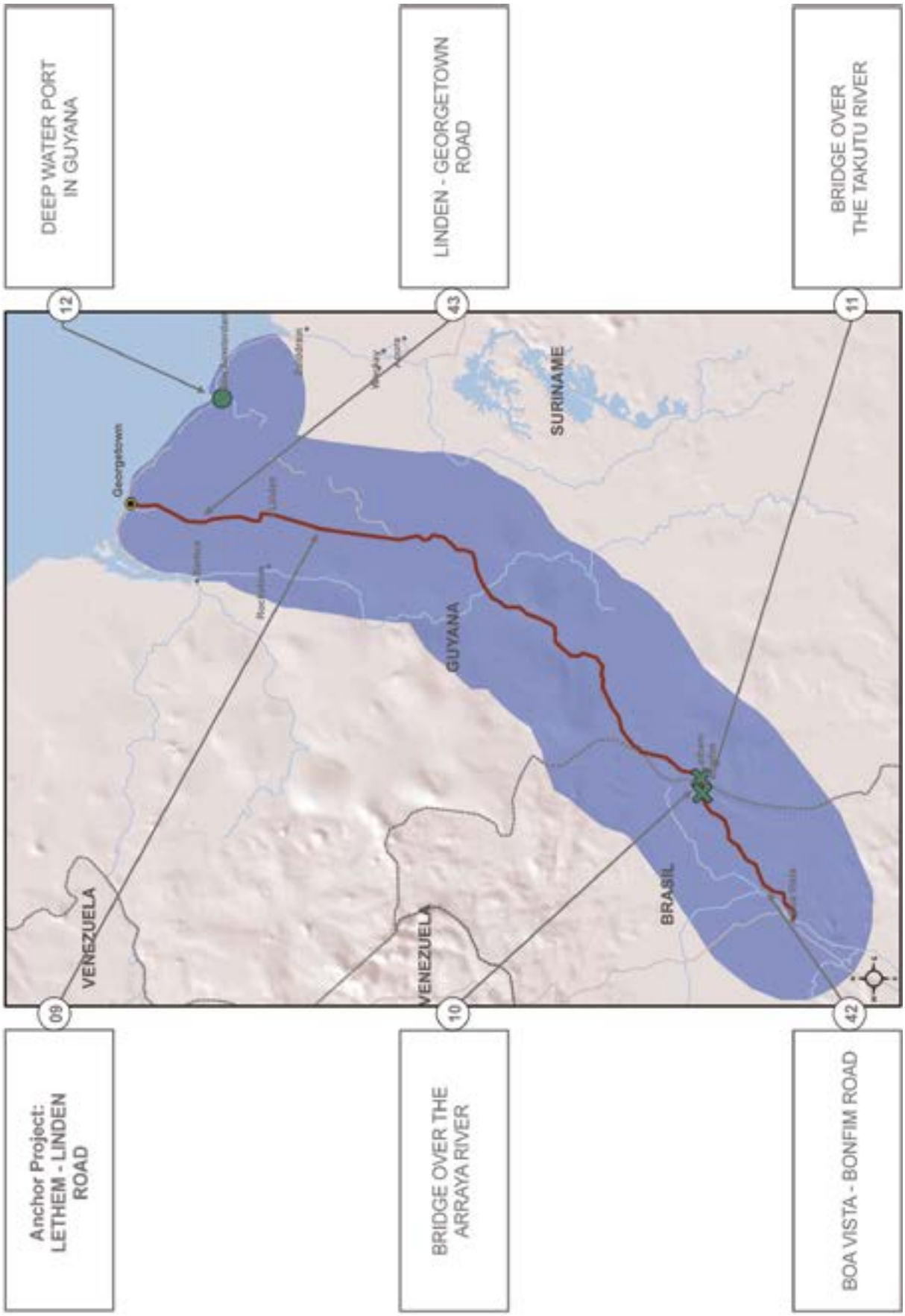
- Develop economic sectors having potential, such as heavy industry, durable goods, mining and jewelry, agribusiness and tourism (both ecotourism and Caribbean-style tourism), using the paved route between Caracas and Manaus and the transmission line between Guri and Boa Vista as the starting points.
- Connect Manaus with the south of Venezuela.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
GUY01	**REHABILITATION OF THE CARACAS - MANAUS ROAD**		**407.0**	**BR - VE**
GUY03	DEEP WATER PORT IN THE NORTH-EAST OF THE CARIBBEAN COAST IN VENEZUELA OR IMPROVEMENT OF THE GUANTA PORT		0.0	VE
GUY04	RAILWAY CONNECTING THE DEEP WATER PORT OR THE GUANTA PORT WITH CIUDAD GUAYANA		0.0	VE
GUY05	SECOND BIMODAL BRIDGE OVER THE ORINOCO RIVER		0.0	VE
GUY08	CARACAS - NORTHERN BRAZIL CONNECTION THROUGH OPTICAL FIBER LINES OR OTHER SUITABLE TECHNOLOGY		0.0	BR - VE
5			**407.0**	

Brazil - Guyana Interconnection

Brazil - Guyana



GUY
Group 2

Strategic Function

- Support the sustainable development and integration of the Brazilian states of Amazonas and Roraima with Guyana, through the consolidation of the infrastructure that connects both Country.

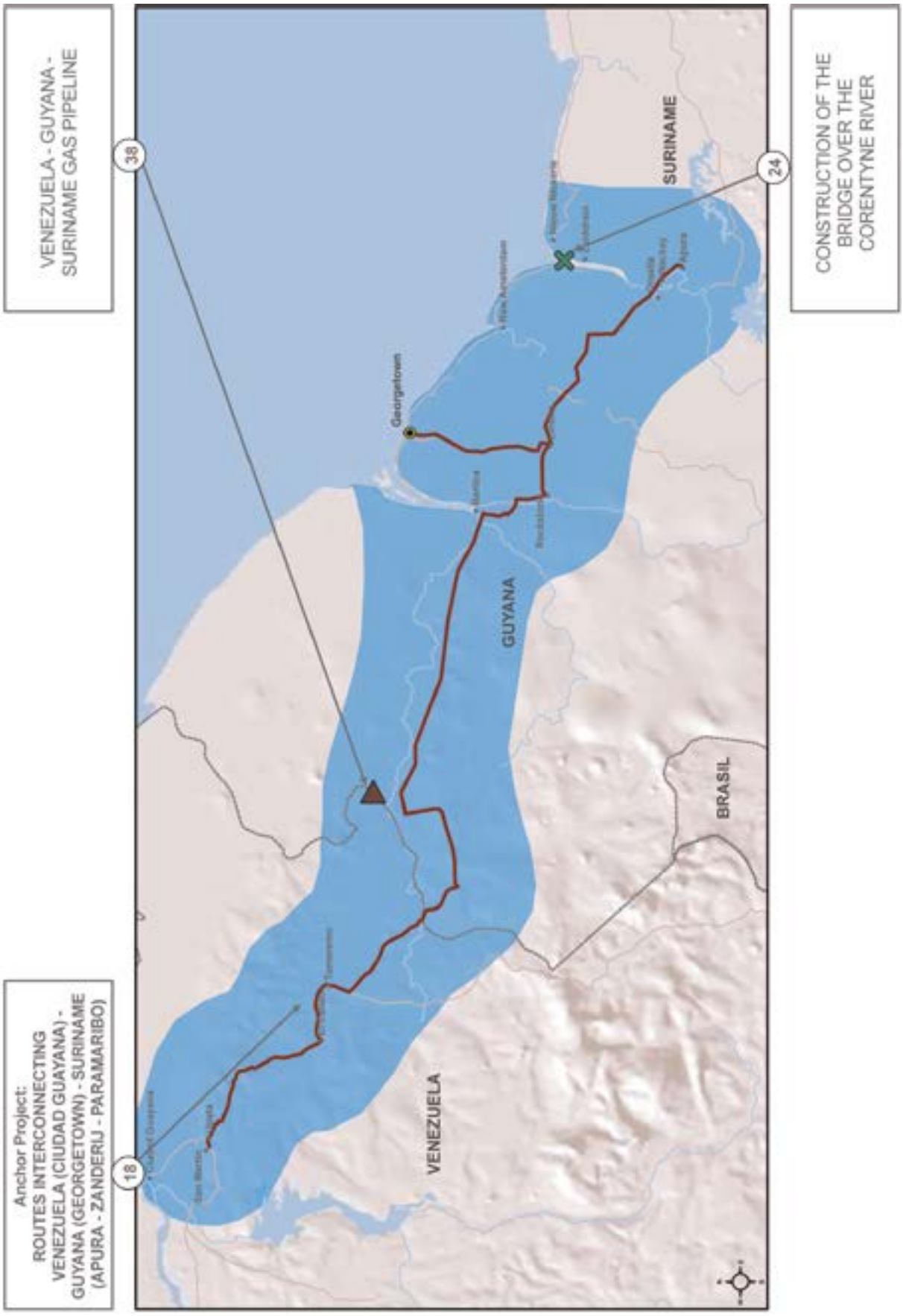
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
GUY09	LETHEM - LINDEN ROAD		250.0	GU
GUY10	BRIDGE OVER THE ARRAYA RIVER		1.5	BR
GUY11	BRIDGE OVER THE TAKUTU RIVER		10.0	BR - GU
GUY12	DEEP WATER PORT IN GUYANA		0.0	GU
GUY42	BOA VISTA - BONFIM ROAD		15.0	BR
GUY43	LINDEN - GEORGETOWN ROAD		0.0	GU
6			276.5	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Paramaribo) Interconnection

Guyana – Suriname – Venezuela



GUY
Group 3

Strategic Function

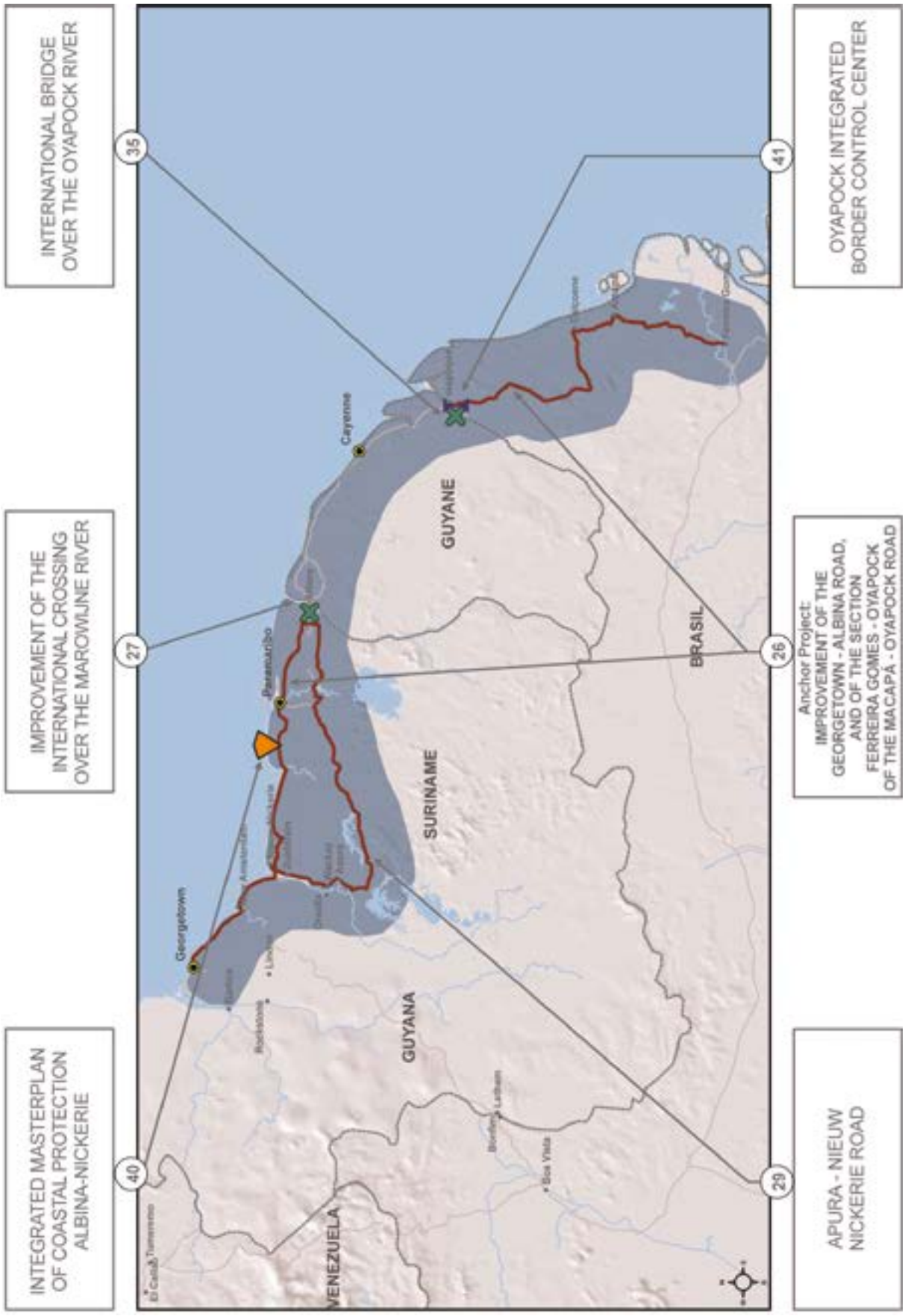
- Implement and develop an integration link in the north of South America that connects Venezuela, Guyana and Suriname.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
GUY18	ROUTES INTERCONNECTING VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (APURA - ZANDERIJ - PARAMARIBO)		300.8	GU - SU - VE
GUY24	CONSTRUCTION OF THE BRIDGE OVER THE CORENTYNE RIVER		1.0	GU - SU
GUY38	VENEZUELA - GUYANA - SURINAME GAS PIPELINE		0.0	GU - SU - VE
3			301.8	

Guyana-Suriname - French Guiana - Brazil Interconnection

Brazil – Guyana – Suriname



GUY
Group 4

Strategic Function

- Consolidate an international physical connection to promote the sustainable development and the integration of Guyana, Suriname and the Brazilian states of Amapá and Pará.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
GUY26	IMPROVEMENT OF THE GEORGETOWN - ALBINA ROAD, AND OF THE SECTION FERREIRA GOMES - OYAPOCK OF THE MACAPÁ - OYAPOCK ROAD		350.1	BR - GU - SU
GUY27	IMPROVEMENT OF THE INTERNATIONAL CROSSING OVER THE MAROW-IJNE RIVER		50.0	SU
GUY29	APURA - NIEUW NICKERIIE ROAD		110.0	SU
GUY35	INTERNATIONAL BRIDGE OVER THE OYAPOCK RIVER		60.0	BR
GUY40	INTEGRATED MASTERPLAN OF COASTAL PROTECTION ALBINA - NICK-ERIE		3,020.0	SU
GUY41	OYAPOCK INTEGRATED BORDER CONTROL CENTER		5.9	BR
6			3,596.0	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

HPP

PARAGUAY PARANÁ WATERWAY HUB

INTEGRATION AND DEVELOPMENT HUB

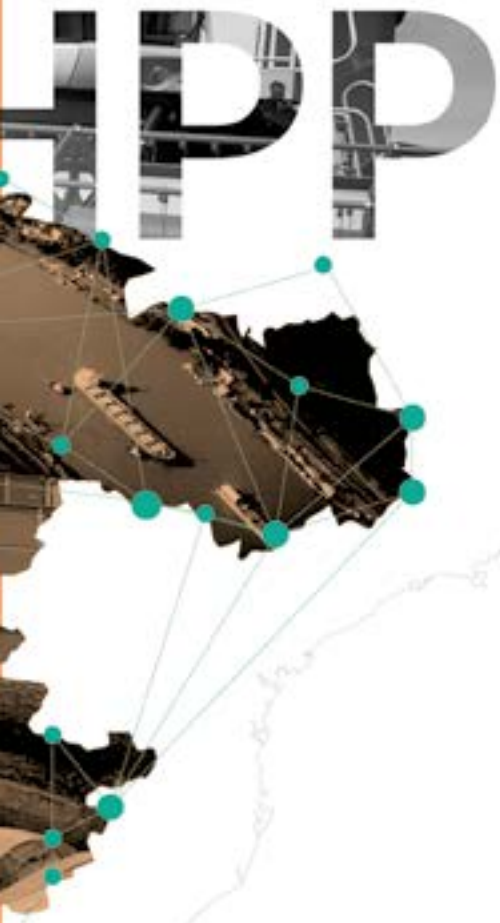
Population:	119,035,634 inhabitants
Density:	29.5 Hab./km²
Area:	4,036,541 km²
GDP:	US$ 1,539,355 millones
Services	75.5 %
Industry	14.1 %
Agriculture	6.2 %
Mines and quarries	4.2 %

ARGENTINA BOLIVIA BRAZIL PARAGUAY URUGUAY

Estimated investment

* US$ million

7,328.2



87% National	12% Binational	1% Multinational
80	11	1

Argentina	51
Bolivia	7
Brazil	7
Paraguay	27
Uruguay	13

Projects per Sector

Transport	Energy	Communications
82	7	3
5,922.2	1,369	37

Projects per Types of Financing

Public	Private
90	2
6,423.3	904.9

Projects per Stages

Profiling	Pre Execution	Execution	Concluded
26	32	21	13
793.1	2,261.1	2,642.7	1,631.3

US$ million Number of projects

COMPLETED PROJECTS OF THE HUB

* US$ million

Code	Name	Investment	Countries
HPP34	BELGRANO THERMOELECTRIC POWER STATION IN CAMPANA	650	AR
HPP35	SAN MARTÍN THERMOELECTRIC POWER STATION IN TIMBÚES	500	AR
HPP56	SANTA FE CITY BELTWAY	200	AR
HPP10	PAVING OF THE SAN ESTANISLAO - PUERTO ROSARIO ROAD SECTION (ROUTES NO. B11 AND B09)	66.5	PY
HPP77	DIVERSION OF THE AGUAPEY STREAM	64	PY
HPP11	PAVING OF THE SANTA ROSA - PUERTO ANTEQUERA ROAD SECTION (NATIONAL ROUTE NO. 11)	47	PY
HPP73	ACCESS ROADS TO ENCARNACIÓN	26	PY
HPP36	TRANSFORMER STATION IN MERCEDES	25	AR
HPP116	HIGH-VOLTAGE TRANSMISSION LINE BETWEEN MERCEDES AND GOYA	25	AR
HPP107	ENCARNACIÓN PORT	11.8	PY
HPP94	IMPROVEMENT OF NUEVA PALMIRA PORT ACCESSES AND INFRASTRUCTURE	10	UY
HPP95	REHABILITATION OF THE PAYSANDÚ PORT, ACCESSES AND STORAGE AREA	6	UY
HPP29	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ITAIPU LAKE	0	BR - PY
13		1,631.3	

Presentation of the
PARAGUAY-PARANÁ WATERWAY HUB

The Paraguay-Paraná Waterway Hub[1] integrates areas of Brazil, Argentina, Bolivia, Paraguay and Uruguay around the basins of the Paraguay, Paraná, and Uruguay rivers, all of them tributaries of the vast Plata river basin, which flows into the Plata river estuary. The Hub has a **low population density** (29 inhabitants per km²), with the exception of the Paraguayan departments of Asunción and Central.

This is the second largest Hub, as it comprises 20% of the area of South America (4,036,541 km²), as well as the second Hub in terms of the region's GDP, accounting for 34% (US$1,491,033 million).[2] In addition, this Hub ranks third in population, accounting for 30% (i.e. 119,035,634 inhabitants).

MAP OF THE AREA OF INFLUENCE OF THE PARAGUAY-PARANÁ WATERWAY HUB

1 See "Caracterización Socio-Económica y Ambiental del Eje de la Hidrovía Paraguay-Paraná," COSIPLAN-IIRSA, 2014. iirsa.org/hidrovia-paraguay-parana.asp.
2 At 2013 current prices.

The existing and planned infrastructure of this Hub is structured around the courses of the Paraguay and Paraná rivers, which eventually flow into the Atlantic ocean.

Consequently, the network of projects intended to improve navigation conditions and/or access to the waterway from railways and roads on its sides is located along or in the vicinities of the waterway.

The **road network** of the Country involved in the Hub totals 2,108,784 km, only about 14% of which are paved. The **rail network** of these Country covers 62,359 km, 87% of which, approximately, are in operating condition. The **river and sea port system** of the Hub comprises 40 major ports and many private terminals, mostly located on the Paraná and Paraguay rivers and on the final section of the Uruguay river, which connect with the ocean ports on the Atlantic coast. Seven of these ports handle more than 10 million tons per year, including the Brazilian port of Santos, with almost 100 million tons, followed by the Paranaguá port, with approximately 42 million tons. The major route of **river transportation**, around 3,300 km long, is the Paraguay-Paraná waterway, used for carrying cargo to the deep-water ports on the lowest section of the waterway and on the Plata river, where it is transshipped to seagoing vessels. Most of this transportation takes place in convoys of shallow draft barges pushed by towboats, which can carry up to 52,000 tons per journey. There are also about 65 **major airports**, evenly distributed throughout the whole territory of the Hub. Passenger service is
adequate, airport infrastructure is good, and there are numerous connections with inland areas of the Country. The Hub's **installed power capacity** is about 169,311 MW, 70% of which are supplied by Brazil.

The presence of **indigenous communities** is very significant in the territory of the Hub, mainly in Bolivia, the Brazilian state of Mato Grosso, northern Argentina, and eastern Paraguay, while their number is lower in southern Brazil and in Uruguay. In general, they are engaged in activities outside the region's formal economy, such as subsistence agriculture and animal husbandry; some of their members are rural waged workers and, where they own land, they also engage in subsistence agriculture.

Regarding the **protected areas** in the Hub, there are about 460 administrative units with some degree of environmental protection, covering an area of approximately 410,000 km², which accounts for around 7.5% of the total area of the Hub.

As for **natural hazards**, the Hub is exposed to floods and landslides, worsened by El Niño Southern Oscillation, the former covering vast areas and the latter, more limited portions of the territory.

The Country that make up the Paraguay-Paraná Waterway Hub plan investments for US$7,328 million in 92 physical integration projects. This Hub of the COSIPLAN Portfolio ranks second in number of projects, after the MERCOSUR-Chile Hub. However, in terms of estimated investment, it ranks seventh. The reason for this difference is that river projects demand lower investment amounts than road or other subsectors projects.

Paraguay participates with 100% of its economy, while the other Country contribute between 38% and 51% of their GDP. In absolute terms, Brazil accounts for 77% of the Hub's aggregate GDP, followed by Argentina (19%), and Bolivia, Paraguay and Uruguay, which together account for 4%.

Brazil and Argentina account for more than 77% of the trade between the Country involved in the Hub. Furthermore, Brazil is the main destination of the exports made by the other four Country, receiving more 61% of their foreign trade, particularly from Argentina, as more than 80% of its exports within the Hub go to Brazil. The main destination of Brazilian exports within the Hub is Argentina (75%), followed by Paraguay (11%).

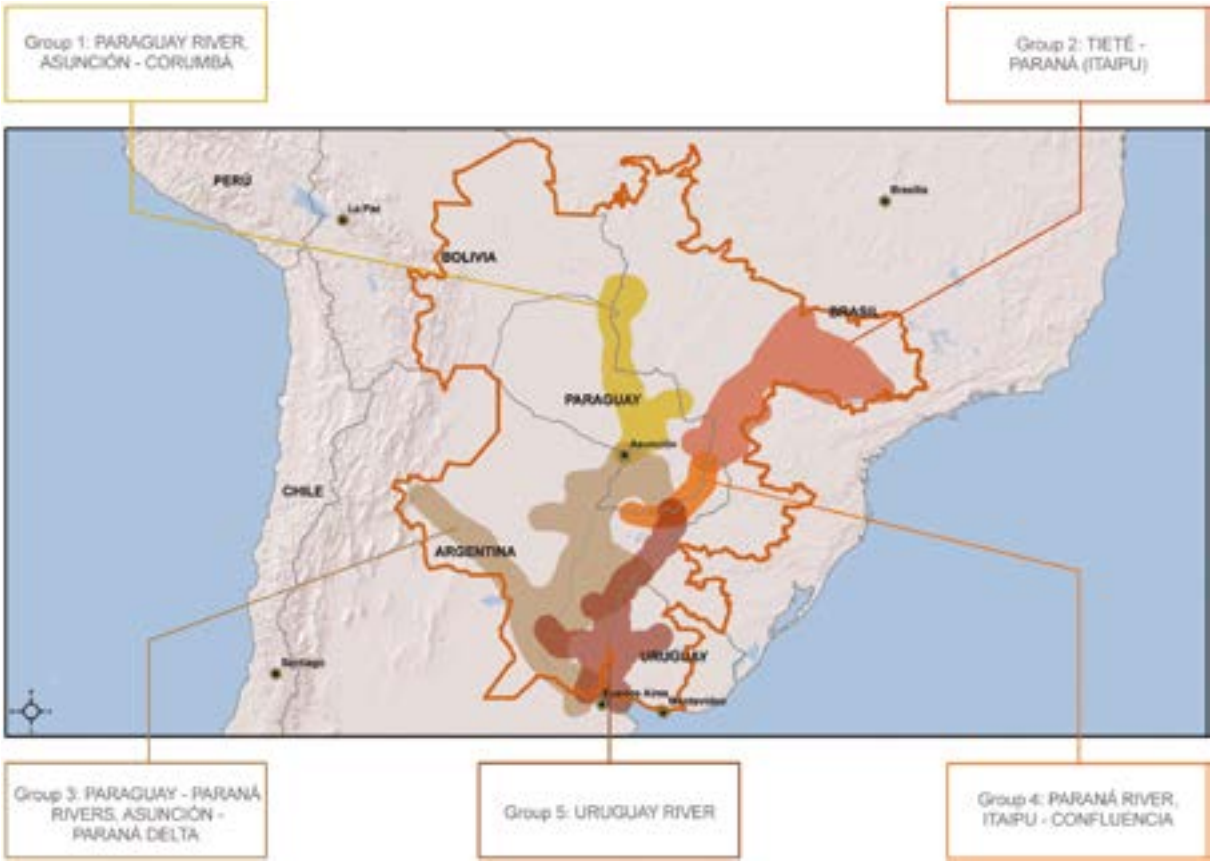
The Hub shares some regions of its area of influence with other three Hubs —the Central Interoceanic, the Capricorn, and the MERCOSUR-Chile Hubs—, to which it is linked by road and rail corridors.

Project Portfolio

PARAGUAY-PARANÁ WATERWAY HUB

The projects of the Paraguay-Paraná Waterway Hub are intended to: (i) strengthen competitiveness in inland Country and regions by efficiently connecting them to the Atlantic ocean; (ii) strengthen and boost the integration of the production and consumption chains along the Hub; (iii) facilitate the flow of people among the Country of the Group.

MAP OF THE PROJECT GROUPS OF THE PARAGUAY-PARANÁ WATERWAY HUB



PROJECT GROUPS OF THE PARAGUAY-PARANÁ HUB

* US$ million

Group	Name	No. of Projects	Estimated Investment*
1	PARAGUAY RIVER, ASUNCIÓN - CORUMBÁ	11	734.1
2	TIETÊ - PARANÁ (ITAIPU)	9	1,747.5
3	PARAGUAY - PARANÁ RIVERS, ASUNCIÓN - PARANÁ DELTA	40	3,093.5
4	PARANÁ RIVER, ITAIPU - CONFLUENCE	14	592.7
5	URUGUAY RIVER	18	1,160.3
	TOTAL	**92**	**7,328.2**

The active portfolio of the Hub includes 79 projects with an estimated investment of US$5,697 million.

Of the 79 active projects, there is information available on the estimated completion date of 17. Fourteen of these are scheduled to be completed in the next four years (2015-2018), and with the exception of one binational Argentine and Paraguayan project, all of them are national in scope. By the time these 14 projects are finished and if we take into account the projects already completed, 43% of the investment estimated for the Hub's Portfolio will have been spent.

PROJECTS TO BE COMPLETED IN THE NEXT FOUR YEARS

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Estimated Completion Date
HPP117	HIGH-VOLTAGE TRANSMISSION LINE BETWEEN MERCEDES AND PASO DE LOS LIBRES	3		15.0	AR	Sep 28, 2015
HPP108	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER (UPSTREAM OF SALTOS DEL GUAIRÁ)	2		15.0	BR	Nov 30, 2015
HPP41	ENHANCEMENT OF RAILWAY ACCESSES TO THE CITY OF SANTA FE	3		0.0	AR	Dec 28, 2015
HPP42	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER, FROM CONFLUENCIA TO ASUNCIÓN	3		45.5	AR - PY	Dec 31, 2015
HPP44	DEEPENING OF THE FAIRWAY IN THE PARANÁ RIVER FROM CONFLUENCIA TO THE PLATA RIVER	3		110.0	AR	Dec 31, 2015
HPP125	PAVING OF ROAD SECTION SANTA ROSA - CAPITÁN BADO (NATIONAL ROAD NO.11 - BORDER WITH BRAZIL)	1		122.5	PY	Jun 30, 2016
HPP12	PAVING OF THE CONCEPCIÓN -VALLEMÍ ROAD (ROUTES A06 AND PY14)	1		113.0	PY	Oct 31, 2016
HPP96	REHABILITATION OF THE SALTO PORT, ACCESSES AND STORAGE AREA	5		4.0	UY	Dec 30, 2016
HPP19	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE TIETÊ RIVER	2		800.0	BR	Feb 28, 2017
HPP64	PAVING OF THE VILLETA - ALBERDI ROAD SECTION	3		51.0	PY	Feb 28, 2017
HPP65	REHABILITATION AND IMPROVEMENT OF THE PIEDRA SOLA - SALTO GRANDE RAILWAY CORRIDOR	5		127.3	UY	Mar 31, 2017
HPP97	NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK	5		15.0	UY	Dec 31, 2017
HPP120	REHABILITATION OF THE ALGORTA - FRAY BENTOS RAILWAY BRANCH LINE	5		100.0	UY	Mar 31, 2018
HPP122	REHABILITATION AND MAINTENANCE OF THE TAMENGO CANAL	1		10.5	BO	Jun 30, 2018

PROFILING PRE-EXECUTION EXECUTION COMPLETED

The five projects with the highest estimated investment fall in the transport sector and account for 47% of the estimated investment of the active portfolio of the Hub. The first project with the greatest investment accounts for 16% of the total amount estimated.

It should be stated that all these projects are national in scope, except for a binational project to be implemented by Argentina and Uruguay. The first project in terms of estimated investment belongs to the road subsector, and is privately financed. The other four projects are financed by the public sector; three fall in the river subsector and one in the road subsector.

THE FIVE PROJECTS OF THE ACTIVE PORTFOLIO WITH THE GREATEST INVESTMENT

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Type of Financing
HPP27	OURINHOS - PRESIDENTE EPITÁCIO SECTION, ROUTE SP-270	2		900.0	BR	Private
HPP19	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE TIETÊ RIVER	2		800.0	BR	Public
HPP115	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NEGRO RIVER	5		350.0	UY	Public
HPP124	UPGRADE OF NATIONAL ROUTE NO. 11 TO A FOUR-LANE ROAD: RESISTENCIA - FORMOSA - CLORINDA	3		330.0	AR	Public
HPP87	COMPLETION OF THE CONSTRUCTION OF LOCKS AT SALTO GRANDE DAM	5		300.0	AR - UY	Public

There are 13 completed projects in the Hub, having demanded a total investment amount of US$1,631 million.

Some projects of Groups 4 and 5, together with other completed projects in the MERCOSUR-Chile Hub, concern two regional connectivities that are at an advanced stage of development, as detailed below.

Argentina - Brazil - Paraguay Connectivity

Three completed projects in Group 4 —Paraná River, Itaipu - Confluence— form part, together with other seven projects included in Group 1 of the MERCOSUR-Chile Hub, of one of the main connectivities for the Hub's trade by land.

* US$ million

Code	Name	Group	Investment Amount*	Countries	Subsector
HPP107	ENCARNACIÓN PORT	4	11.8	PY	RIVER
HPP73	ACCESS ROADS TO ENCARNACIÓN	4	26.0	PY	ROAD
HPP77	DIVERSION OF THE AGUAPEY STREAM	4	64.0	PY	RIVER
MCC01	UPGRADE OF NATIONAL ROUTE NO. 14 TO A FOUR-LANE ROAD, BETWEEN PASO DE LOS LIBRES AND GUALEGUAYCHÚ	1	780.0	AR	ROAD
MCC02	CONSTRUCTION OF FACILITIES FOR IMPLEMENTATION OF INTEGRATED CARGO CONTROL IN PASO DE LOS LIBRES	1	10.0	AR	BORDER CROSSINGS
MCC04	COMPLETION OF THE UPGRADE OF THE BELO HORIZONTE - SÃO PAULO ROAD (BR-381 / SP / MG) SECTION TO A FOUR-LANE ROAD	1	1,300.0	BR	ROAD
MCC12	CONSTRUCTION OF THE SÃO PAULO RING ROAD (SOUTHERN SECTION)	1	2,700.0	BR	ROAD
MCC13	CONSTRUCTION AND PAVING OF ROUTE NO. BR-282 / SC BETWEEN FLORIANÓPOLIS AND THE BORDER WITH ARGENTINA	1	100.0	BR	ROAD
MCC14	CONSTRUCTION OF THE SANTA MARÍA - ROSARIO DO SUL ROAD SECTION (BR-158 / RS)	1	30.0	BR	ROAD
MCC84	ENCARNACIÓN AIRPORT	1	12.0	PY	AIR
	Total		**5,033.8**		

Argentina - Brazil - Uruguay Connectivity

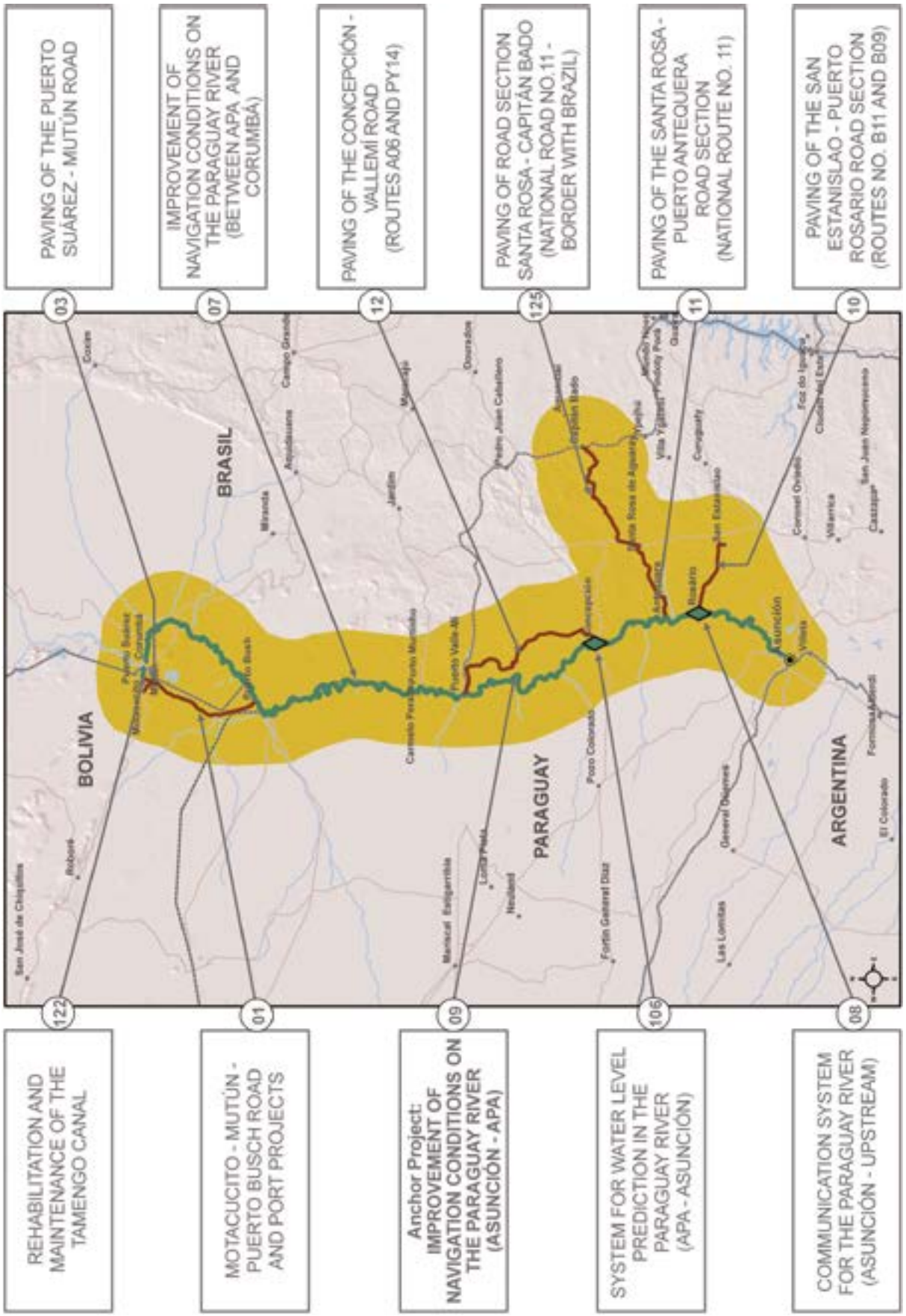
The two completed projects of Group 5 —Uruguay River— form part of a broader connection that involves the MERCOSUR-Chile Hub and other five completed projects included in Group 5.

* US$ million

Code	Name	Group	Investment Amount*	Countries	Subsector
HPP94	IMPROVEMENT OF NUEVA PALMIRA PORT ACCESSES AND INFRASTRUCTURE	5	10	UY	SEA
HPP95	REHABILITATION OF THE PAYSANDÚ PORT, ACCESSES AND STORAGE AREA	5	6	UY	SEA
MCC115	REHABILITATION OF THE RIVERA - SANTANA DO LIVRAMENTO - CACEQUI RAILWAY SECTION	2	5	BR - UY	RAIL
MCC139	OPTICAL FIBER CABLE BETWEEN BRAZIL AND URUGUAY	2	0	BR - UY	COMMUNICATIONS INTERCONNECTION
MCC19	UPGRADE WORKS OF THE RÍO BRANCO - MONTEVIDEO - COLONIA - NUEVA PALMIRA ROAD CORRIDOR (ROUTES NO. 1, 11, 8, 17, 18 AND 26, ROUTES NO. 23 AND 12)	2	253.5	UY	ROAD
MCC26	PUNTAS DEL TIGRE COMBINED CYCLE THERMAL POWER PLANT	2	170	UY	ENERGY GENERATION
MCC86	EXPANSION OF COLONIA PORT (DOCKS, DREDGING AND INCORPORATION OF AREAS)	2	14	UY	SEA
	TOTAL		**458.5**		

Paraguay River, Asunción - Corumbá

Bolivia - Brazil - Paraguay



HPP Group 1

Strategic Function

- Sustainably improve economic and social integration of the regions of Paraguay, Bolivia, and Brazil that share the basin.
- Facilitate the flow of people between the Country of the Group.
- Strengthen and boost the integration of the production chains along the Hub.
- Strengthen competitiveness in inland Country and regions by efficiently connecting them to the Atlantic ocean.

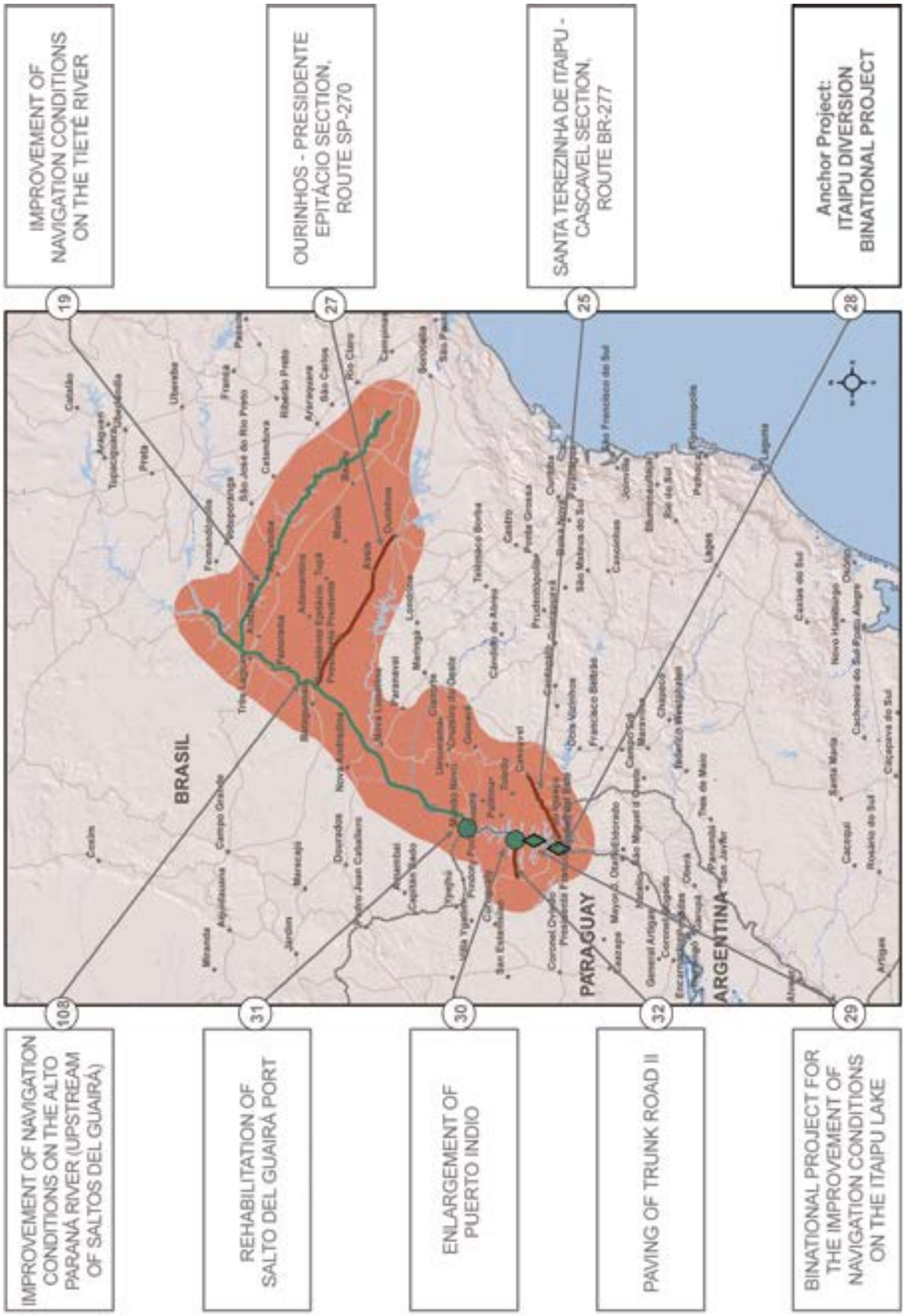
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
HPP01	MOTACUCITO - MUTÚN - PUERTO BUSCH ROAD AND PORT PROJECTS		202.8	BO
HPP03	PAVING OF THE PUERTO SUÁREZ - MUTÚN ROAD		18.8	BO
HPP07	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (BETWEEN APA AND CORUMBÁ)		39.0	BO - BR - PY
HPP08	COMMUNICATIONS SYSTEM FOR THE PARAGUAY RIVER (ASUNCIÓN - UPSTREAM)		4.0	BO - PY
HPP09	**IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (ASUNCIÓN - APA)**		**110.0**	**PY**
HPP10	PAVING OF THE SAN ESTANISLAO - PUERTO ROSARIO ROAD SECTION (ROUTES NO. B11 AND B09)		66.5	PY
HPP11	PAVING OF THE SANTA ROSA - PUERTO ANTEQUERA ROAD SECTION (NATIONAL ROUTE NO. 11)		47.0	PY
HPP12	PAVING OF THE CONCEPCIÓN -VALLEMÍ ROAD (ROUTES A06 AND PY14)		113.0	PY
HPP106	SYSTEM FOR WATER LEVEL PREDICTION IN THE PARAGUAY RIVER (APA - ASUNCIÓN)		0.0	BO - PY
HPP122	REHABILITATION AND MAINTENANCE OF THE TAMENGO CANAL		10.5	BO
HPP125	PAVING OF ROAD SECTION SANTA ROSA - CAPITÁN BADO (NATIONAL ROAD NO.11 - BORDER WITH BRAZIL)		122.5	PY
11			**734.1**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Tietê - Paraná (Itaipú)

Brazil - Paraguay



HPP Group 2

Strategic Function

- Strengthen the socioeconomic dynamics in the area of influence of the group.
- Improve the integration of production and consumption areas in the Tietê and Paraná basins.
- Strengthen competitiveness in inland Country and regions by efficiently connecting them to the Atlantic ocean.

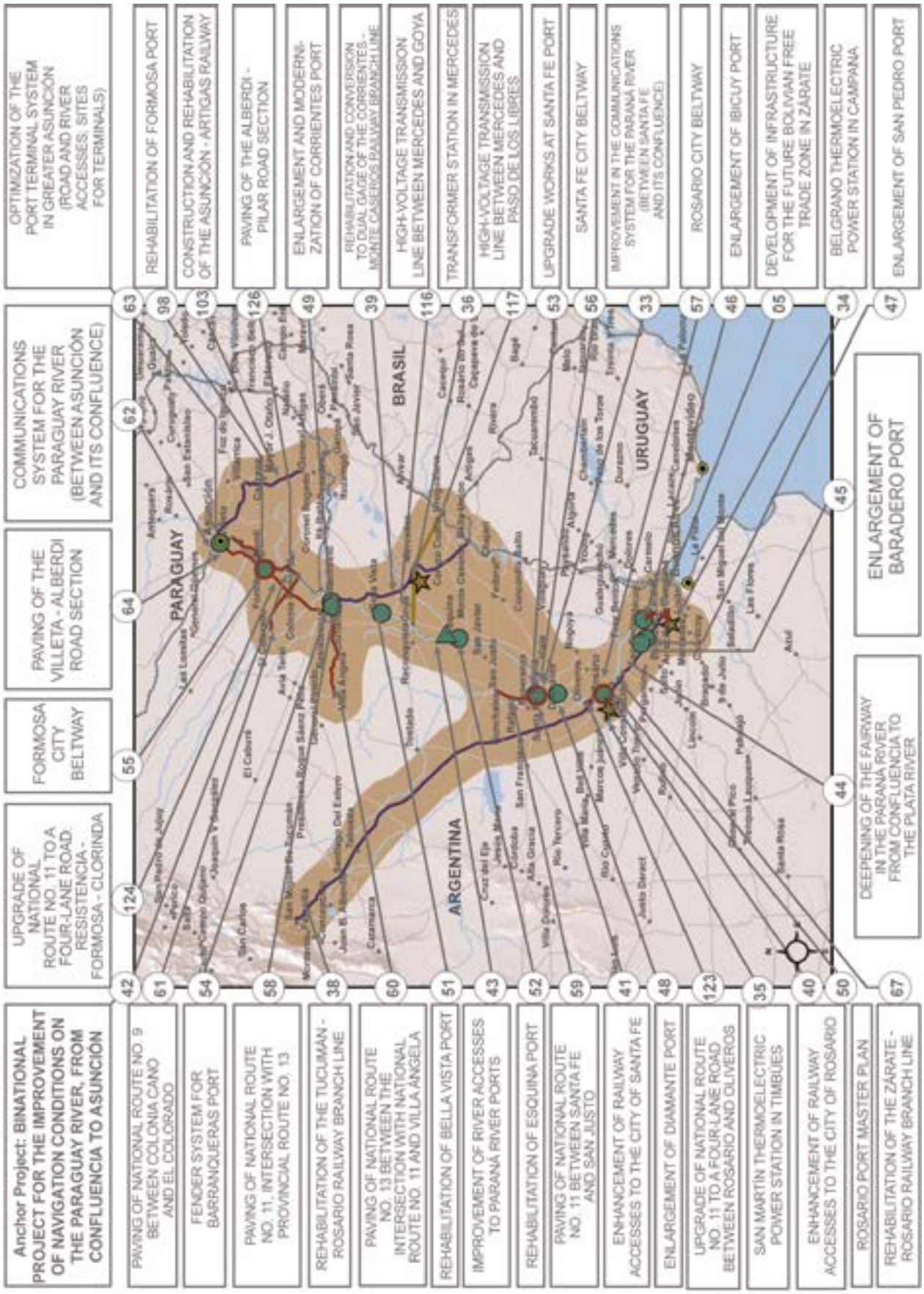
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
HPP19	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE TIETÊ RIVER		800.0	BR
HPP25	SANTA TEREZINHA DE ITAIPU - CASCAVEL SECTION, ROUTE BR-277		4.9	BR
HPP27	OURINHOS - PRESIDENTE EPITÁCIO SECTION, ROUTE SP-270		900.0	BR
HPP28	**ITAIPU DIVERSION BINATIONAL PROJECT**		**0.0**	**BR - PY**
HPP29	BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ITAIPU LAKE		0.0	BR - PY
HPP30	ENLARGEMENT OF PUERTO INDIO		1.2	PY
HPP31	REHABILITATION OF SALTO DEL GUAIRÁ PORT		0.8	PY
HPP32	PAVING OF TRUNK ROAD II		25.6	PY
HPP108	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER (UPSTREAM OF SALTOS DEL GUAIRÁ)		15.0	BR
9			1,747.5	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Paraguay - Paraná Rivers, Asunción - Paraná Delta

Argentina - Bolivia - Paraguay



HPP Group 3

Strategic Function

- Strengthen and boost the integration of the production chains along the Hub.
- Reinforce integration of inland Country and regions with global markets by efficiently connecting them to the Atlantic ocean.
- Improve the efficiency of the production system of the region and the quality of life of the populations living in the area of influence of the group.

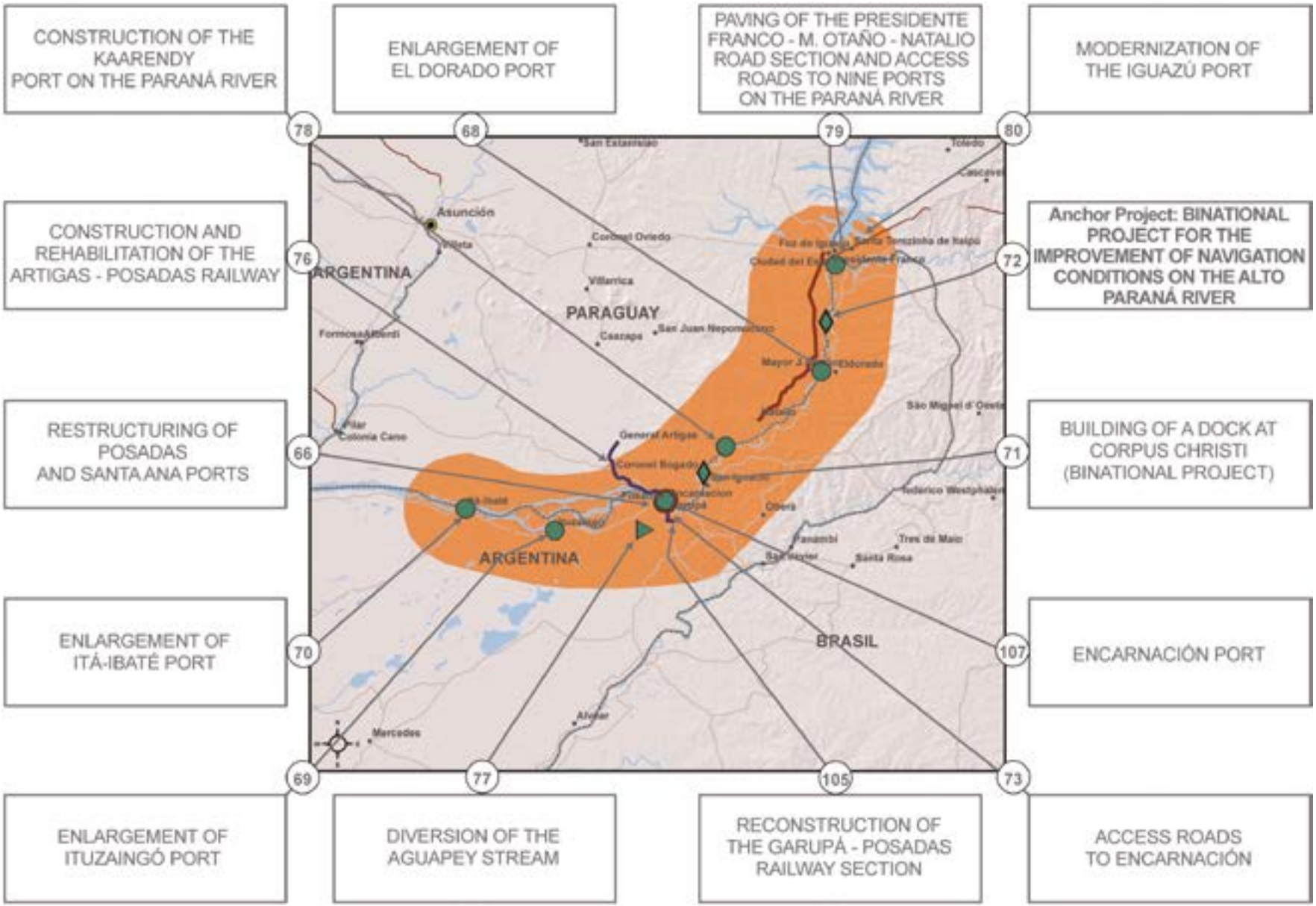
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
HPP05	DEVELOPMENT OF INFRASTRUCTURE FOR THE FUTURE BOLIVIAN FREE TRADE ZONE IN ZÁRATE		0.0	BO
HPP33	IMPROVEMENT IN THE COMMUNICATIONS SYSTEM FOR THE PARANÁ RIVER (BETWEEN SANTA FE AND ITS CONFLUENCE)		30.0	AR
HPP34	BELGRANO THERMOELECTRIC POWER STATION IN CAMPANA		650.0	AR
HPP35	SAN MARTÍN THERMOELECTRIC POWER STATION IN TIMBÚES		500.0	AR
HPP36	TRANSFORMER STATION IN MERCEDES		25.0	AR
HPP38	REHABILITATION OF THE TUCUMÁN - ROSARIO RAILWAY BRANCH LINE		200.0	AR
HPP39	REHABILITATION AND CONVERSION TO DUAL GAGE OF THE CORRIENTES - MONTE CASEROS RAILWAY BRANCH LINE		0.0	AR
HPP40	ENHANCEMENT OF RAILWAY ACCESSES TO THE CITY OF ROSARIO		92.0	AR
HPP41	ENHANCEMENT OF RAILWAY ACCESSES TO THE CITY OF SANTA FE		0.0	AR
HPP42	**BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER, FROM CONFLUENCIA TO ASUNCIÓN**		**45.5**	**AR - PY**
HPP43	IMPROVEMENT OF RIVER ACCESSES TO PARANÁ RIVER PORTS		15.0	AR
HPP44	DEEPENING OF THE FAIRWAY IN THE PARANÁ RIVER FROM CONFLUENCIA TO THE PLATA RIVER		110.0	AR
HPP45	ENLARGEMENT OF BARADERO PORT		0.0	AR
HPP46	ENLARGEMENT OF IBICUY PORT		3.0	AR
HPP47	ENLARGEMENT OF SAN PEDRO PORT		36.0	AR
HPP48	ENLARGEMENT OF DIAMANTE PORT		20.0	AR
HPP49	ENLARGEMENT AND MODERNIZATION OF CORRIENTES PORT		12.0	AR
HPP50	ROSARIO PORT MASTER PLAN		8.0	AR
HPP51	REHABILITATION OF BELLA VISTA PORT		10.0	AR
HPP52	REHABILITATION OF ESQUINA PORT		7.0	AR
HPP53	UPGRADE WORKS AT SANTA FE PORT		110.0	AR
HPP54	FENDER SYSTEM FOR BARRANQUERAS PORT		15.0	AR

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Code	Name	Stage	Estimated Investment*	Countries
HPP55	FORMOSA CITY BELTWAY		8.0	AR
HPP56	SANTA FE CITY BELTWAY		200.0	AR
HPP57	ROSARIO CITY BELTWAY		80.0	AR
HPP58	PAVING OF NATIONAL ROUTE NO. 11, INTERSECTION WITH PROVINCIAL ROUTE NO. 13		100.0	AR
HPP59	PAVING OF NATIONAL ROUTE NO. 11 BETWEEN SANTA FE AND SAN JUSTO		40.0	AR
HPP60	PAVING OF NATIONAL ROUTE NO. 13 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE NO. 11 AND VILLA ÁNGELA		100.0	AR
HPP61	PAVING OF NATIONAL ROUTE NO. 9 BETWEEN COLONIA CANO AND EL COLORADO		60.0	AR
HPP62	COMMUNICATIONS SYSTEM FOR THE PARAGUAY RIVER (BETWEEN ASUNCIÓN AND ITS CONFLUENCE)		3.0	AR - PY
HPP63	OPTIMIZATION OF THE PORT TERMINAL SYSTEM IN GREATER ASUNCIÓN (ROAD AND RIVER ACCESSES; SITES FOR TERMINALS)		0.0	PY
HPP64	PAVING OF THE VILLETA - ALBERDI ROAD SECTION		51.0	PY
HPP67	REHABILITATION OF THE ZÁRATE - ROSARIO RAILWAY BRANCH LINE		42.0	AR
HPP98	REHABILITATION OF FORMOSA PORT		6.0	AR
HPP103	CONSTRUCTION AND REHABILITATION OF THE ASUNCIÓN - ARTIGAS RAILWAY		0.0	PY
HPP116	HIGH-VOLTAGE TRANSMISSION LINE BETWEEN MERCEDES AND GOYA		25.0	AR
HPP117	HIGH-VOLTAGE TRANSMISSION LINE BETWEEN MERCEDES AND PASO DE LOS LIBRES		15.0	AR
HPP123	UPGRADE OF NATIONAL ROUTE NO. 11 TO A FOUR-LANE ROAD BETWEEN ROSARIO AND OLIVEROS		45.0	AR
HPP124	UPGRADE OF NATIONAL ROUTE NO. 11 TO A FOUR-LANE ROAD: RESISTENCIA - FORMOSA - CLORINDA		330.0	AR
HPP126	PAVING OF THE ALBERDI - PILAR ROAD SECTION		100.0	PY
40			3,093.5	

PROFILING PRE-EXECUTION EXECUTION COMPLETED


CONSTRUCTION OF THE KAARENDY PORT ON THE PARANÁ RIVER
ENLARGEMENT OF EL DORADO PORT
PAVING OF THE PRESIDENTE FRANCO - M. OTAÑO - NATALIO ROAD SECTION AND ACCESS ROADS TO NINE PORTS ON THE PARANÁ RIVER
MODERNIZATION OF THE IGUAZÚ PORT
CONSTRUCTION AND REHABILITATION OF THE ARTIGAS - POSADAS RAILWAY
Anchor Project: BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER
RESTRUCTURING OF POSADAS AND SANTA ANA PORTS
BUILDING OF A DOCK AT CORPUS CHRISTI (BINATIONAL PROJECT)
ENLARGEMENT OF ITÁ-IBATÉ PORT
ENCARNACIÓN PORT
ENLARGEMENT OF ITUZAINGÓ PORT
DIVERSION OF THE AGUAPEY STREAM
RECONSTRUCTION OF THE GARUPÁ - POSADAS RAILWAY SECTION
ACCESS ROADS TO ENCARNACIÓN
78
68
79
80
76
72
66
71
70
107
69
77
105
73
ARGENTINA
PARAGUAY
ARGENTINA
BRASIL
Asunción
Villarrica
Encarnación
Posadas
Oberá
Santa Rosa
Tres de Maio
Panambi
Alvear
Mercedes

HPP Group 4

Strategic Function

- Strengthen the socioeconomic dynamics in the area of influence of the group.
- Improve the integration of the production and consumption areas in the Tietê and Paraná basins.
- Strengthen competitiveness of inland Country and regions by efficiently connecting them to the Atlantic ocean.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
HPP66	RESTRUCTURING OF POSADAS AND SANTA ANA PORTS		10.0	AR
HPP68	ENLARGEMENT OF EL DORADO PORT		0.0	AR
HPP69	ENLARGEMENT OF ITUZAINGÓ PORT		27.0	AR
HPP70	ENLARGEMENT OF ITÁ-IBATÉ PORT		18.0	AR
HPP71	BUILDING OF A DOCK AT CORPUS CHRISTI (BINATIONAL PROJECT)		0.0	AR - PY
HPP72	**BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER**		**0.0**	**AR - PY**
HPP73	ACCESS ROADS TO ENCARNACIÓN		26.0	PY
HPP76	CONSTRUCTION AND REHABILITATION OF THE ARTIGAS - POSADAS RAILWAY		150.0	AR - PY
HPP77	DIVERSION OF THE AGUAPEY STREAM		64.0	PY
HPP78	CONSTRUCTION OF THE KAARENDY PORT ON THE PARANÁ RIVER		9.9	PY
HPP79	PAVING OF THE PRESIDENTE FRANCO - M. OTAÑO - NATALIO ROAD SECTION AND ACCESS ROADS TO NINE PORTS ON THE PARANÁ RIVER		176.0	PY
HPP80	MODERNIZATION OF THE IGUAZÚ PORT		0.0	AR
HPP105	RECONSTRUCTION OF THE GARUPÁ - POSADAS RAILWAY SECTION		100.0	AR
HPP107	ENCARNACIÓN PORT		11.8	PY
14			**592.7**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

FEDERAL - CONCORDIA RAILWAY BRANCH LINE

CONCORDIA FREIGHT AIRPORT

Anchor Project: BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE URUGUAY RIVER

REHABILITATION OF THE SALTO PORT ACCESSES AND STORAGE AREA

COMPLETION OF THE CONSTRUCTION OF LOCKS AT SALTO GRANDE DAM

REHABILITATION OF THE PAYSANDÚ PORT ACCESSES AND STORAGE AREA

REHABILITATION AND IMPROVEMENT OF THE PIEDRA SOLA - SALTO GRANDE RAILWAY CORRIDOR

IMPROVEMENTS IN CONCEPCIÓN DEL URUGUAY PORT

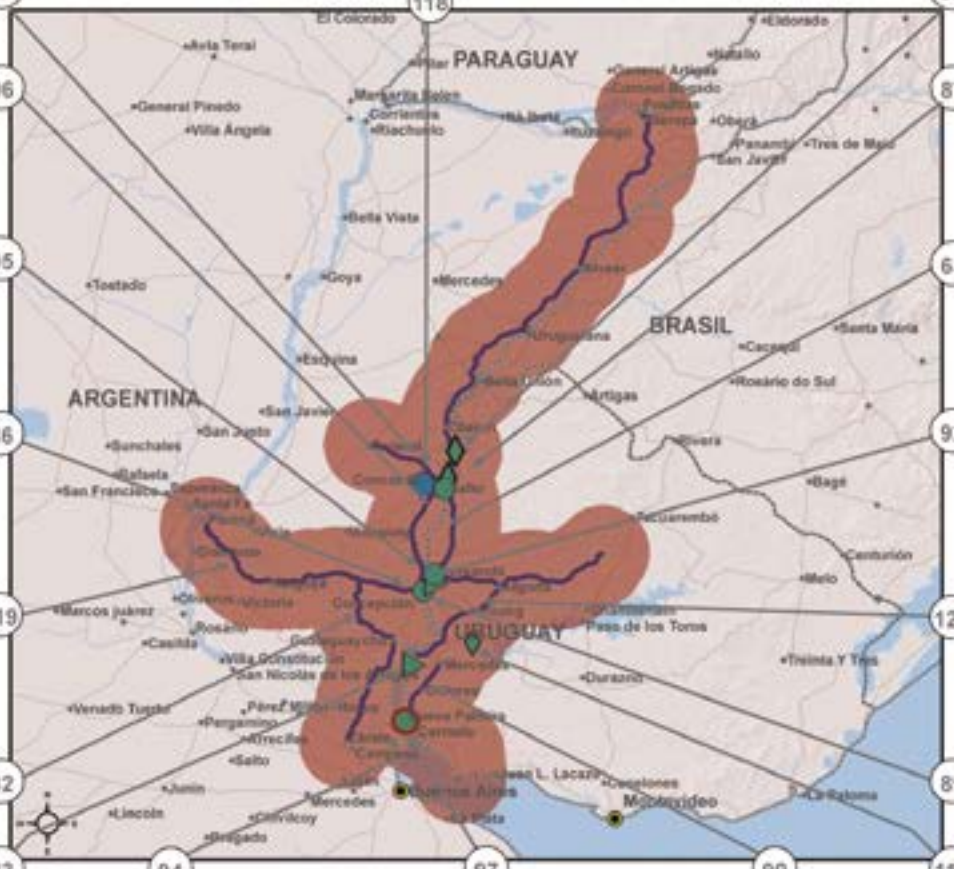
DESIGN AND DREDGING OF THE ALTERNATIVE CASA BLANCA CANAL

PARANÁ - CONCEPCIÓN DEL URUGUAY RAILWAY BRANCH LINE

REHABILITATION OF THE ALGORTA - FRAY BENTOS RAILWAY BRANCH LINE

REHABILITATION OF THE ZÁRATE - POSADAS RAILWAY BRANCH LINE

PAYSANDÚ - COLONIA GAS PIPELINE



121 118 88

96 87

95 65

86 92

119 120

82 89

83 94 97 90 115

IMPROVEMENT OF RIVER ACCESSES TO THE URUGUAYAN PORTS ON THE URUGUAY RIVER

IMPROVEMENT OF NUEVA PALMIRA PORT ACCESSES AND INFRASTRUCTURE

NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK

CONSTRUCTION OF THE MERCEDES - NUEVA PALMIRA PORT RAILWAY BRANCH LINE

IMPROVEMENT OF THE NAVIGATION CONDITIONS ON THE NEGRO RIVER

HPP Group 5

Strategic Function

- Strengthen the socioeconomic dynamics in the area of influence of the group.
- Implement an efficient regional system of river and port activities with a view to improving access to the Atlantic.

* US$ million

Code	Name	Stages	Estimated Investment*	Countries
HPP65	REHABILITATION AND IMPROVEMENT OF THE PIEDRA SOLA - SALTO GRANDE RAILWAY CORRIDOR		127.3	UY
HPP82	REHABILITATION OF THE ZÁRATE - POSADAS RAILWAY BRANCH LINE		0.0	AR
HPP83	IMPROVEMENT OF RIVER ACCESSES TO THE URUGUAYAN PORTS ON THE URUGUAY RIVER		1.0	UY
HPP86	IMPROVEMENTS IN CONCEPCIÓN DEL URUGUAY PORT		8.0	AR
HPP87	COMPLETION OF THE CONSTRUCTION OF LOCKS AT SALTO GRANDE DAM		300.0	AR - UY
HPP88	**BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE URUGUAY RIVER**		**40.0**	**AR - UY**
HPP89	PAYSANDÚ - COLONIA GAS PIPELINE		90.0	UY
HPP90	CONSTRUCTION OF THE MERCEDES - NUEVA PALMIRA PORT RAILWAY BRANCH LINE		90.0	UY
HPP92	DESIGN AND DREDGING OF THE ALTERNATIVE CASA BLANCA CANAL		3.0	UY
HPP94	IMPROVEMENT OF NUEVA PALMIRA PORT ACCESSES AND INFRASTRUCTURE		10.0	UY
HPP95	REHABILITATION OF THE PAYSANDÚ PORT, ACCESSES AND STORAGE AREA		6.0	UY
HPP96	REHABILITATION OF THE SALTO PORT, ACCESSES AND STORAGE AREA		4.0	UY
HPP97	NUEVA PALMIRA BELTWAY AND PORT ACCESS ROADS NETWORK		15.0	UY
HPP115	IMPROVEMENT OF THE NAVIGATION CONDITIONS ON THE NEGRO RIVER		350.0	UY
HPP118	CONCORDIA FREIGHT AIRPORT		0.0	AR
HPP119	PARANÁ - CONCEPCIÓN DEL URUGUAY RAILWAY BRANCH LINE		8.0	AR
HPP120	REHABILITATION OF THE ALGORTA - FRAY BENTOS RAILWAY BRANCH LINE		100.0	UY
HPP121	FEDERAL - CONCORDIA RAILWAY BRANCH LINE		8.0	AR
18			1,160.3	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

IOC

CENTRAL INTEROCEANIC HUB

INTEGRATION AND DEVELOPMENT HUB

Population:	100,150,302 inhabitants
Density:	37.9 inh./km²
Area:	2,642,262 km²
GDP:	US$ 1,348,366 million
Services	77.3%
Industry	11.5%
Agriculture	5.7%
Mines and quarries	5.5%

BOLIVIA BRAZIL CHILE PARAGUAY PERU

Estimated investment

* US$ million

11,614.8

84.1% National	15. 9% Binational
53	10

Bolivia	26
Brazil	12
Chile	17
Paraguay	10
Peru	8

Projects per Sector

	Transport	Energy	Communications
	59	2	2
	11,288.6	321.7	4.5

Projects per Types of Financing

	Public	Private	Public Private
	44	14	5
	4,600.2	5,910.2	1,104.5

Projects per Stages

	Profiling	Pre Execution	Execution	Concluded
	10	13	26	14
	614	5,750.7	5,027.1	223.1

US$ milion Number of projects

COMPLETED PROJECTS OF THE HUB

* US$ million

Code	Name	Investment*	Countries
IOC66	ARICA - LA PAZ RAILWAY REHABILITATION AND CONCESSION (CHILEAN SECTION)	50	CH
IOC36	PAVING AND IMPROVEMENT OF THE IQUIQUE - COLCHANE ROAD	42	CH
IOC13	CAMPO GRANDE RING RAILWAY	31	BR
IOC20	IMPROVEMENT OF CORUMBÁ - CAMPO GRANDE RAILWAY SECTION (TREM DO PANTA-NAL)	22	BR
IOC69	ENLARGEMENT OF THE IQUIQUE AIRPORT	16.6	CH
IOC30	PAVING OF THE PORTO LIMÃO - BOLIVIAN BORDER (SAN MATÍAS) ROAD SECTION	13	BR
IOC74	IMPROVEMENT OF THE CONCEPCIÓN - PEDRO JUAN CABALLERO ROAD SECTION	12.5	PY
IOC33	PISIGA - COLCHANE BORDER CROSSING	10	BO - CH
IOC34	IMPROVEMENT OF ARICA AIRPORT	10	CH
IOC15	CORUMBÁ BYPASS	8	BR
IOC39	REHABILITATION OF THE "PUENTE DE LA AMISTAD" BRIDGE (OR EISENHOWER BRIDGE)	3	BO
IOC25	PUERTO SUÁREZ - CORUMBÁ INTEGRATED CONTROL AREA	2	BO - BR
IOC29	SAN MATÍAS - CÁCERES (PORTO LIMÃO) BORDER CROSSING	2	BO - BR
IOC86	IMPROVEMENT OF THE CHACALLUTA BORDER COMPLEX	1	CH
14		223.1	

Presentation of the
CENTRAL INTEROCEANIC HUB

The Central Interoceanic Hub [1] extends across South America from coast to coast, linking major ports on the Pacific and the Atlantic oceans as well as several transport hubs connecting Bolivia, Brazil, Chile, Paraguay and Peru.

The Hub accounts for 13% of the area (2,642,262 km²) and 26% of the population (100,150,302 inhabitants) of South America, and is one of the three most densely populated Hubs, with 38 inhabitants per km². It also ranks third in terms of GDP, accounting for almost 30% of the region's GDP (US$1,348,336 million).[2]

MAP OF THE AREA OF INFLUENCE OF THE CENTRAL INTEROCEANIC HUB

1 See "Caracterización Socio-Económica y Ambiental del Eje Interoceánico Central," COSIPLAN-IIRSA, 2015. iirsa.org/interoceanico-central.asp.
2 At 2013 current prices.

Regarding infrastructure, the **road network** of the Central Interoceanic Hub covers a total of 1,854,372 km, 14% of which are paved. Its rail network covers 40,146 km. The **sea and river port system** of the Hub features 29 major ports, 18 of which are located on the Paraguay and Paraná rivers and 10 on the ocean coasts. Six of these ports handle more than 2 million tons.The ports of Santos and Paranaguá, on the Brazilian Atlantic coast, handle 100 and 40 million tons, respectively. The **airport system** is made up of 29 airports —17 domestic and 12 international— mostly located in Brazil and Bolivia. Concerning **electricity generation**, the installed power capacity in the Country of the Hub is 159,262 MW, 76% of which are contributed by Brazil.

The Country involved in the Central Interoceanic Hub plan investments for US$11 billion in 63 physical integration projects.

Paraguay contributes 100% of its economy, Bolivia 99%, Brazil 52%, Chile 13%, and Peru 10%. In absolute terms, Brazil contributes 91% to the Hub's aggregate GDP, while the other Country contribute between 3% and 2%.

The Hub shares part of its area of influence with seven of the 10 Hubs: MERCOSUR-Chile, Andean, Peru-Brazil-Bolivia, Amazon, Paraná-Paraguay Waterway and Capricorn Hubs.

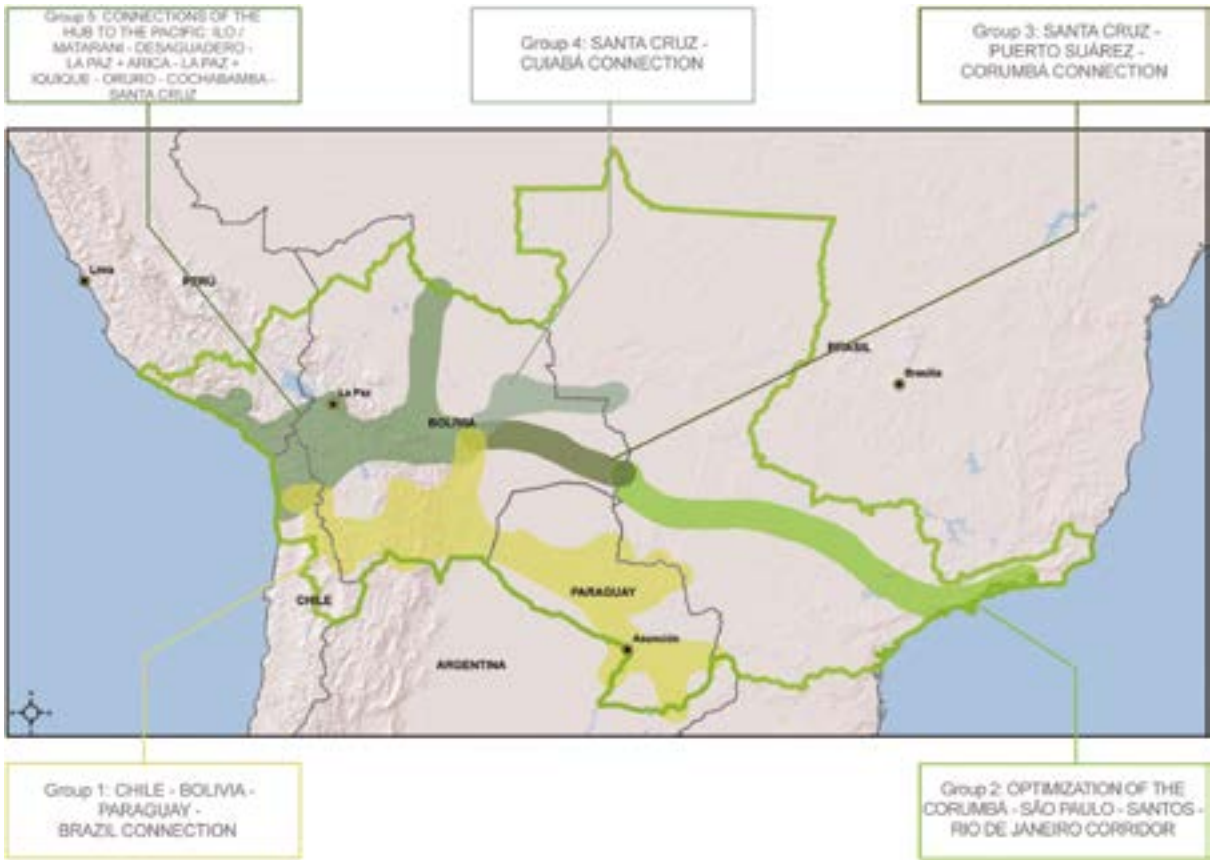
Project Portfolio

CENTRAL INTEROCEANIC HUB

The projects included in the Central Interoceanic Hub are intended to expand the rail infrastructure in order to reduce regional transportation costs in the following connectivities:

- from isolated territories of the hinterland towards the Pacific ocean;
- from the Country to the Atlantic ocean;
- from the eastern region of Bolivia to Mato Grosso, and from these regions to the Atlantic and Pacific oceans.

MAP OF THE PROJECT GROUPS OF THE CENTRAL INTEROCEANIC HUB



PROJECT GROUPS OF THE CENTRAL INTEROCEANIC HUB

* US$ million

Group	Name	No. of Projects	Estimated Investment*
1	CHILE - BOLIVIA - PARAGUAY - BRAZIL CONNECTION	17	1,907.1
2	OPTIMIZATION OF THE CORUMBÁ - SÃO PAULO - SANTOS - RIO DE JANEIRO CORRIDOR	8	6,313.9
3	SANTA CRUZ - PUERTO SUÁREZ - CORUMBÁ CONNECTION	4	433.5
4	SANTA CRUZ - CUIABÁ CONNECTION	5	141.2
5	CONNECTIONS OF THE HUB TO THE PACIFIC: ILO / MATARANI - DESAGUADERO - LA PAZ + ARICA - LA PAZ + IQUIQUE - ORURO - COCHABAMBA - SANTA CRUZ	29	2,819.2
TOTAL		**63**	**11,614.8**

The active portfolio of the Hub includes 49 projects with an estimated investment of US$11,392 million.

Of the 49 active projects, there is information available on the estimated completion date of 13. Twelve of them are to be completed in the next four years (2015-2018).
According to estimations, by the time these 12 projects are completed, 61% of the estimated investment amount for the Hub's Portfolio would have been spent.

PROJECTS TO BE COMPLETED IN THE NEXT FOUR YEARS

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Estimated Completion Date
IOC32	TOLEDO - PISIGA ROAD	5		130.5	BO	Dec 31, 2015
IOC89	MINERAL CONCENTRATE RECEPTION, STORAGE AND SHIPPING SYSTEM AT THE MATARANI PORT	5		174.4	PE	Dec 31, 2015
IOC14	CAMPO GRANDE BYPASS	2		18.5	BR	26/02/2016
IOC09	INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING	1		1.9	BO - PY	Apr 30, 2016
IOC80	UPGRADE OF LA PAZ - SANTA CRUZ ROUTE TO A FOUR-LANE ROAD	5		269.0	BO	Aug 31, 2016
IOC42	REHABILITATION AND IMPROVEMENT OF THE CAMANÁ - MATARANI - ILO ROAD	5		473.0	PE	Jan 31, 2017
IOC75	CONSTRUCTION OF ROUTE NO. 5 SECTION BETWEEN BELLA VISTA AND THE CONNECTION WITH APA RIVER BRIDGE	1		48.5	PY	Jul 31, 2017
IOC16	RIO DE JANEIRO BYPASS AND ACCESS ROAD TO ITAGUAÍ PORT	2		1,200.0	BR	Sep 30, 2017
IOC17	IMPROVEMENT OF THE CORUMBÁ - SANTOS (SP) RAILWAY SECTION	2		3,700.0	BR	Dec 31, 2017
IOC78	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)	3		20.0	BO	Dec 31, 2017
IOC01	PAVING OF THE CARMELO PERALTA - LOMA PLATA ROAD SECTION	1		255.5	PY	Feb 28, 2018
IOC72	IMPROVEMENT OF ROUTE NO. 9 TRANSCHACO (INFANTE RIVAROLA - ASUNCIÓN ROAD SECTION)	1		598.5	PY	Jul 31, 2018

PROFILING PRE-EXECUTION EXECUTION COMPLETED

The five projects with the greatest estimated investment account for 60% of all the investment in the active portfolio of the Hub.

It is to be noted that the first three projects are national in scope, involving only Brazil, and have a high investment level, while the other two are also national, involving Paraguay and Peru.

Public and private financing sources are being considered for all the projects (two projects will be publicly financed, two privately financed, and one will be public-privately financed).

The first project, Improvement of the Corumbá - Santos Railway Section (SP), is privately financed. All the projects considered belong to the transportation sector; three concern road and two rail works.

THE FIVE PROJECTS OF THE ACTIVE PORTFOLIO WITH THE GREATEST ESTIMATED INVESTMENT

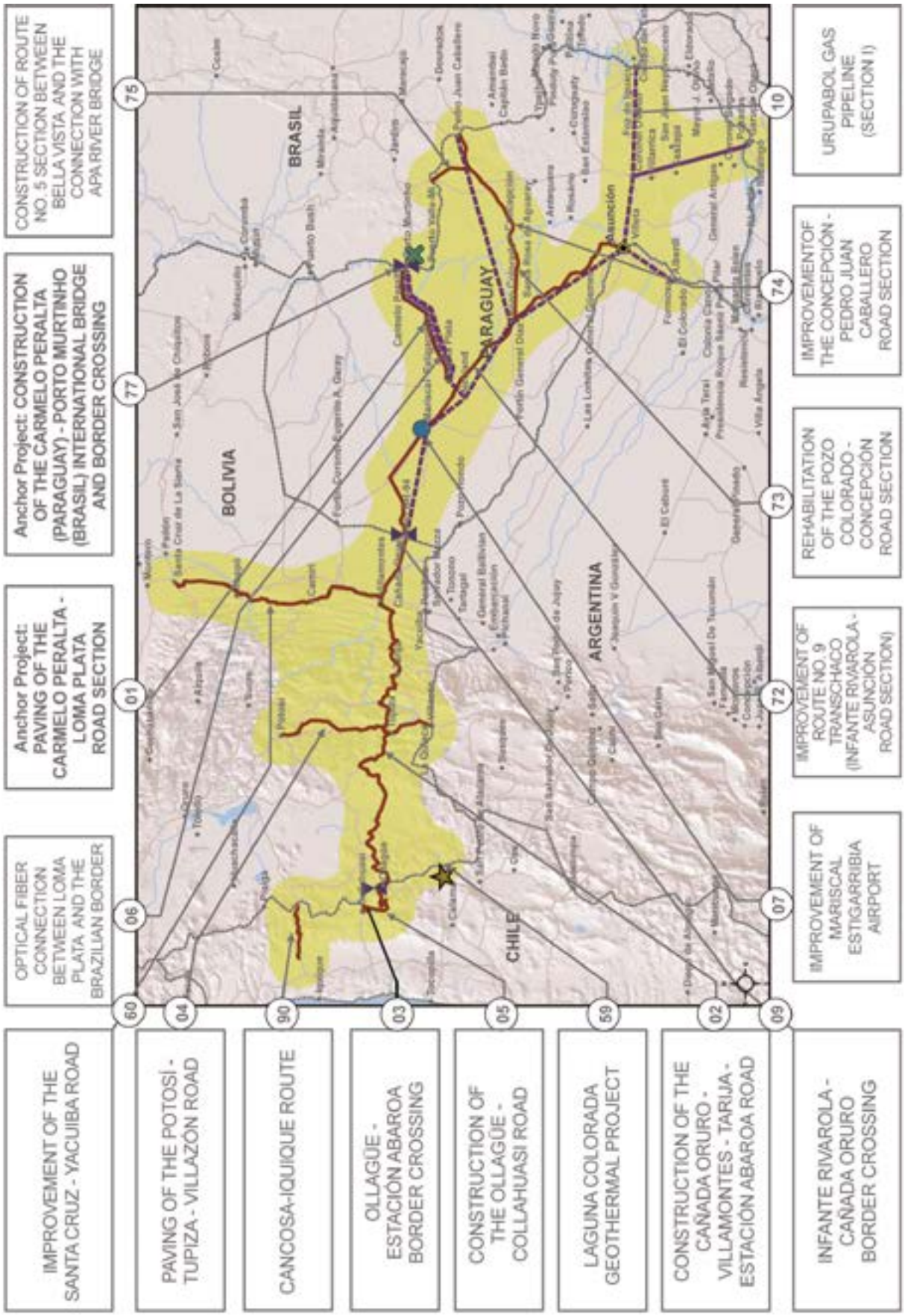
Code	Name	Group	Stage	Estimated Investment*	Countries	Type of Financing
IOC17	IMPROVEMENT OF THE CORUMBÁ - SANTOS (SP) RAILWAY SECTION	2		3,700.0	BR	PRIVATE
IOC16	RIO DE JANEIRO BYPASS AND ACCESS ROAD TO ITAGUAÍ PORT	2		1,200.0	BR	PUBLIC
IOC11	SÃO PAULO RING RAILWAY	2		1,000.0	BR	PRIVATE
IOC72	IMPROVEMENT OF ROUTE NO. 9 TRANSCHACO (INFANTE RIVAROLA - ASUNCIÓN ROAD SECTION)	1		598.5	PY	PUBLIC-PRIVATE
IOC42	REHABILITATION AND IMPROVEMENT OF THE CAMANÁ - MATARANI - ILO ROAD	5		473.0	PE	PUBLIC

There are 14 completed projects in the Hub, having demanded a total investment amount of US$223 million.

All the completed projects, most of which have been publicly financed, belong to the transportation sector, divided into four subsectors: rail, road, air and border crossings. Most of the projects are national in scope, with a balanced participation of Chile (5) and Brazil (4). Paraguay has completed one project, and Bolivia participates in three binational projects already completed, two shared with Brazil and one with Chile.

Chile - Bolivia - Paraguay - Brazil Connection

Bolivia – Brazil – Chile – Paraguay



IOC Group 1

Strategic Function

- Interconnect regional production areas (transportation, energy, and communications).
- Provide new access of the hinterlands to the Pacific ocean, articulating isolated territories.
- Increase the economic complementariness among the Country.

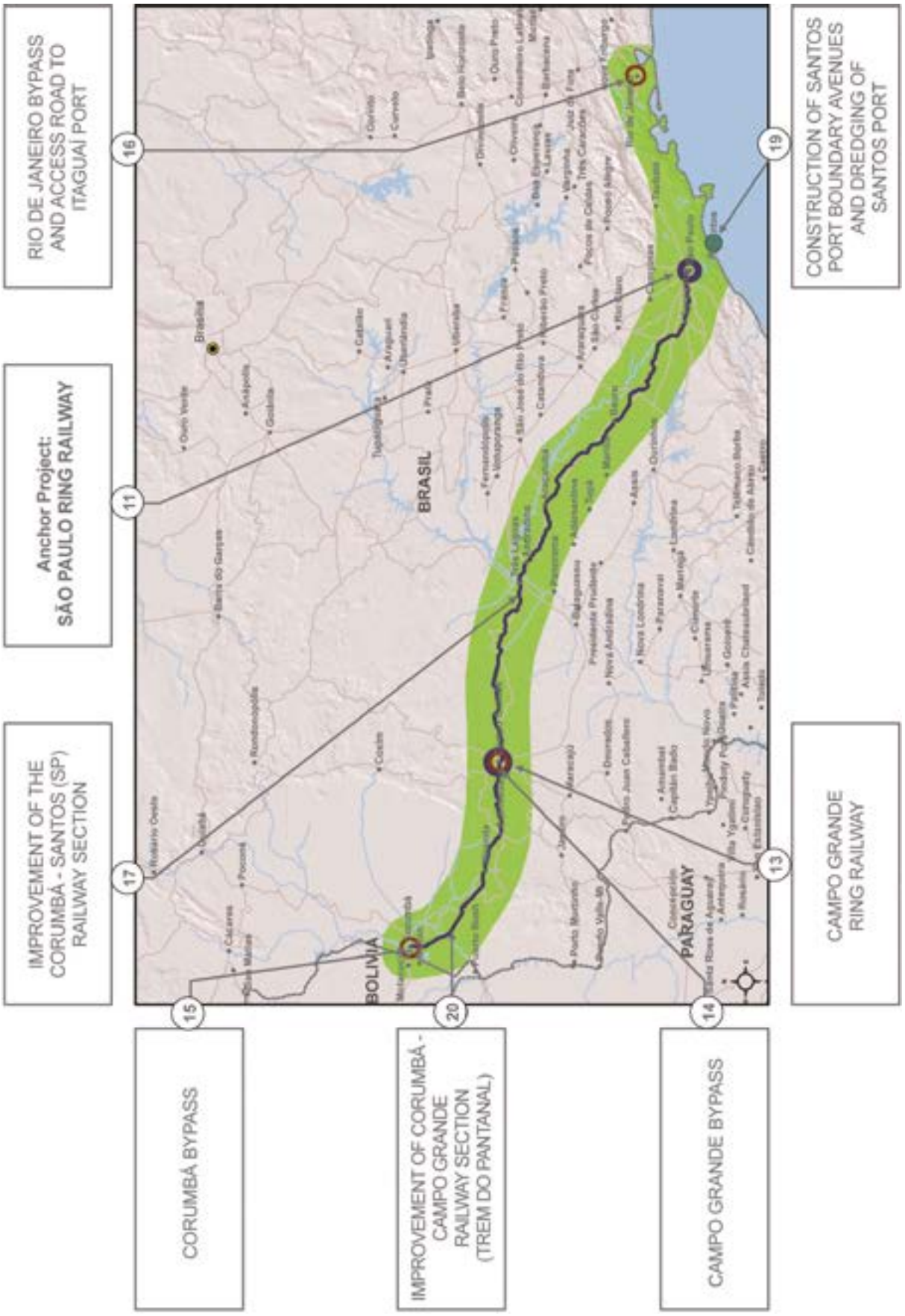
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
IOC01	**PAVING OF THE CARMELO PERALTA - LOMA PLATA ROAD SECTION**		**255.5**	**PY**
IOC02	CONSTRUCTION OF THE CAÑADA ORURO - VILLAMONTES - TARIJA - ESTACIÓN ABAROA ROAD		210.0	BO
IOC03	OLLAGÜE - ESTACIÓN ABAROA BORDER CROSSING		5.0	BO - CH
IOC04	PAVING OF THE POTOSÍ - TUPIZA - VILLAZÓN ROAD		180.4	BO
IOC05	CONSTRUCTION OF THE OLLAGÜE - COLLAHUASI ROAD		40.0	CH
IOC06	OPTICAL FIBER CONNECTION BETWEEN LOMA PLATA AND THE BRAZILIAN BORDER		2.0	PY
IOC07	IMPROVEMENT OF MARISCAL ESTIGARRIBIA AIRPORT		30.0	PY
IOC09	INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING		1.9	BO - PY
IOC10	URUPABOL GAS PIPELINE (SECTION I) (*)		0.0	BO - PY
IOC59	LAGUNA COLORADA GEOTHERMAL PROJECT		321.8	BO
IOC60	IMPROVEMENT OF THE SANTA CRUZ - YACUIBA ROAD		104.0	BO
IOC72	IMPROVEMENT OF ROUTE NO. 9 TRANSCHACO (INFANTE RIVAROLA - ASUNCIÓN ROAD SECTION)		598.5	PY
IOC73	REHABILITATION OF THE POZO COLORADO - CONCEPCIÓN ROAD SECTION		47.0	PY
IOC74	IMPROVEMENT OF THE CONCEPCIÓN - PEDRO JUAN CABALLERO ROAD SECTION		12.5	PY
IOC75	CONSTRUCTION OF ROUTE NO. 5 SECTION BETWEEN BELLA VISTA AND THE CONNECTION WITH APA RIVER BRIDGE		48.5	PY
IOC77	**CONSTRUCTION OF THE CARMELO PERALTA (PARAGUAY) - PORTO MURTINHO (BRAZIL) BRIDGE**		**0.0**	**BR - PY**
IOC90	CANCOSA - IQUIQUE ROUTE		50.0	CH
17			**1,907.1**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Optimization of the Corumbá - São Paulo - Santos - Rio de Janeiro Corridor

Brazil



IOC Group 2

Strategic Function

- Significantly reduce cargo transportation costs from Brazil, Bolivia, and Paraguay to the Atlantic ocean and among these Country as well.
- Increase the Country' economic complementation.
- Increase the railway component in the regional transportation matrix.
- Support tourism in the region of Pantanal.

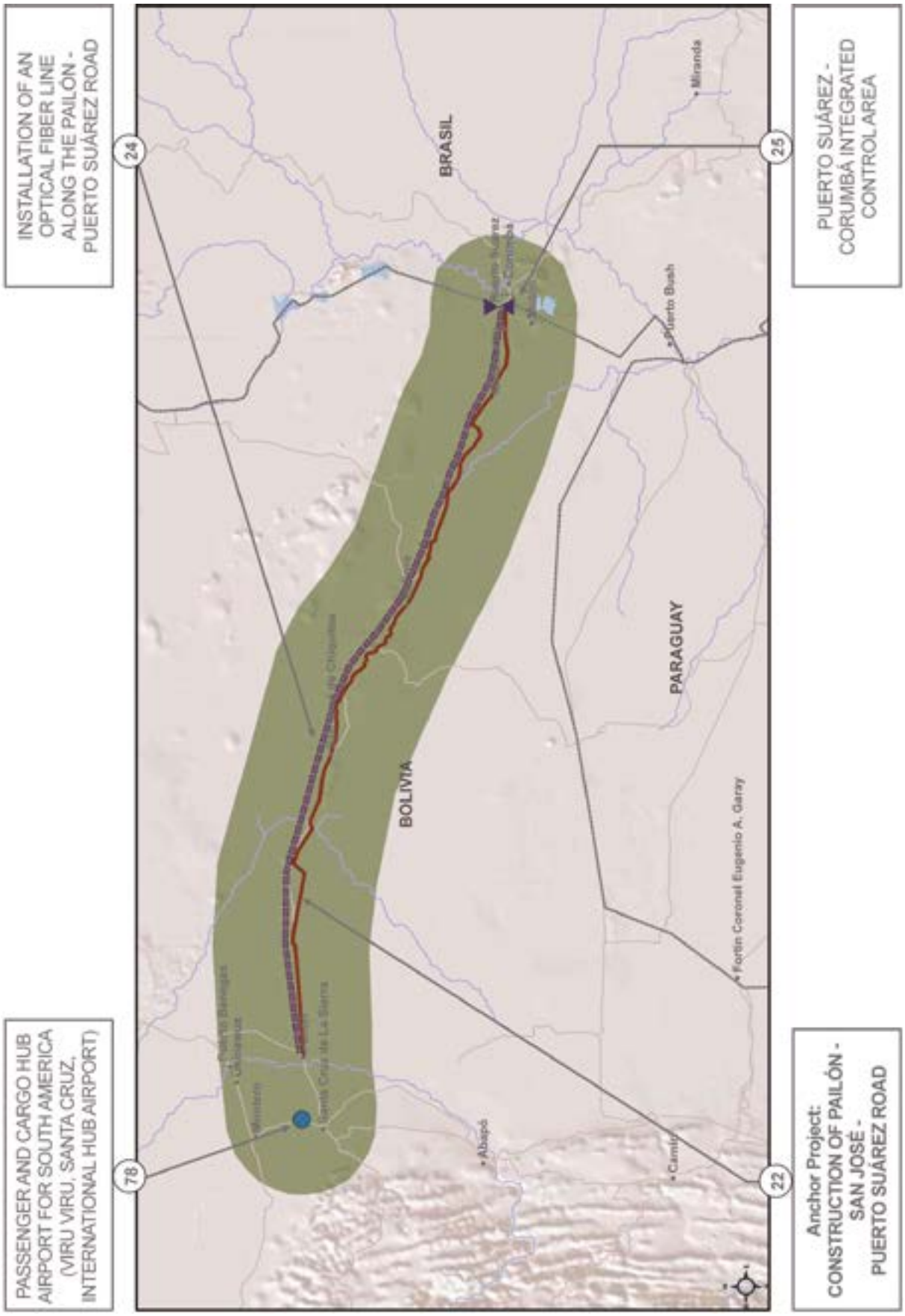
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
IOC11	**SÃO PAULO RING RAILWAY**		**1,000.0**	**BR**
IOC13	CAMPO GRANDE RING RAILWAY		31.0	BR
IOC14	CAMPO GRANDE BYPASS		18.5	BR
IOC15	CORUMBÁ BYPASS		8.0	BR
IOC16	RIO DE JANEIRO BYPASS AND ACCESS ROAD TO ITAGUAÍ PORT		1,200.0	BR
IOC17	IMPROVEMENT OF THE CORUMBÁ - SANTOS (SP) RAILWAY SECTION		3,700.0	BR
IOC19	CONSTRUCTION OF SANTOS PORT BOUNDARY AVENUES AND DREDGING OF SANTOS PORT		334.4	BR
IOC20	IMPROVEMENT OF CORUMBÁ - CAMPO GRANDE RAILWAY SECTION (TREM DO PANTANAL)		22.0	BR
8			6,313.9	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Santa Cruz - Puerto Suárez - Corumbá Connection

Bolivia – Brazil



IOC Group 3

Strategic Function

- Complete the railway and road connection in the Hub.
- Significantly reduce cargo transportation costs from Brazil, Bolivia, and Paraguay to the Atlantic ocean, the Pacific ocean, and among these Country as well.
- Increase the Country' economic complementation.
- Support tourism in the region of Pantanal.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
IOC22	**CONSTRUCTION OF PAILÓN - SAN JOSÉ - PUERTO SUÁREZ ROAD**		**409.0**	**BO**
IOC24	INSTALLATION OF AN OPTICAL FIBER LINE ALONG THE PAILÓN - PUERTO SUÁREZ ROAD		2.5	BO
IOC25	PUERTO SUÁREZ - CORUMBÁ INTEGRATED CONTROL AREA		2.0	BO - BR
IOC78	PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)		20.0	BO
4			433.5	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

BANEGAS BRIDGE

Anchor Project:
CONCEPCIÓN -
BRAZILIAN BORDER
(SAN MATÍAS) ROAD

PAVING OF THE PORTO
LIMÃO - BOLIVIAN
BORDER (SAN MATÍAS)
ROAD SECTION

PAVING OF BANEGAS
BRIDGE - OKINAWA
ROAD SECTION

SAN MATÍAS - CÁCERES
(PORTO LIMÃO)
BORDER CROSSING

IOC Group 4

Strategic Function

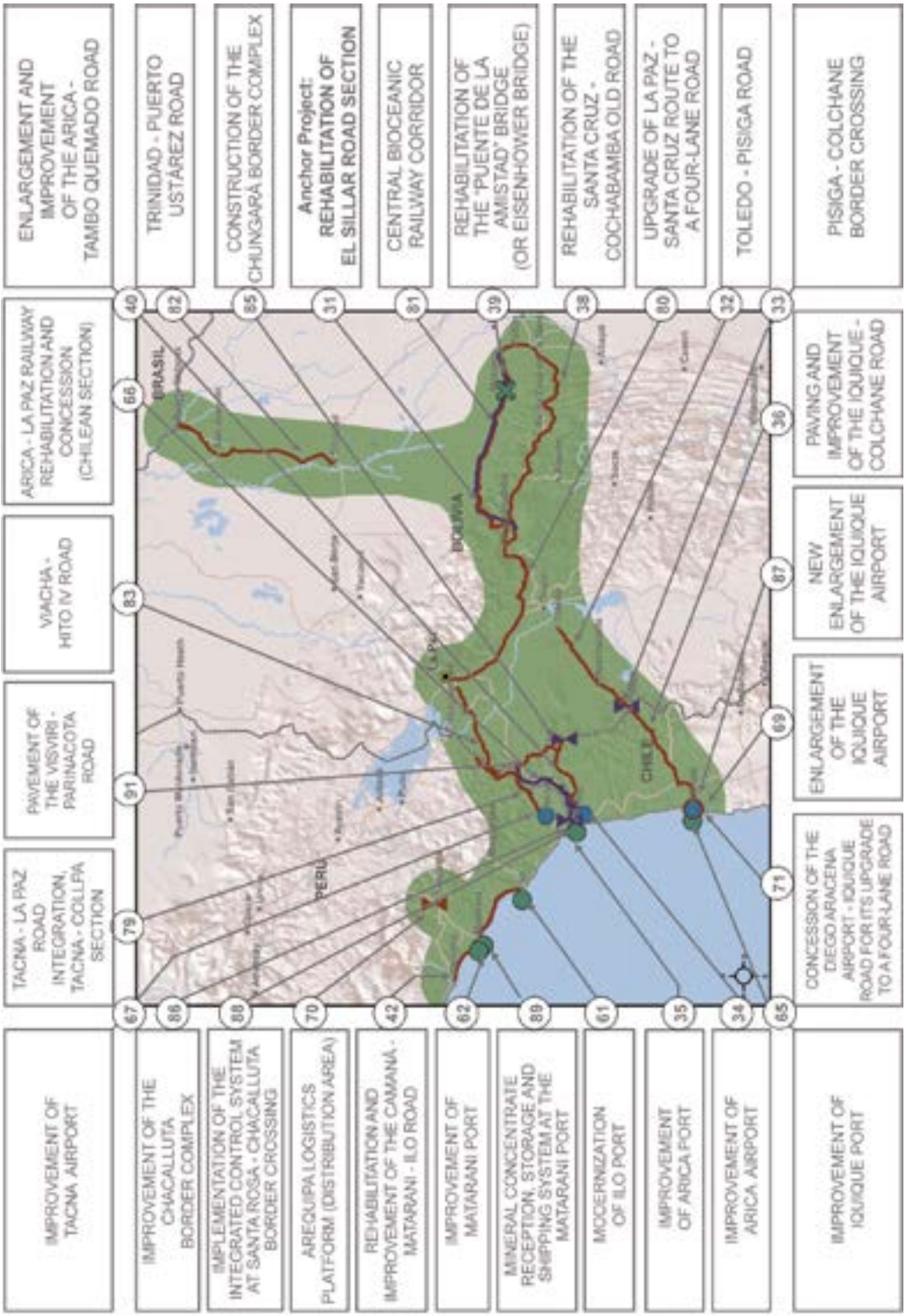
- Connect the eastern region in Bolivia with the Mato Grosso, facilitating the access of both regions to the ports on the Atlantic and Pacific oceans.
- Support the development of the agricultural potential in the central-eastern region of Bolivia.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
IOC26	**CONCEPCIÓN - BRAZILIAN BORDER (SAN MATÍAS) ROAD**		**79.5**	**BO**
IOC27	BANEGAS BRIDGE		46.7	BO
IOC28	PAVING OF BANEGAS BRIDGE - OKINAWA ROAD SECTION		0.0	BO
IOC29	SAN MATÍAS - CÁCERES (PORTO LIMÃO) BORDER CROSSING		2.0	BO - BR
IOC30	PAVING OF THE PORTO LIMÃO - BOLIVIAN BORDER (SAN MATÍAS) ROAD SECTION		13.0	BR
5			**141.2**	

Connections of the Hub to the Pacific: Ilo/Mataraní - Desaguadero - La Paz + Arica - La Paz - Iquique - Oruro - Cochabamba - Santa Cruz

Bolivia – Chile – Peru



Strategic Function

- Increase trade and tourism among the Country, promote production integration among the cities located within the area of influence of the Hub, and enhance their competitiveness by reducing foreign trade costs and technologically modernizing border crossings.

IOC
Group 5

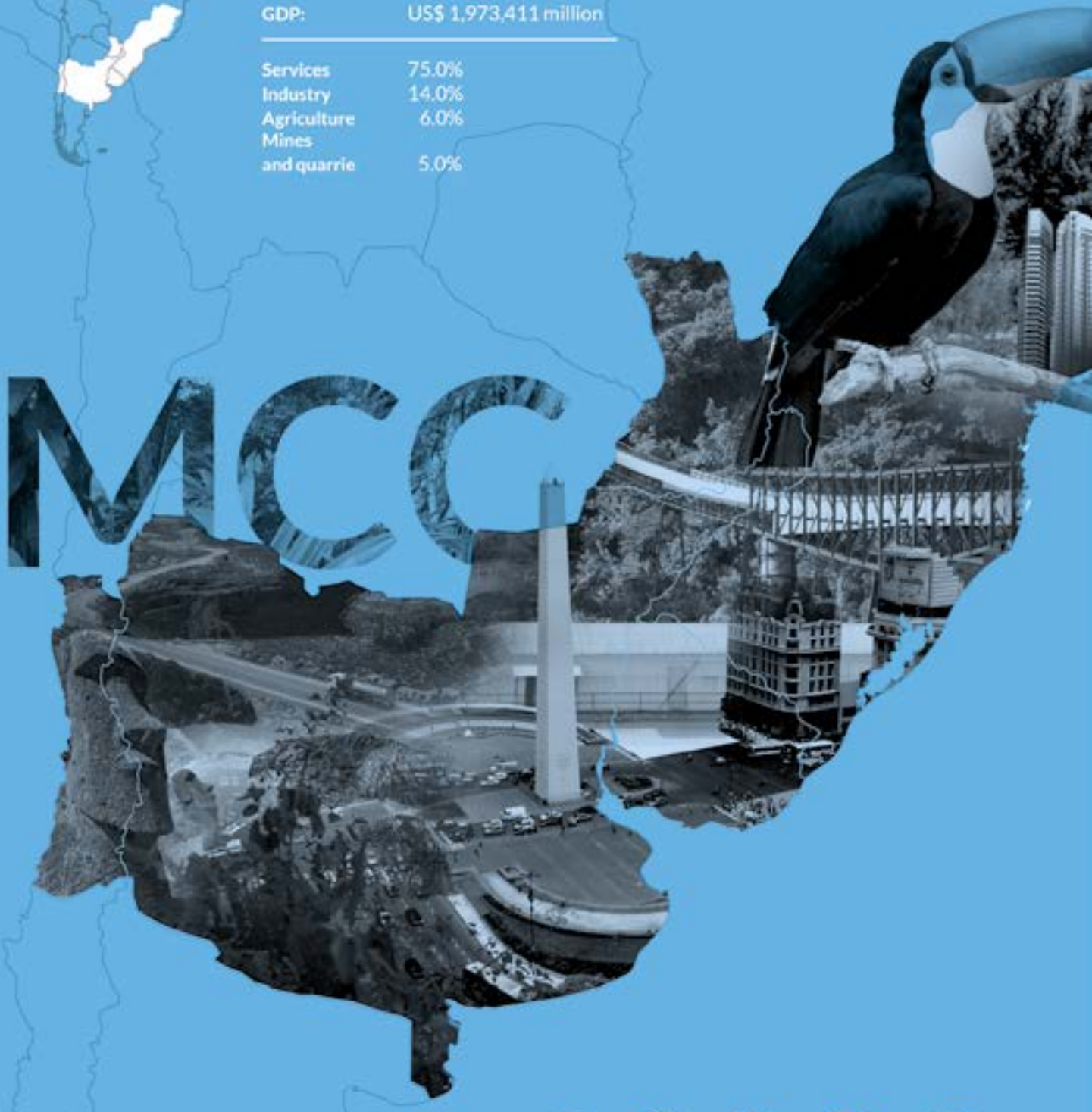
Code	Name	Stage	Estimated Investment*	Countries
IOC31	**REHABILITATION OF EL SILLAR ROAD SECTION**		**122.5**	**BO**
IOC32	TOLEDO - PISIGA ROAD		130.5	BO
IOC33	PISIGA - COLCHANE BORDER CROSSING		10.0	BO - CH
IOC34	IMPROVEMENT OF ARICA AIRPORT		10.0	CH
IOC35	IMPROVEMENT OF ARICA PORT		50.0	CH
IOC36	PAVING AND IMPROVEMENT OF THE IQUIQUE - COLCHANE ROAD		42.0	CH
IOC38	REHABILITATION OF THE SANTA CRUZ - COCHABAMBA OLD ROAD		35.0	BO
IOC39	REHABILITATION OF THE "PUENTE DE LA AMISTAD" BRIDGE (OR EISENHOWER BRIDGE)		3.0	BO
IOC40	ENLARGEMENT AND IMPROVEMENT OF THE ARICA - TAMBO QUEMADO ROAD		50.0	CH
IOC42	REHABILITATION AND IMPROVEMENT OF THE CAMANÁ - MATARANI - ILO ROAD		473.0	PE
IOC61	MODERNIZATION OF ILO PORT		230.0	BO - PE
IOC62	IMPROVEMENT OF MATARANI PORT		297.0	PE
IOC65	IMPROVEMENT OF IQUIQUE PORT		33.0	CH
IOC66	ARICA - LA PAZ RAILWAY REHABILITATION AND CONCESSION (CHILEAN SECTION)		50.0	CH
IOC67	IMPROVEMENT OF TACNA AIRPORT		51.5	PE
IOC69	ENLARGEMENT OF THE IQUIQUE AIRPORT		16.6	CH
IOC70	AREQUIPA LOGISTICS PLATFORM (DISTRIBUTION AREA)		33.5	PE
IOC71	CONCESSION OF THE DIEGO ARACENA AIRPORT - IQUIQUE ROAD FOR ITS UPGRADE TO A FOUR-LANE ROAD		232.0	CH
IOC79	TACNA - LA PAZ ROAD INTEGRATION, TACNA - COLLPA SECTION		183.0	BO - PE
IOC80	UPGRADE OF LA PAZ - SANTA CRUZ ROUTE TO A FOUR-LANE ROAD		269.0	BO
IOC81	CENTRAL BIOCEANIC RAILWAY CORRIDOR		6.7	BO
IOC82	TRINIDAD - PUERTO USTAREZ ROAD		226.0	BO
IOC83	TACNA - LA PAZ, VIACHA - MILESTONE IV SECTION ROAD		16.0	BO
IOC85	CONSTRUCTION OF THE CHUNGARÁ BORDER COMPLEX		37.0	CH
IOC86	IMPROVEMENT OF THE CHACALLUTA BORDER COMPLEX		1.0	CH
IOC87	NEW ENLARGEMENT OF THE IQUIQUE AIRPORT, FOURTH STAGE		10.0	CH
IOC88	IMPLEMENTATION OF THE INTEGRATED CONTROL SYSTEM AT SANTA ROSA - CHACALLUTA BORDER CROSSING		1.5	CH - PE
IOC89	MINERAL CONCENTRATE RECEPTION, STORAGE AND SHIPPING SYSTEM AT THE MATARANI PORT		174.4	PE
IOC91	PAVEMENT OF THE VISVIRI - PARINACOTA ROAD		25.0	CH
29			2,819.2	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

MERCOSUR - CHILE

INTEGRATION AND DEVELOPMENT HUB

Population:	141,453,273 inhabitants
Density:	44 inh./km²
Area:	3,216,623 km²
GDP:	US$ 1,973,411 million
Services	75.0%
Industry	14.0%
Agriculture	6.0%
Mines and quarrie	5.0%



ARGENTINA BRAZIL CHILE PARAGUAY URUGUAY

Estimated investment

* US$ million

56,168.9

83.1% National	16.9% Binational
103	21

Argentina	57
Brazil	30
Chile	21
Paraguay	8
Uruguay	29

Projects per Sector

Transport	Energy	Communications
103	20	1
39,077.8	17,091.1	

Projects per Types of Financing

Public	Private	Public Private
98	15	11
39,113.2	13,510	3,545.7

Projects per Stages

Profiling	Pre Execution	Execution	Concluded
13	44	44	23
846.3	25,172.5	21,798.8	8,351.3

US$ million Number of projects

COMPLETED PROJECTS OF THE HUB

* US$ million

Code	Name	Investment*	Countries
MCC12	CONSTRUCTION OF THE SÃO PAULO RING ROAD (SOUTHERN SECTION)	2,700	BR
MCC04	COMPLETION OF THE UPGRADE OF THE BELO HORIZONTE - SÃO PAULO ROAD SECTION (BR-381 / SP / MG) TO A FOUR-LANE ROAD	1,300	BR
MCC64	YACYRETÁ HYDROELECTRIC DAM: RAISE RESERVOIR STORAGE LEVEL TO 83	1,200	AR - PY
MCC01	UPGRADE OF NATIONAL ROUTE NO. 14 TO A FOUR-LANE ROAD, BETWEEN PASO DE LOS LIBRES AND GUALEGUAYCHÚ	780	AR
MCC101	ATUCHA II NUCLEAR POWER PLANT	740	AR
MCC03	YACIRETÁ - BUENOS AIRES ELECTRICITY TRANSMISSION LINE	600	AR
MCC19	UPGRADE WORKS OF THE RÍO BRANCO - MONTEVIDEO - COLONIA - NUEVA PALMIRA ROAD CORRIDOR (ROUTES NO. 1, 11, 8, 17, 18 AND 26, ROUTES NO. 23 AND 12)	276.2	UY
MCC26	PUNTAS DEL TIGRE COMBINED CYCLE THERMAL POWER PLANT	170	UY
MCC66	ITAIPU - LONDRINA - ARARAQUARA ELECTRICITY TRANSMISSION LINE	149.1	BR
MCC46	IMPROVEMENT OF ROAD ACCESS TO VALPARAÍSO PORT	105	CH
MCC13	CONSTRUCTION AND PAVING OF ROUTE NO. BR-282 / SC BETWEEN FLORIANÓPOLIS AND THE BORDER WITH ARGENTINA	100	BR
MCC47	PAVING OF PUENTE ARMERILLO - PEHUENCHE BORDER CROSSING ROAD SECTION (ROUTE CH-115)	60	CH
MCC52	REHABILITATION AND UPGRADE OF NATIONAL ROUTE NO. 168 TO A FOUR-LANE ROAD FROM PARANÁ (UNDERWATER ROAD TUNNEL) TO SANTA FE	40	AR
MCC14	CONSTRUCTION OF THE SANTA MARÍA - ROSARIO DO SUL ROAD SECTION (BR-158 / RS)	30	BR
MCC41	NATIONAL ROUTE NO. 7, CONSTRUCTION OF LAGUNA LA PICASA RAILWAY BYPASS	30	AR
MCC40	NATIONAL ROUTE NO. 7, CONSTRUCTION OF LAGUNA LA PICASA ROAD BYPASS	20	AR
MCC86	EXPANSION OF COLONIA PORT (DOCKS, DREDGING AND INCORPORATION OF AREAS)	14	UY
MCC84	ENCARNACIÓN AIRPORT	12	PY
MCC02	CONSTRUCTION OF FACILITIES FOR IMPLEMENTATION OF INTEGRATED CARGO CONTROL IN PASO DE LOS LIBRES	10	AR
MCC48	LOS SAUCES LAND PORT (LOS ANDES)	10	CH
MCC115	REHABILITATION OF THE RIVERA - SANTANA DO LIVRAMENTO - CACEQUI RAILWAY SECTION	5	BR - UY
MCC139	OPTICAL FIBER CABLE BETWEEN BRAZIL AND URUGUAY	0	BR - UY
MCC61	ITAIPU SYSTEM (EXISTING)	0	BR - PY
23		8,351.3	

Presentation of the
MERCOSUR-CHILE HUB

The MERCOSUR-Chile Hub [1] covers an important part of Argentina, Brazil and Paraguay, the whole territory of Uruguay, and the central region of Chile. Its area of influence accounts for 18% of the total area of the South American continent (3,216,623 km²).

This is the most populated Hub, with 35% of the South American population (141,453,273 inhabitants), as well as the one with the greatest percentage of the South American GDP: 48% (i.e. US$1,973,411 million).[2]

MAP OF THE AREA OF INFLUENCE OF THE MERCOSUR-CHILE HUB

The MERCOSUR-Chile Hub is home to a **complex and dense infrastructure network** located in the Plata river basin and the Brazilian states included in the Hub. Not taking into account the works planned, the **road network** of the Country involved in the Hub covers a total of 1,973,802 km, only 6% of which are paved. The rail network of these Country is 61,424 km long, and approximately 87% of it is in operating condition. The **sea and river port system** of the MERCOSUR-Chile Hub is made up of 46 major ports, most of which are located on the coasts of the Atlantic ocean, the Plata river, and the Paraná, Paraguay and Uruguay rivers, to which the Chilean ports on the Pacific coast should be added. **River transportation** activities in the region are mainly carried out along the Paraná and Paraguay rivers and, to a lesser extent, along the Uruguay river. There are also consolidated **sea routes** between Brazil and Argentina, used primarily for the trade of vehicles and auto parts. Concerning **electricity generation**, as of 2012 the Country involved in the Hub had a joint installed power of about 190,131 MW.

1 See "Caracterización Socio-Económica y Ambiental del Eje MERCOSUR-Chile," COSIPLAN-IIRSA, 2014. www.iirsa.org/mercosur-chile.asp.
2 At 2012 current prices.

The presence of **indigenous communities** in the territory of the MERCOSUR-Chile Hub is low, as they represent 1.09% of the total population of the Country involved. Regarding the **protected areas** in the Hub, there are about 600 territorial units with some degree of environmental protection, covering approximately 193,000 km², i.e. some 6% of the Hub's territory.

The Country involved in the MERCOSUR-Chile Hub plan investments for US$56 billion in 124 physical integration projects. This is the Hub with the greatest number of projects and the highest estimated investment of the entire COSIPLAN Portfolio.

The MERCOSUR-Chile Hub involves 100% of Uruguay's economy, 97% of Paraguay's economy, more than 86% of Argentina's economy, and approximately 60% of Chile's and Brazil's economies. In absolute terms, the aggregate gross product of the Hub is made up of 67% of Brazil's GDP, 21% of Argentina's GDP, 9% of Chile's GDP, and 3% Uruguay's and Paraguay's GDP as a whole.

The Hub shares some regions of its area of influence with the Paraguay-Paraná Waterway, Southern, and Capricorn Hubs.

Project Portfolio

MERCOSUR-Chile HUB

The projects included in the MERCOSUR-Chile Hub are intended to: (i) develop infrastructure and logistics to increase trade between the local, regional and global markets; (ii) increase the competitiveness of existing production chains and develop new chains at the regional level; (iii) optimize the flow of goods and services, promote the development of tourism, and facilitate the flow of people; and (iv) increase the capacity and reliability of electric and gas systems, and diversify the energy matrix. The territory of this Hub has large-scale market conditions to attract new public, private or public-private investments.

MAP OF THE PROJECT GROUPS OF THE MERCOSUR-CHILE HUB

PROJECT GROUPS OF THE MERCOSUR-CHILE HUB

* US$ million

Group	Name	No. of Projects	Estimated Investment*
1	BELO HORIZONTE - ARGENTINA / BRAZIL BORDER - BUENOS AIRES	22	16,852.1
2	PORTO ALEGRE - ARGENTINA / URUGUAY BORDER - BUENOS AIRES	26	3,312.4
3	VALPARAÍSO - BUENOS AIRES	23	10,538.0
4	COQUIMBO - ARGENTINE CENTRAL REGION - PAYSANDÚ	21	5,314.8
5	ENERGY GROUP	18	16,921.1
6	PEHUENCHE	14	3,230.5
	TOTAL	124	56,168.9

The active portfolio of the Hub includes 101 projects for an estimated investment of US$47,818 million.

Of the 101 active projects, there is information available on the estimated completion date of 23, 19 of which are scheduled to be completed in the next four years (2015-2018).

PROJECTS TO BE COMPLETED IN THE NEXT FOUR YEARS

* US$ million

Code	Name	Group	Stage	Investment Amount*	Countries	Estimated Completion Date
MCC159	LA CHARQUEADA PORT TERMINAL AND DREDGING OF THE CEBOLLATI RIVER	2		7.0	UY	Jan 31, 2015
MCC157	DREDGING OF THE TACUARÍ RIVER	2		1.4	BR	Sep 09, 2015
MCC35	IMPLEMENTATION OF INTEGRATED (ONE-STOP) BORDER CONTROL AT PEHUENCHE BORDER CROSSING	6		30.0	AR - CH	Dec 28, 2015
MCC161	EXECUTIVE PROJECT - 33 KV MEDIUM-VOLTAGE LINE AND OPTICAL FIBER BETWEEN BARDAS BLANCAS AND PEHUENCHE BORDER CROSSING	6		0.0	AR	Dec 30, 2015
MCC76	SAN NICOLÁS / ZÁRATE - PEHUENCHE BORDER CROSSING ROAD CORRIDOR	6		1,000.0	AR	Dec 30, 2015
MCC100	UPGRADE OF NATIONAL ROUTE NO. 19 TO A FOUR-LANE ROAD BETWEEN NATIONAL ROUTE NO. 11 AND CÓRDOBA	4		529.0	AR	May 30, 2016
MCC20	UPGRADE WORKS OF RIO GRANDE - PELOTAS ROAD SECTION (BR-392 / RS)	2		500.0	BR	May 31, 2016
MCC85	DREDGING OF MIRIM LAKE	2		2.9	BR	Jun 30, 2016
MCC94	PAVING OF NATIONAL ROUTE NO. 150, BETWEEN ISCHIGUALASTO AND THE BORDER WITH CHILE (AGUA NEGRA BORDER CROSSING)	4		73.0	AR	Jun 30, 2016
MCC160	PORT TERMINAL AND DREDGING OF TACUARÍ	2		7.0	UY	Sep 30, 2016
MCC30	REHABILITATION OF THE MONTEVIDEO - RIVERA RAILWAY	2		134.9	UY	Nov 30, 2016
MCC153	NEW LOS LIBERTADORES BORDER COMPLEX (CRISTO REDENTOR SYSTEM OPTIMIZATION)	3		84.0	CH	Jun 30, 2017
MCC22	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE	2		93.5	BR - UY	Jul 31, 2017
MCC129	REPOWERING OF EMBALSE NUCLEAR POWER PLANT	5		1,780.0	AR	Aug 04, 2017
MCC151	INTEGRATED FREIGHT CONTROL CENTER AT USPALLATA (CRISTO REDENTOR SYSTEM OPTIMIZATION)	3		90.0	AR	Dec 31, 2017
MCC152	PASSENGER CONTROL CENTER AT LOS HORCONES (CRISTO REDENTOR SYSTEM OPTIMIZATION)	3		80.0	AR	Dec 31, 2017
MCC05	UPGRADE WORKS IN THE NAVEGANTES - RIO DO SUL ROAD SECTION (BR-470 / SC)	1		400.0	BR	May 31, 2018
MCC154	REHABILITATION OF THE CRISTO REDENTOR TUNNEL AND CARACOLES (CRISTO REDENTOR SYSTEM OPTIMIZATION)	3		4.0	AR - CH	Dec 31, 2018
MCC155	BINATIONAL MANAGEMENT CONTROL SYSTEM AT THE CRISTO REDENTOR BORDER CROSSING (CRISTO REDENTOR SYSTEM OPTIMIZATION)	3		14.0	AR - CH	Dec 31, 2018

PROFILING PRE-EXECUTION EXECUTION COMPLETED

According to estimations, by the time these 19 projects are completed, almost 25% of the investment amount estimated for the Hub's portfolio will have been spent.

The five projects with the highest estimated investment account for 38% of the investment in the Hub's active portfolio.

Binational projects with high investment amounts stand out, and to carry out all the works, both public and private financing sources are being considered.
Two projects, which fall in the energy sector, seek to contribute to diversify the Hub's energy matrix. The other projects, which fall in the transportation sector, comprise different subsectors: a railway corridor, an airport, and a road ring.

THE FIVE PROJECTS OF THE ACTIVE PORTFOLIO WITH THE HIGHEST ESTIMATED INVESTMENT

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Type of Financing
MCC33	RAILWAY PROJECT BETWEEN LOS ANDES, CHILE AND MENDOZA, ARGENTINA (CENTRAL TRANS-ANDEAN RAILWAY)	3		5,100	AR - CH	PRIVATE
MCC62	CONSTRUCTION OF THE CORPUS CHRISTI HYDROELECTRIC POWER STATION	5		4,200	AR - PY	PUBLIC
MCC06	ENLARGEMENT OF CAMPINAS AIRPORT	1		3,550	BR	PRIVATE
MCC132	CONSTRUCTION OF THE SAN PABLO RING ROAD (NORTHERN SECTION)	1		2,810	BR	PUBLIC
MCC63	CONSTRUCTION OF THE GARABÍ HYDROELECTRIC POWER STATION	5		2,728	AR - BR	PUBLIC

There are 23 completed projects in the Hub, having demanded an investment of US$8,351 million.

The projects already completed are distributed in the six groups of the Hub. Groups 1 and 2 feature the largest number of completed projects, which participate in two regional connectivities that are at an advanced stage of development, as detailed below.

Argentina - Brazil - Paraguay Connectivity

Among the seven projects already completed in Group 1 —Belo Horizonte - Argentina / Brazil Border - Buenos Aires—, anchor project Upgrade of National Route No. 14 to a Four-lane Road, between Paso de los Libres and Gualeguaychú should be mentioned. These seven projects, together with other three completed projects in Group 4 of the Paraguay-Paraná Waterway Hub, participate in one of the main connectivities for trade by land in the Hub.

Nine other projects of Group 1 have made much progress in their execution stage, a factor that will contribute to consolidating this connectivity in the next years.

* US$ million

Code	Name	Group	Investment*	Countries	Subsector
MCC01	UPGRADE OF NATIONAL ROUTE NO. 14 TO A FOUR-LANE ROAD, BETWEEN PASO DE LOS LIBRES AND GUALEGUAYCHÚ	1	780.0	AR	ROAD
MCC02	CONSTRUCTION OF FACILITIES FOR IMPLEMENTATION OF INTEGRATED CARGO CONTROL IN PASO DE LOS LIBRES	1	10.0	AR	BORDER CROSSINGS
MCC04	COMPLETION OF THE UPGRADE OF THE BELO HORIZONTE - SÃO PAULO ROAD SECTION (BR-381 / SP/ MG) TO A FOUR-LANE ROAD	1	1,300.0	BR	ROAD
MCC12	CONSTRUCTION OF THE SÃO PAULO RING ROAD (SOUTHERN SECTION)	1	2,700.0	BR	ROAD
MCC13	CONSTRUCTION AND PAVING OF ROUTE NO. BR-282 / SC BETWEEN FLORIANÓPOLIS AND THE BORDER WITH ARGENTINA	1	100.0	BR	ROAD
MCC14	CONSTRUCTION OF THE SANTA MARÍA - ROSARIO DO SUL ROAD SECTION (BR-158 / RS)	1	30.0	BR	ROAD
MCC84	ENCARNACIÓN AIRPORT	1	12.0	PY	AIR
HPP107	ENCARNACIÓN PORT	4	11.8	PY	RIVER
HPP73	ACCESS ROADS TO ENCARNACIÓN	4	26.0	PY	ROAD
HPP77	DIVERSION OF THE AGUAPEY STREAM	4	64.0	PY	RIVER
10			5,033.8		

Argentina – Brazil – Uruguay Connectivity

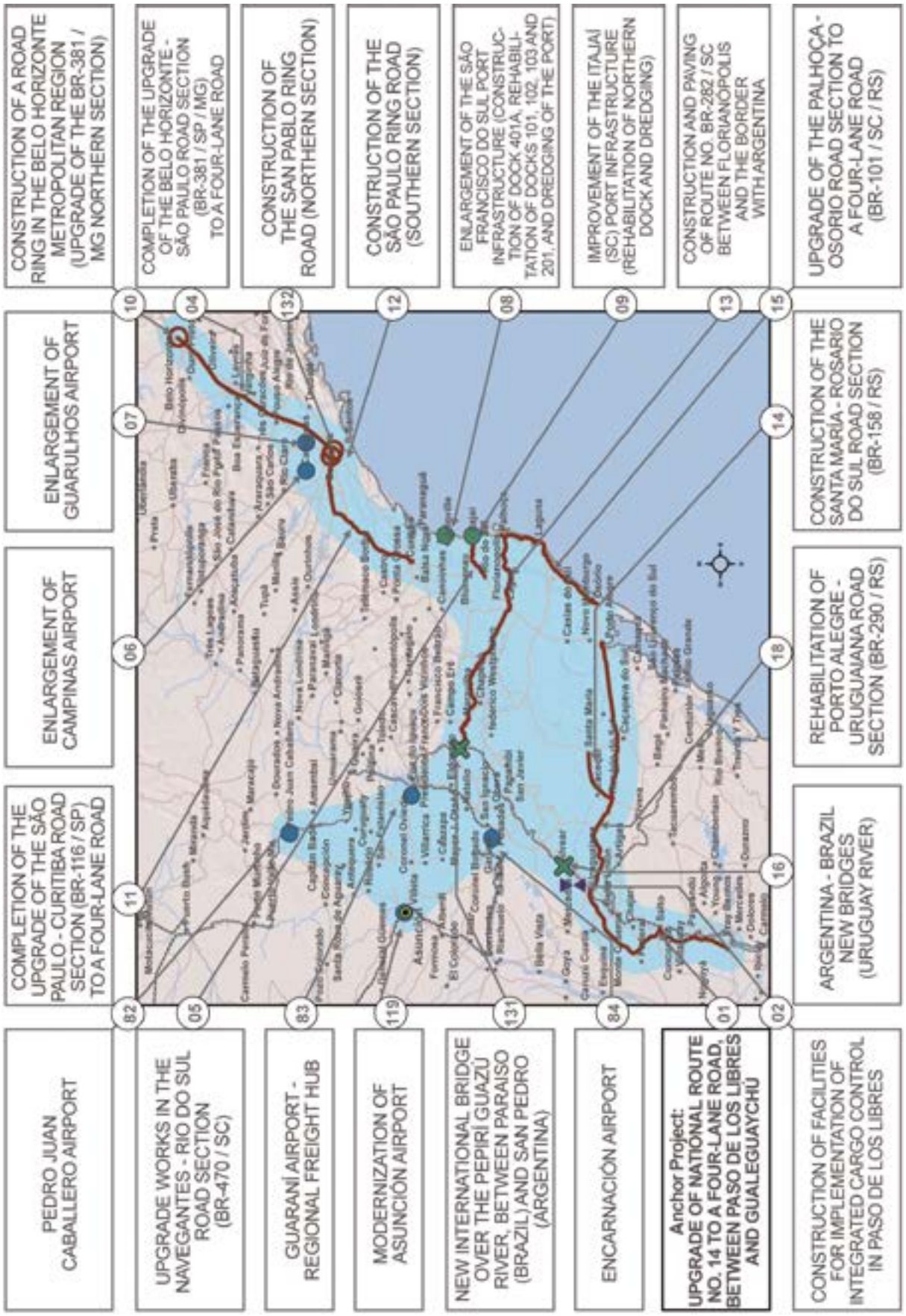
Among the five projects already completed in Group 2 —Porto Alegre - Argentina / Uruguay Border - Buenos Aires—, anchor project Upgrade Works of the Río Branco - Montevideo - Colonia - Nueva Palmira Road Corridor should be mentioned. These projects form part of a broader connection that involves the Paraguay-Paraná Waterway Hub through two completed projects that belong to Group 5. Twelve other projects of Group 2 have made much progress at their execution stage, a factor that will contribute to consolidating this connectivity in the next years.

* US$ million

Code	Name	Group	Investment*	Countries	Subsector
MCC115	REHABILITATION OF THE RIVERA - SANTANA DO LIVRAMENTO - CACEQUI RAILWAY SECTION	2	5.0	BR - UY	RAIL
MCC139	OPTICAL FIBER CABLE BETWEEN BRAZIL AND URUGUAY	2	0.0	BR - UY	COMMUNICATIONS INTERCONNECTION
MCC19	UPGRADE WORKS OF THE RÍO BRANCO - MONTEVIDEO - COLONIA - NUEVA PALMIRA ROAD CORRIDOR (ROUTES NO. 1, 11, 8, 17, 18 AND 26, ROUTES NO. 23 AND 12)	2	253.5	UY	ROAD
MCC26	PUNTAS DEL TIGRE COMBINED CYCLE THERMAL POWER PLANT	2	170.0	UY	ENERGY GENERATION
MCC86	EXPANSION OF COLONIA PORT (DOCKS, DREDGING AND INCORPORATION OF AREAS)	2	14.0	UY	SEA
HPP94	IMPROVEMENT OF NUEVA PALMIRA PORT ACCESSES AND INFRASTRUCTURE	5	10.0	UY	SEA
HPP95	REHABILITATION OF THE PAYSANDÚ PORT, ACCESSES AND STORAGE AREA	5	6.0	UY	SEA
7			458.5		

Belo Horizonte - Frontera Argentina / Brazil - Buenos Aires

Argentina – Brazil – Paraguay



MCC Group 1

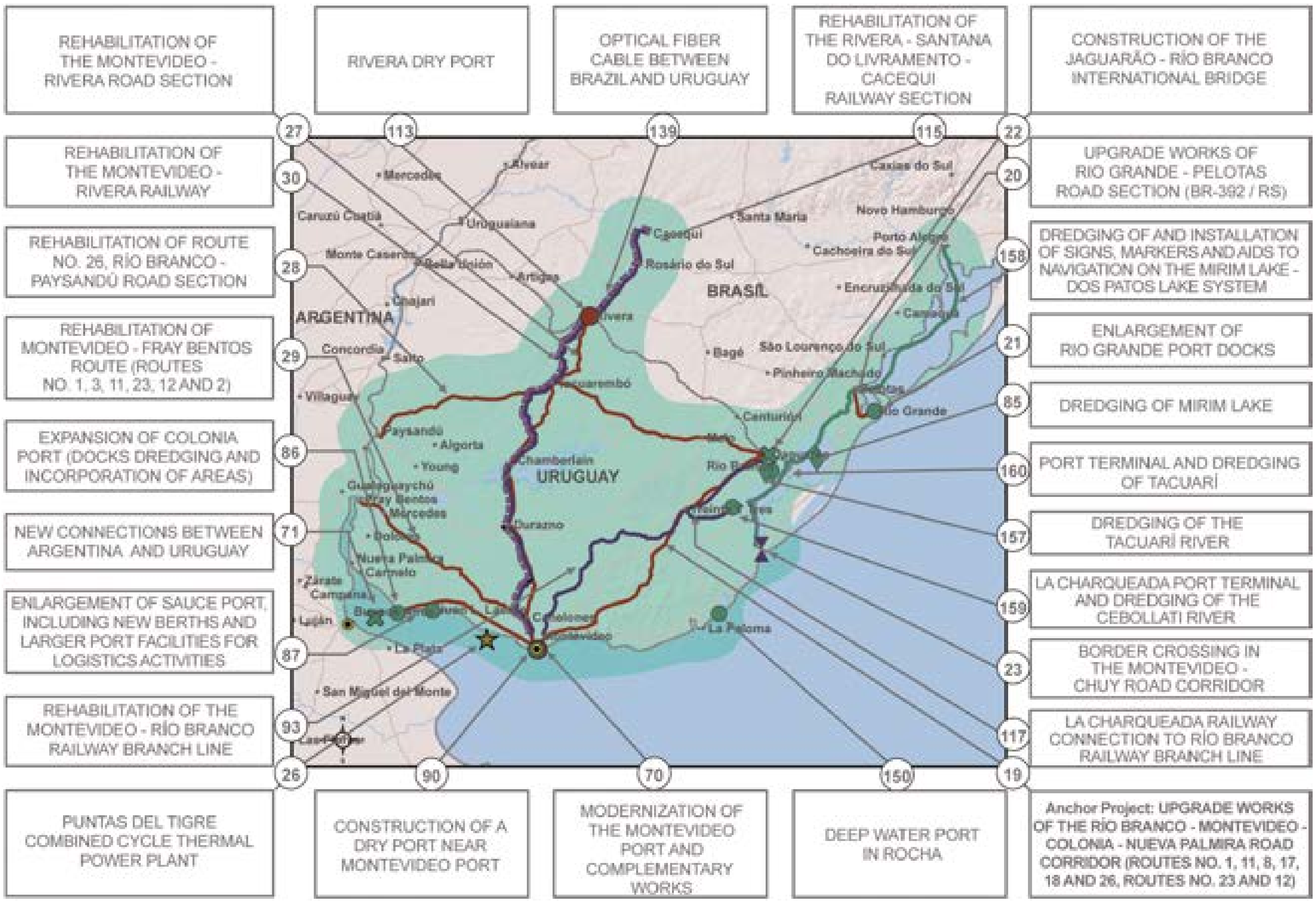
Strategic Function

- Achieve, consolidate and improve the necessary infrastructure and logistics standards for the good performance of the region in intra- and extra-regional markets.
- Make good use of the conditions of scale and demand in the area to attract public-private partnerships and disseminate the experience to other Hubs.
- Optimize trade and services flows between the Argentine and Brazilian economic centers.
- Facilitate the flow of people between the Country of the Group.
- Optimize the logistics base so that the industry located in this area can reinforce its competitiveness at the regional and global level.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
MCC01	**UPGRADE OF NATIONAL ROUTE NO. 14 TO A FOUR-LANE ROAD, BETWEEN PASO DE LOS LIBRES AND GUALEGUAYCHÚ**		**780.0**	**AR**
MCC02	CONSTRUCTION OF FACILITIES FOR IMPLEMENTATION OF INTEGRATED CARGO CONTROL IN PASO DE LOS LIBRES		10.0	AR
MCC04	COMPLETION OF THE UPGRADE OF THE BELO HORIZONTE - SÃO PAULO ROAD SECTION (BR-381 / SP / MG) TO A FOUR-LANE ROAD		1,300.0	BR
MCC05	UPGRADE WORKS IN THE NAVEGANTES - RIO DO SUL ROAD SECTION (BR-470 / SC)		400.0	BR
MCC06	ENLARGEMENT OF CAMPINAS AIRPORT		3,550.0	BR
MCC07	ENLARGEMENT OF GUARULHOS AIRPORT		1,900.0	BR
MCC08	ENLARGEMENT OF THE SÃO FRANCISCO DO SUL PORT INFRASTRUCTURE (CONSTRUCTION OF DOCK 401A, REHABILITATION OF DOCKS 101, 102, 103 AND 201, AND DREDGING OF THE PORT)		131.6	BR
MCC09	IMPROVEMENT OF THE ITAJAÍ (SC) PORT INFRASTRUCTURE (REHABILITATION OF NORTHERN DOCK AND DREDGING)		68.0	BR
MCC10	CONSTRUCTION OF A ROAD RING IN THE BELO HORIZONTE METROPOLITAN REGION (UPGRADE OF THE BR-381 / MG NORTHERN SECTION)		200.0	BR
MCC11	COMPLETION OF THE UPGRADE OF THE SÃO PAULO - CURITIBA ROAD SECTION (BR-116 / SP) TO A FOUR-LANE ROAD		350.0	BR
MCC12	CONSTRUCTION OF THE SÃO PAULO RING ROAD (SOUTHERN SECTION)		2,700.0	BR
MCC13	CONSTRUCTION AND PAVING OF ROUTE NO. BR-282 / SC BETWEEN FLORIANÓPOLIS AND THE BORDER WITH ARGENTINA		100.0	BR
MCC14	CONSTRUCTION OF THE SANTA MARÍA - ROSARIO DO SUL ROAD SECTION (BR-158 / RS)		30.0	BR
MCC15	UPGRADE OF THE PALHOÇA - OSORIO ROAD SECTION TO A FOUR-LANE ROAD (BR-101 / SC / RS)		2,000.0	BR
MCC16	ARGENTINA - BRAZIL NEW BRIDGES (URUGUAY RIVER)		0.0	AR - BR
MCC18	REHABILITATION OF PORTO ALEGRE - URUGUAIANA ROAD SECTION (BR-290 / RS)		250.0	BR
MCC82	PEDRO JUAN CABALLERO AIRPORT		2.5	PY
MCC83	GUARANÍ AIRPORT - REGIONAL FREIGHT HUB		50.0	PY
MCC84	ENCARNACIÓN AIRPORT		12.0	PY
MCC119	MODERNIZATION OF ASUNCIÓN AIRPORT		200.0	PY
MCC131	NEW INTERNATIONAL BRIDGE OVER THE PEPIRÍ GUAZÚ RIVER, BETWEEN PARAISO (BRAZIL) AND SAN PEDRO (ARGENTINA)		8.0	AR - BR
MCC132	CONSTRUCTION OF THE SAN PABLO RING ROAD (NORTHERN SECTION)		2,810.0	BR
22			16,852.1	

PROFILING PRE-EXECUTION EXECUTION COMPLETED


27 REHABILITATION OF THE MONTEVIDEO - RIVERA ROAD SECTION
113 RIVERA DRY PORT
139 OPTICAL FIBER CABLE BETWEEN BRAZIL AND URUGUAY
115 REHABILITATION OF THE RIVERA - SANTANA DO LIVRAMENTO - CACEQUI RAILWAY SECTION
22 CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE
30 REHABILITATION OF THE MONTEVIDEO - RIVERA RAILWAY
28 REHABILITATION OF ROUTE NO. 26, RÍO BRANCO - PAYSANDÚ ROAD SECTION
29 REHABILITATION OF MONTEVIDEO - FRAY BENTOS ROUTE (ROUTES NO. 1, 3, 11, 23, 12 AND 2)
86 EXPANSION OF COLONIA PORT (DOCKS DREDGING AND INCORPORATION OF AREAS)
71 NEW CONNECTIONS BETWEEN ARGENTINA AND URUGUAY
87 ENLARGEMENT OF SAUCE PORT, INCLUDING NEW BERTHS AND LARGER PORT FACILITIES FOR LOGISTICS ACTIVITIES
93 REHABILITATION OF THE MONTEVIDEO - RÍO BRANCO RAILWAY BRANCH LINE
26 PUNTAS DEL TIGRE COMBINED CYCLE THERMAL POWER PLANT
90 CONSTRUCTION OF A DRY PORT NEAR MONTEVIDEO PORT
70 MODERNIZATION OF THE MONTEVIDEO PORT AND COMPLEMENTARY WORKS
150 DEEP WATER PORT IN ROCHA
20 UPGRADE WORKS OF RIO GRANDE - PELOTAS ROAD SECTION (BR-392 / RS)
158 DREDGING OF AND INSTALLATION OF SIGNS, MARKERS AND AIDS TO NAVIGATION ON THE MIRIM LAKE - DOS PATOS LAKE SYSTEM
21 ENLARGEMENT OF RIO GRANDE PORT DOCKS
85 DREDGING OF MIRIM LAKE
160 PORT TERMINAL AND DREDGING OF TACUARÍ
157 DREDGING OF THE TACUARÍ RIVER
159 LA CHARQUEADA PORT TERMINAL AND DREDGING OF THE CEBOLLATI RIVER
23 BORDER CROSSING IN THE MONTEVIDEO - CHUY ROAD CORRIDOR
117 LA CHARQUEADA RAILWAY CONNECTION TO RÍO BRANCO RAILWAY BRANCH LINE
19 Anchor Project: UPGRADE WORKS OF THE RÍO BRANCO - MONTEVIDEO - COLONIA - NUEVA PALMIRA ROAD CORRIDOR (ROUTES NO. 1, 11, 8, 17, 18 AND 26, ROUTES NO. 23 AND 12)
ARGENTINA
BRASIL
URUGUAY
Mercedes
Alvear
Caxias do Sul
Santa Maria
Novo Hamburgo
Curuzú Cuatiá
Uruguaiana
Cacequi
Porto Alegre
Cachoeira do Sul
Monte Caseros
Bella Unión
Artigas
Rosário do Sul
Encruzilhada do Sul
Chajarí
Rivera
Camaquã
Concordia
Salto
Bagé
São Lourenço do Sul
Pinheiro Machado
Villaguay
Tacuarembó
Río Grande
Centurión
Paysandú
Algorta
Young
Chamberlain
Melo
Río Branco
Gualeguaychú
Fray Bentos
Mercedes
Durazno
Treinta y Tres
Dolores
Nueva Palmira
Carmelo
Zárate
Campana
Luján
Canelones
Montevideo
La Paloma
La Plata
San Miguel del Monte
Las Flores

MCC Group 2

Strategic Function

- Achieve, consolidate and improve the necessary infrastructure and logistics standards for the good performance of the region in global markets.
- Make good use of the conditions of scale and demand in the area to attract public-private partnerships and disseminate the experience to other Hubs.
- Optimize goods and services flows between the Argentine, Brazilian and Uruguayan economic centers.
- Facilitate the flow of people among the Country of the Group.
- Optimize the logistics base so that the industry located in this area can reinforce its competitiveness at the global level.

* US$ million

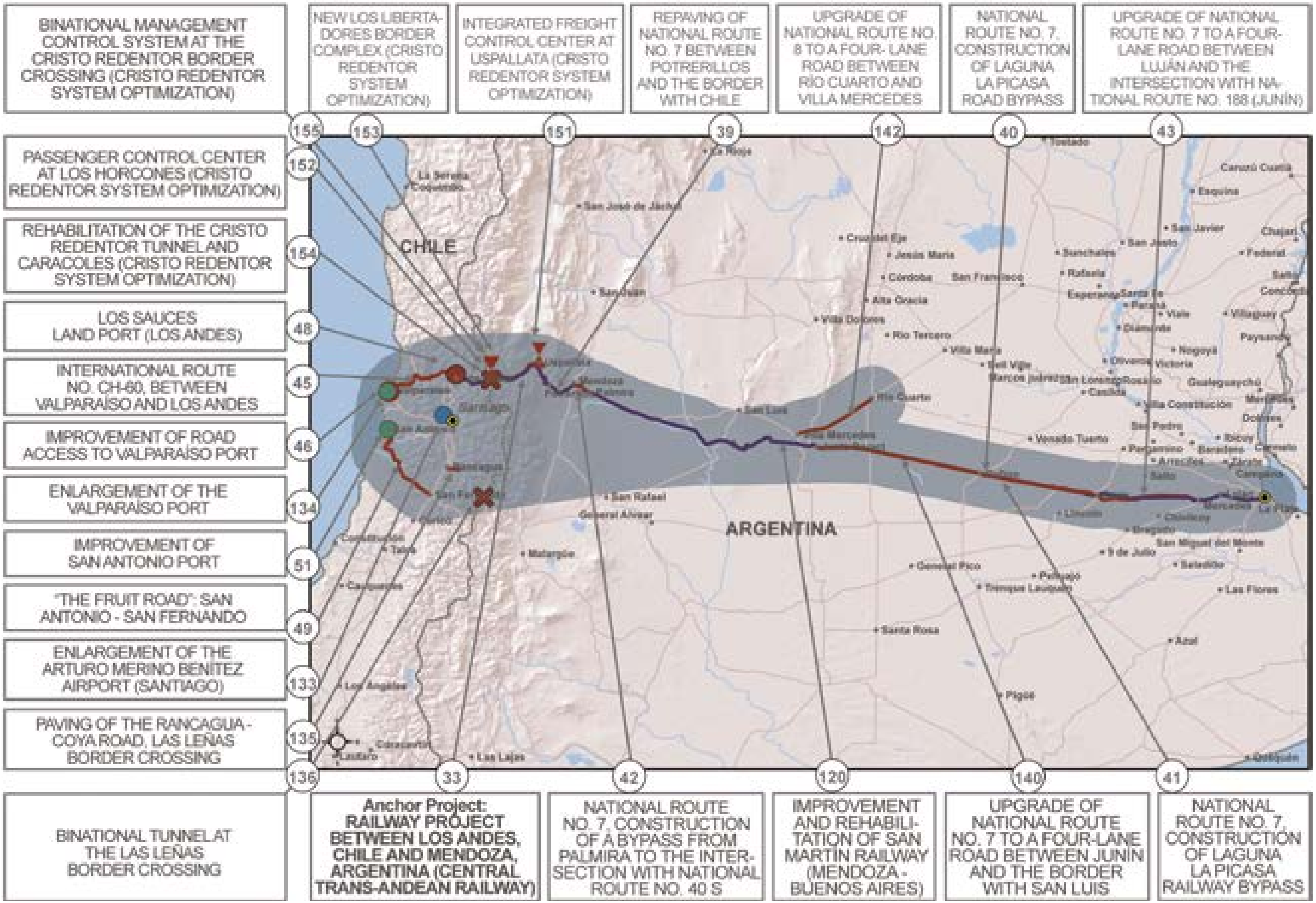
Code	Name	Stage	Estimated Investment*	Countries
MCC19	**UPGRADE WORKS OF THE RÍO BRANCO - MONTEVIDEO - COLONIA - NUEVA PALMIRA ROAD CORRIDOR (ROUTES NO. 1, 11, 8, 17, 18 AND 26, ROUTES NO. 23 AND 12)**		**276.2**	**UY**
MCC20	UPGRADE WORKS OF RIO GRANDE - PELOTAS ROAD SECTION (BR-392 / RS)		500.0	BR
MCC21	ENLARGEMENT OF RIO GRANDE PORT DOCKS		435.7	BR
MCC22	CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE		93.5	BR - UY
MCC23	BORDER CROSSING IN THE MONTEVIDEO - CHUY ROAD CORRIDOR		15.0	UY
MCC26	PUNTAS DEL TIGRE COMBINED CYCLE THERMAL POWER PLANT		170.0	UY
MCC27	REHABILITATION OF THE MONTEVIDEO - RIVERA ROAD SECTION		85.6	UY
MCC28	REHABILITATION OF ROUTE NO. 26, RÍO BRANCO - PAYSANDÚ ROAD SECTION		39.8	UY
MCC29	REHABILITATION OF MONTEVIDEO - FRAY BENTOS ROUTE (ROUTES NO. 1, 3, 11, 23, 12 AND 2)		38.0	UY
MCC30	REHABILITATION OF THE MONTEVIDEO - RIVERA RAILWAY		134.9	UY
MCC70	MODERNIZATION OF THE MONTEVIDEO PORT AND COMPLEMENTARY WORKS		189.0	UY
MCC71	NEW CONNECTIONS BETWEEN ARGENTINA AND URUGUAY		0.5	AR - UY
MCC85	DREDGING OF MIRIM LAKE		2.9	BR
MCC86	EXPANSION OF COLONIA PORT (DOCKS, DREDGING AND INCORPORATION OF AREAS)		14.0	UY
MCC87	ENLARGEMENT OF SAUCE PORT, INCLUDING NEW BERTHS AND LARGER PORT FACILITIES FOR LOGISTICS ACTIVITIES		10.0	UY
MCC90	CONSTRUCTION OF A DRY PORT NEAR MONTEVIDEO PORT		25.0	UY
MCC93	REHABILITATION OF THE MONTEVIDEO - RÍO BRANCO RAILWAY BRANCH LINE		200.0	UY
MCC113	RIVERA DRY PORT		2.0	UY
MCC115	REHABILITATION OF THE RIVERA - SANTANA DO LIVRAMENTO - CACEQUI RAILWAY SECTION		5.0	BR - UY

PROFILING PRE-EXECUTION EXECUTION COMPLETED

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
MCC117	LA CHARQUEADA RAILWAY CONNECTION TO RÍO BRANCO RAILWAY BRANCH LINE		40.0	UY
MCC139	OPTICAL FIBER CABLE BETWEEN BRAZIL AND URUGUAY		0.0	BR - UY
MCC150	DEEP WATER PORT IN ROCHA		1,000.0	UY
MCC157	DREDGING OF THE TACUARÍ RIVER		1.4	BR
MCC158	DREDGING OF AND INSTALLATION OF SIGNS, MARKERS AND AIDS TO NAVIGATION ON THE MIRIM LAKE - DOS PATOS LAKE SYSTEM		20.0	BR
MCC159	LA CHARQUEADA PORT TERMINAL AND DREDGING OF THE CEBOLLATI RIVER		7.0	UY
MCC160	PORT TERMINAL AND DREDGING OF TACUARÍ		7.0	UY
26			3,312.5	

PROFILING PRE-EXECUTION EXECUTION COMPLETED


BINATIONAL MANAGEMENT CONTROL SYSTEM AT THE CRISTO REDENTOR BORDER CROSSING (CRISTO REDENTOR SYSTEM OPTIMIZATION)
155
NEW LOS LIBERTADORES BORDER COMPLEX (CRISTO REDENTOR SYSTEM OPTIMIZATION)
153
INTEGRATED FREIGHT CONTROL CENTER AT USPALLATA (CRISTO REDENTOR SYSTEM OPTIMIZATION)
151
REPAVING OF NATIONAL ROUTE NO. 7 BETWEEN POTRERILLOS AND THE BORDER WITH CHILE
39
UPGRADE OF NATIONAL ROUTE NO. 8 TO A FOUR-LANE ROAD BETWEEN RÍO CUARTO AND VILLA MERCEDES
142
NATIONAL ROUTE NO. 7, CONSTRUCTION OF LAGUNA LA PICASA ROAD BYPASS
40
UPGRADE OF NATIONAL ROUTE NO. 7 TO A FOUR-LANE ROAD BETWEEN LUJÁN AND THE INTERSECTION WITH NATIONAL ROUTE NO. 188 (JUNÍN)
43
PASSENGER CONTROL CENTER AT LOS HORCONES (CRISTO REDENTOR SYSTEM OPTIMIZATION)
152
REHABILITATION OF THE CRISTO REDENTOR TUNNEL AND CARACOLES (CRISTO REDENTOR SYSTEM OPTIMIZATION)
154
LOS SAUCES LAND PORT (LOS ANDES)
48
INTERNATIONAL ROUTE NO. CH-60, BETWEEN VALPARAÍSO AND LOS ANDES
45
IMPROVEMENT OF ROAD ACCESS TO VALPARAÍSO PORT
46
ENLARGEMENT OF THE VALPARAÍSO PORT
134
IMPROVEMENT OF SAN ANTONIO PORT
51
"THE FRUIT ROAD": SAN ANTONIO - SAN FERNANDO
49
ENLARGEMENT OF THE ARTURO MERINO BENÍTEZ AIRPORT (SANTIAGO)
133
PAVING OF THE RANCAGUA - COYA ROAD, LAS LEÑAS BORDER CROSSING
135
BINATIONAL TUNNEL AT THE LAS LEÑAS BORDER CROSSING
136
Anchor Project: RAILWAY PROJECT BETWEEN LOS ANDES, CHILE AND MENDOZA, ARGENTINA (CENTRAL TRANS-ANDEAN RAILWAY)
33
NATIONAL ROUTE NO. 7, CONSTRUCTION OF A BYPASS FROM PALMIRA TO THE INTERSECTION WITH NATIONAL ROUTE NO. 40 S
42
IMPROVEMENT AND REHABILITATION OF SAN MARTÍN RAILWAY (MENDOZA - BUENOS AIRES)
120
UPGRADE OF NATIONAL ROUTE NO. 7 TO A FOUR-LANE ROAD BETWEEN JUNÍN AND THE BORDER WITH SAN LUIS
140
NATIONAL ROUTE NO. 7, CONSTRUCTION OF LAGUNA LA PICASA RAILWAY BYPASS
41
CHILE
ARGENTINA
La Serena
Coquimbo
San José de Jáchal
La Rioja
Tostado
San Juan
Santiago
San Antonio
Rancagua
San Fernando
Constitución
Talca
Cauquenes
Los Ángeles
Concepción
Lautaro
Las Lajas
Malargüe
San Rafael
General Alvear
San Luis
Villa Mercedes
Río Cuarto
Cruz del Eje
Jesús María
Córdoba
San Francisco
Alta Gracia
Villa Dolores
Río Tercero
Villa María
Bell Ville
Marcos Juárez
Rafaela
Sunchales
San Justo
San Javier
Esquina
Chajarí
Federal
Paraná
Viale
Diamante
Villaguay
Paysandú
Nogoyá
Victoria
Gualeguaychú
Rosario
Casilda
Villa Constitución
San Pedro
Venado Tuerto
Pergamino
Baradero
Arrecifes
Zárate
Campana
Salto
Mercedes
La Plata
Chivilcoy
Bragado
9 de Julio
San Miguel del Monte
Saladillo
Las Flores
Azul
General Pico
Pehuajó
Trenque Lauquen
Santa Rosa
Pigüé
Dolores
Mercedes

MCC Group 3

Strategic Function

- Achieve, consolidate and improve the necessary infrastructure and logistics standards for the good performance of the region in global markets.
- Make good use of the conditions of scale and demand in the area to attract public-private partnerships and disseminate the experience to other Hubs.
- Optimize goods and services flows between the Argentine and Chilean economic centers.
- Facilitate the flow of people between the Country of the Group.
- Optimize the logistics base so that the industry located in this area can reinforce its competitiveness at the regional and global level.
- Promote Chile to serve as a logistics platform for the remaining Country of the Hub to develop markets for their products and services in Asia.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
MCC33	**RAILWAY PROJECT BETWEEN LOS ANDES, CHILE AND MENDOZA, ARGENTINA (CENTRAL TRANS-ANDEAN RAILWAY)**		**5,100.0**	**AR - CH**
MCC39	REPAVING OF NATIONAL ROUTE NO. 7 BETWEEN POTRERILLOS AND THE BORDER WITH CHILE		52.0	AR
MCC40	NATIONAL ROUTE NO. 7, CONSTRUCTION OF LAGUNA LA PICASA ROAD BYPASS		20.0	AR
MCC41	NATIONAL ROUTE NO. 7, CONSTRUCTION OF LAGUNA LA PICASA RAILWAY BYPASS		30.0	AR
MCC42	NATIONAL ROUTE NO. 7, CONSTRUCTION OF A BYPASS FROM PALMIRA TO THE INTERSECTION WITH NATIONAL ROUTE NO. 40 S		25.0	AR
MCC43	UPGRADE OF NATIONAL ROUTE NO. 7 TO A FOUR-LANE ROAD BETWEEN LUJÁN AND THE INTERSECTION WITH NATIONAL ROUTE NO. 188 (JUNÍN)		237.0	AR
MCC45	INTERNATIONAL ROUTE NO. CH-60, BETWEEN VALPARAÍSO AND LOS ANDES		351.0	CH
MCC46	IMPROVEMENT OF ROAD ACCESS TO VALPARAÍSO PORT		105.0	CH
MCC48	LOS SAUCES LAND PORT (LOS ANDES)		10.0	CH
MCC49	"THE FRUIT ROAD": SAN ANTONIO - SAN FERNANDO		360.0	CH
MCC51	IMPROVEMENT OF SAN ANTONIO PORT		350.0	CH
MCC120	IMPROVEMENT AND REHABILITATION OF SAN MARTÍN RAILWAY (MENDOZA - BUENOS AIRES)		90.0	AR
MCC133	ENLARGEMENT OF THE ARTURO MERINO BENÍTEZ AIRPORT (SANTIAGO)		696.0	CH
MCC134	ENLARGEMENT OF THE VALPARAISO PORT		400.0	CH
MCC135	PAVING OF THE RANCAGUA - COYA ROAD, LAS LEÑAS BORDER CROSSING		200.0	CH
MCC136	BINATIONAL TUNNEL AT THE LAS LEÑAS BORDER CROSSING		1,200.0	AR - CH
MCC140	UPGRADE OF NATIONAL ROUTE NO. 7 TO A FOUR-LANE ROAD BETWEEN JUNÍN AND THE BORDER WITH SAN LUIS		800.0	AR
MCC142	UPGRADE OF NATIONAL ROUTE NO. 8 TO A FOUR-LANE ROAD BETWEEN RÍO CUARTO AND VILLA MERCEDES		240.0	AR

PROFILING PRE-EXECUTION EXECUTION COMPLETED

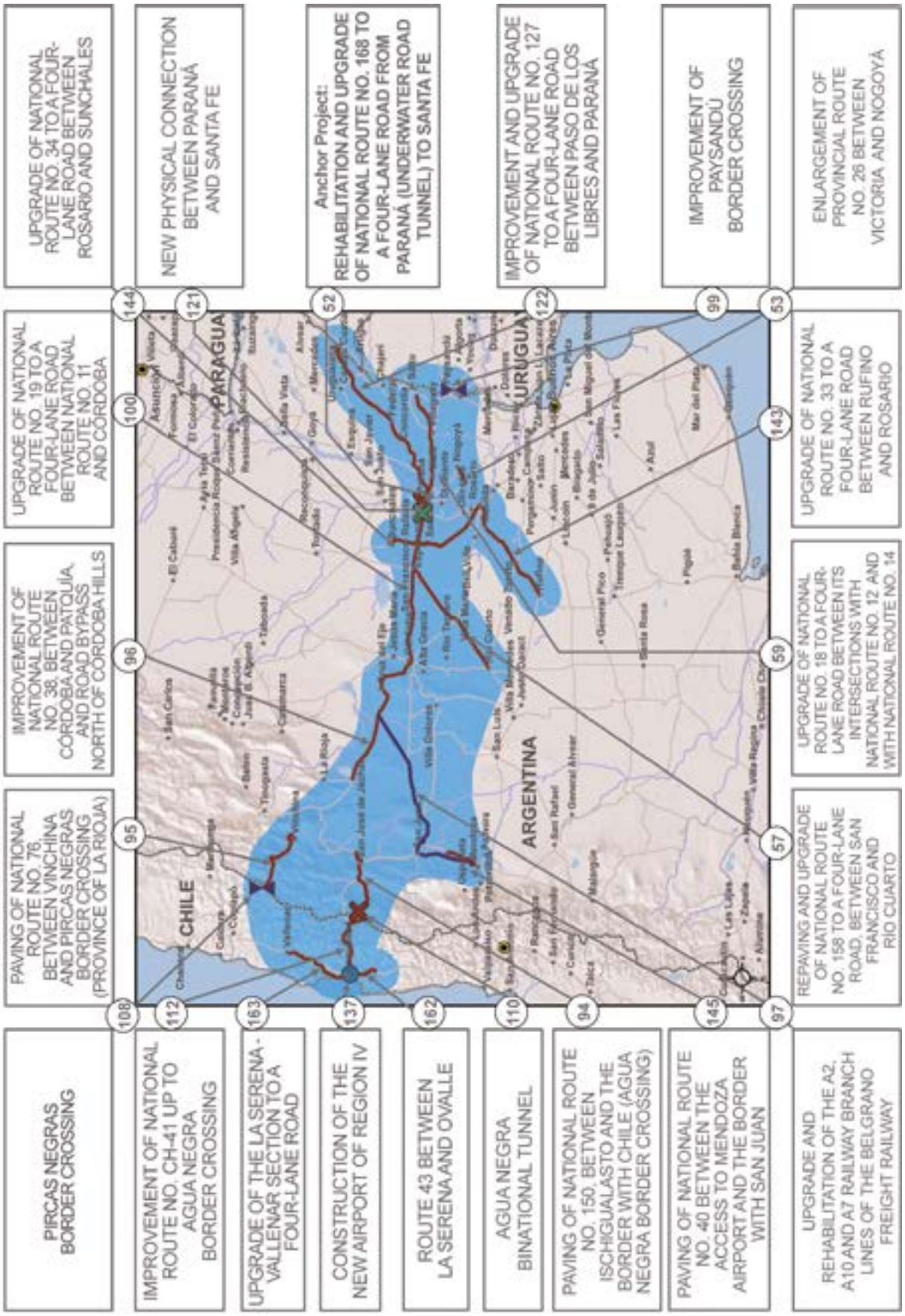
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
MCC151	INTEGRATED FREIGHT CONTROL CENTER AT USPALLATA (CRISTO REDENTOR SYSTEM OPTIMIZATION)		90.0	AR
MCC152	PASSENGER CONTROL CENTER AT LOS HORCONES (CRISTO REDENTOR SYSTEM OPTIMIZATION)		80.0	AR
MCC153	NEW LOS LIBERTADORES BORDER COMPLEX (CRISTO REDENTOR SYSTEM OPTIMIZATION)		84.0	CH
MCC154	REHABILITATION OF THE CRISTO REDENTOR TUNNEL AND CARACOLES (CRISTO REDENTOR SYSTEM OPTIMIZATION)		4.0	AR - CH
MCC155	BINATIONAL MANAGEMENT CONTROL SYSTEM AT THE CRISTO REDENTOR BORDER CROSSING (CRISTO REDENTOR SYSTEM OPTIMIZATION)		14.0	AR - CH
23			10,538.0	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Coquimbo - Argentine Central Region - Paysandú

Argentina – Chile – Uruguay



MCC Group 4

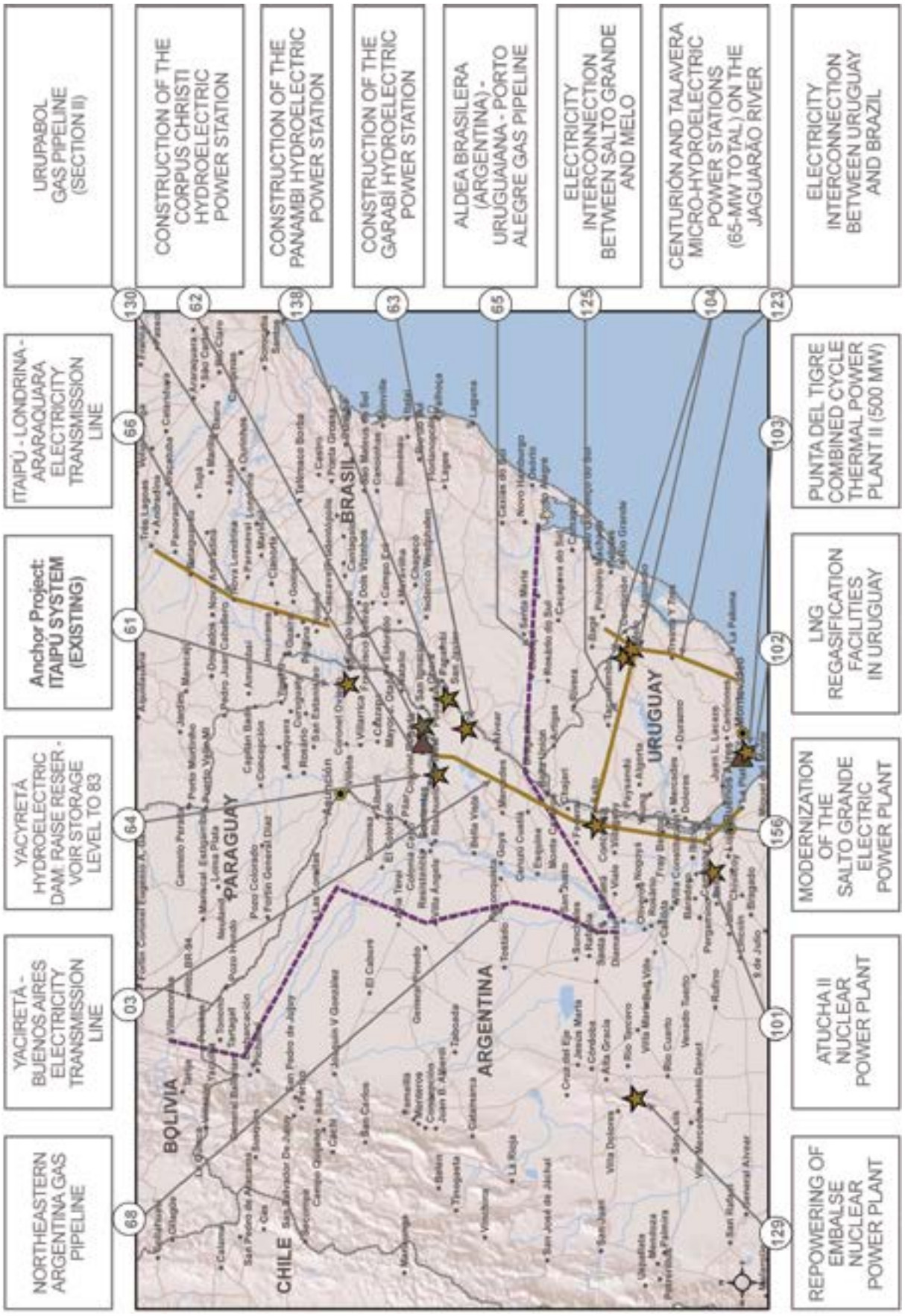
Strategic Function

- Optimize trade and services flows among the economic centers in Argentina, Brazil, Chile, Paraguay and Uruguay.
- Articulate trade and services flows with the Paraguay-Paraná Waterway Hub.
- Facilitate the flow of people among the Country of the Group.
- Boost the development of ecotourism in the region.
- Develop and improve the regional productive chains.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
MCC52	**REHABILITATION AND UPGRADE OF NATIONAL ROUTE NO. 168 TO A FOUR-LANE ROAD FROM PARANÁ (UNDERWATER ROAD TUNNEL) TO SANTA FE**		**40.0**	**AR**
MCC53	ENLARGEMENT OF PROVINCIAL ROUTE NO. 26 BETWEEN VICTORIA AND NOGOYÁ		6.0	AR
MCC57	REPAVING AND UPGRADE OF NATIONAL ROUTE NO. 158 TO A FOUR-LANE ROAD, BETWEEN SAN FRANCISCO AND RÍO CUARTO		400.0	AR
MCC59	UPGRADE OF NATIONAL ROUTE NO. 18 TO A FOUR-LANE ROAD BETWEEN ITS INTERSECTIONS WITH NATIONAL ROUTE NO. 12 AND WITH NATIONAL ROUTE NO. 14		250.0	AR
MCC94	PAVING OF NATIONAL ROUTE NO. 150, BETWEEN ISCHIGUALASTO AND THE BORDER WITH CHILE (AGUA NEGRA BORDER CROSSING)		73.0	AR
MCC95	PAVING OF NATIONAL ROUTE NO. 76, BETWEEN VINCHINA AND PIRCAS NEGRAS BORDER CROSSING (PROVINCE OF LA RIOJA)		120.0	AR
MCC96	IMPROVEMENT OF NATIONAL ROUTE NO. 38, BETWEEN CÓRDOBA AND PATQUÍA, AND ROAD BYPASS NORTH OF CÓRDOBA HILLS		100.0	AR
MCC97	UPGRADE AND REHABILITATION OF THE A2, A10 AND A7 RAILWAY BRANCH LINES OF THE BELGRANO FREIGHT RAILWAY		225.0	AR
MCC99	IMPROVEMENT OF PAYSANDÚ BORDER CROSSING		12.0	UY
MCC100	UPGRADE OF NATIONAL ROUTE NO. 19 TO A FOUR-LANE ROAD BETWEEN NATIONAL ROUTE NO. 11 AND CÓRDOBA		529.0	AR
MCC108	PIRCAS NEGRAS BORDER CROSSING (*)		5.0	AR - CH
MCC110	AGUA NEGRA BINATIONAL TUNNEL		1,600.0	AR - CH
MCC112	IMPROVEMENT OF NATIONAL ROUTE NO. CH-41 UP TO AGUA NEGRA BORDER CROSSING		60.0	CH
MCC121	NEW PHYSICAL CONNECTION BETWEEN PARANÁ AND SANTA FE		1.8	AR
MCC122	IMPROVEMENT AND UPGRADE OF NATIONAL ROUTE NO. 127 TO A FOUR-LANE ROAD BETWEEN PASO DE LOS LIBRES AND PARANÁ		40.0	AR
MCC137	CONSTRUCTION OF THE NEW AIRPORT OF REGION IV		75.0	CH
MCC143	UPGRADE OF NATIONAL ROUTE NO. 33 TO A FOUR-LANE ROAD BETWEEN RUFINO AND ROSARIO		500.0	AR
MCC144	UPGRADE OF NATIONAL ROUTE NO. 34 TO A FOUR-LANE ROAD BETWEEN ROSARIO AND SUNCHALES		500.0	AR
MCC145	PAVING OF NATIONAL ROUTE NO. 40 BETWEEN THE ACCESS TO MENDOZA AIRPORT AND THE BORDER WITH SAN JUAN		210.0	AR
MCC162	ROUTE 43 BETWEEN LA SERENA AND OVALLE		223.0	CH
MCC163	UPGRADE OF THE LA SERENA - VALLENAR SECTION TO A FOUR-LANE ROAD		345.0	CH
21			**5,314.8**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED


URUPABOL GAS PIPELINE (SECTION II)
CONSTRUCTION OF THE CORPUS CHRISTI HYDROELECTRIC POWER STATION
CONSTRUCTION OF THE PANAMBI HYDROELECTRIC POWER STATION
CONSTRUCTION OF THE GARABI HYDROELECTRIC POWER STATION
ALDEA BRASILERA (ARGENTINA) - URUGUAIANA - PORTO ALEGRE GAS PIPELINE
ELECTRICITY INTERCONNECTION BETWEEN SALTO GRANDE AND MELO
CENTURIÓN AND TALAVERA MICRO-HYDROELECTRIC POWER STATIONS (65-MW TOTAL) ON THE JAGUARÃO RIVER
ELECTRICITY INTERCONNECTION BETWEEN URUGUAY AND BRAZIL
ITAIPÚ - LONDRINA - ARARAQUARA ELECTRICITY TRANSMISSION LINE
Anchor Project: ITAIPÚ SYSTEM (EXISTING)
YACYRETÁ HYDROELECTRIC DAM. RAISE RESER - VOIR STORAGE LEVEL TO 83
YACIRETÁ - BUENOS AIRES ELECTRICITY TRANSMISSION LINE
NORTHEASTERN ARGENTINA GAS PIPELINE
PUNTA DEL TIGRE COMBINED CYCLE THERMAL POWER PLANT II (500 MW)
LNG REGASIFICATION FACILITIES IN URUGUAY
MODERNIZATION OF THE SALTO GRANDE ELECTRIC POWER PLANT
ATUCHA II NUCLEAR POWER PLANT
REPOWERING OF EMBALSE NUCLEAR POWER PLANT
130
62
138
63
65
125
104
123
66
61
64
03
68
103
102
156
101
129
BOLIVIA
PARAGUAY
BRASIL
ARGENTINA
URUGUAY
CHILE

MCC Group 5

Strategic Function

- Enhance the dependability of the electric and gas systems in the area.
- Strengthen and increase energy generation, transmission, and distribution capacity in a densely populated, highly industrialized area.
- Diversify the energy matrix of the MERCOSUR Country.

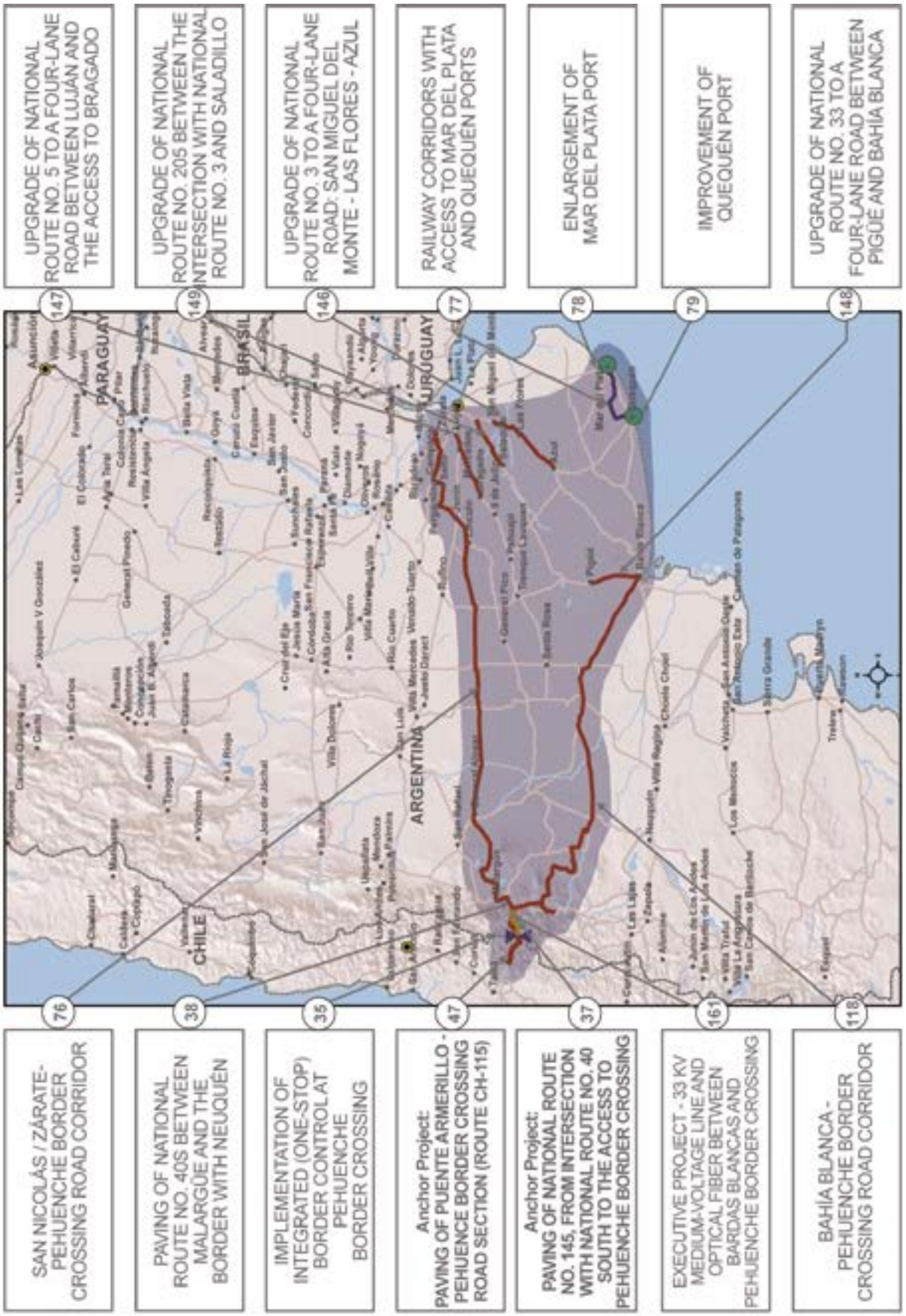
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
MCC03	YACIRETÁ - BUENOS AIRES ELECTRICITY TRANSMISSION LINE		600.0	AR
MCC61	**ITAIPU SYSTEM (EXISTING)**		**0.0**	**BR – PY**
MCC62	CONSTRUCTION OF THE CORPUS CHRISTI HYDROELECTRIC POWER STATION		4,200.0	AR – PY
MCC63	CONSTRUCTION OF THE GARABÍ HYDROELECTRIC POWER STATION		2,728.0	AR – BR
MCC64	YACYRETÁ HYDROELECTRIC DAM: RAISE RESERVOIR STORAGE LEVEL TO 83		1,200.0	AR – PY
MCC65	ALDEA BrazilERA (ARGENTINA) - URUGUAIANA - PORTO ALEGRE GAS PIPELINE		510.0	BR
MCC66	ITAIPU - LONDRINA - ARARAQUARA ELECTRICITY TRANSMISSION LINE		149.1	BR
MCC68	NORTHEASTERN ARGENTINA GAS PIPELINE		1,000.0	AR
MCC101	ATUCHA II NUCLEAR POWER PLANT		740.0	AR
MCC102	LNG REGASIFICATION FACILITIES IN URUGUAY		500.0	UY
MCC103	PUNTA DEL TIGRE COMBINED CYCLE THERMAL POWER PLANT II (500 MW)		531.0	UY
MCC104	CENTURIÓN AND TALAVERA MICRO-HYDROELECTRIC POWER STATIONS (65-MW TOTAL) ON THE JAGUARÃO RIVER		60.0	UY
MCC123	ELECTRICITY INTERCONNECTION BETWEEN URUGUAY AND BRAZIL		349.0	BR – UY
MCC125	ELECTRICITY INTERCONNECTION BETWEEN SALTO GRANDE AND MELO		100.0	UY
MCC129	REPOWERING OF EMBALSE NUCLEAR POWER PLANT		1,780.0	AR
MCC130	URUPABOL GAS PIPELINE (SECTION II) (*)		0.0	PY - UY
MCC138	CONSTRUCTION OF THE PANAMBI HYDROELECTRIC POWER STATION		2,474.0	AR - BR
MCC156	MODERNIZATION OF THE SALTO GRANDE ELECTRIC POWER PLANT		0.0	AR - UY
18			**16,921.1**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Pehuenche

Argentina – Chile



MCC Group 6

Strategic Function

- Offer connectivity alternatives and services to the flows of goods and services in the Country that make up the MERCOSUR and Chile.
- Make the intra-regional development more dynamic.
- Facilitate the flows of people among the Country of the Group.
- Promote the development of integrated tourism in the region.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
MCC35	IMPLEMENTATION OF INTEGRATED (ONE-STOP) BORDER CONTROL AT PEHUENCHE BORDER CROSSING		30.0	AR - CH
MCC37	**PAVING OF NATIONAL ROUTE NO. 145, FROM INTERSECTION WITH NATIONAL ROUTE NO. 40 SOUTH TO THE ACCESS TO PEHUENCHE BORDER CROSSING**		**63.0**	**AR**
MCC38	PAVING OF NATIONAL ROUTE NO. 40S BETWEEN MALARGÜE AND THE BORDER WITH NEUQUÉN		90.0	AR
MCC47	**PAVING OF PUENTE ARMERILLO - PEHUENCHE BORDER CROSSING ROAD SECTION (ROUTE CH-115)**		**60.0**	**CH**
MCC76	SAN NICOLÁS / ZÁRATE - PEHUENCHE BORDER CROSSING ROAD CORRIDOR		1,000.0	AR
MCC77	RAILWAY CORRIDORS WITH ACCESS TO MAR DEL PLATA AND QUEQUÉN PORTS		35.0	AR
MCC78	ENLARGEMENT OF MAR DEL PLATA PORT		6.5	AR
MCC79	IMPROVEMENT OF QUEQUÉN PORT		40.0	AR
MCC118	BAHÍA BLANCA - PEHUENCHE BORDER CROSSING ROAD CORRIDOR		1,000.0	AR
MCC146	UPGRADE OF NATIONAL ROUTE NO. 3 TO A FOUR-LANE ROAD: SAN MIGUEL DEL MONTE - LAS FLORES - AZUL		166.0	AR
MCC147	UPGRADE OF NATIONAL ROUTE NO. 5 TO A FOUR-LANE ROAD BETWEEN LUJÁN AND THE ACCESS TO BRAGADO		240.0	AR
MCC148	UPGRADE OF NATIONAL ROUTE NO. 33 TO A FOUR-LANE ROAD BETWEEN PIGÜÉ AND BAHÍA BLANCA		260.0	AR
MCC149	UPGRADE OF NATIONAL ROUTE NO. 205 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE NO. 3 AND SALADILLO		240.0	AR
MCC161	EXECUTIVE PROJECT - 33 KV MEDIUM-VOLTAGE LINE AND OPTICAL FIBER BETWEEN BARDAS BLANCAS AND PEHUENCHE BORDER CROSSING		0.0	AR
14			3,230.5	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

PBB

PERU
BRAZIL
BOLIVIA HUB

INTEGRATION AND DEVELOPMENT HUB

Population:	12,730,732 inhabitants
Density:	11 inh./km²
Area:	1,159,504 km²
GDP:	US$ 71,116 million
Services	77.9%
Industry	11.4%
Agriculture	5.8%
Mines and quarries	5.2%

BOLIVIA BRAZIL PERU

Estimated investment

* US$ million

31,431.9

70.8% National — **17**

29.2% Binational — **7**

Bolivia	13
Brazil	8
Peru	10

Projects per Sector

Transport	Energy
19	5
3,176.3	28,255.6

Projects per Types of Financing

Public	Private	Public Private
17	5	2
7,140.7	2.259.1	22,032

Projects per Stages

Profiling	Pre Execution	Execution	Concluded
6	5	8	5
5,035	1,305.8	19,111.1	5,980

US$ million — Number of projects

COMPLETED PROJECTS OF THE HUB

* US$ million

Code	Name	Investment*	Countries
PBB18	ELECTRICITY TRANSMISSION LINE BETWEEN THE TWO HYDROELECTRIC POWER STATIONS ON THE MADEIRA RIVER AND THE CENTRAL SYSTEM	3,823	BR
PBB01	PAVING OF IÑAPARI - PUERTO MALDONADO - INAMBARI ROAD, AND INAMBARI - JULIACA / INAMBARI - CUSCO ROADS	1,976	PE
PBB63	"IIRSA SUR" SOUTHERN INTEROCEANIC ROAD, SECTION 1: SAN JUAN DE MARCONA - ABANCAY - CUSCO - URCOS	145.4	PE
PBB59	SAN GABÁN - PUERTO MALDONADO ELECTRICITY TRANSMISSION LINE	23.6	PE
PBB03	BRIDGE OVER THE ACRE RIVER	12	BR - PE
5		5,980	

Presentation of the
PERU-BRAZIL-BOLIVIA HUB

The Peru-Brazil-Bolivia Hub [1] runs along the Peruvian departments of Tacna, Moquegua, Arequipa, Apurimac, Cusco, Madre de Dios and Puno; the Bolivian departments of Pando, Beni and La Paz; and the Brazilian states of Acre and Rondônia.

The Hub covers 6% of the area of South America (1,159,504 km²), and is home to 3% of the South American population (12,730,732 inhabitants). Also, it accounts for 2% of the GDP of South America (US$71,116 million).[2]

MAP OF THE AREA OF INFLUENCE OF THE PERU-BRAZIL-BOLIVIA HUB

As regards infrastructure, the **road network** of the Country involved in the Peru-Brazil-Bolivia Hub is 1,742,580 km long, 11% of which are paved. The **rail network** has a length of 35,070 km. The **port system** includes six major ports, two of which handle more than 1.5 million tons per year. The **airport system** has 19 airports, 11 of which are domestic. As for **electricity generation**, the Country involved in the Hub have an installed power of 132,326 MW, 91% of which are contributed by Brazil.

1 See "Caracterización Socio-Económica y Ambiental del Eje Peru-Brazil-Bolivia," COSIPLAN-IIRSA, 2015. www.iirsa.org/peru-Brazil-bolivia.asp.
2 At 2013 current prices.

The Country that make up the Hub plan investments for US$31 billion in 24 physical integration projects, five of which belong to the energy sector and account for 90% of the investment. This makes the Peru-Brazil-Bolivia Hub the second Hub with the highest investment amount estimated for projects in the COSIPLAN Portfolio.

The Hub involves 28% of Bolivia's economy, 20% of Peru's economy, and 1% of Brazil's economy. In absolute terms, Peru contributes 57% to the Hub's aggregate GDP, followed by Brazil (30%), and Bolivia (14%).

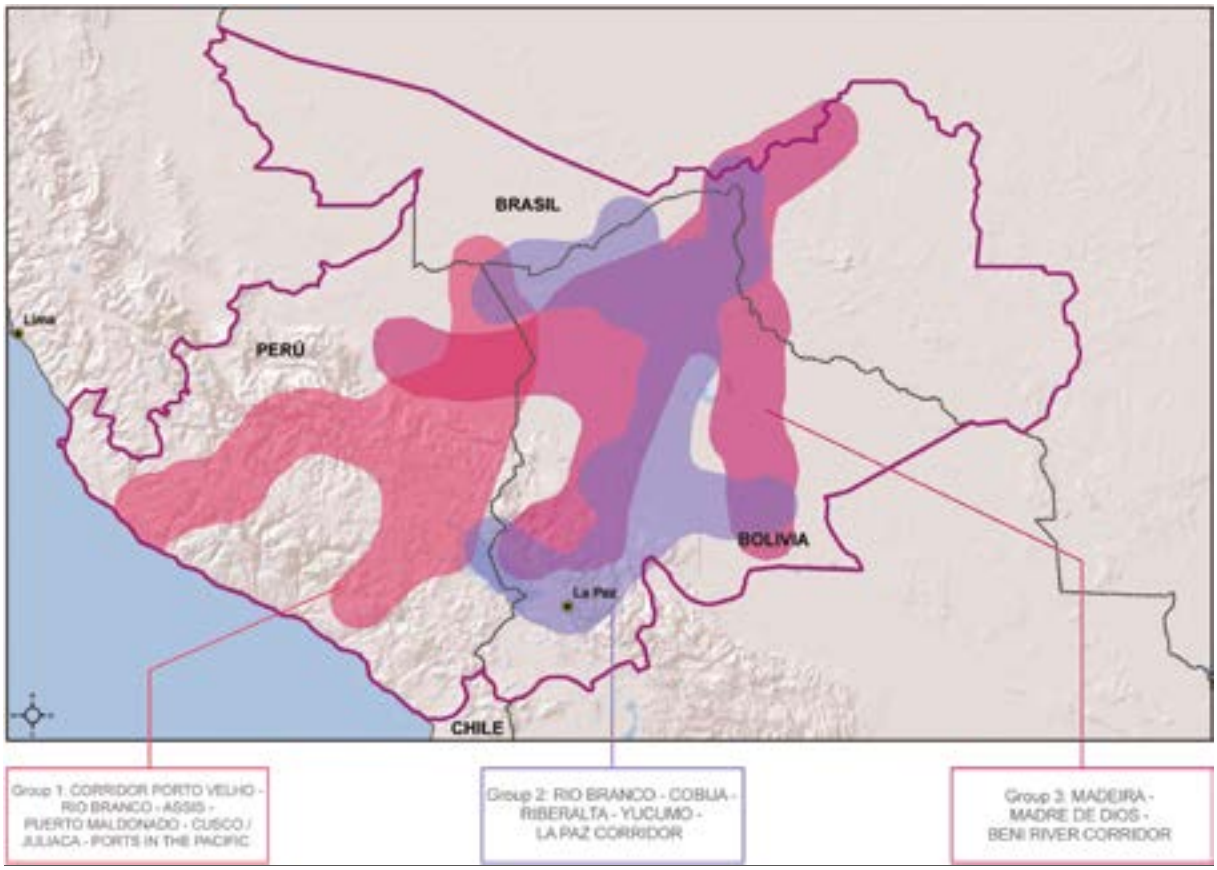
The Hub shares some regions of its area of influence with the Amazon, Andean, and Central Interoceanic Hubs.

Project Portfolio

PERU-BRAZIL-BOLIVIA HUB

The projects included in the Peru-Brazil-Bolivia Hub aim at diversifying the energy matrix of the region and consolidating an international river waterway to open up new possibilities for socioeconomic development.

MAP OF THE PROJECT GROUPS OF THE PERU-BRAZIL-BOLIVIA HUB



PROJECT GROUPS OF THE PERU-BRAZIL-BOLIVIA HUB

* US$ million

Group	Name	No. of Projects	Estimated Investment*
1	CORRIDOR PORTO VELHO - RIO BRANCO - ASSIS - PUERTO MALDONADO - CUSCO / JULIACA - PORTS IN THE PACIFIC	8	2,320.0
2	RIO BRANCO - COBIJA - RIBERALTA - YUCUMO - LA PAZ CORRIDOR	9	879.9
3	MADEIRA - MADRE DE DIOS – BENI RIVER CORRIDOR	7	28,232.0
	TOTAL	**24**	**31,431.9**

The active portfolio of the Hub includes 19 projects for an estimated investment of US$25,452 million.

Of the 19 active projects, only one has information available on its estimated completion date —Bridge over the Madeira River in Abunã (BR-364/RO), the only API project included in the Hub. This project is at the execution stage and is scheduled to be completed in 2017.

According to estimations, by the time the eight projects at the execution stage are completed, about 80% of the investment estimated for the Hub's portfolio will have been spent.

The five projects with the highest estimated investment account for 80% of the Hub's active portfolio.

The Madeira River Hydroelectric Power Complex (Santo Antônio and Jirau Hydroelectric Power Stations) is the project with the highest estimated investment —with an amount of US$18,209 million— of the entire COSIPLAN Portfolio, made up of 593 projects.

This new Complex in Brazil involves the construction of two hydroelectric power plants fed by the waters of the Madeira river, with a view to diversifying the energy matrix of the territory. It is being financed by the BNDES (the Brazilian Development Bank) and by a private bank consortium. Being at an advanced stage of implementation, it is scheduled to be completed in October 2016.
The existence of this sole project explains why the Hub, even if it features only 4% of all the Portfolio projects, accounts for 17% of the total estimated investment.

Regarding the other four projects with the highest estimated investment amounts, it should be stated that their joint investment accounts for 38% of the investment estimated for the first project mentioned, and that all of them are financed by the public sector. As in the case of the first project, the second and third ones involve the construction of hydroelectric power plants, although in these cases the pre-feasibility studies have not been conducted yet. Therefore, their estimated investment amounts will be updated as soon as such results are available. Finally, the fourth and fifth projects fall in the road subsector and are both at the execution stage.

THE FIVE PROJECTS OF THE ACTIVE PORTFOLIO WITH THE HIGHEST ESTIMATED INVESTMENT

* US$ million

Code	Name	Group	Stage	Estimated Investment*	Countries	Type of Financing
PBB16	MADEIRA RIVER HYDROELECTRIC POWER COMPLEX (SANTO ANTÔNIO AND JIRAU HYDROELECTRIC POWER STATIONS)	3		18,209.0	BR	PUBLIC-PRIVATE
PBB17	BINATIONAL HYDROELECTRIC POWER STATION (BOLIVIA - BRAZIL)	3		5,000.0	BO - BR	PUBLIC
PBB12	CACHUELA ESPERANZA HYDROELECTRIC POWER STATION (MADRE DE DIOS RIVER, BOLIVIA)	3		1,200.0	BO	PUBLIC
PBB05	GUAYARAMERÍN - RIBERALTA / YUCUMO - LA PAZ ROAD SECTIONS	2		594.0	BO	PUBLIC
PBB64	BRIDGE OVER THE MADEIRA RIVER IN ABUNÃ (BR-364/RO)	2		85.4	BR	PUBLIC

PROFILING PRE-EXECUTION EXECUTION COMPLETED

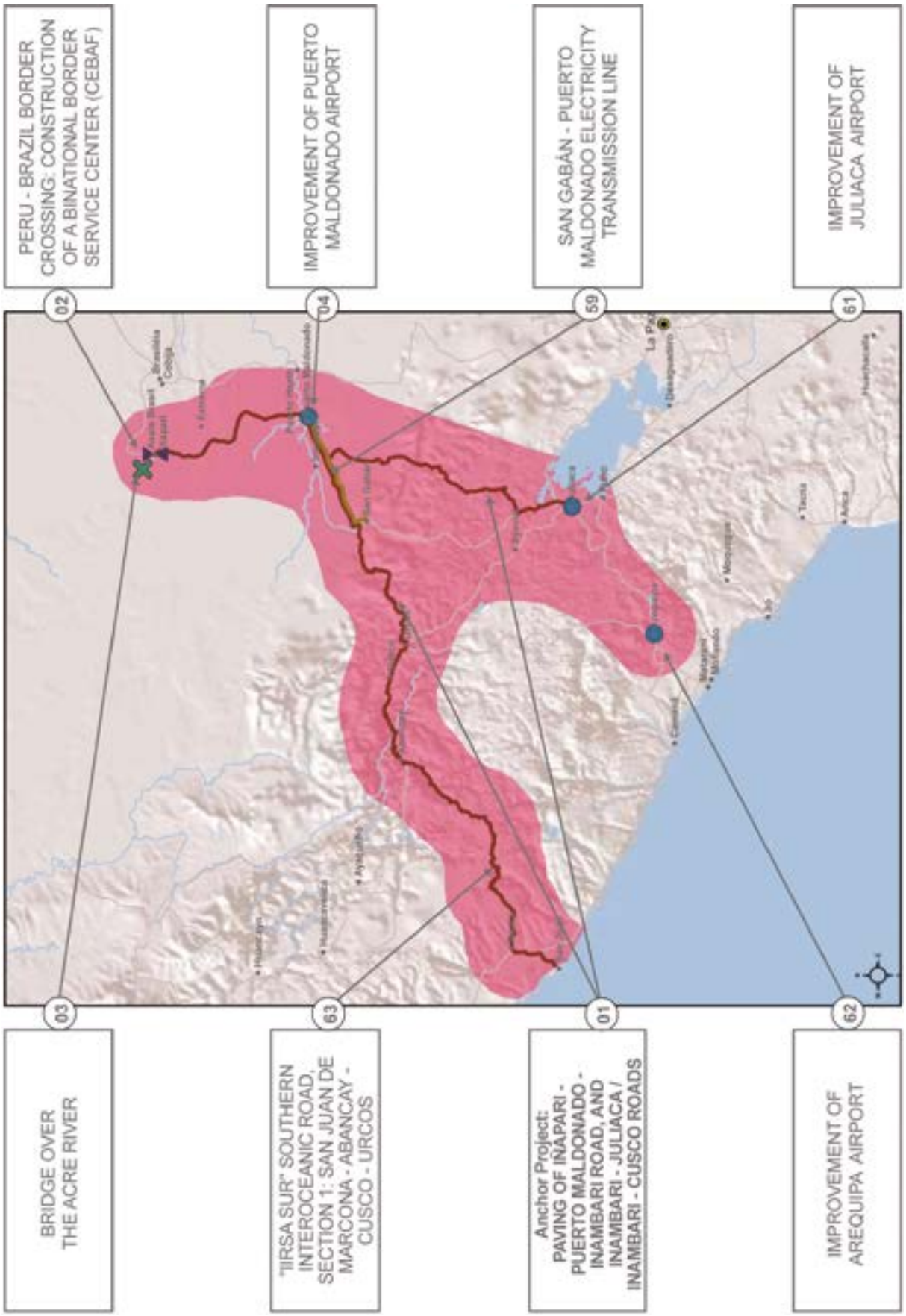
There are five projects already completed in the Hub, having demanded a total investment amount of US$5,980 million.

The transmission line between the two hydroelectric power plants (Madeira River and Central System) has been completed recently, demanding a total investment of US$3,823 million, thus consolidating a better distribution of renewable energy in the region.

Furthermore, anchor project Paving of Iñapari - Puerto Maldonado - Inambari Road, and Inambari - Juliaca / Inambari - Cusco Roads was completed, demanding nearly US$2 billion. These works were complemented by others, among which the following can be mentioned: the completion of the bridge over the Acre River, in the Brazilian territory, and of section 1 of the South Interoceanic Highway. All these works made it possible to create a corridor connecting the Peruvian coast with Brazil and the Bolivian border, resulting in an increase in the flow of goods and people. Project Bridge over the Madeira River in Abunã, which is currently at the execution stage, forms part of the same corridor and has been planned to join the sections of the corridor that are now interrupted by the Madeira river and have to be crossed on a raft boat.

Corridor Porto Velho - Rio Branco - Assis - Puerto Maldonado - Cusco / Juliaca - Ports in the Pacific

Brazil – Peru



PBB Group 1

Strategic Function

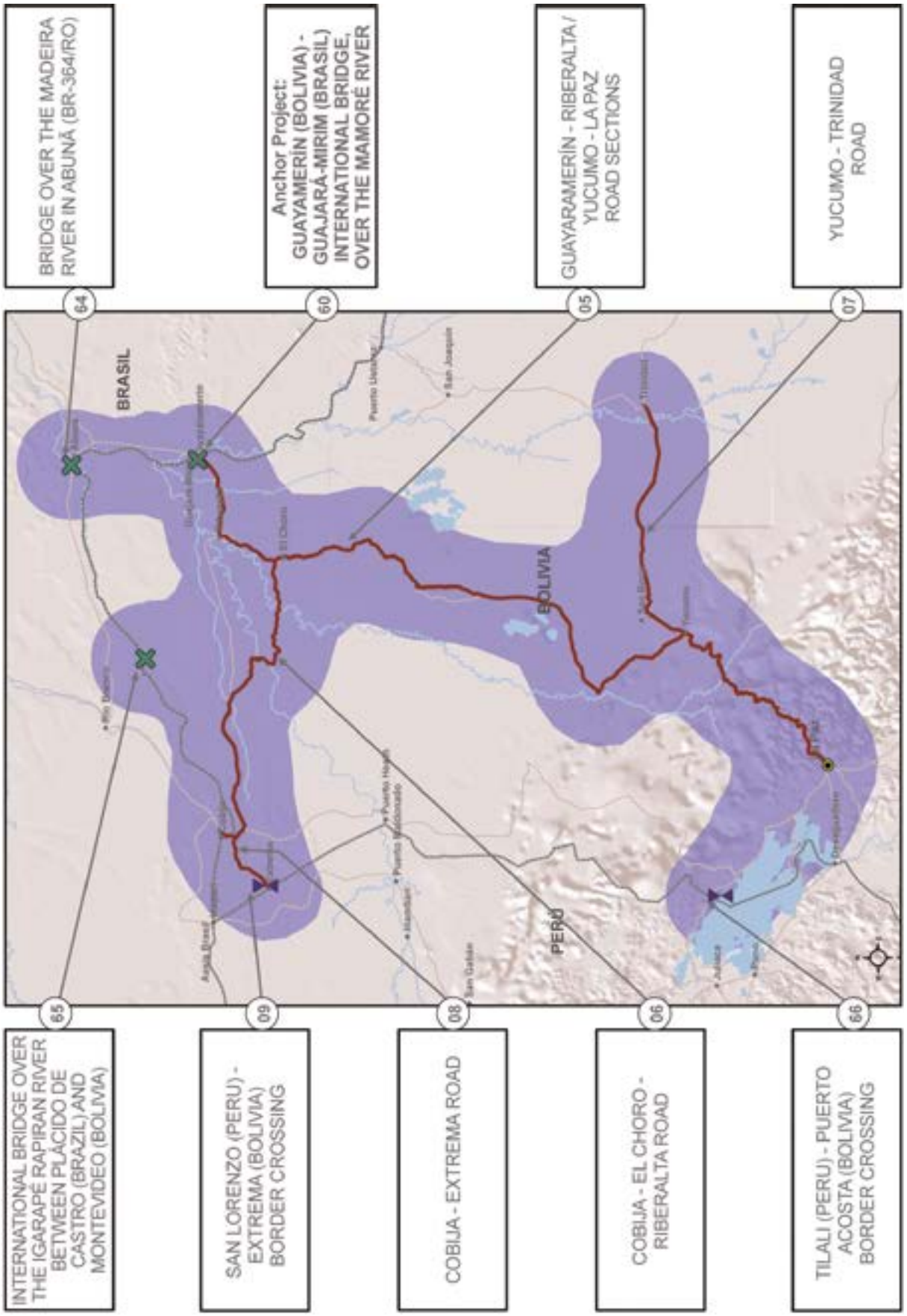
- Consolidate the socioeconomic development of the macro-region in the south of Peru and the states of Acre and Rondônia, in Brazil, facilitating trade and tourism, and provide logistics services that guarantee access of these Brazilian states and the macro-region in the south of Peru to international markets, promoting the integration process.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
PBB01	**PAVING OF IÑAPARI - PUERTO MALDONADO - INAMBARI ROAD, AND INAMBARI - JULIACA / INAMBARI - CUSCO ROADS**		**1,976.0**	**PE**
PBB02	PERU - BRAZIL BORDER CROSSING: CONSTRUCTION OF A BINATIONAL BORDER SERVICE CENTER (CEBAF)		25.3	BR - PE
PBB03	BRIDGE OVER THE ACRE RIVER		12.0	BR - PE
PBB04	IMPROVEMENT OF PUERTO MALDONADO AIRPORT		42.4	PE
PBB59	SAN GABÁN - PUERTO MALDONADO ELECTRICITY TRANSMISSION LINE		23.6	PE
PBB61	IMPROVEMENT OF JULIACA AIRPORT		44.2	PE
PBB62	IMPROVEMENT OF AREQUIPA AIRPORT		51.2	PE
PBB63	"IIRSA SUR" SOUTHERN INTEROCEANIC ROAD, SECTION 1: SAN JUAN DE MARCONA - ABANCAY - CUSCO - URCOS		145.4	PE
8			2,320.1	

Rio Branco - Cobija - Riberalta - Yucumo - La Paz Corridor

Bolivia – Brazil – Peru



PBB Group 2

Strategic Function

- Provide new possibilities for the socioeconomic development in the Madre de Dios - Acre - Pando (MAP) region through its connection to the central Bolivian hub.

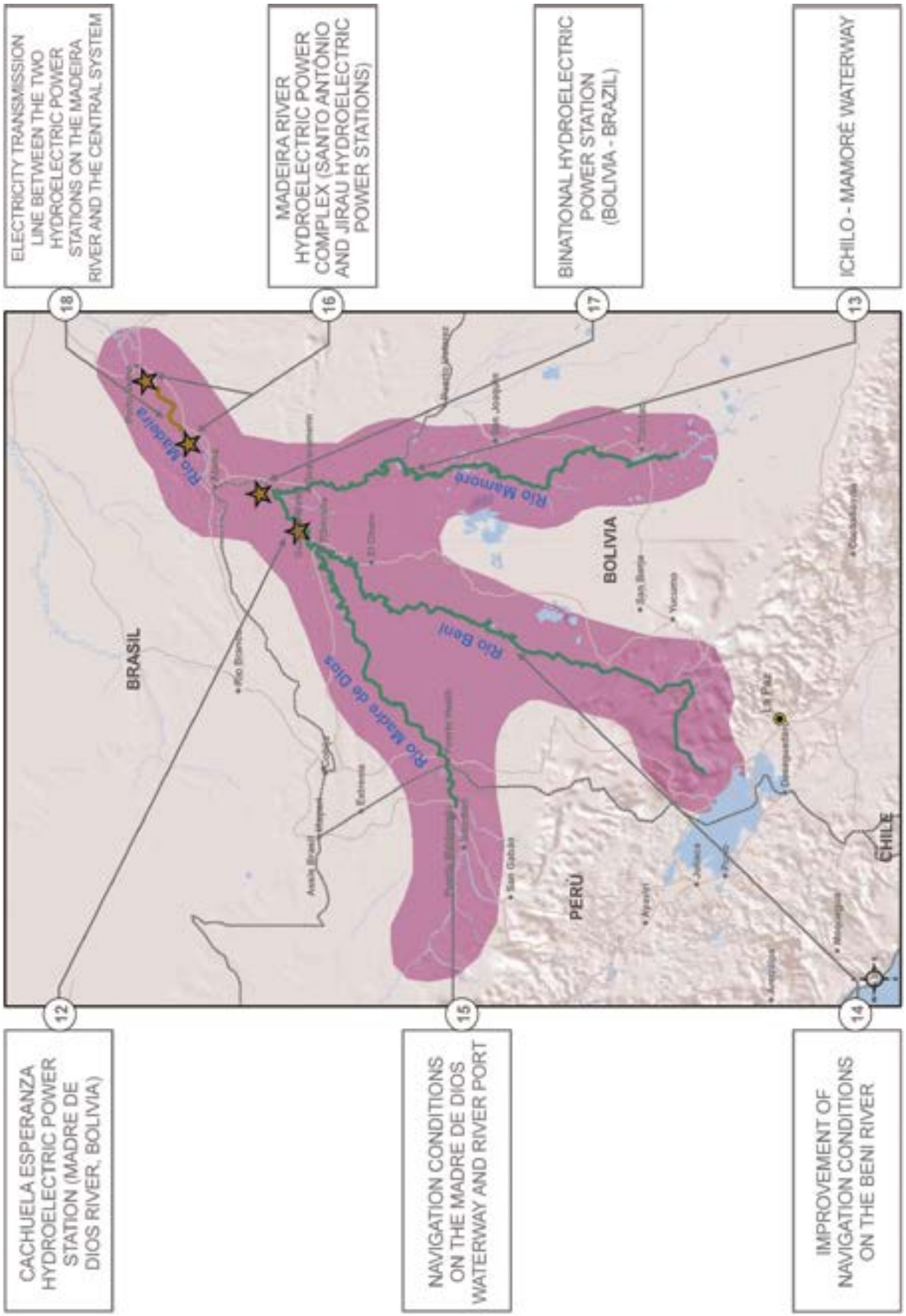
* US$ million

Code	Name	Stage	Estimated Investment*	Countries
PBB05	GUAYARAMERÍN - RIBERALTA / YUCUMO - LA PAZ ROAD SECTIONS		594	BO
PBB06	COBIJA - EL CHORO - RIBERALTA ROAD		56	BO
PBB07	YUCUMO - TRINIDAD ROAD		5.5	BO
PBB08	COBIJA - EXTREMA ROAD		29	BO
PBB09	SAN LORENZO (PERU) - EXTREMA (BOLIVIA) BORDER CROSSING		15	BO - PE
PBB60	**GUAYAMERÍN (BOLIVIA) - GUAJARÁ-MIRIM (BRAZIL) INTERNATIONAL BRIDGE, OVER THE MAMORÉ RIVER**		**75**	**BO - BR**
PBB64	BRIDGE OVER THE MADEIRA RIVER IN ABUNÃ (BR-364/RO)		85.3	BR
PBB65	INTERNATIONAL BRIDGE OVER THE IGARAPÉ RAPIRAN RIVER BETWEEN PLÁCIDO DE CASTRO (BRAZIL) AND MONTEVIDEO (BOLIVIA)		0	BO - BR
PBB66	TILALI (PERU) - PUERTO ACOSTA (BOLIVIA) BORDER CROSSING		20	BO - PE
9			**879.8**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Madeira - Madre de Dios - Beni River Corridor

Bolivia - Brazil



PBB Group 3

Strategic Function

- Consolidate an international river integration corridor that mainly impacts on the transportation logistics and the socioeconomic development of the regions of Madre de Dios, in Peru; Rondônia, in Brazil; and Pando and Beni, in Bolivia.
- Facilitate changes in the energy matrix by increasing the supply of renewable energy in the region.

* US$ million

Code	Name	Stage	Estimated Investment*	Countries
PBB12	CACHUELA ESPERANZA HYDROELECTRIC POWER STATION (MADRE DE DIOS RIVER, BOLIVIA)		1,200.0	BO
PBB13	ICHILO - MAMORÉ WATERWAY		0.0	BO
PBB14	IMPROVEMENT OF NAVIGATION CONDITIONS ON THE BENI RIVER		0.0	BO
PBB15	NAVIGATION CONDITIONS ON THE MADRE DE DIOS WATERWAY AND RIVER PORT		0.0	BO
PBB16	**MADEIRA RIVER HYDROELECTRIC POWER COMPLEX (SANTO ANTÔNIO AND JIRAU HYDROELECTRIC POWER STATIONS)**		**18,209.0**	**BR**
PBB17	BINATIONAL HYDROELECTRIC POWER STATION (BOLIVIA - BRAZIL)		5,000.0	BO - BR
PBB18	ELECTRICITY TRANSMISSION LINE BETWEEN THE TWO HYDROELECTRIC POWER STATIONS ON THE MADEIRA RIVER AND THE CENTRAL SYSTEM		3,823.0	BR
7			**28,232.0**	

PROFILING PRE-EXECUTION EXECUTION COMPLETED

Chapter 4
The Territory and Integration Infrastructure Planning

For more than a decade, the South American governments have been making a major effort of cooperation and dialogue with the purpose of securing a greater and more sustainable physical integration in the region. The work undertaken by IIRSA in the first ten years and by COSIPLAN since 2011 focuses on infrastructure project planning as a key component for attaining the physical integration and the development of the South American territory.

The distinctive feature of this process has been infrastructure planning in the transportation, energy and communications sectors with a regional perspective. With a focus on the territory, this process is intended to enhance the competitiveness and complementariness of the economies of the region, contribute to reducing regional disparities and social inequality, and improve life expectancy and quality of life in every country and in the region as a whole.

In order to frame infrastructure planning, theoretical and practical tools linking the territory and infrastructure were used, which helped set up the Integration Infrastructure Project Portfolio. This was possible thanks to the development and application of the Indicative Territorial Planning Methodology. This methodology is based on the identification of Integration and Development Hubs, which organize the South American territory and structure the portfolio.

4.1. The Integration and Development Hubs

An Integration and Development Hub[1] is a multinational territorial space involving specific natural resources, human settlements, production areas and logistics services. Transportation, energy and communications infrastructure serves as its link, as it facilitates the flow of people, goods and services, and information within this territorial space and from/to the rest of the world.

The Hubs and their areas of influence have been defined considering the following characteristics:

a. Geographical coverage of Country and regions: The Hubs group territories that allow the presence and participation of all twelve South American Country in the physical integration process. Their area of influence covers regions with different population densities, including the main population concentrations.

b. Identification of both existing and potential trade flows: The Hubs are areas that contain the main intraregional trade flows —following historical trade patterns—, enabled by the infrastructure in place, and also consider the production potential of the region.

c. Investments in the areas of influence of the Hubs: Account has been taken of the volume of the investments recently made, of those being disbursed, and also of the funds planned to be invested in the short run within the area of influence of each Hub.

d. Interest and participation of the local population and the production sectors in territorial development, logistics projects, and infrastructure.

e. Social and environmental sustainability: In light of the diversity of ecosystems in each region, forest reserves, highly fragile ecological areas, as well as the rights and opportunities of local population have been identified.

1 For more information visit http://www.iirsa.org/eid.asp.

Ten Integration and Development Hubs,[2] with areas of influence that may be superimposed on one another, were thus defined:

Once the geographic area of the Hubs was established following the above-mentioned criteria, a key aspect was the link between them and infrastructure. On the basis of the economic, social and environmental characterization of the area of influence of the Hubs, a direct coordination of the projects and their respective sites is sought through the Indicative Territorial Planning Methodology.

The development of this Methodology was inspired by the conviction that investments and projects have a substantial impact on the economy and the environment of the region and contribute to increasing social development, while creating new economic opportunities for the local population.

2 The Indicative Territorial Planning Methodology has not been applied to the Southern Andean Hub yet.

4.2 The Indicative Territorial Planning Methodology

The process of application of the Indicative Territorial Planning Methodology[3] began with the launch of IIRSA. This work was carried out at the meetings of the Executive Technical Groups (GTEs) in a participative working environment that involved the twelve South American Country, and it took place in two phases.

The First Stage of the application of the Indicative Territorial Planning Methodology took place between 2003 and 2004, and enabled the set up and structuring of the Project Portfolio with a regional vision integrating the national visions.

The COSIPLAN Project Portfolio is a set of high-impact works for the integration and socioeconomic development of the region. It is made up of transport, energy and communications projects that promote regional connectivity and create sustainable economic and social development in South America.

This planning process was performed in two phases. In the first phase, based on the concept of synergies, the Hubs' project groups, their anchor projects and strategic functions were defined.

Proyect Hubs

A project group is a set of interdependent projects in a given geoeconomic space having synergetic effects upon sustainable development. A project group enables the capitalization of the benefits of a set of investments, which are greater than the aggregate effects of its individual component projects. The process is territory-based and takes into account the location of projects, their relationships with the prevailing or potential economic activities, and related environmental and social aspects.

Strategic Function

The effects of a project group constitute its strategic function, i.e. its common objective and/or main benefits for both the integration and the regional development of the geoeconomic spaces involved. The strategic function has to do with the direct linkage of the project group to the specific territorial aspects of its area of influence and to the strategic vision of the pertinent Hub.

Anchor Projects

An anchor project gives meaning to the grouping process and makes synergies viable. It is identified as the bottleneck or missing link in the infrastructure network hindering the optimum use of the combined effects of the group for the sake of economic and social development. It is not necessarily the largest-sized project or the one with the highest estimated investment amount.

Hinge Projects

A hinge project articulates two or more Hubs, plays a role in more than one Hub, or articulates two or more project groups within one Hub.

3 For more information, visit http://www.iirsa.org/mpti.asp.

The second phase consisted in defining a structure of factors of analysis to grasp the attributes of each project group in terms of their impact on regional integration and development and their feasibility conditions for their implementation. On the basis of these two dimensions, an assessment of the project groups was conducted in order to establish investment priorities.

The Second Stage of the application of the Indicative Territorial Planning Methodology (2005-2010) was launched in 2006 with the approval of an action plan designed to take a qualitative leap forward in the Project Portfolio and territorial planning process. Its objectives were the following:

- Coordinate and incorporate economic, social and environmental development initiatives and policies into the Integration and Development Hubs that were complementary to the integration infrastructure projects identified;

- Enhance the technical support of the Portfolio project groups by gaining greater knowledge about the economic, social and environmental situation of the territory and the likely impact of the infrastructure projects on sustainable development (potential for production integration, socio-environmental impacts, etc.);

- Improve the capacity for formulating, preparing and assessing integration projects in order to strengthen their inherent quality.

In this regard, training workshops on physical integration topics targeted for the national teams were held[4] and non-reimbursable funds for pre-investment studies were created.[5] Likewise, new territorial planning methodologies[6] and analytical tools[7] were developed, particularly the following: the Production Integration and Logistics (IPrLg) Methodology,[8] the Strategic Environmental and Social Evaluation (EASE) Methodology,[9] and the Project Portfolio Database (at present, the COSIPLAN Project Information System – PIS).

With the creation of COSIPLAN, this work is given continuity and the use and dissemination of these tools and methodologies are broadened. One of the objectives of the Strategic Action Plan 2012-2022 (PAE) is "to improve, disseminate and implement Territorial Planning methodologies and tools."

Thus, the activities underway make further progress and new instruments are introduced to strengthen and enrich the South American infrastructure sustainable planning process, such as the Integration Territorial Programs,[10] the Methodology for the Incorporation of Disaster Risk Management in Regional Integration Infrastructure Projects,[11] the COSIPLAN Project Information System (PIS),[12] and the COSIPLAN Geo-referenced Information System (GIS).[13]

The methodologies and tools mentioned are incorporated into the PAE; furthermore, the COSIPLAN annual work plans include activities to work on their enhancement and application.

4 Training Workshops on Physical Integration: (i) Course on Integration and Development of Regional Infrastructure in South America, October 2008 (http://www.iirsa.org/Event/Detail?Id=122); and (ii) Training Workshop on Integration and Development of South American Regional Infrastructure, September 2009 (http://www.iirsa.org/Event/Detail?Id=136).
5 The IDB, CAF and FONPLATA earmarked specific line items for pre-investment studies for physical integration projects, with special emphasis on the Portfolio projects.
6 These methodologies aim at incorporating environmental, social, production integration, logistics, disaster risk management, legal and regulatory aspects, among others, to the project planning process.
7 These tools are intended to support and facilitate the analysis of the territory through the standardization of project information.
8 For more information, visit http://www.iirsa.org/iprlg.asp.
9 For more information, visit http://www.iirsa.org/ease.asp.
10 For more information, visit http://www.iirsa.org/pti.asp.
11 For more information, visit http://www.iirsa.org/grd.asp.
12 For more information, visit http://www.iirsa.org/sip.asp.
13 For more information, visit http://www.iirsa.org/sig.asp.

Integration Territorial Programs (PTIs)

The objective of the PTIs is to identify and implement a set of actions complementing the API projects in order to leverage their impact on the development of the territories involved, taking into account economic, social and environmental aspects.

Strategic Environmental and Social Evaluation (EASE) Methodology

The purpose of this methodology is to identify any complementary action that might enhance —from a social, environmental and cultural point of view— the positive effects of projects and minimize their negative impact. The unit of analysis of this methodology is the area of influence of the Portfolio project groups and/or of the API projects.

Production Integration and Logistics (IPrLg) Methodology

The objective of this methodology is to assess the potential for production integration and for the development of logistics in the area of influence of a project group or of an API project. Its final outcome helps articulate a set of actions within the framework of a logic of interdependent relations in order to leverage the impact of infrastructure on the development of these activities.

Methodology for the Incorporation of Disaster Risk Management (DRM)

The objective of this methodology is to prevent or reduce the effects of natural disasters (earthquakes, tsunamis, floods, and volcanic eruptions) affecting South American infrastructure, and to devise plans for connectivity and public infrastructure recovery.

With the aim of consolidating the Project Portfolio, the PAE provides for the continuous update of the projects included in the Portfolio. One of the key tools to update the project database and to ensure project information quality as well as its dissemination is the COSIPLAN Project Information System (PIS).

4.3 The COSIPLAN Project Information System

The Project Information System (PIS) is the tool to support integration infrastructure planning and analysis containing systematized information on the COSIPLAN projects.

This instrument enables the user to access the information on each project file (general data, scope, cost and financing, status, etc.) and create reports based on the query criteria selected.

The information in each project file is kept updated by one responsible person per country or Country, depending on the geographical scope of the projects.[14] Annual progress reports are prepared on the basis of the information in the system.

The first version of the Project Database was built in 2004. Later, between 2007 and 2010, important improvements were introduced into this IT tool, and the project files were regularly reviewed for information consistency.

In 2011, the Country approved the Integration Priority Project Agenda (API), which is made up of a subset of COSIPLAN Portfolio projects. In order to record the progress made in the implementation of the API projects, it became necessary to add two new components associated with the Project Database: (i) a module to consolidate 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, in 2013,[15] the COSIPLAN Project Information

14 National, binational or multinational projects.
15 GTE Meeting on API and CMS, August 27 and 28, 2013, Rio de Janeiro, Brazil, http://www.iirsa.org/Event/Detail?Id=227.

System[16] was developed, made up of three components connected online since 2013, in order to both access and upload the information.

COSIPLAN Project Portfolio Database

It contains the files of each Portfolio project (known as "individual projects" for the purposes of the System) with general information organized in modules. This database enables the user to make queries and create reports based on the query criteria selected. Each project file is kept updated by one responsible person per country or Country, depending on the geographical scope of the project.

API Project Database

This contains the files of the 31 API structured projects. The information in these files is organized similarly to the data in the individual project files. Both the structured and individual project files are linked to one another. Furthermore, the API Project Database includes a series of reports on the Agenda.

Continuous Monitoring System (CMS)

The CMS is a module, in the project files, created on the basis of the Methodology for Scheduling the Life Cycle of Projects, a tool that follows up on the progress of the projects throughout their life cycle. The module controls the progress of each COSIPLAN Portfolio project as well as of the API structured projects by monitoring the individual projects that make them up.

As mentioned in the paragraph above, with the purpose of recording the status and progress over time of the API projects, the Life Cycle Scheduling Methodology for the API individual projects[17] was developed between 2012 and 2013, which is the methodology on which the CMS is based.

The Life Cycle Scheduling Methodology is based on the four project life cycle stages agreed upon by the governments in 2008: profiling, pre-execution, execution and completed.

Given the technical characteristics of the projects and the works involved, the pre-execution and execution stages of a project are the ones that take up most of the time in the project life cycle. This is why both stages were further broken down, in order to see the progress of a project more accurately.

PROJECT LIFE CYCLE SCHEDULING

INDIVIDUAL PROJECTS STAGES AND SUB-STAGES										
PROFILING 0%	PRE-EXECUTION 30%					EXECUTION 65%				CONCLUDED 5%
0% Initial Status	6% Resources for Studies	12% Studies Underway	18% Approved Studies	24% Permits Granted	30% Resources of Work	50% 1° Quarter of Work	65% 2° Quarter of Work	80% 3° Quarter of Work	95% 4° Quarter of Work	100% Work Handed over

16 COSIPLAN Project Information System, www.iirsa.org/proyectos.

17 For more information on the development of the API Project Life Cycle Scheduling Methodology, see the "CMS Progress Report 2012" at http://www.iirsa.org/Document/Detail?Id=3416, and "API Progress Report 2013" at http://www.iirsa.org/Document/Detail?Id=3718.

- PROFILING: This is the starting point in the project life cycle.

- PRE-EXECUTION: Normally, this stage 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. Five main milestones are identified:

  - Resources for studies: This sub-stage starts with the formalities required to secure the financial resources needed to carry out the studies, and is deemed completed when such resources are actually available and all the institutional arrangements for the studies to begin (e.g. awarding them through tender processes) have been made.

  - Studies underway: This sub-stage is deemed to start when any pre-execution study has been launched, and the project will be recorded as such until completion of the study representing the highest level required by the project concerned.

  - Approved studies: Once the studies have been completed, the project passes on to this sub-stage, and will remain at it until the studies are approved by the relevant authorities.

  - Permits granted: After the studies are approved, the project must comply with institutional requirements and regulations, which take the form of permits and authorizations that may be of different nature and impose different requirements and deadlines. Thus, for example, different kinds of environmental licenses for engineering works and installation of the work site may be required. Furthermore, submitting the background information required for a permit to be granted may demand some degree of interaction with the studies conducted in the previous sub-stage. This sub-stage will be deemed completed when all permits have been granted and/or all the institutional formalities required by the project have been carried out.

  - Resources for works: This sub-stage involves securing the financial resources needed to carry out the works and actions proposed in the project. It will be deemed completed when the project has been allocated the financial resources for executing the works and the required institutional formalities for such purpose have been carried out.

- EXECUTION: This stage has been broken down into quarters of works according to the time frames involved, the costs required or progress milestones, depending on the project concerned.

- COMPLETED: A project is deemed completed when the finished works have been handed over to the relevant authorities, and are open and functioning.

In 2014, the Country carried out specific actions intended to enhance the quality and standardization of the project data, and to better communicate their progress and outcomes. This resulted in the following actions leading to modifications and new tasks in the PIS: (i) organization of the information fields in the project files; (ii) specific descriptors by sector, subsector and type of works; (iii) results indicators for the projects already completed; (iv) application of the Continuous Monitoring System (CMS) to all the Portfolio projects; and (v) API progress indicators.

In 2015, small adjustments were made to the PIS to improve the performance of the new elements developed the previous year. An advanced search option with new search filters was created, including a new criteria selection methodology. Some information fields in the project files were improved, and new fields were added, such as “Risks and Hazards” and “Estimated Completion Date.” Several reports were enhanced and created. The charts of the API structured projects were modified, and the API Structured Projects CMS was opened to public access.

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COSIPLAN Regulations. I Ordinary Meeting of the COSIPLAN Ministers. June 18, 2010. Quito, Ecuador.

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API Progress Report 2014. December 2014. Montevideo.

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Strategic Action Plan 2012-2022. II Ordinary Meeting of the COSIPLAN Ministers. November 30, 2011. Brasilia, Brazil.

WEBSITES

Initiative for the Integration of Regional Infrastructure in South America – IIRSA
www.iirsa.org

COSIPLAN Project Information System
www.iirsa.org/proyectos

ACRONYMS AND ABBREVIATIONS

AMA	Amazon Hub
AND	Andean Hub
API	Integration Priority Project Agenda
AR	Argentina
BO	Bolivia
BR	Brazil
CAF	Development Bank of Latin America
CAP	Capricorn Hub
CCT	Technical Coordination Committee
CEBAF	Binational Border Service Center
CENAF	National Border Service Center
CH	Chile
CMS	Continuous Monitoring System
CO	Colombia
COSIPLAN	South American Infrastructure and Planning Council
DRM	Disaster Risk Management
EASE	Strategic Environmental and Social Evaluation
EC	Ecuador
FONPLATA	Financial Fund for the Development of the Plata Basin
GDP	Gross Domestic Product
GTE	Executive Technical Group
GU	Guyana
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
IOC	Central Interoceanic Hub
IPrLG	Production Integration and Logistics
MCC	MERCOSUR-Chile Hub
MERCOSUR	Southern Common Market
PAE	Strategic Action Plan
PBB	Peru-Brazil-Bolivia Hub
PIS	Project Information System
PTI	Integration Territorial Program
PY	Paraguay
UNASUR	Union of South American Nations
UY	Uruguay
VE	Venezuela
YPFB	Yacimientos Petrolíferos Fiscales Bolivianos (Bolivian State-owned oil company)

UNASUR
COSIPLAN

IDB

CAF
DEVELOPMENT BANK OF LATIN AMERICA

FONPLATA

VI Ordinary Meeting of COSIPLAN Ministers