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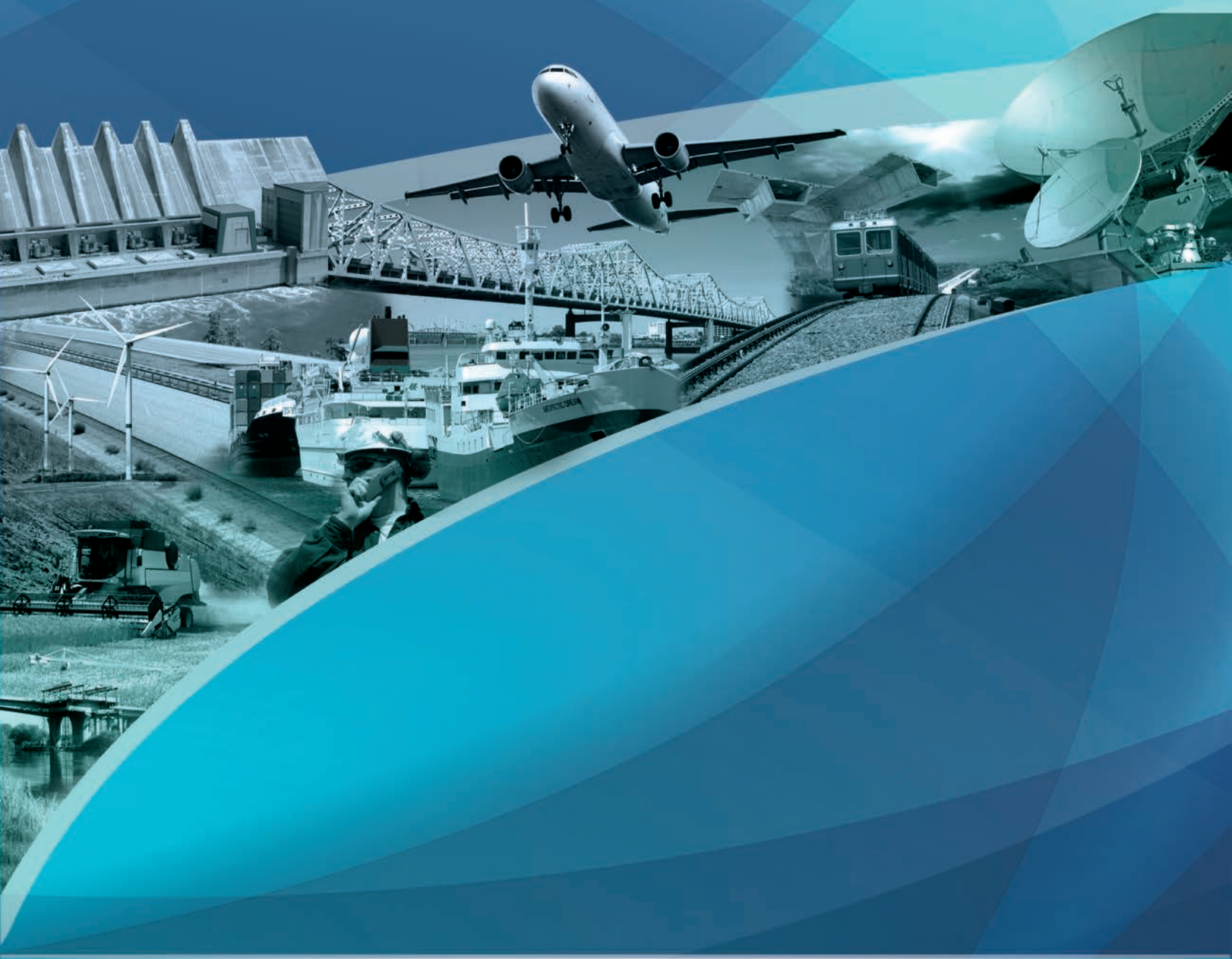

PROJECT PORTFOLIO 2013

SOUTH AMERICAN COUNCIL OF INFRASTRUCTURE AND PLANNING

UNASUR

COSIPLAN

Document prepared by IIRSA and approved by the COSIPLAN Coordinating Committee

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Chile, November 29, 2013

NOTE

The information herein contained about the projects included in COSIPLAN's Project Portfolio was drawn from the COSIPLAN Information System (www.iirsa.org/proyectos) as at October 4, 2013. The information in this System is updated on an ongoing basis by the UNASUR countries.

The maps herein contained were drawn from the GeoSUR program; they have been made to be used by IIRSA for technical work purposes and as a general reference tool. The borders, colors, names and any other information shown on them are used for illustrative purposes only and do not represent any recognition of borders or any position or opinion whatsoever on the part of the institutions that make up the CCT as to the legal status of any territory.

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Introduction

This Third Report, provided for in the COSIPLAN-IIRSA Work Plan 2013 and intended for submission to the consideration of the UNASUR South American Infrastructure and Planning Council (COSIPLAN) and for the general public, has a twofold objective. On the one hand, it reflects the results of the territorial planning work conducted by the countries this year, and on the other hand, it presents an overall assessment of the Portfolio, including details of the evolution of its projects.

The report is divided into two parts. The First Part is made up of three sections. The first section offers an overview of the background to the physical integration process developed in the South American region. The COSIPLAN Strategic Action Plan is presented as the foundation of the work carried out by the Council, particularly of the actions taken to consolidate its Portfolio.

The second section presents the territorial planning process undertaken in South America, 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 main objectives and concepts of the COSIPLAN territorial planning tools and methodologies are reviewed, with special emphasis on the achievements made in 2013.

The third section examines the progress of the Portfolio projects between 2012 and 2013. The perspectives selected for this purpose are: 1) number of projects and estimated investment amount, 2) territorial scope, 3) sector- and subsector-based breakdown and type of works, 4) source of financing, and 5) project progress by life cycle stage between 2012 and 2013. For each of these dimensions, an analysis is made of a series of variables derived from the information updated by the countries in the COSIPLAN Information System, the COSIPLAN Project Portfolio Report 2012, and the outcomes of the meetings of the Executive Technical Groups on the nine Hubs held on May 7 to 9, 2013, in the city of Montevideo, Uruguay.

The Second Part of the report gathers the Project Portfolio information as of 2013. It offers an overview of the whole Portfolio focused on the following aspects: 1) general indicators of each Hub (number of projects and estimated investment for each group), 2) sources of financing, 3) API projects from each Hub, 4) sector- and subsector-based breakdown and type of works, 5) project progress, and 6) anchor projects.

Subsequently, the information on each of the nine Hubs is presented, including data on the project groups that make them up, their strategic functions, and details of the projects involved. Finally, each Hub's consolidated information is offered following the structure used for the aspects of the whole COSIPLAN Project Portfolio at the beginning of the Second Part.

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 countries of the region. 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. The COSIPLAN is the forum where political and strategic discussions are held with a view to implementing the UNASUR member countries' regional infrastructure integration.

Since 2000, the South American governments have been making a major effort of cooperation with the purpose of securing a greater and more sustainable physical integration in the region. The work undertaken by the Initiative for the Integration of Regional Infrastructure in South America (IIRSA) throughout its first ten years since its creation and by the UNASUR South American Infrastructure and Planning Council (COSIPLAN) since 2011 has focused from the start on infrastructure project planning as a key component of territorial development.

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 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.

PART I – ACTIVITIES OF THE YEAR: DEVELOPMENT AND APPLICATION OF METHODOLOGIES AND TOOLS, AND PROGRESS ATTAINED IN THE COSIPLAN PORTFOLIO PROJECTS

A. THE COSIPLAN PROJECT PORTFOLIO IN THE SOUTH AMERICAN PHYSICAL INTEGRATION PROCESS

The origins of South American physical integration can be traced as far back as more than a decade ago. The landmark event was the First South American Presidential Summit, held in Brasilia in 2000.

Since this First Summit, another twelve presidential summits have been held, in the course of which UNASUR began to take shape. The meetings of presidents increasingly gained formalization, culminating with the approval of the Constitutive Treaty of the Union of South American Nations on May 23, 2008, in Brasilia.

Year after year, the UNASUR presidents have renewed their commitment to the physical integration of South America by incorporating this topic into the UNASUR agenda and emphasizing the importance of the work undertaken within the framework of COSIPLAN, which was encouraged to continue its efforts towards attaining an effective territorial connectivity.

Throughout 2011, COSIPLAN made headway towards devising the two instruments that would structure its work in the next ten years: the Strategic Action Plan (PAE) 2012-2022 and the Integration Priority Project Agenda (API).

The PAE 2012-2022 is the result of a discussion process and consensuses reached by COSIPLAN, designed on the basis of proposals submitted by officials from infrastructure and/or planning ministries or similar bodies.

The general and specific objectives of the Council are closely linked to the infrastructure-related goals laid down in the UNASUR Constitutive Treaty: energy integration for the integrated, sustainable use of the region's resources, in a spirit

of solidarity; the development of infrastructure for the interconnection of the region and among our peoples, based on sustainable criteria of social and economic development; and industrial and productive integration, focusing especially on small- and medium-size enterprises, cooperatives, networks and other forms of productive organization.

Similarly, crucial aspects to support this work are established, namely to enhance the role of the Council in implementing projects and to revise and apply the territorial planning methodologies and tools. This document purports to summarize the efforts made and the results attained by the COSIPLAN in these matters during 2013.

B. TERRITORIAL PLANNING

The report stresses the importance of the territory as a space to achieve sustainable development and the hierarchy gained by this concept on the COSIPLAN work agenda. The concept of Integration and Development Hubs is the element that provides the backbone and organization of the territory, enabling the identification of and consensus on integration infrastructure projects under a vision shared by the twelve South American countries, as it conceives infrastructure as a physical integration component that catalyzes economic, social and environmental development in the geographical areas concerned.

To strengthen and enrich the South American infrastructure sustainable planning process, several instruments have been developed, namely: (i) methodologies aimed at incorporating environmental, social, production integration and logistics, and regulatory and legal aspects, among others; and (ii) tools that support and facilitate the analysis of the territory through the systematization of project information.

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

Strategic Environmental and Social Evaluation (EASE) Methodology: In order 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, EASE takes as the unit of analysis the area of influence of the Portfolio project groups and/or the API projects. The EASE Methodology is applicable at different scales and levels of analysis and contributes to the institutional strengthening of the countries through the participation and full commitment of national and subnational governments, appointed as counterparts to form part of the work teams. As part of the Work Plan, the application of the methodology to the Multimodal Transportation in the Laguna Merín and Lagoa dos Patos System project (Uruguay - Brazil) was completed in 2013, and a GTE meeting was held on September 24 in Santiago de Chile to present the results.

Production Integration and Logistics (IPrLg) Methodology: The purpose of this methodology is to assess the potential for production integration and the development of logistics in the area of influence of a project group or API project. As a result, it contributes to enhancing the impact of infrastructure implementation on the development of these activities. This methodology was revised and approved by the COSIPLAN Ministers in 2012 at their Third Ordinary Meeting.

Integration Territorial Programs (PTIs): One of the objectives of the PAE is to "design regional planning strategies for infrastructure development." The Integration Territorial Programs seek to enhance the environmental management of the territory, adding production integration and logistics components, harmonizing regulatory and legal issues, and improving the local impact of infrastructure. The technical studies and methodological tools developed (IPrLg and EASE, among others) serve as a reference for the design of such programs. During 2012 and 2013, tasks were carried out to define the general guidelines for the design of these programs, which resulted in the approval of the document entitled "Integration Territorial Programs – PTIs: Conceptual Guidelines for their Design" by the National Coordinators at their XXII Meeting, held on June 25, 2013, in the city of Lima.

Methodology for Risk and Disaster Prevention and Management in Infrastructure: Economic loss and the social impact associated with geological and climatic events have gained significance. This has led to the inclusion in the

PAE of specific actions in order to provide clear procedures on the prevention and reduction of the effects arising from disasters (earthquakes, tsunamis, floods, volcanic eruptions) affecting South American infrastructure and establish plans for reactivating connectivity and public infrastructure. A proposal known as "Methodology for Risk and Disaster Prevention and Management in Infrastructure" was developed in 2013, and presented to the countries at the GTE meeting held on September 25, 2013, in Santiago de Chile.[1]

Geographic Information System and Cartography: With the aim of providing COSIPLAN with a georeferencing tool to guide Territorial Planning in South America and support decision-making processes, this system started to be developed in 2011, the basic technical guidelines of which were approved at a Ministerial Meeting held on November 16, 2012, in Lima. Since then, it went on developing, and its implementation is currently supported by the Common Initiatives Fund of UNASUR. On the basis of these agreements and as part of the Work Plan 2013, progress was made in the development and implementation of the system at a series of GTE meetings.

COSIPLAN Information System: Based on the progress attained since 2004 in the continuous update of the Project Database and as provided for in the PAE, it has been possible to design a single instrument to gather the basic information on each project, which is updated by one person responsible per country or countries, depending on the territorial scope[2] of the project. Continuous upgrades in the information technology tools have enabled the improvement of project file information quality. In 2013, the information system went on improving, with the development of new tools that make up a three-component system: (i) the COSIPLAN Project Database, (i) the API Structured Projects Database, and (ii) the API Continuous Monitoring System (CMS).

C. THE COSIPLAN PROJECT PORTFOLIO FOR THE INTEGRATION OF REGIONAL INFRASTRUCTURE IN SOUTH AMERICA

Portfolio Evolution: One of the objectives of COSIPLAN, as laid down in its Strategic Action Plan (PAE) 2012-2022, consists in revising and updating the COSIPLAN Project Portfolio on the basis of the development and application of the Indicative Territorial Planning Methodology. The Project Portfolio was created in 2004 with 335 infrastructure projects organized into 40 project groups, with an investment amount estimated at US$37,424.8 million. In 2013, the COSIPLAN Project Portfolio is made up of 583 integration infrastructure projects in the transportation, energy and communications sectors, organized into 48 project groups and nine Integration and Development Hubs, amounting to an estimated investment of US$157,730.5 million.

Portfolio Sector-Based Breakdown: Transportation projects account for 88.2% of all the projects and for 67.7% of the total investment, whereas energy projects account for 10.1% and 32.3%, respectively. Road transport projects predominate in the Portfolio, representing almost half of the initiatives and more than 50% of the sectoral investment, followed in order of importance by rail, sea and river transport projects. More and more significance is being attached to border crossing projects, which are far more intensive in development and intra- and inter-institutional coordination issues than in infrastructure, while playing an important role in the facilitation of integration and regional trade. The Portfolio in the communications sector accounts for less than 2% of all the projects, with an investment amount estimated at US$44.7 million.

The COSIPLAN Portfolio Territorial Scope: From the perspective of their territorial location, 481 COSIPLAN Portfolio projects are national in scope. However, most of these projects contribute directly to the completion, improvement or adaptation of infrastructure for integration purposes and therefore have a regional impact. Of the remaining projects, 96 are binational and 5, trinational. There are only two multinational projects, concerned with telecommunications among Bolivia, Colombia, Ecuador, Peru, and Venezuela in Project Group 10 of the Andean Hub.

[1] GTE Meeting on Risk and Disaster Prevention and Management, September 25, 2013, Santiago de Chile http://www.iirsa.org/Event/Detail?Id=230

[2] National, binational or multinational projects.

Portfolio Financing by Source: The main financial source for projects is the public sector (74.5%). The private sector as well as public-private partnerships contribute with similar percentages: 12.5% and 13%, respectively.

Portfolio Schedule according to the Life Cycle Methodology and the Classification by Stage: Of the total 583 projects, 172 are at the execution stage, with an estimated investment of little less than half of the Portfolio (US$75,267.3 million, accounting for 47.7%); 162 are at the profiling stage, with an estimated amount of US$19,669.5 million (12.5% of the Portfolio); 164 are at the pre-execution stage, with an estimated investment amount of US$46,503.9 million (29.5%); while 85 projects have been completed, with an investment amount of US$16,289.8 million (10.3% of the Portfolio).

The monitoring module is expected to be applied to the COSIPLAN Portfolio projects as part of Work Plan 2014. Thus, it will be possible to rely on updated information on the life cycle schedule of each project and estimate their date of completion more accurately.

PART II – PORTFOLIO PROJECTS BY INTEGRATION AND DEVELOPMENT HUB

The Second Part of this Report gathers and organizes all the information related to the COSIPLAN Project Portfolio 2013 in an executive format, by presenting the distribution of the projects and their estimated investment amounts by Hub; the sector- and subsector-based breakdown of the COSIPLAN Portfolio by Hub; and the type of project by sector and subsector, differentiating projects according to the type of works involved:

- New constructions: airports, sea and river ports, bridges, tunnels, roads, railroads, power plants, interconnection networks;
- Expansion: airports, roads, land infrastructure at sea and river ports, infrastructure at border control centers;
- Rehabilitation and maintenance: roads and structures, railroads; and
- Adaptation: sea and river ports, energy interconnections, airports.

The sections dealing with each Hub present a map showing the location of the Hub, its area of influence, and its project groups; the strategic functions of the project groups; a list of the projects within each group, including their estimated investment amounts and the execution stage in which they are to date; and finally, their distribution in each Hub according to their implementation stage and sectoral breakdown.

From the analysis of the Portfolio projects by Integration and Development Hub, the following observations can be derived:

The Amazon Hub is made up of 88 projects organized into eight project groups with an estimated investment of US$28,948.9 million. Even though more than 50% of the projects involve road and river transportation, rail projects account for 43.3% of the estimated investment.

Based on the proposal made by Brazil to incorporate its northeastern and central-western territories into the Amazon Hub, an exercise was carried out in 2013 to apply the Indicative Territorial Planning Methodology to this Hub. As a result, the area of influence of Project Group 5, Connection between the Amazon Basin and Northern Northeastern Brazil, was enlarged by incorporating 14 projects, reaching a total number of 17. The estimated investment amount of this project group is US$15,817 million. Furthermore, a new project group was created, Group 8: Porto Velho - Southern Northeastern Brazil Rail Connection, which includes 11 projects with an estimated investment of US$6,510 million.

The Andean Hub is made up of 65 projects organized into 10 project groups, with an investment amount estimated at US$9,183.5 million, in which road projects predominate, followed by border crossing facilities. Colombian projects Bogotá - Buenaventura Road Corridor and Bogotá - Cúcuta Road Corridor account for 36.5% of the estimated investment.

The Capricorn Hub is made up of 80 projects organized into five project groups, with an estimated amount of US$13,974.6 million. More than 80% of the estimated investment amount is allocated to the road and rail sectors.

The Guianese Shield Hub is made up of 20 projects organized into four project groups, with an estimated investment of US$4,560.4 million. Two thirds of this amount are for the Surinamese project known as "Integrated Masterplan of Coastal Protection Albina - Nickerie."

The Paraguay-Paraná Waterway Hub is made up of 94 projects organized into five project groups, with an investment amount estimated at US$7,865.1 million. This Hub ranks second as to the number of projects, but its estimated investment accounts only for 5% of the total Portfolio, since more than half of the projects involve river transportation and do not require huge amounts to be executed.

The Central Interoceanic Hub is made up of 62 projects organized into five project groups, with an estimated investment of US$8,830.5 million. More than 50% of the projects relate to road transport, and 80% of the estimated investment is allocated to road and rail projects.

The MERCOSUR-Chile Hub is made up of 122 projects organized into six project groups, with an investment estimated at US$52,701.1 million. The projects known as "Railway Project between Los Andes, Chile, and Mendoza, Argentina (Central Trans-Andean Railway)" and "Construction of the Corpus Christi Hydroelectric Power Station" account for 17.6% of the estimated investment of the Hub.

The Peru-Brazil-Bolivia Hub is made up of 26 projects organized into three project groups, with an estimated investment of US$29,089.8 million. Of this amount, 62.6% goes to the Brazilian project known as "Madeira River Hydroelectric Power Complex (Santo Antônio and Jirau Hydroelectric Power Stations)," which is being executed.

The Southern Hub is made up of 28 projects organized into two project groups, with an estimated investment amount of US$2,762 million. The projects requiring the largest investment are Bahía Blanca - San Carlos de Bariloche Railway Branch Line and Construction of a 500-kV Comahue - Cuyo Region Electricity Interconnection, accounting for 27.1% of the total estimated amount.

PART I

1. BACKGROUND AND STRATEGIC FOCUS

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

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

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

At their Sixth Summit (Lima, November 2012), the UNASUR presidents approved the COSIPLAN Strategic Action Plan (PAE) 2012-2022 and the Integration Priority Project Agenda (API). Furthermore, they stressed their "will to promote the intensive use of Information and Communication Technologies (ICTs) and the construction of the South American Fiber Optic Ring" (Declaration of Sixth Summit of UNASUR, 2012).

The following year, on the occasion of their VII Ordinary Meeting (Paramaribo, August 2013), the heads of State and government expressed their belief that one of the pillars of a long-term strategic vision of UNASUR is the "strengthening of the physical infrastructure and connectivity among Member States to promote the integration of their citizens and encourage the establishment of the South American identity." With regard to the financing of physical integration, they requested the Council to analyze the possibility of establishing mechanisms to finance infrastructure projects, with participation from regional development banks. Moreover, they urged COSIPLAN to move forward in the interconnection of fiber optic networks in order to make "telecommunications more secure, strengthen the development of regional technologies and promote digital inclusion" (Declaration of the Seventh Summit of UNASUR, 2013).

As can be seen from the foregoing, year after year the UNASUR presidents renew their commitment to the physical integration of South America by incorporating this topic into the UNASUR agenda and emphasizing the importance of the work undertaken within the framework of COSIPLAN, which is encouraged to continue its efforts towards attaining an effective territorial connectivity.

2. THE COSIPLAN STRATEGIC ACTION PLAN

Throughout 2011, COSIPLAN made headway towards devising the two instruments that would structure its work in the next ten years: the Strategic Action Plan (PAE) 2012-2022 and the Integration Priority Project Agenda (API).

The PAE 2012-2022 is the result of a discussion process and consensuses reached by COSIPLAN, designed on the basis of proposals submitted by officials from infrastructure and/or planning ministries or similar bodies of the UNASUR Member States. The highlights of the PAE are the following:

- It recognizes the results in regional infrastructure integration attained by IIRSA, particularly: (i) the development and application of the Indicative Territorial Planning Methodology, which gave rise to a consensus-built portfolio of more than 500 transport, energy and communications infrastructure projects, organized in nine Integration and Development Hubs; (ii) the creation of the Implementation Agenda Based on Consensus (AIC, its acronym in Spanish) 2005-2010, consisting in a set of 31 priority projects having a high impact on the physical integration of the territory; (iii) the design of projects related to Sectoral Integration Processes (PSIs); and (iv) the development and application of new planning methodologies and tools.

- It is based on the UNASUR Constitutive Treaty and the COSIPLAN Statutes and Regulations. The general and specific objectives of COSIPLAN are closely linked with those related to infrastructure as established in the UNASUR Constitutive Treaty:

  "d) Energy integration for the integrated, sustainable use of the region's resources, in a spirit of solidarity;"

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

  "m) Industrial and productive integration, focusing especially on small- and medium-size enterprises, cooperatives, networks, and other forms of productive organization."

- For every specific objective of COSIPLAN, it institutes a series of actions including their expected deliverables and estimated implementation time or frequency of implementation. Likewise, it identifies the major instruments required for the implementation of these actions and provides for the development of mechanisms designed to monitor and assess them, considering that the PAE will be subject to review five years after its launch.

3. THE COSIPLAN PROJECT PORTFOLIO

The PAE includes the challenges posed by the South American presidents to COSIPLAN, one of the most important being securing political support and viable funding for the projects that make up the Portfolio of Projects for the Integration of Regional Infrastructure in South America (hereinafter, the COSIPLAN Portfolio), particularly for its Integration Priority Project Agenda.

Similarly, crucial aspects to support this work are established, namely to enhance the role of the Council in implementing projects and to revise and apply the territorial planning methodologies and tools. The purpose of all this is to select and implement projects that result in sustainable economic and social development in South America.

In this context, since its creation, CONSIPLAN has been moving forward in these lines of action by including in its annual work plans specific activities aimed at attaining the above-mentioned purpose, namely: (i) the continuous update and review of the project data contained in the COSIPLAN Information System; (ii) the organization of meetings of the Executive Technical Groups to update the Portfolio projects as well as to examine and improve the planning methodologies and tools; (iii) the application of the planning methodologies to project groups or to API projects in order to identify actions that are complementary to the infrastructure works, thus incorporating environmental, social, production integration and logistics, and other aspects into planning; and (iv) the development, enhancement and implementation of tools to support territorial analysis.

This document purports to summarize the efforts made and the results attained by the COSIPLAN in these matters during 2013.

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 work undertaken by the Initiative for the Integration of Regional Infrastructure in South America (IIRSA) throughout its first ten years since its creation and by the UNASUR South American Infrastructure and Planning Council (COSIPLAN) since 2011 focuses on infrastructure project planning as a key component of territorial development.

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 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.

1. THE TERRITORY IN THE FOCUS OF ATTENTION: THE INTEGRATION AND DEVELOPMENT HUBS

This section explores the importance of the territory as a space to achieve sustainable development and the hierarchy gained by this concept on the COSIPLAN work agenda. It presents the concept of Integration and Development Hubs as the element that provides the backbone and organization of the territory and is linked with infrastructure conceived as a physical integration component that catalyzes economic, social and environmental development in the geographical areas concerned.

A) THE CONCEPT OF INTEGRATION AND DEVELOPMENT HUBS

The concept around which territorial planning was organized is that of Integration and Development Hubs. An Integration and Development Hub 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 made it possible to identify and agree upon infrastructure projects for integration purposes under a common vision for the twelve South American countries within the framework of an indicative territorial planning process. On the basis of the economic, social and environmental characterization of the area of influence of the Hubs, a direct coordination of projects and their respective sites is sought.

The COSIPLAN Strategic Action Plan (PAE) 2012-2022[1] adds a broader dimension to this concept by emphasizing the need to give priority to sustainable development and to act on the reduction of asymmetries in the region. Thus, the design of the COSIPLAN projects should take into account their contribution to the endogenous development of the region and to the improvement of the living conditions of the population in the area of influence of the projects.

[1] For more information on the PAE, visit http://www.iirsa.org/Page/Detail?menuItemId=38

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

a. Geographical coverage of countries and regions: The Hubs group territories that allow the presence and participation of all twelve South American countries 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 that also consider the production potential of the region.

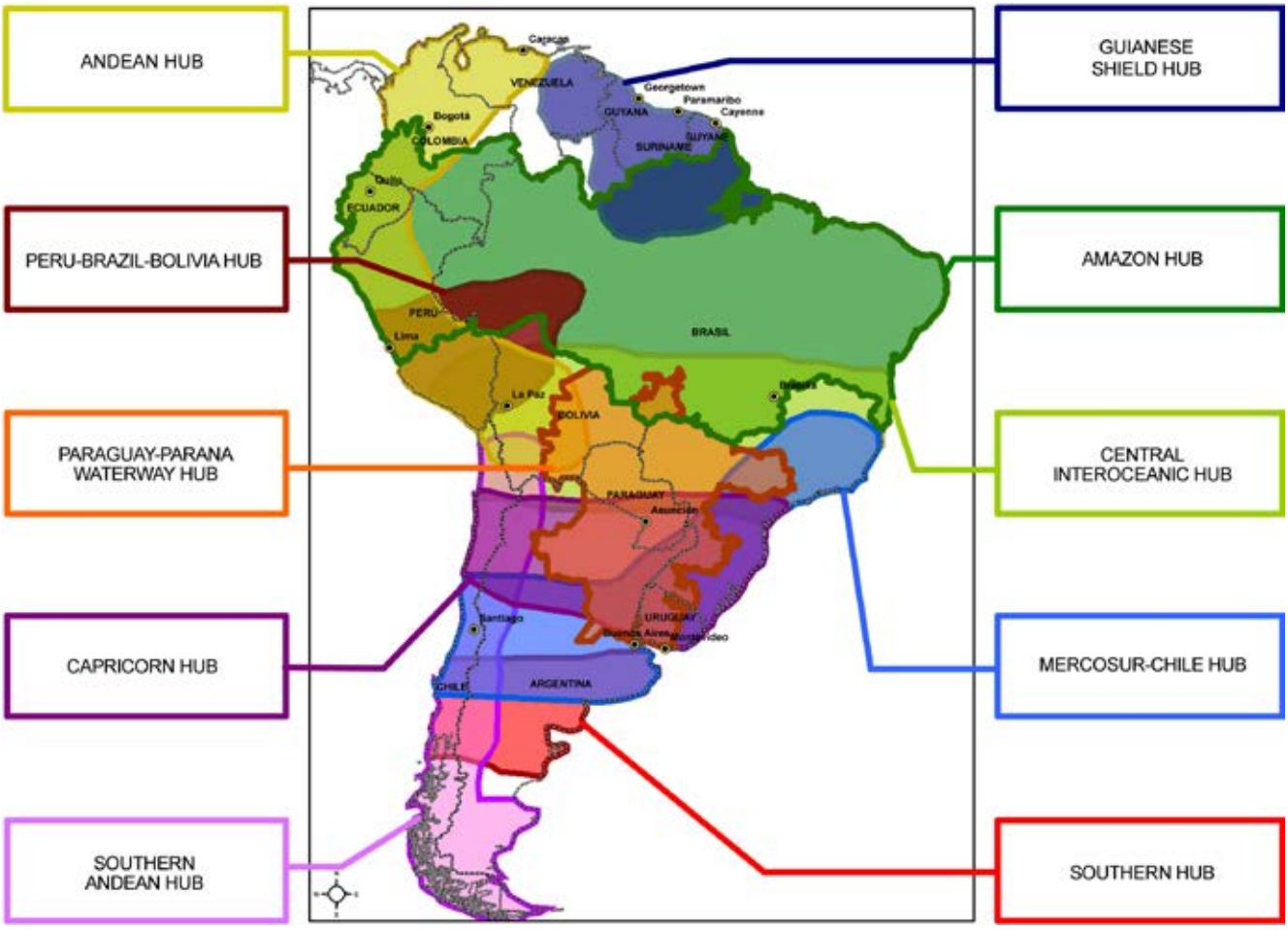
c. Investments in the areas of influence of the Hubs: Account has been taken of the volume of the investments recently made, of those in execution, and also of the funds planned to be invested in the short run within the area of influence of each Hub.

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 of each region, forest reserves, highly fragile ecological areas, as well as the rights and opportunities of local population have been identified.

The application of these criteria along with an analysis of the territory led to the identification of ten Integration and Development Hubs,[2] which were validated by the South American countries.

Map 1 • **Integration and Development Hubs**



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

As a complement to the territorial aspects, the countries recognized the importance of identifying the regulatory and institutional obstacles hindering the development and operation of basic infrastructure in the region and, therefore, of proposing actions to overcome them. The PAE incorporates these issues in a series of specific actions known as "Sectoral Integration Processes".[3]

B) THE INTEGRATION AND DEVELOPMENT HUBS AND INFRASTRUCTURE

Once the geographic area of the Hubs was established following the above-mentioned criteria, a key aspect was the link between them and infrastructure.

The development of the Indicative Territorial Planning 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.

In point of fact, such vision involves the interrelation of three great dimensions and physical infrastructure. Firstly, physical infrastructure serves as a platform for the growth and competitiveness of the immediate area of influence, the internal space, and the domestic markets and, consequently, broadens the competitive advantages for South American economies to become active players in the regional and global economy. Secondly, the primary goal associated with physical infrastructure enhancement has significant social implications, since it is a tool to create new opportunities for the inhabitants of the poorest, most isolated areas, and to facilitate their integration into the regional economy. Lastly, the approach places emphasis on environmental sustainability, as reflected in its structured project selection, execution, monitoring, and assessment process, and in its consideration of the combined effect of the whole Portfolio and its territorial repercussions for South America.

2. THE INDICATIVE TERRITORIAL PLANNING METHODOLOGY

This section offers a review of the Indicative Planning Methodology application process, which began with the launch of IIRSA. Within this framework, the concepts on which the methodology is based and the two major stages at which it was implemented are described.

Such process continued with the creation of COSIPLAN. Consequently, this section also addresses the decision of COSIPLAN to make this experience its own and presents the objectives and actions set out in the PAE that relate to the planning of infrastructure for South American integration purposes.

A) THE TERRITORIAL PLANNING PROCESS WITHIN THE FRAMEWORK OF IIRSA

Under the umbrella of IIRSA, South America acted for the first time as a single, integrated unit, one of its results being the creation of a Project Portfolio concerned with infrastructure in the transport, energy and communications sectors.

The structuring of this Portfolio was possible thanks to the development and application of the Indicative Territorial Planning Methodology. As mentioned in the preceding section, this methodology is based on the identification of Integration and Development Hubs, which organize the South American territory and structure the Project Portfolio. It was applied through Executive Technical Group (GTE) meetings in a participative working environment that involved the twelve countries.

[3] For more information on the Sectoral Integration Processes, visit http://www.iirsa.org/Page/Detail?menuItemId=36

The **First Stage of Territorial Planning** took place between 2003 and 2004 and included two phases:

- First phase: Set-up of the Project Portfolio based on the identification of the project groups of each Hub.
- Second phase: Establishment of the analysis factors and assessment of the project groups.

In the first phase, the grouping of projects within each Hub was based on the concept of synergies, which led to define the project groups as well as their anchor projects and strategic functions.

MAIN CONCEPTS OF THE INDICATIVE TERRITORIAL PLANNING METHODOLOGY

Project Group

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 Project

The anchor project gives meaning to the grouping process and makes synergies viable. It is not necessarily the largest-sized project. 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.

Hinge Project

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.

The second phase of the methodology implementation started once the Project Portfolio was set up following the above-described process. This second phase consisted in defining a structure of factors to grasp the attributes of each project group. The two strategic dimensions of this analysis identified by the countries are:

- Impacts upon sustainable development, in terms of its economic, social, and environmental dimensions;
- Implementation feasibility, based on technical viability, capacity to obtain funding from different sources, and political convergence.

The assessment and prioritization of the project groups was conducted on the basis of these two dimensions. This exercise resulted in the need to (i) 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; (ii) improve the capacity for formulating, preparing and assessing integration projects in order to strengthen their inherent quality; and (iii) contribute to strengthening the technical skills of the national teams responsible for infrastructure planning.

To address these needs, the **Second Stage of Territorial Planning** was launched in 2005, framed under the concept of "improvement and a qualitative leap forward in the planning process." In this context, 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 analytical tools and territorial planning methodologies were developed, particularly the following:

- Strategic Environmental and Social Evaluation (EASE) Methodology
- Production Integration and Logistics (IPrLg) Methodology
- Project Portfolio Database

B) THE TERRITORIAL PLANNING PROCESS WITHIN THE FRAMEWORK OF COSIPLAN

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 countries of the region. 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. The COSIPLAN is the forum where political and strategic discussions are held with a view to implementing the UNASUR member countries' regional infrastructure integration.

Throughout 2011, COSIPLAN, which includes IIRSA as its technical forum, made headway towards the design of the Strategic Action Plan (PAE) 2012-2022. The PAE, which structures the strategic lines of work of COSIPLAN for the following ten years, recognizes the results in regional infrastructure planning attained by IIRSA, and incorporates this experience by developing its annual work plans to ensure the continuity of the work undertaken by IIRSA and enhance it, thus complying with the six specific objectives of COSIPLAN:

1. Promote regional connectivity by building infrastructure networks for physical integration purposes, considering sustainable social and economic development criteria, and preserving the environment and the balance of ecosystems;
2. Enhance the capacity and potential of local and regional populations through the development of infrastructure, with the aim of improving their life quality and expectancy;
3. Design regional planning strategies for the development of infrastructure;
4. Consolidate the Project Portfolio for the Integration of Regional Infrastructure in South America;
5. Encourage the intensive use of information and communication technologies with a view to overcoming geographical and operational barriers in the region;
6. Stimulate the application of methodologies and the development of sectoral processes and complementary actions in order to facilitate the design, execution and operation of physical integration projects.

[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); (ii) Training Workshop on Integration and Development of South American Regional Infrastructure, September 2009 (http://www.iirsa.org/Event/Detail?Id=136).

[5] BID, CAF and FONPLATA earmarked specific line items for pre-investment studies for physical integration projects, with special emphasis on the Portfolio projects.

The presidents commissioned COSIPLAN, among other central tasks, to identify and select a set of high-impact works for the integration and development of South America. The Integration Priority Project Agenda (API),[6] which is the result of the work undertaken during 2011 by the twelve countries within COSIPLAN, was set up in this context.

API is made up of a subset of Portfolio projects grouped into 31 strategic structured projects with a high impact on the physical integration and socioeconomic development of the region, involving an investment amount estimated at US$16,713.8 million. Its purpose is to encourage connectivity in the region through the construction and efficient operation of infrastructure, while taking into account sustainable social and economic development criteria and preserving the environment and the balance of ecosystems.

C) THE APPLICATION OF THE INDICATIVE TERRITORIAL PLANNING METHODOLOGY TO THE AMAZON HUB

On the occasion of the meetings of the Executive Technical Groups (GTEs) on the update of the COSIPLAN Project Portfolio held in 2011, the Brazilian delegates submitted a proposal to incorporate the northeastern and central-western regions of Brazil into the territorial planning of South America.

This proposal required a study to analyze the alternatives for including such regions in one of the Integration and Development Hubs. During a meeting held in Lima in September 2012, a proposal to incorporate these territories into the Amazon Hub was presented, as a result of which the work plan for 2013 provided for the application of the Indicative Territorial Planning Methodology to the Amazon Hub.

The following are the main findings of the analysis of the social, economic and environmental characteristics of the territory.[7] The nine states of Brazil's Northeast Region (Maranhão, Piauí, Ceará, Rio Grande do Norte, Paraíba, Pernambuco, Alagoas, Sergipe y Bahia) and the Brazilian states of Tocantins y Goiás have been incorporated into the Amazon Hub. These states and the Brazilian, Colombian, Ecuadorian and Peruvian territories forming part of the original Hub result in an area of 8,059,085 km2, accounting for 45% of the total area of the South American continent. Thus, 2,172,119 km2 have been added to the area of influence of the Hub.

Mapa 2 · **Eje del Amazonas con territorios del Nordeste y Centro Oeste de Brasil**

[6] For more information on API, visit http://www.iirsa.org/Page/Detail?menuItemId=33

[7] See "Elements for the Sustainable Development of the Territory of the Expanded Amazon Hub", April 2013.

In terms of demography, the 119,484,949 inhabitants of the Amazon Hub account for 31% of the South American population. When compared with that of its original territory, the population of the expanded Amazon Hub has risen by 127%, accounting for more than 60 million inhabitants, i.e. the expansion has resulted in a more than twofold increase. This entails an enormous potential opportunity for economic, trade and cultural integration.

As regards the economy, the incorporation of the new territory has led to a 102% increase in GDP —from US$404,094 million to US$815,218 million—, which opens up new opportunities for economic integration and, particularly, affords access to the Pacific markets for a huge number of consumers living in northeastern Brazil, an area that has experienced economic dynamism and growth in the last few years.

In the social field, using the Human Development Index (HDI) as an indicator of welfare, the overall HDI of the countries involved in the Hub is high, although this average varies across them: the lowest HDI scores are held by the administrative units in the Amazon rainforest, some sierra areas, and part of the Brazilian northeastern macro-region, while the Pacific coast, where big cities such as Lima, Guayaquil, and Cali are located, has a very high HDI.

As far as the environment and indigenous peoples are concerned, there is a significant number of protected areas, especially in the Amazon basin states, but they become less common near the Atlantic and Pacific coasts. At present, about 2,350,000 km^2 are under some level of protection. In Brazil, the states of Amazonas and Pará stand out, with more than 1,400,000 km^2 of protected territory, accounting for about 60% of the total protected area in the Hub.

Based on the information gathered by the study and on the analysis of the existing and planned infrastructure in the recently incorporated Brazilian states, the Indicative Territorial Planning Methodology was applied at the GTE Meeting on the Amazon Hub held in March 2013.[8] As a result of this exercise, the area of influence of Project Group 5: Connection between the Amazon Basin and Northern Northeastern Brazil, was expanded to include 14 projects, reaching a total number of 17. The estimated investment amount of this project group is US$15,817 million. Furthermore, a new project group was created, Group 8: Porto Velho - Southern Northeastern Brazil Rail Connection, which includes 11 projects with an estimated investment of US$6,510 million.[9]

D) THE COSIPLAN PLANNING METHODOLOGIES AND TOOLS

As mentioned, several instruments have been developed to strengthen and enrich the South American infrastructure sustainable planning process. These instruments fall into two categories: (i) methodologies aimed at incorporating environmental, social, production integration and logistics, and regulatory and legal aspects, among others; and (ii) tools that support and facilitate the analysis of the territory through the systematization of project information.

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

i. Strategic Environmental and Social Evaluation (EASE) Methodology

One of the actions established in the PAE is to apply the Strategic Environmental and Social Evaluation (EASE) Methodology,[10] the purpose of which 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 the API projects.

[8] GTE Meeting on the Amazon Hub, March 20-21, 2013, Rio de Janeiro. http://www.iirsa.org/Event/Detail?Id=213

[9] For more information on the Amazon Hub projects, see the relevant chapter in this publication.

[10] For more information on the EASE Methodology, visit http://www.iirsa.org/Page/Detail?menuItemId=73

A very important aspect of the application of EASE is its contribution to the institutional strengthening of the countries through the participation and full commitment of national and subnational governments, appointed as counterparts to form part of the work team.

Given its strategic natures, the EASE Methodology can be applied at different scales and levels of analysis, basically using secondary information and experts' and key actors' opinions. This process creates a constructive dialogue between the governments of the countries involved as well as between the technical team responsible for applying it and the key local and regional actors in the area of influence of the projects. Throughout the implementation of the methodology, numerous meeting spaces for consultation and feedback are created, thus contributing to validating the results of the application exercise through the design of an action plan.

Since its development, the EASE Methodology has been applied as follows:

- 2008: Project Group 6 of the Andean Hub: Colombia - Ecuador II (Bogotá - Mocoa - Tena - Zamora - Palanda - Loja) Connection (Colombia - Ecuador)
- 2009-2010: Project Group 2 of the Southern Hub: Binational Touristic Circuit of the Lakes Area (Argentina - Chile)
- 2013: API Project: Multimodal Transportation in the Laguna Merín and Lagoa dos Patos System (Brazil - Uruguay)
- 2013: National Project: Pehuenche Program (Argentina)

The main activities provided for in the Work Plan 2013 were to complete the methodology application to API project Multimodal Transportation in the Laguna Merín and Lagoa dos Patos System (Uruguay - Brazil), and to organize a GTE meeting on this matter. Such meeting was held on September 24 in Santiago de Chile with the purpose of presenting the results of the applications conducted in 2013 and of reaching consensus on the next EASE-related actions and their potential complementarity with other COSIPLAN territorial evaluation tools.[11]

MAIN CONCLUSIONS OF THE MEETING OF THE EXECUTIVE TECHNICAL GROUP ON EASE

- The EASE Methodology is a valuable tool to incorporate environmental and social issues into the planning of infrastructure projects at both the national and regional levels.
- The participation plan proposed by the EASE Methodology is a suitable way to promote the involvement of civil society in project planning and the dissemination of the COSIPLAN actions.
- It is important to promote the EASE Methodology application to other API projects, project groups or national projects in order to create consistent knowledge on its use and advantages.
- It is important to coordinate the EASE Methodology with other planning tools included in the PAE, such as the Integration Territorial Programs.

[11] GTE on EASE, September 24, 2013, Santiago de Chile. http://www.iirsa.org/Event/Detail?Id=229

ii. Production Integration and Logistics (IPrLg) Methodology

Another PAE action related to the territorial planning methodologies is to revise and apply the Production Integration and Logistics Methodology.[12] The objective of the 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.

The methodology is based on three pillars: first, the collection of secondary information as a basis for the formulation of hypotheses about the potential of a project group or an API project for contributing to production integration and to the development of logistics services; second, the validation or adjustment of the hypotheses through consultations with the relevant actors at the central and local levels (for instance, public, private and public-private institutions, trade union associations and companies); and finally, the articulation of infrastructure projects with the removal of obstacles and the business opportunities identified based on the analysis of the information collected. The latter is reflected in an indicative action plan, which is the main outcome of the exercise.

Since its development, the IPrLg Methodology has been applied as follows:

- 2008-2009: Project Group 3 of the Capricorn Hub: Asunción - Paranaguá (Brazil - Paraguay)
- 2008-2009: Project Group 5 of the Central Interoceanic Hub: Connections of the Hub to the Pacific (Bolivia - Chile - Peru)
- 2009-2010: Project Group 5 of the Andean Hub: Colombia - Ecuador - Peru Connection
- 2010-2011: Project Group 4 of the MERCOSUR-Chile Hub: Coquimbo - Argentine Central Region - Paysandú (Argentina - Chile - Uruguay)

In November 2011, within the framework of the COSIPLAN Work Plan, a GTE meeting on IPrLg was held with the purpose of revising this methodology and proposing any adjustment necessary to facilitate its implementation and enhance its impact on regional infrastructure planning.[13] This task was carried out during 2012, and the revised methodology was approved by the COSIPLAN Ministers at the Third Ordinary Meeting of COSIPLAN.[14]

LESSONS LEARNED FROM THE IPRLG METHODOLOGY APPLICATIONS

- The definition of the area of influence must take into account the production integration and logistics chains selected in the analysis, even if this entails exceeding the territory of the project group or API project concerned. The maximum limit set is the territory of the relevant Hub.
- Tourism is a sector of the economy influenced by the implementation of infrastructure, and accordingly must be included in the analysis of the production activities.
- Field interviews are essential to validate the hypotheses proposed during the exercise; therefore, a greater number of interviews is recommended, including the active participation of the private sector.
- The focus of analysis is broadened to include all the logistics aspects, not only the value-added logistics services.

[12] For more information on IPrLg, visit http://www.iirsa.org/Page/Detail?menuItemId=74

[13] GTE Meeting on IPrLg, October 11, 2011, Buenos Aires. http://www.iirsa.org/Event/Detail?Id=180

[14] III Meeting of COSIPLAN, November 16, 2012, Lima. http://www.iirsa.org/Event/Detail?Id=204

iii. Integration Territorial Programs (PTIs)

Another objective of the PAE is to design "regional planning strategies for infrastructure development." One of the concrete actions to fulfill this objective is to define a methodology for the creation of Integration Territorial Programs (PTIs) associated with API as well as to design them.

The aim of the Integration Territorial Programs is to make headway with other aspects of the territorial planning process in order to enhance the environmental management of the territory, add production integration and logistics components, harmonize regulatory and legal aspects, and improve the local impact of infrastructure. The technical studies and methodological tools developed (IPrLg and EASE, among others) serve as a reference in designing these programs.

Throughout 2012 and 2013, work was conducted to define the general guidelines for the development of these programs. For this purpose, two API projects were selected as case studies to draft a proposal (Agua Negra Binational Tunnel, and Montevideo - Cacequi Railway Corridor). The technical teams of the countries involved contributed information on the specific projects and their views on what kind of actions might be considered when designing the PTIs, which were taken into account in drafting the guidelines.

The document entitled "Integration Territorial Programs – PTIs: Conceptual Guidelines for their Design" was analyzed at the GTE Meeting on PTIs held in Buenos Aires this year,[15] and was approved by the National Coordinators at their Twenty-Second Meeting, which was held in Lima.[16] During this meeting, some delegations expressed their interest in conducting pilot application to API projects. These first implementations could serve as a basis for preparing a guide on the basic steps to design future PTIs. The following are the main aspects to be taken into account in designing a PTI.

DESIGNING A PTI: MAIN ASPECTS TO BE TAKEN INTO ACCOUNT

- The definition of the objective and strategy guiding the PTI actions in a concerted manner by the countries involved in the API project is the main aspect in the design of a program.
- The existing planning methodologies may contribute to the identification of problems, difficulties and opportunities to be addressed by the PTI.
- It is important to define an area of influence for the PTI that is restricted to the objectives identified and the actions proposed.
- The multi-sectoral and territorial nature of PTIs calls for the participation of different government levels and the building of partnerships with the private sector and other key actors.
- A PTI is an action program requiring a management plan, allocation of resources and responsibilities, and established timeframes for its implementation.

[15] GTE Meeting on PTIs, April 9, 2013, Buenos Aires. http://www.iirsa.org/Event/Detail?Id=216

[16] XXII Meeting of National Coordinators, June 25, 2013, Lima. http://www.iirsa.org/Event/Detail?Id=220

iv. Methodology for Risk and Disaster Prevention and Management in Infrastructure

Another action established in the PAE is to design a methodology for risk and disaster prevention and management that should define clear procedures 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.

Losses associated with geological and climatic events have substantially increased over the last few decades, involving economic losses, due to both the effects of natural phenomena and the structure and type of works constructed. The sectors primarily affected are transport (airports, roads, ports), energy and communications infrastructure, among others. These sectors are an essential part of the COSIPLAN work and of the process of integration of the South American countries.

As part of the Work Plan 2013, a Methodology for Risk and Disaster Prevention and Management in Infrastructure was proposed. This work was based on the exchange of experiences that took place among the countries in 2012,[17] and took into account the importance of creating mechanisms of coordination and cooperation among the relevant bodies of the South American governments. This methodology was presented to the countries at the GTE meeting held on September 25, 2013, in Santiago de Chile.[18]

MAIN CONCLUSIONS OF THE MEETING OF THE EXECUTIVE TECHNICAL GROUP ON THE METHODOLOGY FOR RISK AND DISASTER PREVENTION AND MANAGEMENT IN INFRASTRUCTURE

- Disaster risk prevention and management are an integral part of sustainable development and must be distinguished from the concept of "disaster management."
- It is necessary to get the technical opinion of the specialized national agencies about the methodology and to engage national political and technical teams in its applications.
- The methodology should take into account the application process used in the other COSIPLAN planning tools. [19]
- The development of a User's Handbook on the methodology will help clarify the steps and procedures required to apply this tool, which will be improved based on the experience of pilot applications.

v. Geographic Information System and Cartography

One of the actions set out in the PAE is to "provide COSIPLAN with a georeferencing tool to guide territorial planning in South America" with the aim of supporting the South American integration planning and decision-making process. The purpose is to have a set of basic integrated geo-referenced data on the entire South American region that should serve as an information system on the major integration infrastructure available in the region as well as on other relevant features of its territory.

[17] Workshop on South American Infrastructure Risk and Disaster Management, October 18-19, 2012, Santiago de Chile. http://www.iirsa.org/Event/Detail?Id=209

[18] GTE Meeting on Risk and Disaster Prevention and Management, September 25, 2013, Santiago de Chile. http://www.iirsa.org/Event/Detail?Id=230

[19] The IPrLg and EASE methodologies were applied on the basis of a procedure known as "application/training process." In this regard, a teaching/learning process has been followed, through which the team of experts from the countries is first trained in the methodology and, subsequently, apply it jointly.

The work intended to develop and implement a COSIPLAN Geographic Information System (GIS)[20] aimed at facilitating geospatial analysis for the regional infrastructure planning process began in 2011. During the Third Meeting of the COSIPLAN Ministers, held in 2012, the Basic Technical Guidelines for the Development of a COSIPLAN Geographic Information System (GIS) were approved.[21] The main technical aspects agreed upon by the countries are as follows:

- Scope: A non-exhaustive, preliminary list of fourteen information layers
- Reference Scale: 1:250,000
- Reference System: SIRGAS 2000 or WGS84
- Data's Coordinate System: Latitude/Longitude
- Metadata: Latin American Metadata Profile (LAMP), designed on the basis of ISO Standard 19115 —developed by ISO/TC 211
- Data Availability: Native ESRI Shapefile format, available on the Internet through WMS and transactional WFS

On the basis of this consensus, a series of GTE meetings were held as part of the Work Plan 2013 to make headway with the development and implementation of the system.

Furthermore, the project to develop and implement the COSIPLAN GIS was submitted to the Common Initiatives Fund of UNASUR, which approved a US$230,155 assistance.

GIS AND CARTOGRAPHY – MAIN DEVELOPMENTS

- The results of the survey of geographic data have been positive, as information on the basic layers is available for most of the countries.
- Important progress has been made in the technical definition of the documents entitled Feature Catalogue for the COSIPLAN GIS and Topological Rules and Relationships for the COSIPLAN GIS.
- The Data Dictionary Form has been approved by the countries.

vi. COSIPLAN Information System

With the aim of consolidating the Project Portfolio, the PAE provides for the continuous update of the Project Database. The first version of the Project Database was built in 2004 on the basis of the creation of the Project Portfolio with the purpose of consolidating in a single instrument all the basic information related to each project. Between 2007 and 2010, new improvements were introduced into this IT tool, and the project files were regularly reviewed for information consistency. Each project file is kept updated by one responsible person per country or countries, depending on the geographical scope[22] of the project.

In 2011, the countries 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.

[20] For more information on the GIS and Cartography, visit http://www.iirsa.org/Page/Detail?menuItemId=75

[21] III Meeting of COSIPLAN, November 16, 2012, Lima. http://www.iirsa.org/Event/Detail?Id=204

[22] National, binational or multinational projects.

To incorporate these new instruments, technical and programming adjustments had to be made to the Project Database platform in place. In this context, the COSIPLAN Information System[23] was developed in 2013.

COSIPLAN INFORMATION SYSTEM

- COSIPLAN Project Portfolio Database

This contains the files of each Portfolio project (known as an "individual project" for the purposes of the System) with general information on it organized in modules. Searches and reports can be run on the database based on the query criteria selected by the user.

- API Structured Projects Database

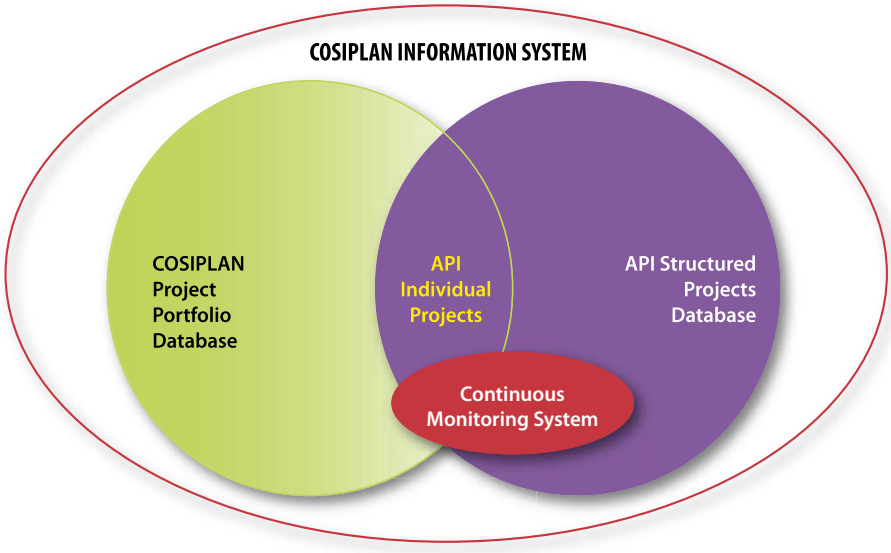
This contains the files of the API structured projects. The information in these files is organized similarly to the data in the individual project files. Both the structured and individual project files are linked to one another. Furthermore, the API Structured Projects Database includes a series of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

- API Continuous Monitoring System (CMS)

The CMS module helps monitor the progress of a project throughout its life cycle (based on the Methodology for Scheduling the Life Cycle of Projects) as well as identify any deviation and its causes. The module controls the progress of structured projects by monitoring the individual projects that make them up.

The three components of the system are interconnected, even for data entering purposes, and can be accessed from the same IT platform using their respective sign-in buttons. The system is currently online,[24] and was presented to the countries at the GTE Meeting on API and the CMS held in August 27 and 28, 2013, in Rio de Janeiro.[25]

Figure 1 • **COSIPLAN Information System Relationship Diagram**



[23] For more information, see "API Progress Report 2013", Annex II.
[24] COSIPLAN Information System, www.iirsa.org/proyectos
[25] GTE Meeting on API and the CMS, August 27-28, 2013, Rio de Janeiro. http://www.iirsa.org/Event/Detail?Id=227

This section presents the evolution of the COSIPLAN Project Portfolio between 2004 and 2013 and the main indicators of the projects included in it. In addition, it provides a detailed analysis of the progress made by the Portfolio projects between 2012 and 2013[1] in five dimensions selected for this purpose: a) number of projects and estimated investment amount; b) territorial scope; c) project breakdown by sector, subsector, and type of works; d) sources of financing; and e) project progress by life cycle stages between 2012 and 2013.

1. BACKGROUND: EVOLUTION OF THE PROJECT PORTFOLIO BETWEEN 2004 AND 2013

The original structuring of IIRSA Project Portfolio took place in 2004 and was subject to successive updates as a result of improvements in the territorial planning process previously mentioned. In 2004, a portfolio made up of 335 infrastructure projects organized into 40 project groups and accounting for an investment estimated at US$37,424.8 million was defined.[2]

In 2010, the last update process under the framework of IIRSA was undertaken through meetings of the GTEs on every Integration and Development Hub. The resulting portfolio included 524 projects organized into 47 project groups, accounting for an investment estimated at US$96,119.2.

In June, 2011, the city of Bogotá hosted meetings of the GTEs on the nine Hubs, during which the Portfolio update exercise was conducted for the first time under the umbrella of COSIPLAN. This activity is carried out every year as part of the COSIPLAN-IIRSA Work Plan. The evolution of the Project Portfolio in the 2004-2013 period follows below.

Table C.1 • **Number of Projects and Estimated Investment - 2004 - 2013**

Year	Number of Projects	Estimated Investment (US$ million)
2004	335	37,424.8
2007	349	60,522.6
2008	514	69,000.0
2009	510	74,542.3
2010	524	96,119.2
2011	531	116,120.6
2012	544	130,139.1
2013	583	157,730.5

Table C.1 shows the importance gained by the COSIPLAN Project Portfolio, which, between 2004 and 2013, grew by more than 57% in number of projects and more than four times in terms of total estimated investment. As can be seen in the table, the countries proactively continue to identify strategic projects for integration purposes by using the territorial planning methodologies and tools and the information system developed within the framework of COSIPLAN to reach an agreement on infrastructure projects.

[1] The period of project evolution analysis is September 2012 to October 2013. This end date has been selected as the cutoff date for gathering the information available to prepare this report. Given Paraguay's recent reincorporation into UNASUR, the data on the country's projects have not been updated in 2013.

[2] The reports on the Project Portfolio updates for the 2004-2010 period are available at http://www.iirsa.org/Page/Detail?menuItemId=32

2. PROGRESS IN THE COSIPLAN PROJECT PORTFOLIO DURING 2013

A. NUMBER OF PROJECTS AND ESTIMATED INVESTMENT AMOUNT

At present, the COSIPLAN Project Portfolio is made up of 583 infrastructure projects for integration purposes in the transportation, energy and communications sectors, organized into 48 project groups and nine Integration and Development Hubs, amounting to an estimated investment of US$157,730.5 million.

Table C.2 • **Annual Change in the COSIPLAN Project Portfolio – 2012-2013 (number of projects and estimated investment)**

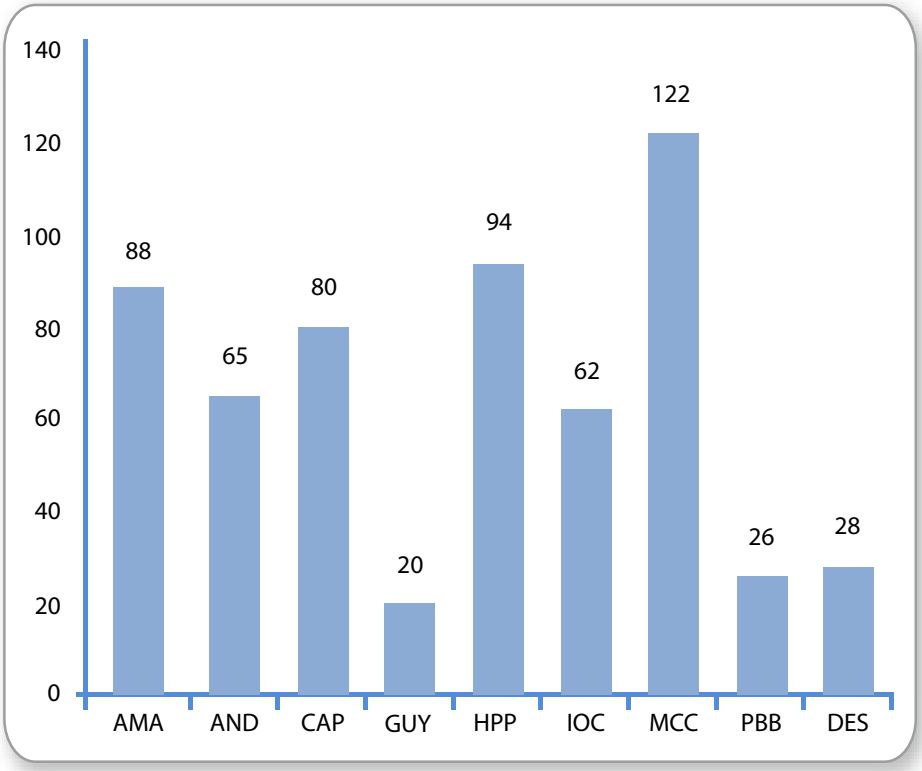
	No. of Projects			Estimated Investment (US$ million)		
HUB	**2012**	**2013**	**Change**	**2012**	**2013**	**Change**
Amazon Hub	64	88	24	8,867.6	28,948.9	20,081.3
Andean Hub	64	65	1	8,692.4	9,183.5	491.1
Capricorn Hub	80	80	0	11,959.1	13,974.6	2,015.5
Guianese Shield Hub	18	20	2	4,465.4	4,560.4	95.0
Paraguay-Paraná Waterway Hub	94	94	0	8,460.7	7,865.1	-595.6
Central Interoceanic Hub	61	62	1	5,209.2	8,830.5	3,621.3
MERCOSUR-Chile Hub	113	122	9	50,974.4	52,701.1	1,726.7
Peru-Brazil-Bolivia Hub	25	26	1	28,878.7	29,089.8	211.1
Southern Hub	27	28	1	2,817.0	2,762.0	-55.0
TOTAL (**)	544	583	39	130,139.1	157,730.5	27,591.4

(*) 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.

(**) 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 in the Capricorn and MERCOSUR - Chile Hubs, and (ii) Paving of the Potosí - Tupiza - Villazón Road, belonging in 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.)

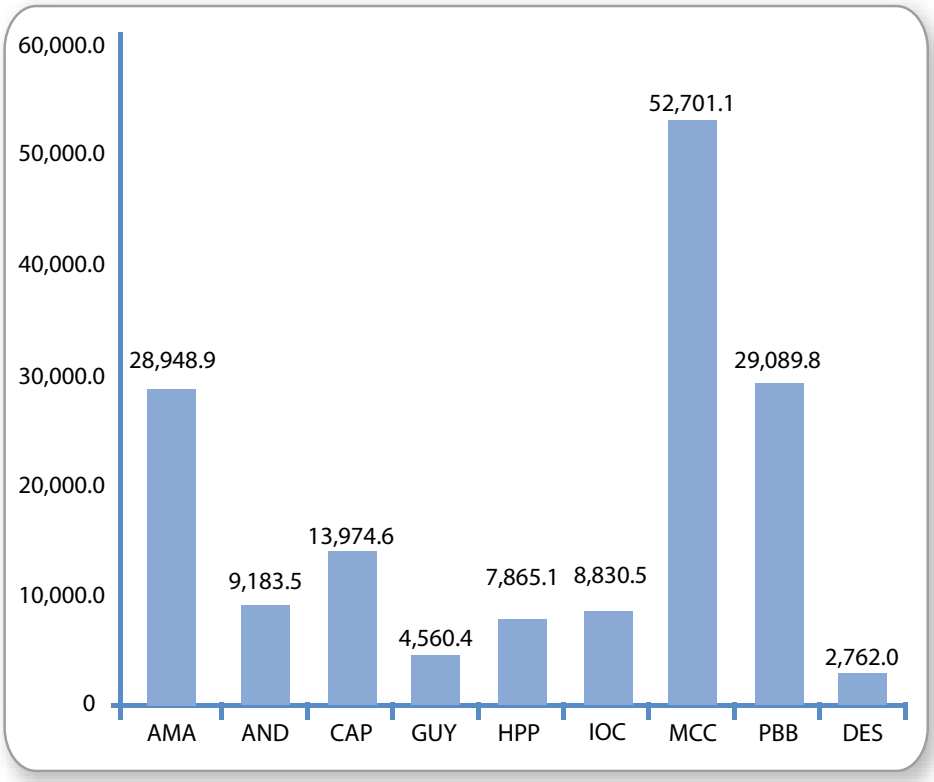
Figures C.1 and C.2 show that two thirds (384) of all the projects in the Portfolio are concentrated in the MERCOSUR-Chile, Paraguay-Paraná Waterway, Amazon, and Capricorn Hubs, which cover most of the territory of Argentina and Brazil, the countries with the greatest number of projects in the Portfolio (178 and 110, respectively).

Figure C.1 · **General Indicators of the COSIPLAN Project Portfolio by Hub (number of projects)**



Two thirds (384) of all the projects are located in the MERCOSUR-Chile, Paraguay - Paraná Waterway, Amazon, and Capricorn Hubs.

Figure C.2 · **General Indicators of the COSIPLAN Project Portfolio by Hub (million US$)**

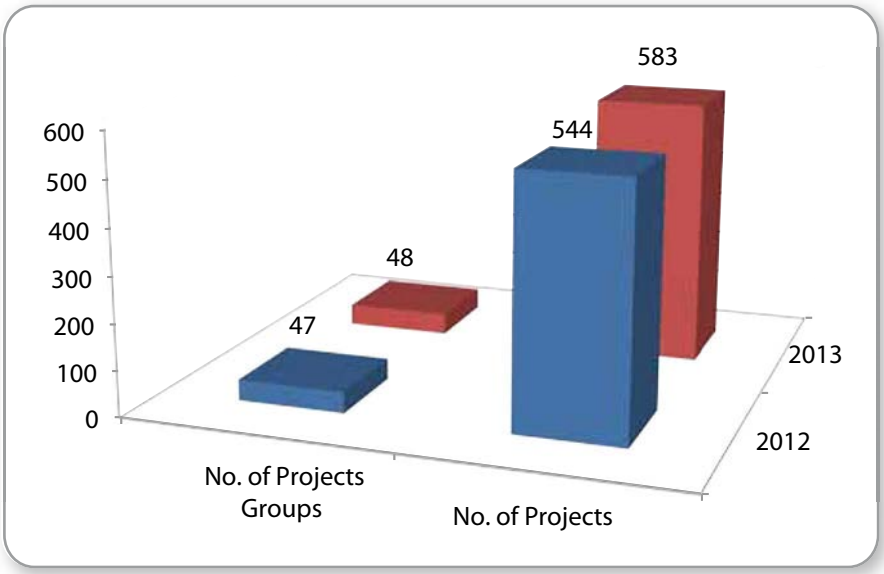


The MERCOSUR-Chile, Amazon, and Peru-Brazil-Bolivia Hubs host 70.2% of the estimated investment. In the case of the MERCOSUR-Chile Hub, 17.2% of its estimated investment is explained by projects "Railway Project between Los Andes, Chile and Mendoza, Argentina (Central Trans-Andean Railway)" and "Construction of the Corpus Christi Hydroelectric Power Station".
Project "Madeira River Hydroelectric Power Complex (Santo Antônio and Jirau Hydroelectric Power Stations)," representing more than 11% of the total Portfolio estimated investment, accounts for 62.6% of the investment in the Peru-Brazil-Bolivia Hub.

Between 2012 and 2013, the total number of projects increased from 544 to 583. The greatest growth occurred in the Amazon Hub (61.5%) as a result of the incorporation of the Brazilian northeastern and central-western territories into it, which led to the creation of a new project group and to the inclusion of fourteen projects in the already-existing Project Group 5.

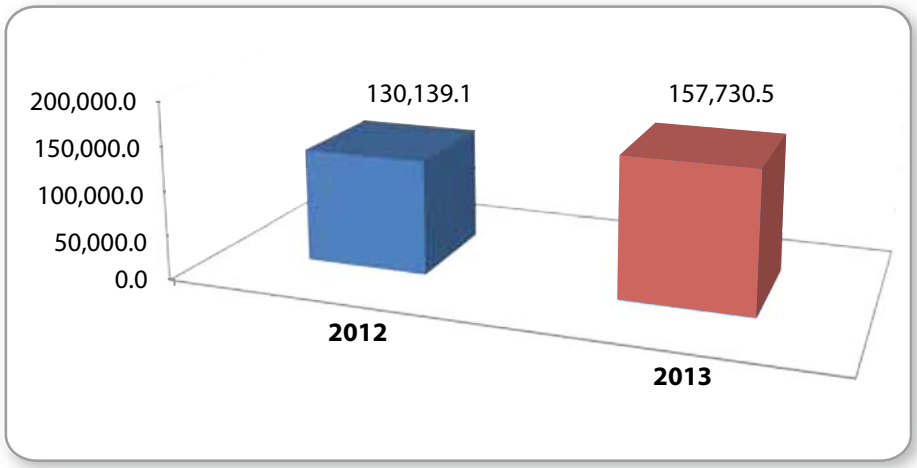
Figures C.3 and C.4 show the current data compared to last year's results.

Figure C.3 • **Evolution of the COSIPLAN Project Portfolio – 2012-2013 (number of project groups and number of projects)**



The incorporation of the Brazilian northeastern and central-western territories into the Amazon Hub led to the inclusion of a new project group in the Hub and accounts for 61,5% of the increase in the total number of projects in the Portfolio.

Figure C.4 • **Evolution of the COSIPLAN Project Portfolio – 2012-2013 (estimated investment in million US$)**

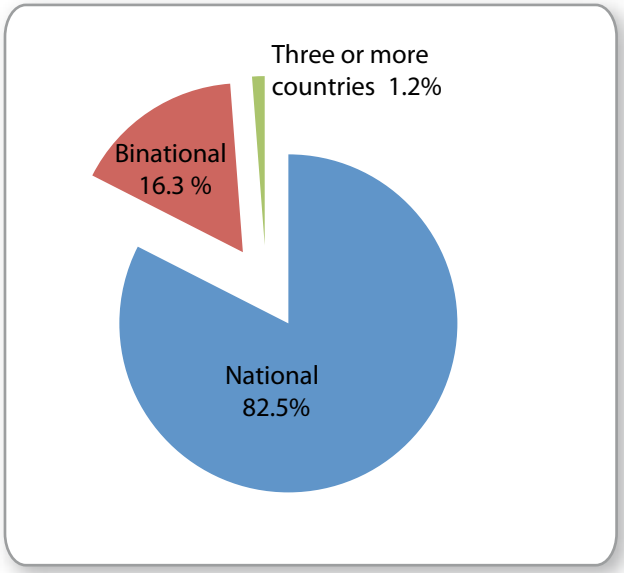


Furthermore, 72.8% of the increase in the estimated investment is explained by the incorporation of nine rail projects located in the new Brazilian territories into the Amazon Hub.

B. TERRITORIAL SCOPE

As shown in Figure C.5, 481 projects of the COSIPLAN Portfolio are exclusively national in scope on account of their territorial location. Most of them, however, contribute directly to the completion, improvement or rehabilitation of infrastructure for the integration of two or more countries and, thus, their impact is regional in scope. Of the other projects, 96 are binational and five are tri-national. There are only two multinational projects, both of which fall in the telecommunications sector, involve Bolivia, Colombia, Ecuador, Peru and Venezuela, and belong to Project Group 10 of the Andean Hub.

Figure C.5 • **Territorial Scope of the COSIPLAN Portfolio Projects**

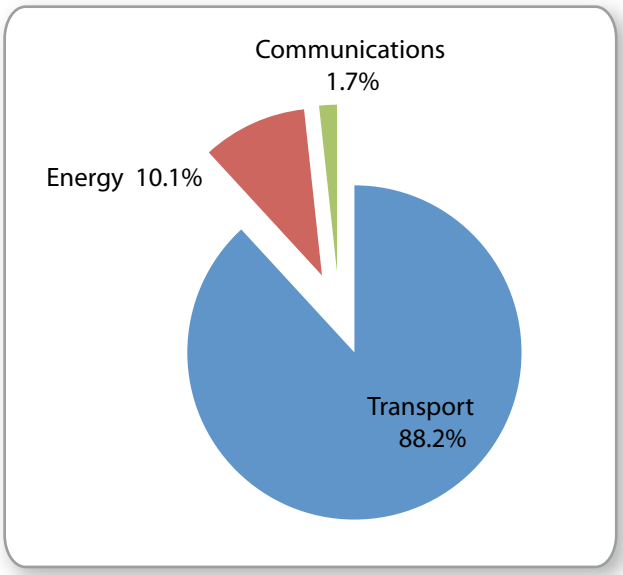


Of the total number of projects in the COSIPLAN Portfolio (583), 481 are national in scope: 144 are located in Argentina, 32 in Bolivia, 81 in Brazil, 41 in Chile, 21 in Colombia, 24 in Ecuador, 3 in Guyana, 39 in Paraguay, 50 in Peru, three in Suriname, 33 in Uruguay and 10 in Venezuela.

C. SECTOR- AND SUBSECTOR-BASED BREAKDOWN OF THE COSIPLAN PORTFOLIO

Transport sector projects (88.2%) prevail in the COSIPLAN Project Portfolio, contributing to the improvement of regional physical connectivity and the reduction of transportation costs both at the domestic level and across the countries, which implies great benefits for the economies of the region. Of the other Portfolio projects, 10.1% fall in the energy sector and 1.7%, the smallest share, in the communications sector. An analysis of the estimated investment shows that even though projects in the energy sector have a small share in the Project Portfolio in terms of number, they account for 32.3% of its total estimated investment, as they require large investment amounts due to their size and technical characteristics.

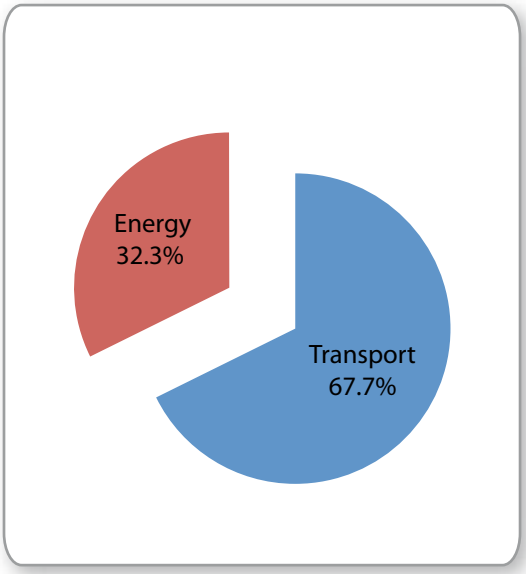
Figure C.6 • **Sector-based Breakdown of the COSIPLAN Project Portfolio (percentage of the number of projects)**



In terms of number, most of the COSIPLAN Portfolio projects (514) fall in the transportation sector, particularly in the road transport subsector (235 projects).

Most road projects belong to three Hubs: MERCOSUR-Chile, Capricorn, and Andean Hubs.

Figure C.7 • **Sector-based Breakdown of the COSIPLAN Project Portfolio (percentage of estimated amount)**



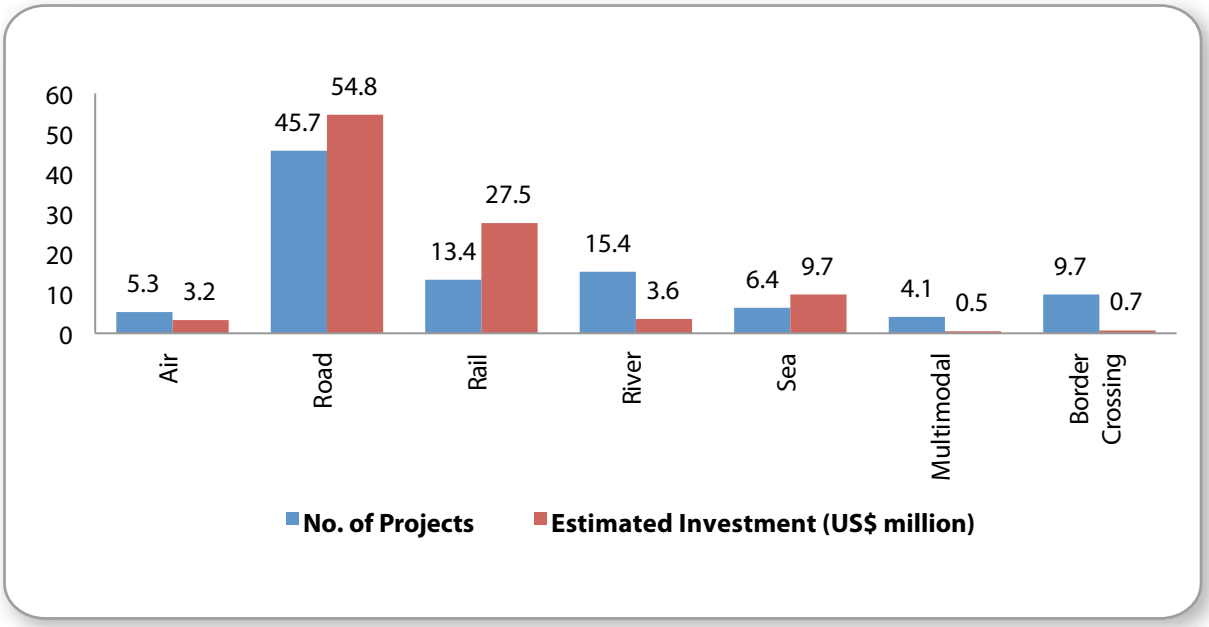
Rail and road projects account for more than 80% of the investment in the transport sector.

The projects in the energy sector account for a third of the total estimated investment in the Portfolio.

There are 10 projects in the communications sector, which involve an investment estimated at US$44.7 million.

Transportation – Subsector-based Breakdown: Road projects account for 45.7% of the transport sector projects and more than half of their total estimated investment amount. Rail projects account for only 13.4% of all the projects in the transport sector, but they represent 27.5% of their total investment due to their size. In contrast to this, river projects account for 15.4% of the projects in this sector in terms of number, while their share in the total sectoral investment is estimated at only 3.6%. The same holds true for border crossing projects, which account for 9.7% of the total number but only 0.7% of the total investment in the sector. This suggests that border crossings, given the range of services they provide (customs, immigration checks, phytosanitary inspections, etc.), involve projects requiring greater investments in national and bilateral institutional strengthening and coordination among the different government agencies involved in such services than investments in infrastructure.

Figure C.8 • **Subsector-based Breakdown of the COSIPLAN Project Portfolio as a Percentage of Total Projects in the Transport Sector (number of projects and estimated investment)**



Road projects are mainly located in the MERCOSUR-Chile, Capricorn and Andean Hubs, and consist mainly of new paving works (29.8%), followed by roadways and structures rehabilitation works, accounting for 27.2%, and road capacity increase works (23.8%).

The Capricorn, Paraguay-Paraná Waterway, and Amazon Hubs host 65.2% of the **rail projects**, including 47.8% of railroad construction works, 43.5% of railroad rehabilitation works, and 8.7% of ring railway works.

Most **river transportation** projects fall within the Paraguay-Paraná Waterway (55.7%) and Amazon (24%) Hubs. They involve basic upgrade works at existing river ports as well as the improvement of navigation conditions, both of which account for 86% of the total, the remaining 14% being new river ports construction projects.

Sea transportation projects prevail in the MERCOSUR-Chile and Amazon Hubs. The Integrated Masterplan of Coastal Protection Albina - Nickerie project, in the Guianese Shield Hub, accounts for 29% of the estimated investment in this type of project. In this subsector, sea ports land infrastructure enlargement projects (57.6%) prevail, followed by sea port upgrade works (27.3%) and new sea ports construction projects (15.1%).

Finally, most **border crossing** projects are located in the Andean, Capricorn, and MERCOSUR-Chile Hubs. The most important type of works is the development of infrastructure for new border control centers, which accounts for 76% of the total projects in this subsector.

As regards the change in the number of projects in the different transport subsectors, it is worth mentioning that there are 10 road projects more, nine border crossing projects more, eight rail projects more, and seven multimodal projects more than in 2012. The increase in the number of border crossing projects is primarily due to the disaggregation of project Optimization of the Cristo Redentor Border Crossing System into five projects to make it easier to record their progress and monitor them.

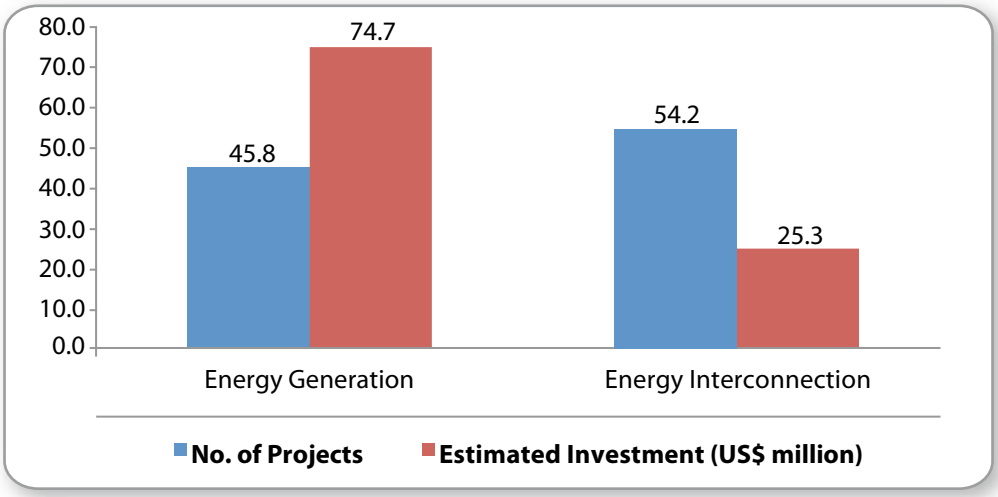
Table C.3 • **Change in the Transport Sector Projects**

	No. of Projects			Estimated Investment (US$ million)		
Subsector	**2012**	**2013**	**Change**	**2012**	**2013**	**Change**
Air	27	27	0	3,372.0	3,473.1	101.1
Road	225	235	10	49,281.7	58,523.6	9,241.9
Rail	61	69	8	14,159.1	29,412.4	15,253.3
River	74	79	5	4,071.9	3,807.6	-264.3
Sea	32	33	1	8,523.8	10,340.7	1,816.9
Multimodal	14	21	7	505.6	536.8	31.2
Border Crossing	41	50	9	698.1	761.4	63.3
TOTAL	474	514	40	80,612.2	106,855.6	26,243.4

The incorporation of the northeastern and central-western territories of Brazil into the Amazon Hub accounts for the increase in the number of rail projects. Although this increase is not significant (13.1%), the estimated investment in this subsector doubled between 2012 and 2013, reaching almost 30% of the total investment in the Portfolio transport sector projects.

Energy – Subsector-based Breakdown: In terms of number, the energy projects in the Portfolio include 45.8% of **energy generation** projects, among which hydroelectric power projects prevail, and 54.2% of **energy interconnection** projects, whereas energy generation projects account for the greatest share of the investment in this sector (74.7%).

Figure C.9 • **Sub-sector Based Breakdown of the COSIPLAN Project Portfolio as a Percentage of Total Projects in the Energy Sector (number of projects and estimated investment)**



Changes in the Energy Project Portfolio: The number of energy projects in the Portfolio decreased in 2013 vis-à-vis 2012. Since the projects involving the harmonization of energy regulations are now within the framework of the South American Energy Council, the Harmonization of Electricity, Gas and Oil Regulations project, which fell in Project Group 9 of the Andean Hub, was removed from the COSIPLAN Portfolio. Moreover, Brazilian project Electricity Project: A Small Hydroelectric Power Station and Leticia - Tabatinga Interconnection was excluded from the portfolio as it had made no progress since 2003, and Uruguayan project Modernization of the Salto Grande Electric Power Plant was included in the MERCOSUR-Chile Hub.

Table C.4 • **Change in the Energy Sector Projects**

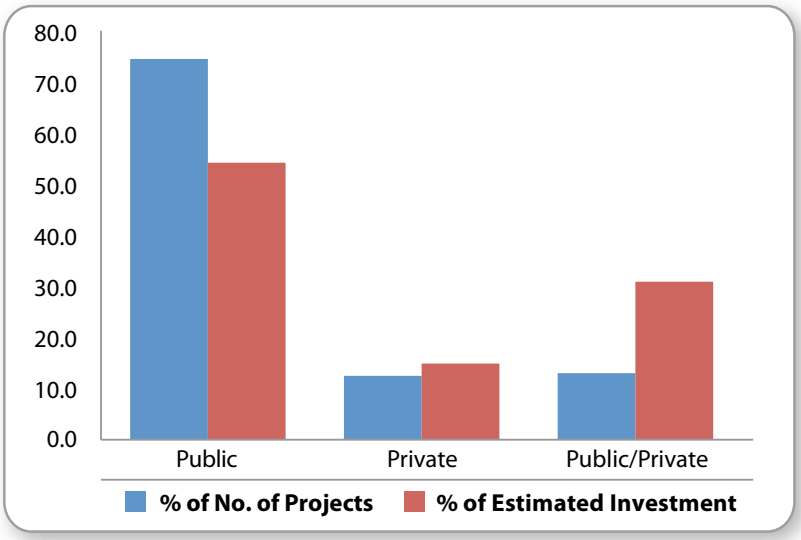
	No. of Projects			Estimated Investment (US$ million)		
Subsector	**2012**	**2013**	**Change**	**2012**	**2013**	**Change**
Harmonization of Energy Regulations	1		-1			
Energy Generation	26	27	1	37,934.3	37,965.3	31.0
Energy Interconnection	33	32	-1	11,547.9	12,864.9	1,317.0
TOTAL	60	59	-1	49,482.2	50,830.2	1,348.0

D. THE PROJECTS AND THEIR SOURCES OF FINANCING

In terms of the financing of the Portfolio projects implementation, the public sector is the main source of estimated investment (74.5%), and the private sector and public-private partnerships account for a similar share of such investment: 12.5% and 13%, respectively.

Figure C.10 shows the number of Portfolio projects and their estimated investment by source of financing.

Figure C.10 • **Sources of Financing of the Portfolio Projects (% of the number of projects and % of the estimated investment)**



The public sector is the main source of financing of the Portfolio projects, accounting for 74.5% of the total projects.

As regards the sources of financing by Hub, the Amazon and MERCOSUR-Chile Hubs are the ones with the greatest number of projects financed by the private sector, accounting for an investment estimated at about 10% of the total investment in the Portfolio. The fact that the Amazon Hub receives 55% of the private investment is explained by Brazilian projects Center-West Integration Railway - Phase I (Campinorte - Lucas do Rio Verde), and North-South Railway Phase I (Vila do Conde - Açailândia). On the other hand, binational project Railway Project between Los Andes, Chile and Mendoza, Argentina (Central Trans-Andean Railway) accounts for more than half of the private sector investment in the MERCOSUR-Chile Hub.

Public-private partnerships stand out as the sources of financing of energy projects in the MERCOSUR-Chile and Peru-Brazil-Bolivia Hubs, accounting for approximately 24.3% of the total investment in the Portfolio. The Corpus Christi and Garabí hydroelectric power stations explain 48.6% of the public-private investments in the MERCOSUR-Chile Hub, while project Madeira River Hydroelectric Power Complex (Santo Antônio and Jirau Hydroelectric Power Stations) accounts for 75.8% of such investments in the Peru-Brazil-Bolivia Hub.

The following tables show the sources of financing by Hub.

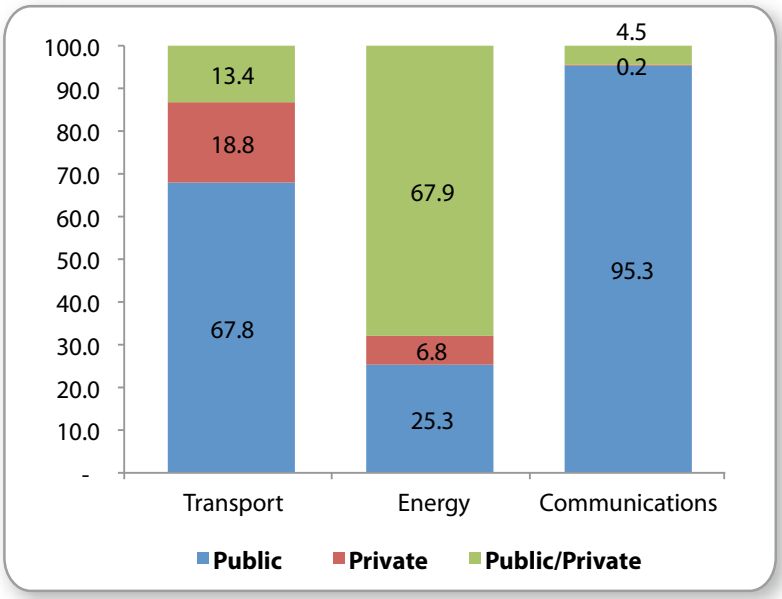
Table C.5 • **Sources of Financing of the Portfolio Projects by Hub (number of projects)**

	AMA	AND	CAP	GUY	HPP	IOC	MCC	PBB	DES
Private	23	9	8	1	2	10	14	5	1
Public/Private	10	10	11	4	8	7	21	3	2
Public	55	46	61	15	84	45	87	18	25

Table C.6 • **Sources of Financing of the Portfolio Projects by Hub (US$ million)**

	AMA	AND	CAP	GUY	HPP	IOC	MCC	PBB	DES
Private	5,978	1,299	1,217		229	2,736	9,857	2,158	53
Public/Private	871	1,235	1,905	3,721	899	1,824	14,253	24,032	100
Public	22,100	6,649	10,852	840	6,738	4,271	28,591	2,900	2,609

Figure C.11 • **Sources of Financing of the Portfolio Projects by Sector (percentage of the investment amount)**



The public sector finances most projects in the transportation sector, while public - private financing prevails in the energy sector. The transport sector receives 85% of the investments made by the private sector.

An analysis of the sources of financing by sector (see Figure C.11) reveals that 67.8% of the estimated investment in the transportation sector is public, while public-private partnerships invest the most in the energy sector (67.9%).

E. PROGRESS IN THE PORTFOLIO PROJECTS BY LIFE CYCLE STAGES

The progress attained by the COSIPLAN Portfolio projects is measured by the following stages and phases:

- **Profiling:** At this stage, background information is studied in order to assess the suitability and technical and economic feasibility of implementing the project idea.
- **Pre-Execution:** This stage includes projects in the following phases:

  (i) Pre-feasibility: In this phase, the alternatives regarded as the most convenient at the profiling stage are thoroughly examined. This analysis includes, among other elements, the factors that impact on the feasibility and on the investment return of such alternatives.

  (ii) Feasibility: The feasibility study must involve a detailed and accurate analysis of the alternative that was deemed feasible in the previous phase. This phase also includes the examination of all the aspects related to the physical works, the investment spending program, and project start-up and development.

  (iii) Investment: This phase includes two aspects: i) Financing, which involves all the actions, formalities and other activities aimed at securing the funds necessary to finance the investment; and ii) Engineering study, consisting of a series of detailed studies for the construction, erection and commissioning of the works.

- **Execution:** It refers to the set of activities required for the physical construction of the project, such as contract conclusion, purchase and set up of machines and equipment, miscellaneous installations, etc.
- **Completed:** This stage involves the entire completion of the physical works (for instance, if the works include several sections and one or more of them have not been completed, the project will be considered in execution until the entire works are completed).

The following table shows the distribution of the COSIPLAN Project Portfolio 2013 by life cycle stage.

Table C.7 • **Portfolio Projects by Life Cycle Stage (number of projects, million US$, and percentage)**

Stage	No. of Projects	% of Projects	Estimated Investment (US$ million)	% of Investment
Profiling	162	27.8	19,669.5	12.5
Pre-execution	164	28.1	46,503.9	29.5
Execution	172	29.5	75,267.3	47.7
Completed	85	14.6	16,289.8	10.3
TOTAL	583	100.0	157,730.5	100.0

The analysis of the Portfolio projects by their life cycle stage (Table C.7) shows that 29.5% of the projects are in execution, accounting for nearly half of the total estimated investment in the Portfolio (47.7%); 28.1% are at the pre-execution stage, involving 29.5% of the estimated investment; and 14.6% are completed.

Table C.8 • **The COSIPLAN Project Portfolio by Implementation Stage and by Hub**

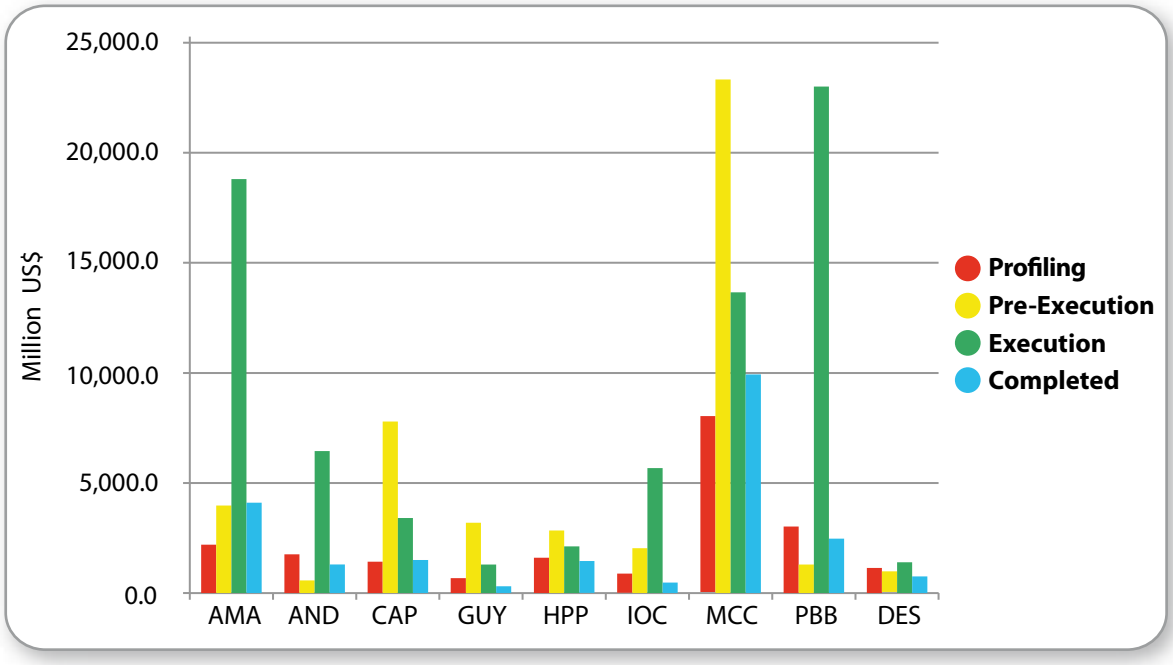
Hub	Profiling	Pre-Execution	Execution	Completed	Total
Amazon Hub	27	23	29	9	88
Andean Hub	20	8	22	15	65
Capricorn Hub	18	34	18	10	80
Guianese Shield Hub	7	2	5	6	20
Paraguay-Paraná Waterway Hub	32	33	21	8	94
Central Interoceanic Hub	12	15	24	11	62
MERCOSUR-Chile Hub	33	36	35	18	122
Peru-Brazil-Bolivia Hub	8	6	10	2	26
Southern Hub	6	7	9	6	28
TOTAL (*)	162	164	172	85	583
Percentage by Stage	27.8%	28.1%	29.5%	14.6%	

(*) The total in the last column does not match the arithmetic sum of the totals by Hub due to the existence of two hinge projects: (i) Pircas Negras Border Crossing, belonging in the Capricorn and MERCOSUR - Chile Hubs, and (ii) Paving of the Potosí - Tupiza - Villazón Road, belonging in the Capricorn and Central Interoceanic Hubs.

The table above shows that there is a significant number of projects at the profiling stage in the nine Hubs. Furthermore, the greatest number of completed projects and projects in execution is found in the MERCOSUR-Chile, Amazon, Andean, and Central Interoceanic Hubs.

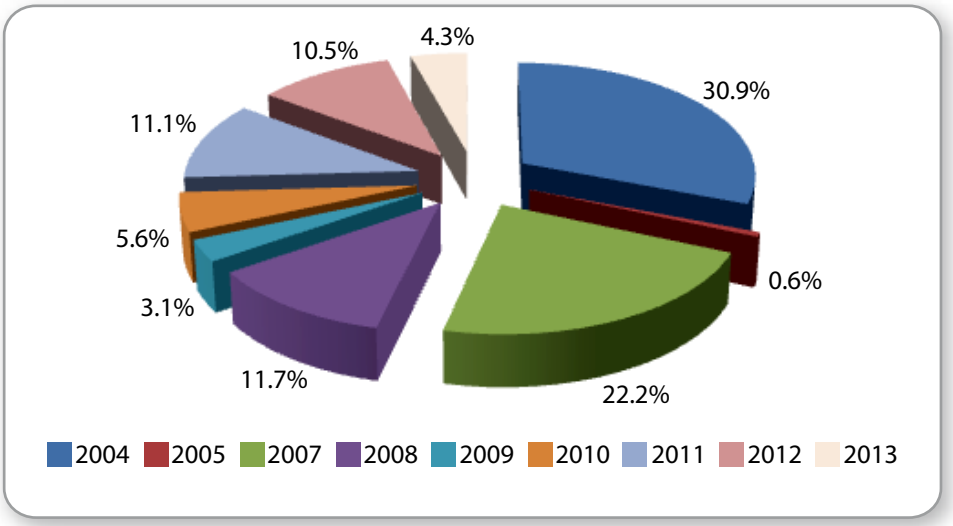
The Hubs with most of their investment allocated to projects at the execution stage are the MERCOSUR-Chile, Amazon, and Peru-Brazil-Bolivia Hubs.

Figure C.12 • **The COSIPLAN Project Portfolio by Hub and Implementation Stage (million US$)**



In terms of the year in which the projects at the profiling stage were included in the Portfolio, 74.1% of them became part of it before 2011 (Figure C.13).

Figure C.13 • **Number of Projects at the Profiling Stage by Year of Inclusion in the Portfolio**



As regards the change in stage of the projects from 2012 to 2013, the following can be mentioned:

- Seven projects that were at the profiling stage moved on to the pre-execution stage, and two moved on to the execution stage.
- Five projects that were at the pre-execution stage moved on to the execution stage, and six moved back to the profiling stage.
- Seven projects that were at the execution stage are now completed; seven moved back to the pre-execution stage; and one moved back to the profiling stage.
- The stage of two projects that last year appeared as completed was changed: one was moved to the execution stage and the other one to the profiling stage.

Table C.9 • **Details of the Projects that Moved On in their Life Cycle in 2013**

Hub	Project Name	Countries
	From Profiling to Pre-execution	
Amazon	Improvement of Navigation Conditions on the Putumayo River	Colombia, Ecuador, Peru
Amazon	Morona Freight Transfer Port	Ecuador
Paraguay-Paraná Waterway	Construction and Rehabilitation of the Asunción - Posadas Railway	Argentina, Paraguay
Paraguay-Paraná Waterway	Rehabilitation of the Algorta - Fray Bentos Railway Branch Line	Uruguay
MERCOSUR-Chile	Paving of the Rancagua - Coya Road, Las Leñas Border Crossing	Chile
MERCOSUR-Chile	Binational Tunnel at the Las Leñas Border Crossing	Argentina, Chile
MERCOSUR-Chile	Construction of the Panambi Hydroelectric Power Station	Argentina, Brazil
	From Profiling to Execution	
Paraguay-Paraná Waterway	Deepening of the Fairway in the Paraná River from Confluencia to the Plata River	Argentina
MERCOSUR-Chile	Enlargement of Campinas Airport	Brazil
	From Pre-execution to Execution	
Amazon	Improvement of Tingo María - Pucallpa Road	Peru
Amazon	El Callao Mineral Shipping Terminal	Peru
Capricorn	Paving of National Route No. 51, Campo Quijano - Sico Border Crossing Section	Argentina
Central Interoceanic	Puerto Suárez - Corumbá Integrated Control Area	Bolivia, Brazil
MERCOSUR-Chile	Construction of the San Pablo Ring Road (Northern Section)	Brazil
	From Execution to Completed	
Amazon	Tarapoto - Yurimaguas Road	Peru
Amazon	Improvement of Navigation Conditions in the Solimões - Amazon Rivers System	Brazil
Andean	Sullana - Macará - Loja Road	Peru
Central Interoceanic	Improvement of Corumbá - Campo Grande Railway Section (Trem do Pantanal)	Brazil
MERCOSUR-Chile	Upgrade of National Route No. 14 to a Four-lane Road, between Paso de los Libres and Gualeguaychú	Argentina
MERCOSUR-Chile	Rehabilitation of the Rivera - Santana do Livramento - Cacequi Railway Section	Brazil, Uruguay
MERCOSUR-Chile	Paving of Puente Armerillo - Pehuence Border Crossing Road Section (Route CH-115)	Chile

Table C.10 • **Changes in the Distribution of the COSIPLAN Portfolio Projects by Stage – 2012-2013**

	Profiling	Pre-Execution	Execution	Completed	Total
2012 Projects	160	142	168	74	544
Included Projects	7	21	13	6	47
Excluded Projects	-4	-2	-2	-	-8
Change in Stages	-1	3	-7	5	-
2013 Projects	162	164	172	85	583

Finally, of the six projects that were included in the Portfolio as completed, two are part of API and were disaggregated to have a simpler and more homogeneous universe of individual projects and thus make it easier to record their progress and monitor them, whereas the other four were included by Brazil in the Amazon Hub with the purpose of completing the connectivity network within it when the Brazilian northeastern and central-western territories were incorporated into the Hub.

Throughout this year, a Continuous Monitoring System (CMS) for the Integration Priority Project Agenda (API) was developed and implemented. The primary purpose of this system is to record project progress from a regional perspective, thereby providing timely and reliable information for decision making by the competent government authorities.

This monitoring module is expected to be applied to the COSIPLAN Portfolio projects as part of Work Plan 2014. Thus, it will be possible to rely on updated information on the life cycle schedule of each project and estimate their date of completion more accurately.

PART II

PROJECT PORTFOLIO 2013

COUNTRY MEMBERS

TOTAL NUMBER OF PROJECTS

583

INVESTMENT

(US$ million)

157,730.5

TOTAL NUMBER OF PROJECTS

Percentage by stage

27.8%	PROFILING
28.1%	PRE-EXECUTION
29.5%	EXECUTION
14.6%	CONCLUDED

INVESTMENT

Percentage by stage

PROFILING	12.5%
PRE-EXECUTION	29.5%
EXECUTION	47.7%
CONCLUDED	10.3%

PROFILING PRE-EXECUTION EXECUTION CONCLUDED

This section presents the consolidated COSIPLAN Project Portfolio information as of October 2013, in which an analysis is made of its sector-based breakdown, scope of application, financing sources, execution stages and strategic structuring through the Anchor Projects.

I. GENERAL ASPECTS

As of October 2013, COSIPLAN had set up a portfolio of 583 integration infrastructure projects in the transport, energy and communications sectors, for an estimated investment of US$157,730.5 million1, as detailed below:

Table D.1 • **General Aspects of COSIPLAN Project Portfolio by Hub**

		Projects		Estimated Investment (*)	
HUB	**Number of Groups**	**No.**	**%**	**US$ million**	**%**
Amazon Hub	8	88	15.0	28,948.9	18.3
Andean Hub	10	65	11.1	9,183.5	5.8
Capricorn Hub	5	80	13.7	13,974.6	8.9
Guianese Shield Hub	4	20	3.4	4,560.4	2.9
Paraguay-Paraná Waterway Hub	5	94	16.1	7,865.1	5.0
Central Interoceanic Hub	5	62	10.6	8,830.5	5.6
MERCOSUR-Chile Hub	6	122	20.9	52,701.1	33.4
Peru-Brazil-Bolivia Hub	3	26	4.4	29,089.8	18.4
Southern Hub	2	28	4.8	2,762.0	1.7
TOTAL(**)	48	583	100.0	157,730.5	100.0

Note:

(*) Investments in two existing projects have not been included as the were mostly made before IIRSA was launched. These projects are: "Road Corridor Connecting Santa Marta - Paraguachon - Maracaibo - Barquisimeto - Acarigua" in the Andean Hub, and "Itapu System" in the MERCOSUR-Chile Hub.

(**) The total in the Number of Projects and Estimated Investment columns do not match the arithmetic sum of the totals by Hub due to the existence of two hinge projects: (i) "Pircas Negras Border Crossing" belonging in the Capricorn and MERCOSUR-Chile Hubs, (ii)"Paving of the Potosí - Tupiza - Villazón road" belonging in the Capricorn and Central Interoceanic Hubs.

[1] All the tables in this section and in the following section, in which COSIPLAN is analyzed by Hub, were drawn from COSIPLAN Information System as of October 4, 2013.

II. SOURCE OF FINANCING

Table D.2 • **Characterization of Projects by Financing Source**

	Private		Public		Public/Private	
	Number of Projects	**Estimated Investment** (US$ million)	**Number of Projects**	**Estimated Investment** (US$ million)	**Number of Projects**	**Estimated Investment** (US$ million)
Transport	63	20,091.0	390	72,449.7	61	14,314.9
Energy	7	3,435.0	38	12,871.2	14	34,524.0
Communications	3	0.1	6	42.6	1	2.0
TOTAL	73	23,526.1	434	85,363.5	76	48,840.9
%	12.5	14.9	74.5	54.1	13.0	31.0

With respect to the characterization of projects according to their financing source, it becomes evident that 74.5% of the COSIPLAN Portfolio is made up of projects financed by the public sector, accounting for an estimated 54.1% of the total investment in the Portfolio.

III. TERRITORIAL SCOPE

The COSIPLAN Project Portfolio is made up of national, binational, tri-national and multinational projects, as detailed below:

Table D.3 • **Scope of the Projects**

	Projects		**Estimated Investment**	
Scope	**No.**	**%**	**US$ million**	**%**
National	481	82.5	130,498.0	82.7
Binational	95	16.3	26,527.5	16.8
Tri-national	5	0.9	704.9	0.5
Multinational (*)	2	0.3	0.1	0.0
TOTAL	583	100.0	157,730.5	100.0

Note:
(*) Multinational projects are projects in which four or more countries are involved.

The data in the table above clearly shows that 82.5% of the projects in the COSIPLAN Portfolio falls within the national scope, although in most cases the are associated with the completion, improvement or reconditioning of infrastructure for the integration of the countries concerned. As for the rest of the projects, 16.3% are binational, 0.9% involve three countries, and only 0.3% are projects in which four or more countries participate.

Table D.4 • **Territorial Scope by Country**

Country	National	Binational	Tri-national	Multinational	Total
Argentina	144	34	0	0	178
Bolivia	32	18	1	2	53
Brazil	81	27	2	0	110
Chile	41	17	0	0	58
Colombia	21	12	1	2	36
Ecuador	24	19	1	2	46
Guyana	3	2	3	0	8
Paraguay	39	23	1	0	63
Peru	50	21	1	2	74
Suriname	3	1	3	0	7
Uruguay	33	9	0	0	42
Venezuela	10	7	2	2	21

Of the 481 national projects, 144 are from Argentina, 32 from Bolivia, 81 from Brazil, 41 from Chile, 21 from Colombia, 24 from Ecuador, 3 from Guyana, 39 from Paraguay, 50 from Peru, 3 from Suriname, 33 from Uruguay and 10 from Venezuela. Argentina and Brazil are the countries that have more projects in the COSIPLAN Project Portfolio.

IV. SECTOR/SUBSECTOR-BASED BREAKDOWN AND TYPE OF WORKS INVOLVED

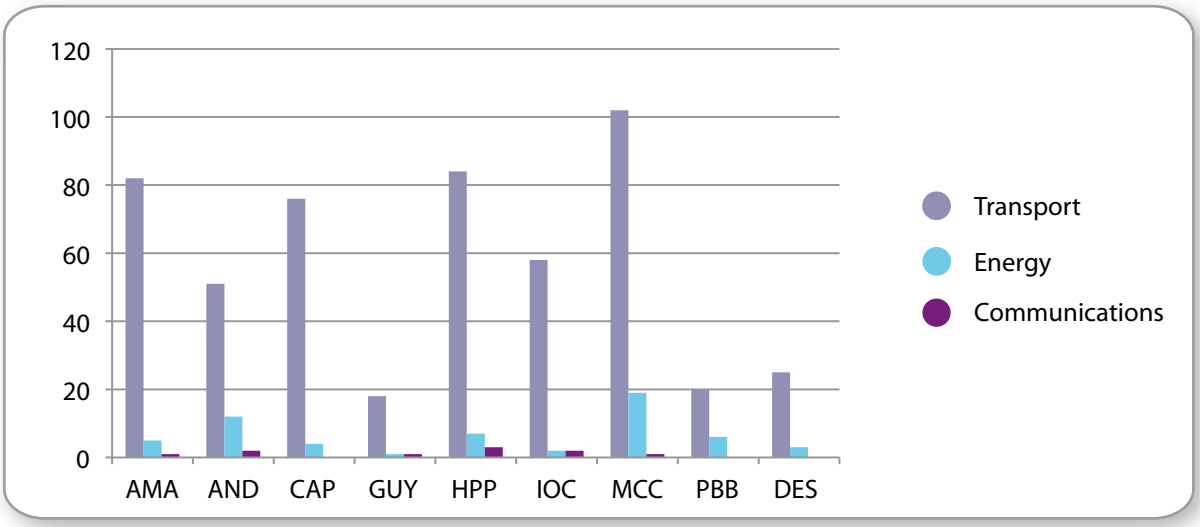
The figures and tables below show the sector-based breakdown of the COSIPLAN Project Portfolio and the estimated investments:

Table D.5 • **Sector-based Breakdown of the COSIPLAN Project Portfolio, by Hub**

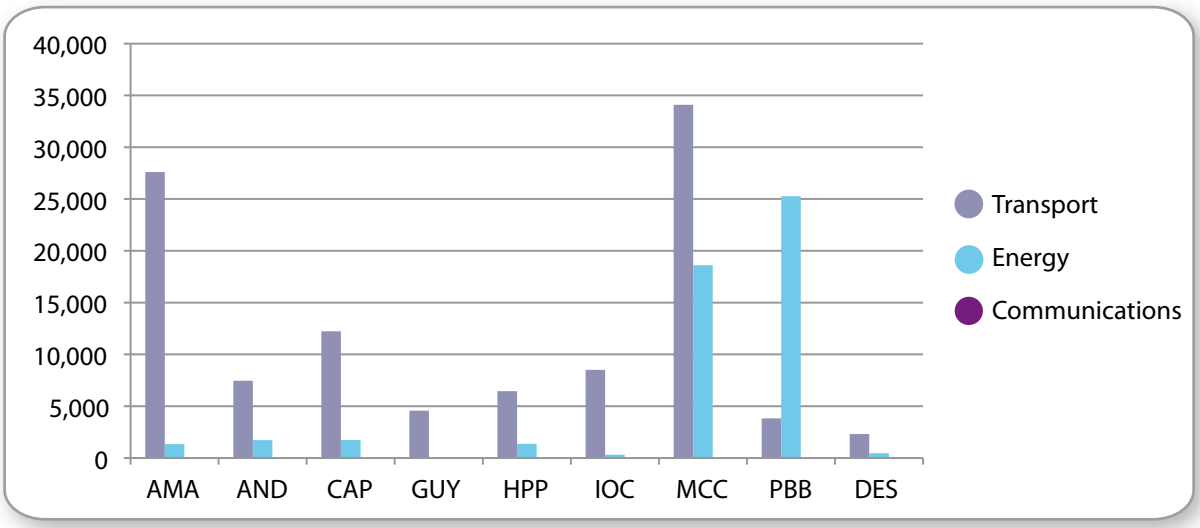
	Transport				Energy				Communications				Total			
	Projects		Estimated Investment (*)		Projects		Estimated Investment		Projects		Estimated Investment		Projects		Estimated Investment (*)	
EID	**No.**	**%**	**US$ million**	**%**	**No.**	**%**	**US$ million**	**%**	**No.**	**%**	**US$ million**	**%**	**No.**	**%**	**US$ million**	**%**
Amazon Hub	82	15.9	27,607.7	25.8	5	8.5	1,338.1	2.6	1	10.0	3.1	7.0	88	15.0	28,948.9	18.3
Andean Hub	51	9.9	7,452.8	6.9	12	20.3	1,730.6	3.4	2	20.0	0.1	0.2	65	11.1	9,183.5	5.8
Capricorn Hub	76	14.7	12,234.6	11.4	4	6.8	1,740.0	3.5	0	0.0	0.0	0.0	80	13.7	13,974.6	8.9
Guianese Shield Hub	18	3.5	4,560.4	4.3	1	1.7	0.0	0.0	1	10.0	0.0	0.0	20	3.4	4,560.4	2.9
Paraguay-Paraná Waterway Hub	84	16.3	6,459.1	6.0	7	11.9	1,369.0	2.7	3	30.0	37.0	82.7	94	16.1	7,865.1	5.0
Central Interoceanic Hub	58	11.2	8,504.2	7.9	2	3.4	321.8	0.6	2	20.0	4.5	10.1	62	10.6	8,830.5	5.6
MERCOSUR-Chile Hub	102	19.8	34,090.0	31.9	19	32.2	18,611.1	36.6	1	10.0	0.0	0.0	122	20.9	52,701.1	33.4
Peru-Brazil-Bolivia Hub	20	3.9	3,820.2	3.6	6	10.2	25,269.6	49.7	0	0.0	0.0	0.0	26	4.4	29,089.8	18.4
Southern Hub	25	4.8	2,312.0	2.2	3	5.0	450.0	0.9	0	0.0	0.0	0.0	28	4.8	2,762.0	1.7
TOTAL	514	100.0	106,855.6	100.0	59	100.0	50,830.2	100.0	10	100.0	44.7	100.0	583	100.0	157,730.5	100.0

Nota:
(*) The total in the Number of Projects and Estimated Investment columns do not match the arithmetic sum of the totals by Hub due to the existence of two hinge projects: (i) "Pircas Negras Border Crossing" belonging in the Capricorn and MERCOSUR-Chile Hubs, (ii)"Paving of the Potosí - Tupiza - Villazón road" belonging in the Capricorn and Central Interoceanic Hubs.

Graphic D.1 · **Sector-based Breakdown of the COSIPLAN Project Portfolio, by Hub (No. of projects)**



Graphic D.2 · **Sector-based Breakdown of the COSIPLAN Project Portfolio, by Hub (US$ million)**



The data associated with the subsectors within the COSIPLAN Project Portfolio reveal the following relative structure:

Table D.6 • **Sector-based breakdown of the COSIPLAN**

	Transport				Energy				Communications			
Sub-sector	Number of Projects	% Projects	Estimated Investment (US$ millon)	% Investment	Number of Projects	% Projects	Estimated Investment (US$ millon)	% Investment	Number of Projects	% Projects	Estimated Investment (US$ millon)	% Investment
Air	27	5.3	3,473.1	3.2								
Road	235	45.7	58,523.6	54.8								
Railway	69	13.4	29,412.4	27.5								
River	79	15.4	3,807.6	3.6								
Sea	33	6.4	10,340.7	9.7								
Multimodal	21	4.1	536.8	0.5								
Border Crossing	50	9.7	761.4	0.7								
Power Generation					27	45.8	37,965.3	74.7				
Power Interconnection					32	54.2	12,864.9	25.3				
Communication Interconnection									10	100.0	44.7	100.0
TOTAL	514	100.0	106,855.6	100.0	59	100.0	50,830.2	100.0	10	100.0	44.7	100.0

The tables and figures above show that 88.2% of the projects included in the COSIPLAN Portfolio are targeted at the transport sector, within which road projects prevail, accounting for 45.7% of the total projects in the sector. As for energy projects, even though they represent only 10.1% of COSIPLAN Portfolio, they involve substantial investments (about 32.3% of the total investment in the Portfolio).

TYPE OF WORK

- *TRANSPORT SECTOR*

The transport sector- based analysis of COSIPLAN Portfolio reveals the following major project typologies:

Table D.7 • **Air Transport**

	Projects		Estimated Investment	
Project Typology	No.	%	US$ million	%
Refitting of airports	5	18.5	53.5	1.5
New airports	9	33.4	433.3	12.5
Extension of airports	13	48.1	2,986.3	86.0
TOTAL	27	100.0	3,473.1	100.0

As shown in the table above, 48.1% of air transport projects focus on the extension of airports, followed by new airport construction projects, accounting for the 33.4% of the total, and finally by airport refitting projects (18.5%)

Table D.8 • **Road Transport**

	Projects		Estimated Investment	
Project Typology	No.	%	US$ million	%
Extension of the road capacity	56	23.8	21,104.4	36.1
Refitting of road and structures	64	27.2	10,147.8	17.3
Paving (new work)	70	29.8	15,195.5	26.0
Bridges (new ones and refitting)	26	11.0	1,708.6	2.9
Road by-pass and access to cities	15	6.4	7,871.0	13.4
Tunnels (new ones and refitting)	2	0.9	1,850.0	3.2
Road maintenance	2	0.9	646.3	1.1
TOTAL	235	100.0	58,523.6	100.0

The table above shows that new paving works are predominant among road transport projects and account for 29.8% of these, followed by refitting of road and structures, representing 27.2%, and by extension of the road capacity (24.4%).

Table D.9 • **Railway Transport**

	Projects		Estimated Investment	
Project Typology	No.	%	US$ million	%
Building of railways	30	43.5	16,820.3	57.2
Refitting of railways	33	47.8	10,719.1	36.4
Railway by-pass	6	8.7	1,873.0	6.4
TOTAL	69	100.0	29,412.4	100.0

This information clearly shows that of all railway projects, the COSIPLAN Portfolio prioritizes those concerned with the refitting of railways, which account for 47.8% of the total, followed by rail tracks construction works, representing 43.5% of these type of projects.

Table D.10 • **River Transport**

	Projects		Estimated Investment	
Project Typology	No.	%	US$ million	%
Improvement of river navegability	34	43.0	2,737.0	71.9
Building of new river ports	11	14.0	531.0	13.9
Refitting of the existing river ports	34	43.0	539.6	14.2
TOTAL	79	100.0	3,807.6	100.0

It follows from the table above that river transport projects involve basic upgrade works at existing river ports as well as the improvement of river navigation conditions, both of which account for 86% of the total, the remaining 14% being new river ports construction projects.

Table D.11 • **Sea Transport**

	Projects		Estimated Investment	
Project Typology	No.	%	US$ million	%
New sea ports	5	15.1	2,070.0	20.0
Extension of the road infrastructure of the marittime ports	19	57.6	5,856.8	56.7
Refitting of sea ports	9	27.3	2,413.9	23.3
TOTAL	33	100.0	10,340.7	100.0

As can be observed Extension of the road infrastructure in maritime ports projects, with 57.6% of the total, prevail among sea transport projects, while refitting of sea ports works and new sea ports construction projects account for the remaining 42.4%.

Table D.12 • **Multimodal Transport**

	Projects		Estimated Investment	
Project Typology	No.	%	US$ million	%
Transfer stations	19	90.5	333.9	62.2
Multimodal transportation	2	9.5	202.9	37.8
TOTAL	21	100.0	536.8	100.0

As regards multimodal transport projects, they can be broken down into two types, as detailed in the table above, between which those related to transfer stations stand out, with 90.5% of the total.

Table D.13 • **Border Crossing**

	Projects		Estimated Investment	
Project Typology	No.	%	US$ million	%
Infrastructure for the setting up of border control centers	38	76.0	467.7	61.4
Refitting of existing infrastructure in border control centers	3	6.0	15.0	2.0
Extension of infrastructure and capacity of border control centers	9	18.0	278.7	36.6
TOTAL	50	100.0	761.4	100.0

The most important works in terms of the number of border crossing projects involve the development of infrastructure for new border control centers, which represent 76% of the total, while the remaining 24% are projects to upgrade existing infrastructure as well as to enlarge the infrastructure/capacity of border control centers.

- *ENERGY SECTOR*

The energy sector-based analysis of the COSIPLAN Portfolio reveals the following major project typologies:

Table D.14 • **Power Generation**

	Projects		Estimated Investment	
Project Typology	No.	%	US$ million	%
Hydroelectric plants (new ones and refitting) - microcentrals	16	59.3	32,417.5	85.4
Thermoelectric plants	4	14.8	1,851.0	4.9
Carboelectric plants	1	3.7	625.0	1.6
Generation by means of nuclear power	2	7.4	1,740.0	4.6
Other energy infrastructures	4	14.8	1,331.8	3.5
TOTAL	27	100.0	37,965.3	100.0

Among power generation projects, hydroelectric projects are given priority, accounting for 59.3% of the total projects of this type.

Table D.15 • **Power Interconnection**

	Projects		Estimated Investment	
Project Typology	No.	%	US$ million	%
Building of new power interconnections	31	96.9	12,739.7	99.0
Refitting of power interconnections	1	3.1	125.2	1.0
TOTAL	32	100.0	12,864.9	100.0

The table above shows that the construction of new power interconnections accounts for 96.9% of these projects, the remaining 3.1% being projects aimed at refitting this kind of infrastructure.

- *COMMUNICATIONS SECTOR*

The communications sector-based analysis of the COSIPLAN Portfolio reveals the following two project typologies:

Table D.16 • **Communications Interconnection**

	Projects		Estimated Investment	
Project Typology	No.	%	US$ million	%
Optic fiber	9	90.0	44.6	99.8
Telecommunication networks	1	10.0	0.1	0.2
TOTAL	10	100.0	44.7	100.0

It follows from the table above that optical fiber related projects prevail among the communications sector projects included in the COSIPLAN Portfolio, accounting for 90% of the total.

V. PROGRESS IN THE PROJECT PORTFOLIO

The progress attained by the COSIPLAN Project Portfolio 2013 in terms of the stage at which the projects are at present is presented in the following table:

Table D.17 • **COSIPLAN Project Portfolio by Progress Attained**

EID	Profiling	Pre-Execution	Execution	Concluded	Total
Amazon Hub	27	23	29	9	88
Andean Hub	20	8	22	15	65
Capricorn Hub	18	34	18	10	80
Guianese Shield Hub	7	2	5	6	20
Paraguay-Paraná Waterway Hub	32	33	21	8	94
Central Interoceanic Hub	12	15	24	11	62
MERCOSUR-Chile Hub	33	36	35	18	122
Peru-Brazil-Bolivia Hub	8	6	10	2	26
Southern Hub	6	7	9	6	28
TOTAL(*)	162	164	172	85	583

Note:
(*) The total in the Number of Projects and Estimated Investment columns do not match the arithmetic sum of the totals by Hub due to the existence of two hinge projects: (i) "Pircas Negras Border Crossing" belonging in the Capricorn and MERCOSUR-Chile Hubs, (ii)"Paving of the Potosí - Tupiza - Villazón road" belonging in the Capricorn and Central Interoceanic Hubs.

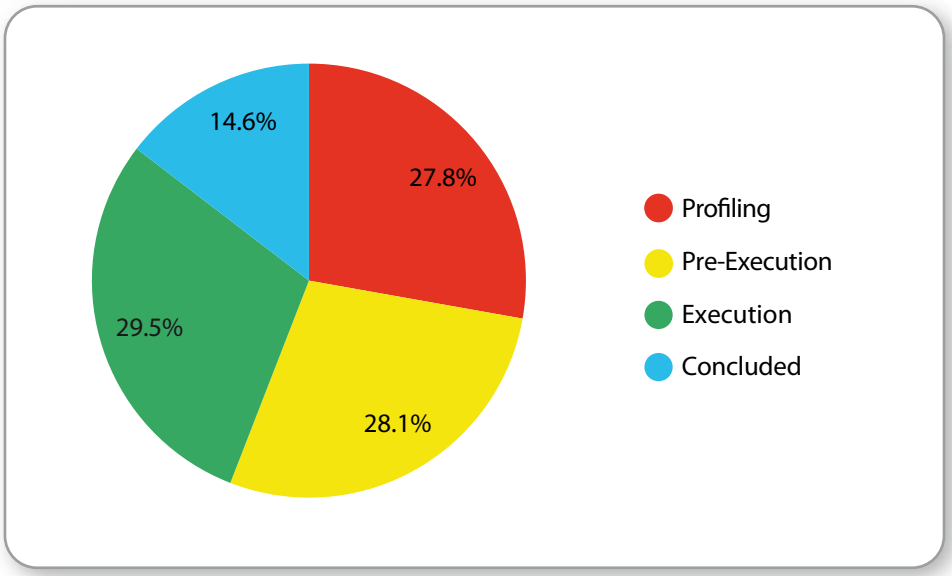
Table D.18 • **COSIPLAN Project Portfolio by Progress Attained in the Execution and by Sector**

	Number of Projects					Estimated Investment	
	Transport	Energy	Communications	TOTAL	%	Investment Total (US$ million)	%
Profiling(*)	140	15	7	162	27.8	19,669.5	12.5
Pre-Execution(**)	150	14	0	164	28.1	46,503.9	29.5
Execution	157	13	2	172	29.5	75,267.3	47.7
Concluded	67	17	1	85	14.6	16,289.8	10.3
TOTAL	514	59	10	583	100.0	157,730.5	100.0

Note:
(*) Includes projects in a very early, preliminary phase or in the concept stage
(**) Includes the pre-feasibility, feasibility and investment phases

As inferred from the table above, 29.5% of the projects within the COSIPLAN Portfolio is being executed and its investment represents almost half of the total investment of the Portfolio (47.7%), 28.1% of the projects is in the pre-execution stage and its investment represents 29.5% of the total. Finaly, 14.6% of the prjects has been concluded.

Graphic D.3 • **COSIPLAN Project Portfolio by Progress Attained**



VI. ANCHOR PROJECTS

Anchor projects give meaning to the formation of the group and enable synergies. They possess catalytic-synergistic power to justify the formation of a group surrounding it. They are not necessarily the more important projects, but rather they are identified as the bottleneck or missing link in the infrastructure network, which prevents the best use of the combined effects of the group of projects to benefit economic and social development. As a result of the Portfolio structuring process, the twelve countries have identified fifty-three projects as described below:

Table D.19 • **Anchor Points - COSIPLAN**

HUB Group	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Sector	Project Stage
	AMAZON HUB					
1	Tumaco - Pasto - Mocoa - Puerto Asís Road Corridor (CO)	404.9	Public	National	Transport	●
2	Providencia Port (EC)	25.0	Public	National	Transport	●
3	Tarapoto - Yurimaguas Road (PE)	231.7	Public/Private	National	Transport	●
4	Improvement of Tingo María - Pucallpa Road (PE)	462.4	Public	National	Transport	●
5	New Cross-Northeastern Railway Phase I (Suape Salgueiro/Pecém - Eliseu Martins) (BR)	3,000.0	Public	National	Transport	●
5	New Cross-Northeastern Railway Phase II (Eliseu Martins-Porto Franco) (BR)	0.0	Public	National	Transport	●

HUB Group	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Sector	Project Stage
6	Improvement of Navigation Conditions in the Solimões - Amazon Rivers System (BR)	8.0	Public	National	Transport	
7	Morona Freight Transfer Port (EC)	5.0	Public	National	Transport	
8	West-Est Integration Railway - Phase II (Barreiras Figueirópolis) (BR)	550.0	Public	National	Transport	
8	West-Est Integration Railway - Phase I (Ilhéus - Barreiras) (BR)	2,000.0	Public	National	Transport	
	SUBTOTAL	**6,687.0**				
	ANDEAN HUB					
1	Road Corridor Connecting Santa Marta - Paraguachón - Maracaibo - Barquisimeto - Acarigua (CO - VE) (*)	411.2	Public/Private	Binational	Transport	
2	Improvement of the Border Crossings in the Northern Department of Santander and the Táchira State (CO - VE)	2.0	Public	Binational	Transport	
2	Implementation of the Binational Border Service Center (CEBAF) at the Tulcán - Ipiales (Rumichaca) Border Crossing, Including Improvement of the Rumichaca Bridge (CO - EC)	65.0	Public	Binational	Transport	
3	Saravena Border Crossing (CO)	3.3	Public	National	Transport	
4	Puerto Gaitán - Puerto Carreño Multimodal Project, Including Improvement of the Navigation Conditions on the Meta River (CO)	108.0	Public	National	Transport	
5	Binational Border Service Center (CEBAF) - Road Axis No. 1 (EC - PE)	15.9	Public	Binational	Transport	
6	Binational Border Service Center (CEBAF) at San Miguel (CO - EC)	25.0	Public	Binational	Transport	
7	Paving of Vilcabamba - Puente de Integración (Integration Bridge) - Jaén (EC - PE)	334.6	Public	Binational	Transport	
8	Desaguadero Binational Border Service Center (CEBAF) (BO - PE)	40.2	Public	Binational	Transport	
10	Use of Existing Infrastructure and New Connections to Enhance Communications Infrastructure (BO - CO - EC - PE - VE)	0.1	Private	Multi-national	Communications	
	SUBTOTAL	**594.1**				

HUB Group	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Sector	Project Stage
	CAPRICORN HUB					
1	Access Roads to Paso de Jama Border Crossing (National Route No. 52 - Intersection with National Route No. 9 - Border with Chile) (AR)	54.0	Public	National	Transport	●
2	Construction of the Salvador Mazza - Yacuiba Binational Bridge and Border Center (AR - BO)	23.0	Public	Binational	Transport	●
3	New Puerto Presidente Franco - Porto Meira Bridge, with a Paraguay - Brazil Integrated Control Area (BR - PY)	0.0	Public	Binational	Transport	●
4	Optimization of the Puente Ñeembucú - Río Bermejo Bridge Node (AR - PY)	61.2	Public	Binational	Transport	●
5	Multimodal Transfer Center in Tucumán (AR)	20.0	Public	National	Transport	●
	SUBTOTAL	**158.2**				
	GUIANESE SHIELD HUB					
1	Rehabilitation of the Caracas - Manaos Road (BR - VE)	407.0	Public	Binational	Transport	●
2	Lethem - Linden Road (GU)	250.0	Public	Binational	Transport	●
3	Routes Interconnecting Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Apura - Zanderij - Paramaribo) (GU - SU - VE)	300.8	Public/ Private	Trinational	Transport	●
4	Improvement of the Georgetown - Albina Road, and of the Section Ferreira Gomes - Oyapock of the Macapá - Oyapock Road (BR - GU - SU)	350.1	Public	Trinational	Transport	●
	SUBTOTAL	**1,307.9**				
	PARAGUAY-PARANÁ WATERWAY HUB					
1	Improvement of Navigation Conditions on the Paraguay River (Asunción - Apa) (PY)	88.3	Public	National	Transport	●
2	Itaipú Diversion Binational Project (BR - PY)	0.0	Public/ Private	Binational	Transport	●
3	Binational Proyect for the Improvement of Navigation Conditions on Paraguay River, from Confluencia to Asunción (AR - PY)	45.5	Public	Binational	Transport	●
4	Binational Proyect for the Improvement of Navigation Conditions on the Alto Paraná River (AR - PY)	0.0	Public	Binational	Transport	●
5	Binational Proyect for the Improvement of Navigation Conditions on the Uruguay River (AR - UY)	40.0	Public	Binational	Transport	●
	SUBTOTAL	**173.8**				

HUB Group	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Sector	Project Stage
	CENTRAL INTEROCEANIC HUB					
1	Paving of the Carmelo Peralta - Loma Plata Road Section (PY)	127.5	Public	National	Transport	🟡
1	Construction of Carmelo Peralta (Paraguay) - Porto Murtinho (Brazil) International Bridge (BR - PY)	0.0	Public	Binational	Transport	🔴
2	São Paulo Ring Railway (BR)	1,500.0	Public/ Private	National	Transport	🟡
3	Construction of Pailón - San José - Puerto Suárez Road (BO)	409.0	Public	National	Transport	🟢
4	Concepción - Brazilian Border (San Matías) Roac (BO)	79.5	Public/ Private	National	Transport	🟡
5	Rehabilitation of El Sillar Road Section (BO)	122.5	Public	National	Transport	🟡
	SUBTOTAL	**2,238.5**				
	MERCOSUR - CHILE HUB					
1	Upgrade of National Route No. 14 to a Four-Lane Road, between Paso de Los Libres and Gualeguaychú (AR)	780.0	Public	National	Transport	🔵
2	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) (UY)	246.2	Public/ Private	National	Transport	🟢
3	Railway Project between Los Andes, Chile and Mendoza, Argentina (Central Transandean Railway) (AR - CH)	5,100.0	Private	Binational	Transport	🟡
4	Rehabilitation and Upgrade of National Route No. 168 to a Four-Lane Road from Paraná (Underwater Road Tunnel) to Santa Fe (AR)	40.0	Public	National	Transport	🔵
5	Itaipú System (Existing) (BR - PY) (*)	16,000.0	Public	Binational	Energy	🔵
6	Paving of National Route No. 145, from Intersection with National Route No. 40 South to the Access to Pehuenche Border Crossing (AR)	63.0	Public	National	Transport	🟢
6	Paving of Puente Armerillo - Pehuenche Border Crossing Road Section (Route CH-115) (CH)	60.0	Public	National	Transport	🔵
	SUBTOTAL	**6,289.2**				

HUB Group	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Sector	Project Stage
	PERU - BRASIL - BOLIVIA HUB					
1	Paving of Iñapari - Puerto Maldonado - Inambari, Inambari - Juliaca / Inambari - Cusco Roads (PE)	1,884.4	Private	National	Transport	●
2	Guayaramerín (Bolivia) y Guajará-Mirim (Brazil) International Bridge, over the Mamoré River (BO - BR)	75.0	Public	Binational	Transport	●
3	Improvement of Navigation Conditions on the Madeira River, between Porto Velho and Guajará-Mirim (BR)	700.0	Public	National	Transport	●
	SUBTOTAL	**2,659.4**				
	SOUTHERN HUB					
1	Implementation of Integrated Border Control in Pino Hachado Border Crossing (AR - CH)	8.0	Public	Binational	Transport	●
2	Upgrade and Maintenance of Interlagos Route in Chile (CH)	175.0	Public	National	Transport	●
2	Upgrade and Maintenance of Interlagos Route in Argentina (AR)	200.0	Public	National	Transport	●
	SUBTOTAL	**383.0**				
	TOTAL	**20,491.2**				

Nota: (*) Investments in this existing project are not included in the total estimated amount as they were mostly made before IIRSA was launched.

The table above shows that the countries defined 53 Anchor Projects totaling an estimated investment of US$20,491.2 millions. Priority is given to national, binational or tri-national infrastructure works associated with the transport sector (96.2% of all Anchor Projects) that represent either missing links or bottlenecks for current traffic demand. Furthermore, 30.2% of the Anchor Projects (16 projects) are in execution and 18.9% (10 projects) have already been concluded.

AMAZON HUB

COUNTRY MEMBERS

TOTAL NUMBER OF PROJECTS

88

INVESTMENT

(US$ million)

28,948.9

TOTAL NUMBER OF PROJECTS

Percentage by stage

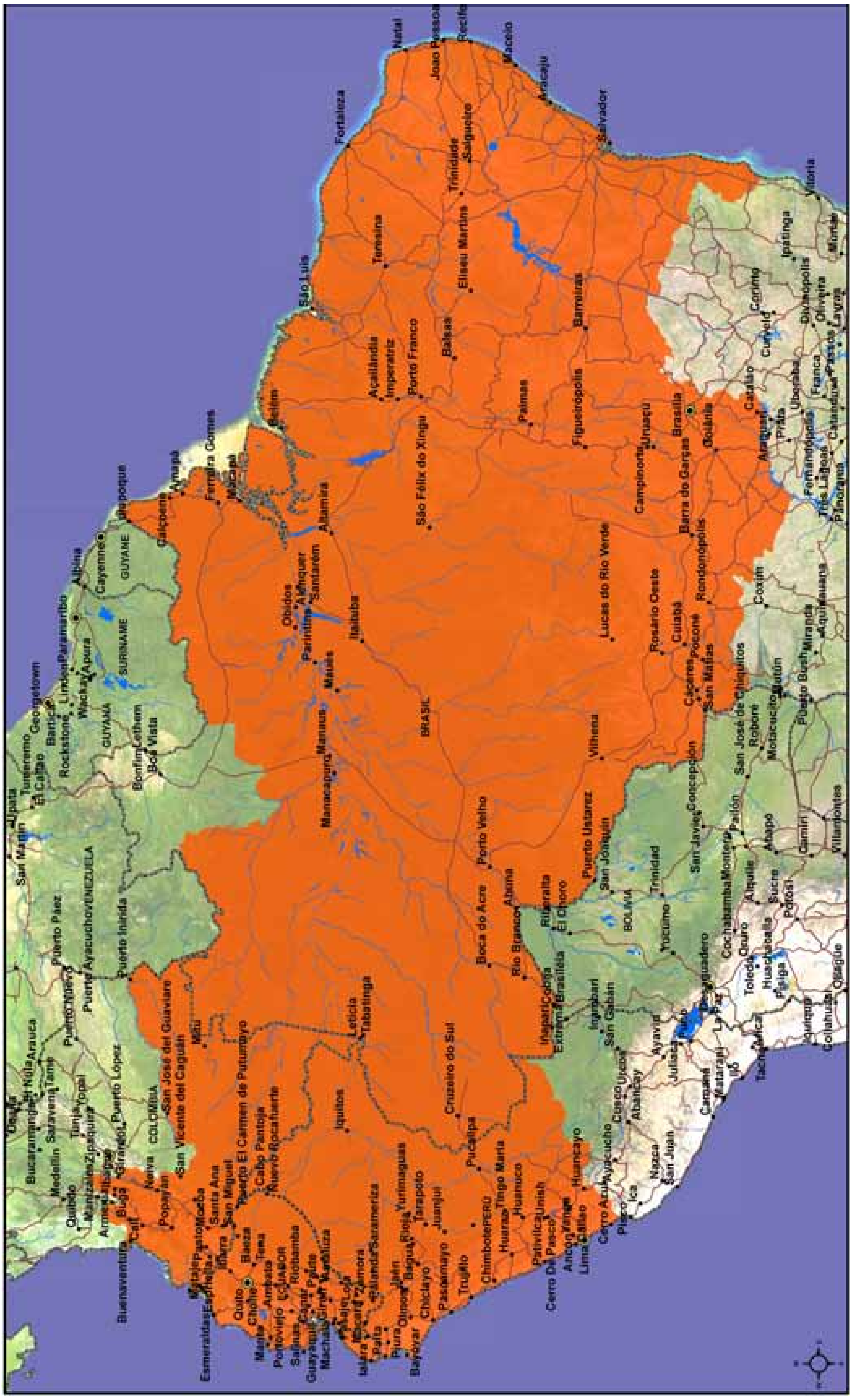
30.7%	PROFILING
26.1%	PRE-EXECUTION
33.0%	EXECUTION
10.2%	CONCLUDED

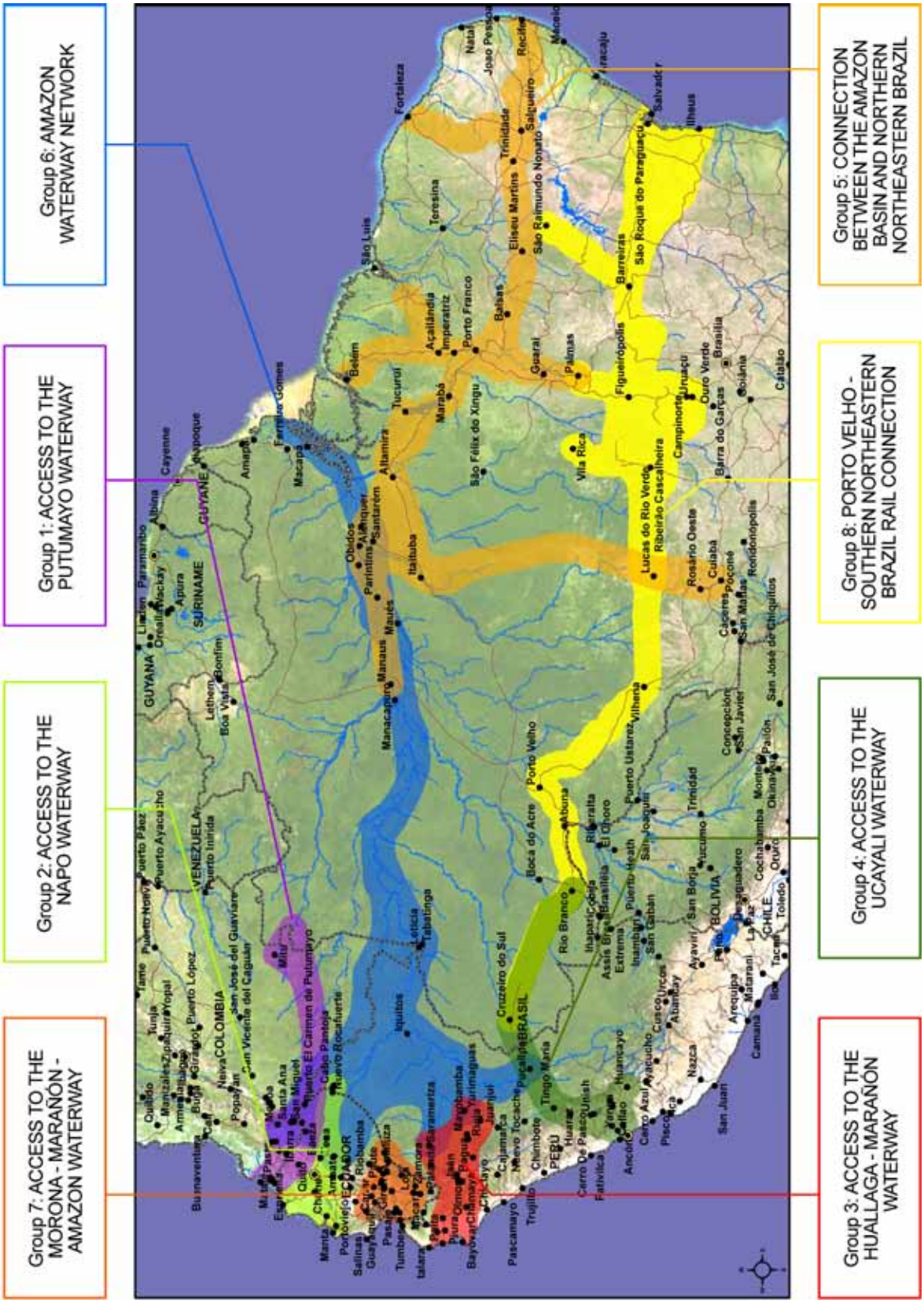
INVESTMENT

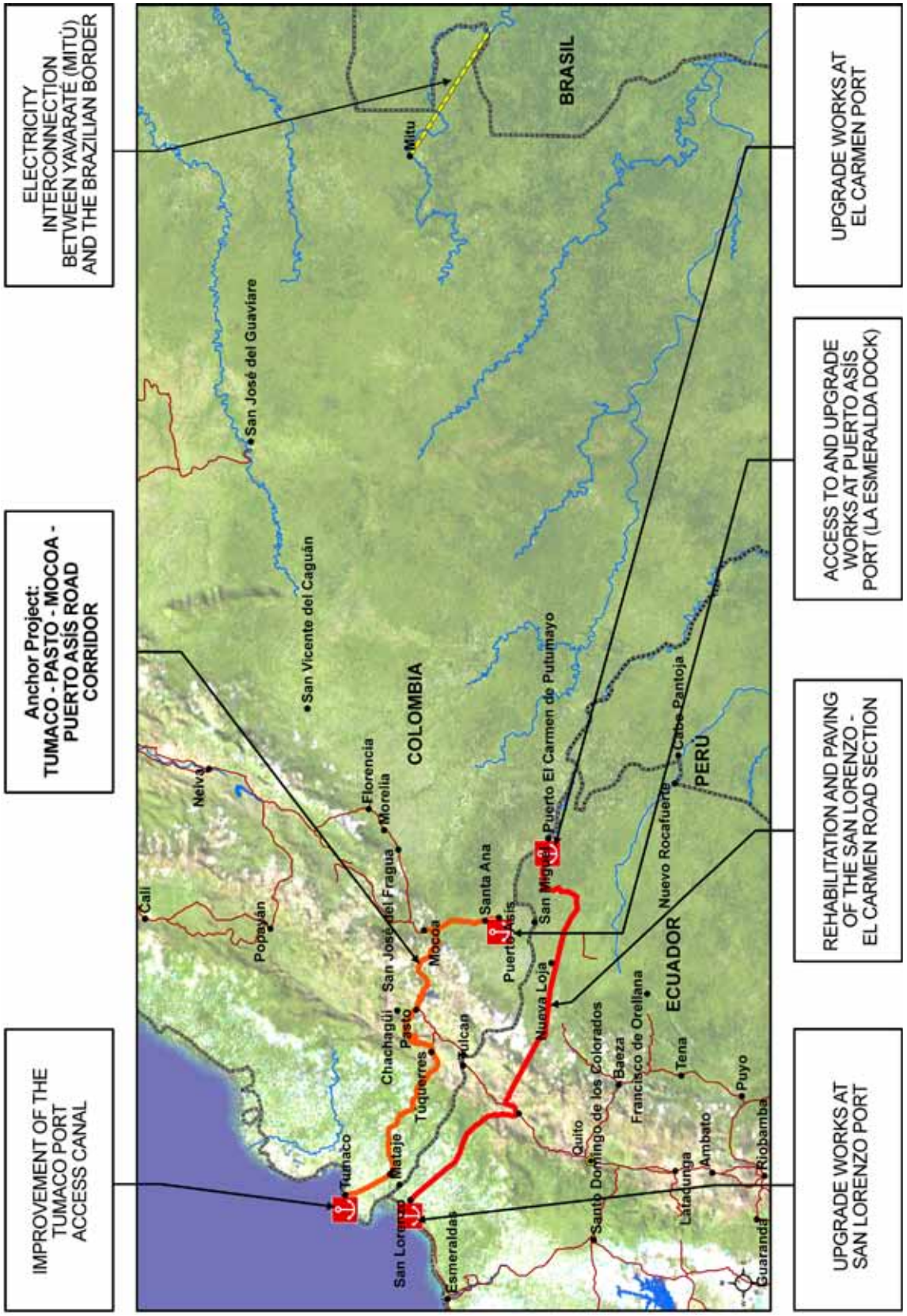
Percentage by stage

PROFILING	7.5%
PRE-EXECUTION	14.9%
EXECUTION	66.9%
CONCLUDED	10.7%

PROFILING · PRE-EXECUTION · EXECUTION · CONCLUDED

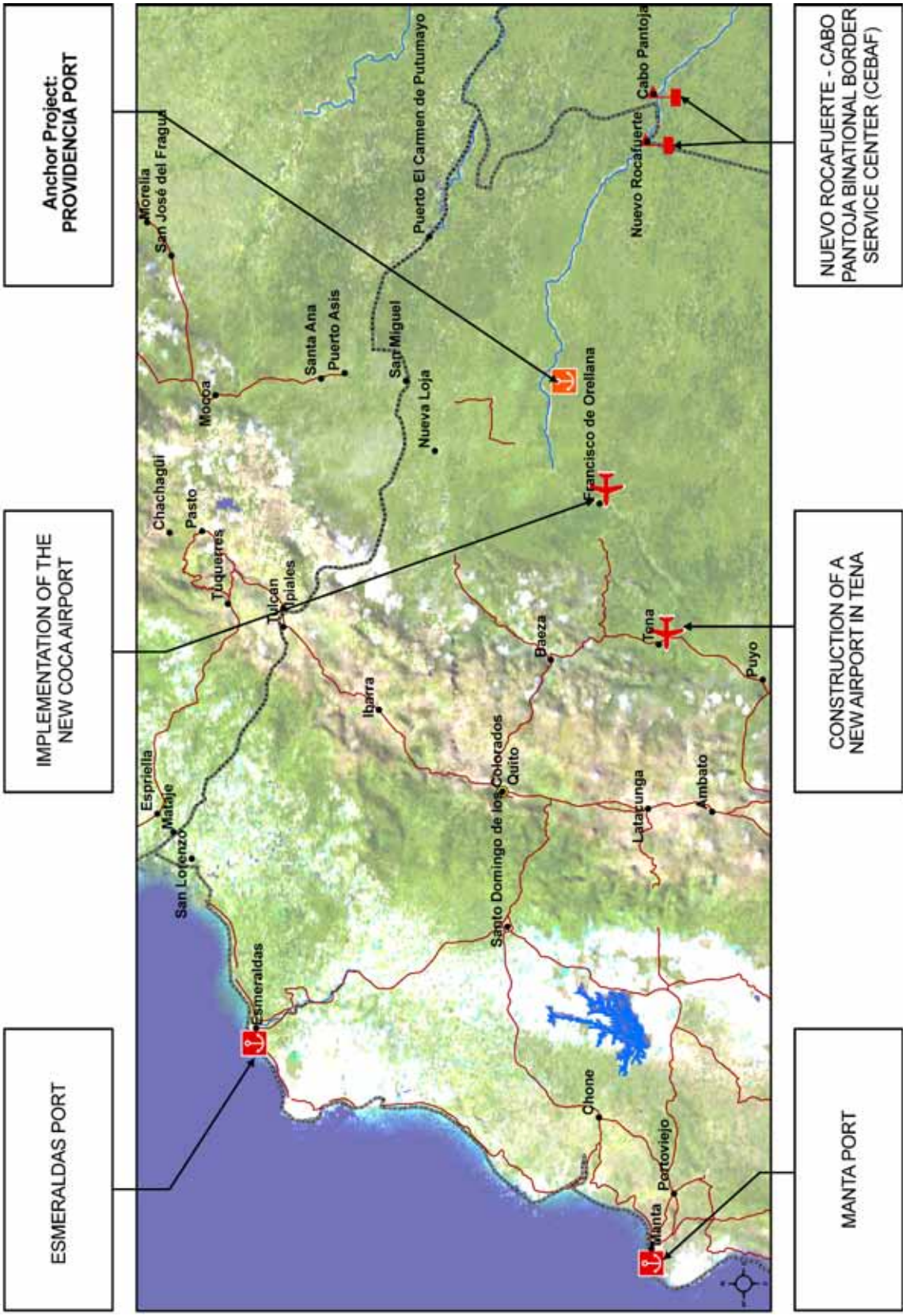

BRASIL
Fortaleza
Natal
Salvador
Belém
São Luis
Manaus
Brasília
Iquitos
Leticia
Tabatinga
Porto Velho
Cuiabá
Santarém
Goiânia


Group 6: AMAZON WATERWAY NETWORK
Group 1: ACCESS TO THE PUTUMAYO WATERWAY
Group 2: ACCESS TO THE NAPO WATERWAY
Group 7: ACCESS TO THE MORONA - MARAÑÓN - AMAZON WATERWAY
Group 5: CONNECTION BETWEEN THE AMAZON BASIN AND NORTHERN NORTHEASTERN BRAZIL
Group 8: PORTO VELHO - SOUTHERN NORTHEASTERN BRAZIL RAIL CONNECTION
Group 4: ACCESS TO THE UCAYALI WATERWAY
Group 3: ACCESS TO THE HUALLAGA - MARAÑÓN WATERWAY


ELECTRICITY INTERCONNECTION BETWEEN YAVARATÉ (MITÚ) AND THE BRAZILIAN BORDER
Anchor Project: TUMACO - PASTO - MOCOA - PUERTO ASÍS ROAD CORRIDOR
IMPROVEMENT OF THE TUMACO PORT ACCESS CANAL
UPGRADE WORKS AT EL CARMEN PORT
ACCESS TO AND UPGRADE WORKS AT PUERTO ASÍS PORT (LA ESMERALDA DOCK)
REHABILITATION AND PAVING OF THE SAN LORENZO - EL CARMEN ROAD SECTION
UPGRADE WORKS AT SAN LORENZO PORT
BRASIL
COLOMBIA
ECUADOR
PERÚ
Mitu
San José del Guaviare
San Vicente del Caguán
Puerto El Carmen de Putumayo
Cabo Pantoja
Nuevo Rocafuerte
Florencia
Morelia
Neiva
Cali
Popayán
Santa Ana
Puerto Asís
San Miguel
Mocoa
San José del Fragua
Chachagüí
Pasto
Túquerres
Tulcán
Nueva Loja
Tumaco
Mataje
San Lorenzo
Esmeraldas
Quito
Santo Domingo de los Colorados
Baeza
Francisco de Orellana
Tena
Puyo
Ambato
Latacunga
Riobamba
Guaranda

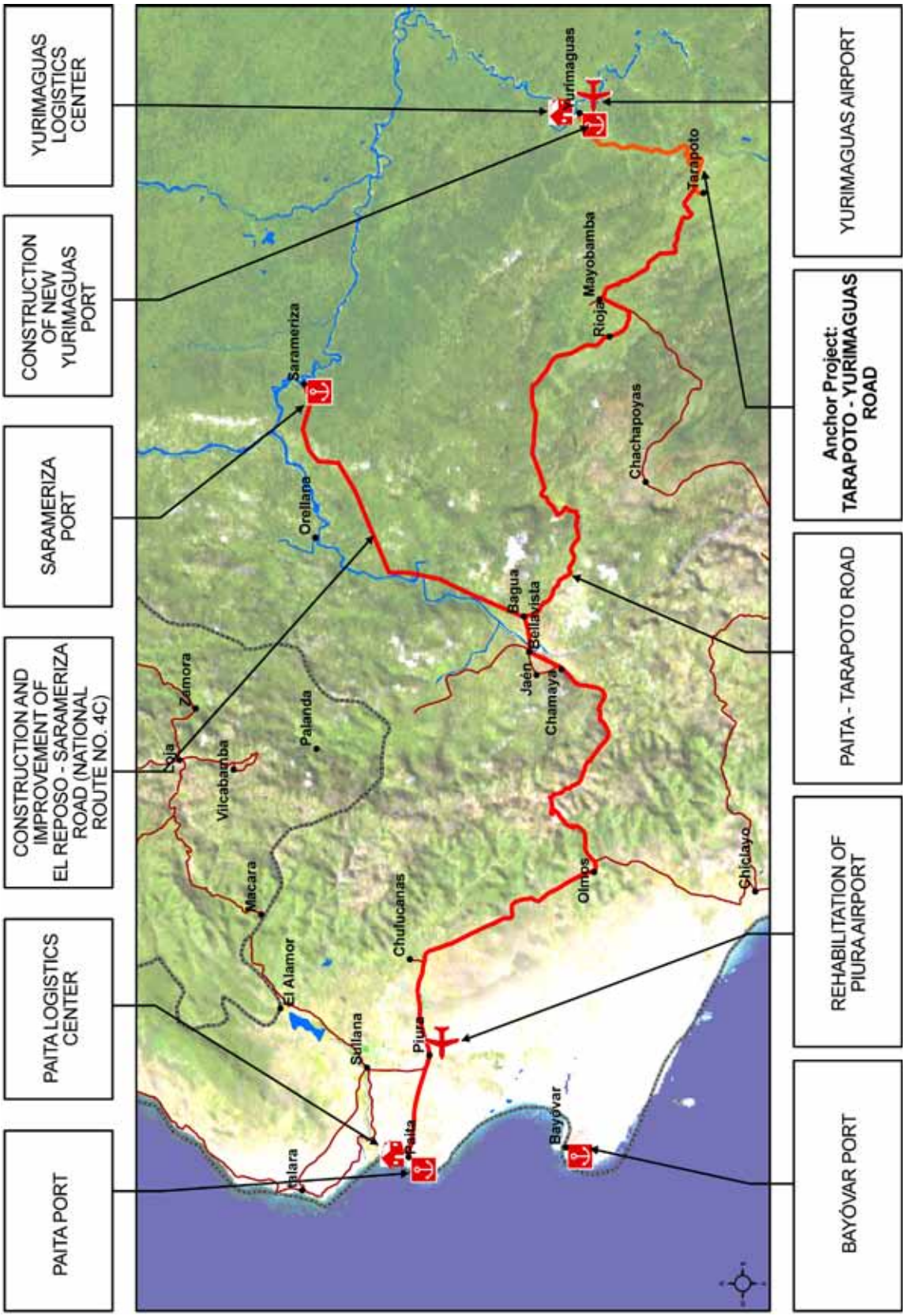
- Improve the logistics of national integration between production areas of the south of Colombia, department of Nariño, and the Amazon departments of Putumayo and Amazonas, and areas of northern Ecuador (especially the province of Sucumbíos).
- Improve the logistics of integration with Brazil and Peru.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

Code	Stage	Amazon Hub: Group 1	Estimated Investment (US$ million)
AMA01	●	Tumaco - Pasto - Mocoa - Puerto Asís Road Corridor (CO)	404.9
AMA03	●	Access to and Upgrade Works at Puerto Asís Port (La Esmeralda Dock) (CO)	3.0
AMA05	●	Upgrade Works at El Carmen Port (EC)	3.0
AMA06	●	Upgrade Works at San Lorenzo Port (EC)	6.0
AMA09	●	Rehabilitation and Paving of the San Lorenzo - El Carmen Road Section (EC)	75.9
AMA59	●	Improvement of the Tumaco Port Access Canal (CO)	5.0
AMA60	●	Electricity Interconnection Between Yavaraté (Mitú) and the Brazilian Border (CO)	0.3
		TOTAL	498.1


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

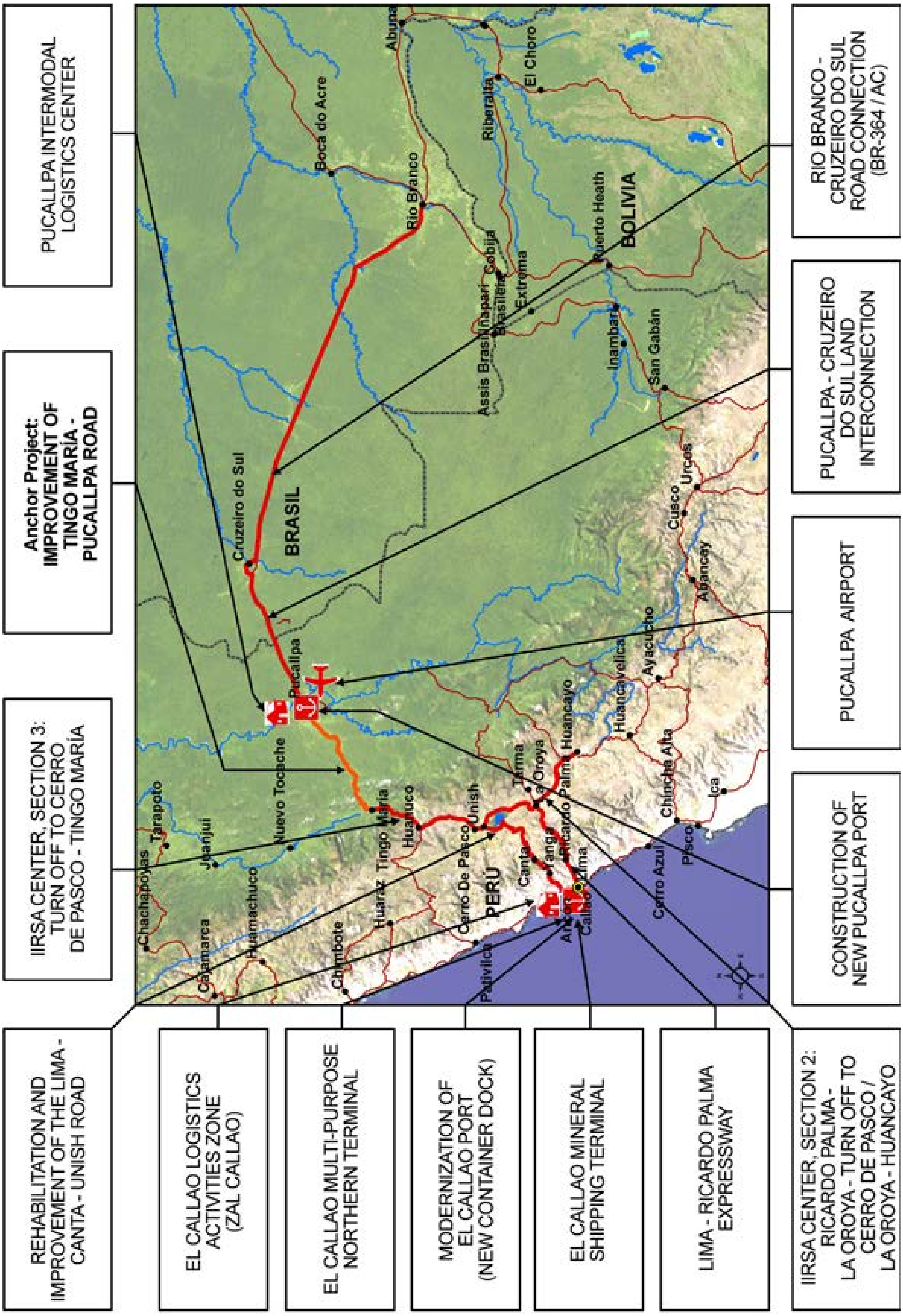
- Strengthen national Ecuadorian integration in the Amazon area, provinces of Napo and Orellana, with the sierras and coast in the central and northern part of the country, and consolidate the opportunity of having an Ecuadorian river for Amazon international integration towards Manaus.
- Reinforce the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

Code	Stage	Amazon Hub: Group 2	Estimated Investment (US$ million)
AMA11	●	Construction of a New Airport in Tena (EC)	46.0
AMA13	●	Nuevo Rocafuerte - Cabo Pantoja Binational Border Service Center (CEBAF) (EC - PE)	2.0
AMA14	●	Esmeraldas Port (EC)	0.0
AMA15	●	Manta Port (EC)	0.0
AMA61	●	Execution of the New Coca Airport (EC)	60.0
AMA71	●	Providencia Port (EC)	25.0
		TOTAL	133.0


YURIMAGUAS LOGISTICS CENTER
CONSTRUCTION OF NEW YURIMAGUAS PORT
SARAMERIZA PORT
CONSTRUCTION AND IMPROVEMENT OF EL REPOSO - SARAMERIZA ROAD (NATIONAL ROUTE NO. 4C)
PAITA LOGISTICS CENTER
PAITA PORT
YURIMAGUAS AIRPORT
Anchor Project: TARAPOTO - YURIMAGUAS ROAD
PAITA - TARAPOTO ROAD
REHABILITATION OF PIURA AIRPORT
BAYÓVAR PORT
Yurimaguas
Tarapoto
Mayobamba
Rioja
Chachapoyas
Saramerizа
Orellana
Bagua
Bellavista
Jaén
Chamaya
Olmos
Chiclayo
Loja
Zamora
Palanda
Vilcabamba
Macara
El Alamor
Chulucanas
Sullana
Piura
Paita
Talara
Bayóvar

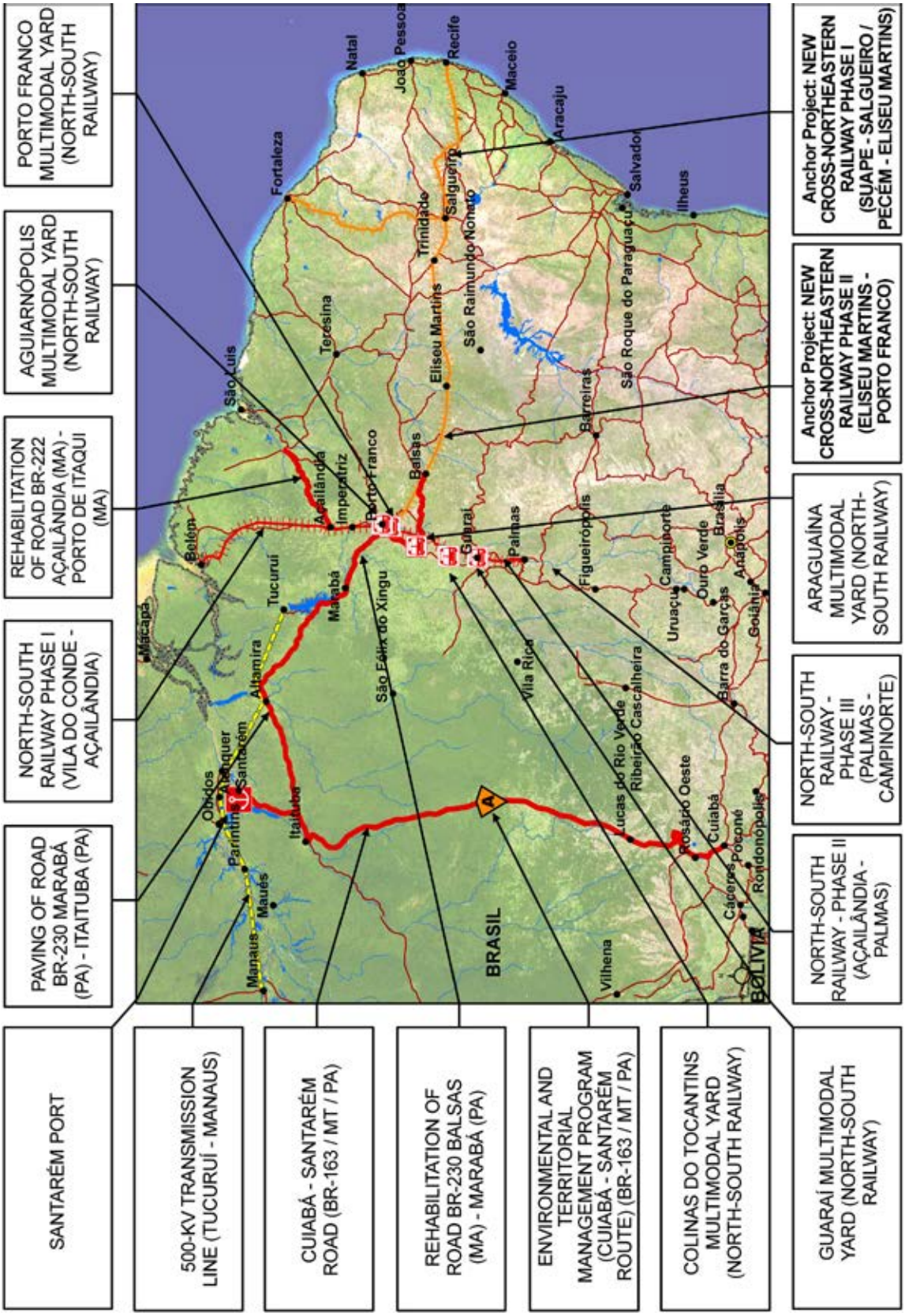
- Improve access logistics to the Huallaga and Marañón Waterways and their ports so as to consolidate the coast - sierra - rainforest integration corridor of the northern region of Peru and its regional complementariness with the state of Amazonas, Brazil.
- Allow the articulation of this area with south and southeast Ecuador.
- Reinforce the interconnection of the continent's hinterlands with the Pacific Basin.

Code	Stage	Amazon Hub: Group 3	Estimated Investment (US$ million)
AMA16	●	Tarapoto - Yurimaguas Road (PE)	231.7
AMA17	●	Rehabilitation of Piura Airport (PE)	7.2
AMA18	●	Yurimaguas Airport (PE)	15.8
AMA19	●	Construction and Improvement of El Reposo - Sarameriza Road (National Route No. 4C) (PE)	352.1
AMA20	●	Paita Logistics Center (PE)	47.7
AMA21	●	Yurimaguas Logistics Center (PE)	15.0
AMA22	●	Bayóvar Port (PE)	70.0
AMA23	●	Sarameriza Port (PE)	3.5
AMA24	●	Paita Port (PE)	266.9
AMA25	●	Paita - Tarapoto Road (PE)	273.6
AMA102	●	Construction of New Yurimaguas Port (PE)	50.3
		TOTAL	1,333.8


PUCALLPA INTERMODAL LOGISTICS CENTER
Anchor Project: IMPROVEMENT OF TINGO MARÍA - PUCALLPA ROAD
IIRSA CENTER, SECTION 3: TURN OFF TO CERRO DE PASCO - TINGO MARÍA
REHABILITATION AND IMPROVEMENT OF THE LIMA - CANTA - UNISH ROAD
EL CALLAO LOGISTICS ACTIVITIES ZONE (ZAL CALLAO)
EL CALLAO MULTI-PURPOSE NORTHERN TERMINAL
MODERNIZATION OF EL CALLAO PORT (NEW CONTAINER DOCK)
EL CALLAO MINERAL SHIPPING TERMINAL
LIMA - RICARDO PALMA EXPRESSWAY
IIRSA CENTER, SECTION 2: RICARDO PALMA - LA OROYA - TURN OFF TO CERRO DE PASCO / LA OROYA - HUANCAYO
CONSTRUCTION OF NEW PUCALLPA PORT
PUCALLPA AIRPORT
PUCALLPA - CRUZEIRO DO SUL LAND INTERCONNECTION
RIO BRANCO - CRUZEIRO DO SUL ROAD CONNECTION (BR-364 / AC)
BRASIL
BOLIVIA
PERÚ
Pucallpa
Cruzeiro do Sul
Rio Branco
Boca do Acre
Abunã
Riberalta
El Choro
Cobija
Brasiléia
Assis Brasil
Iñapari
Extrema
Puerto Heath
Inambari
San Gabán
Urcos
Cusco
Abancay
Ayacucho
Huancavelica
Huancayo
Chincha Alta
Ica
Pisco
Cerro Azul
Lima
Callao
Ancón
Ricardo Palma
Tanga
La Oroya
Tarma
Canta
Unish
Cerro De Pasco
Huánuco
Tingo María
Nuevo Tocache
Huaraz
Chimbote
Paivilca
Huamachuco
Cajamarca
Chachapoyas
Juanjuí
Tarapoto

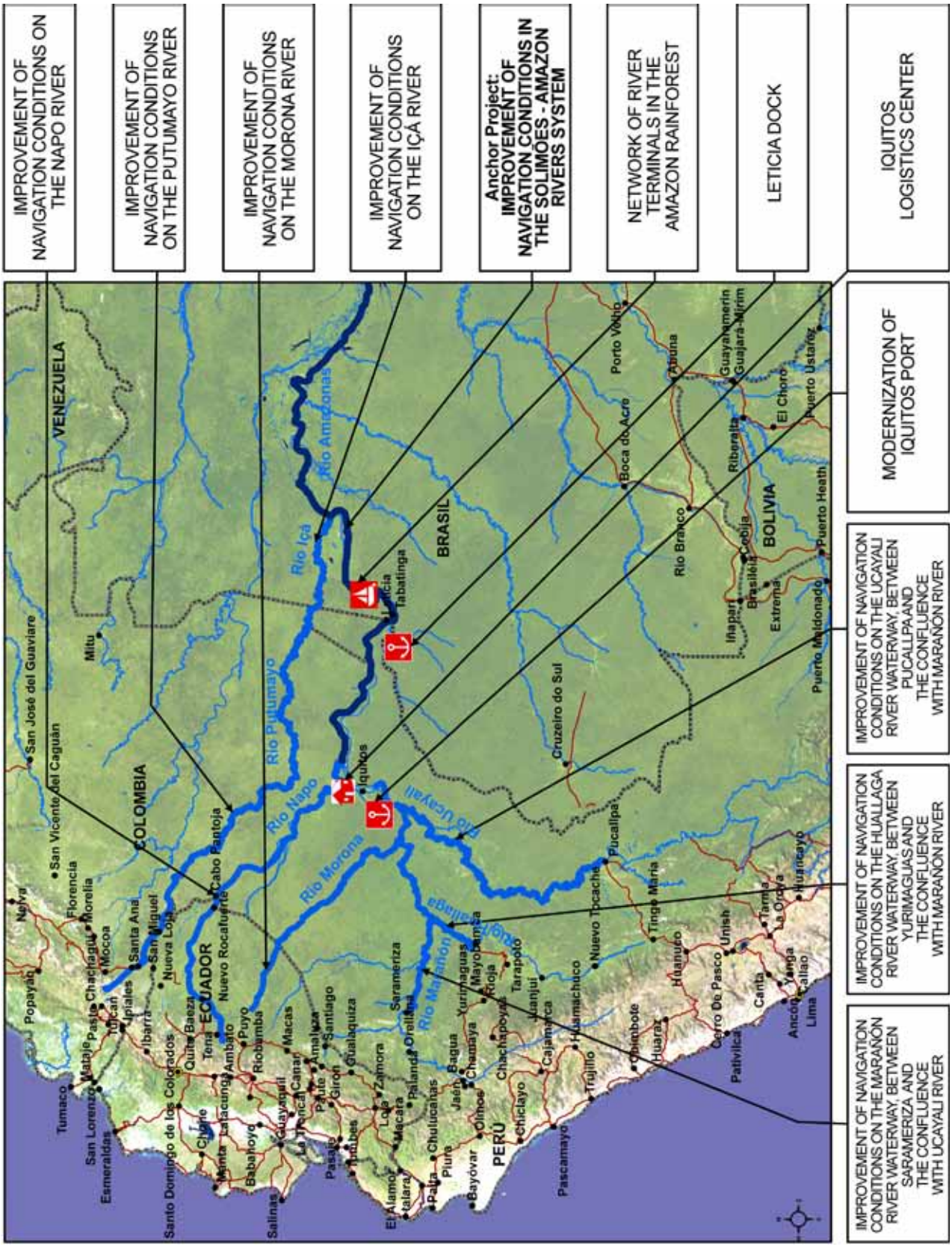
- Increase competitiveness of the coast - sierra - rainforest integration along the central corridor of the Peruvian territory, interconnecting the main urban/industrial center of the country, its central area and the states of Acre, Amazonas and Rondônia, Brazil.
- Reinforce the interconnection of the continent's hinterlands with the Pacific Basin.

Code	Stage	Amazon Hub: Group 4	Estimated Investment (US$ million)
AMA26	🟢	Improvement of Tingo María - Pucallpa Road (PE)	462.5
AMA28	🔴	Pucallpa - Cruzeiro do Sul Land Interconnection (BR - PE)	0.0
AMA29	🟢	Pucallpa Airport (PE)	9.4
AMA30	🔴	Pucallpa Intermodal Logistics Center (PE)	15.0
AMA31	🟢	Modernization of El Callao Port (New Container Dock) (PE)	704.9
AMA32	🔴	Lima - Ricardo Palma Expressway (PE)	242.0
AMA55	🟢	Río Branco - Cruzeiro do Sul Road Connection (BR-364 / AC) (BR)	573.0
AMA63	🟡	IIRSA Center, Section 2: Ricardo Palma - La Oroya - Turn Off to Cerro de Pasco / La Oroya - Huancayo (PE)	100.0
AMA64	🔴	IIRSA Center, Section 3: Turn Off to Cerro de Pasco - Tingo María (PE)	115.6
AMA65	🔴	El Callao Logistics Activities Zone (Zal Callao) (PE)	155.7
AMA66	🟢	El Callao Multi-Purpose Northern Terminal (PE)	883.4
AMA67	🟢	El Callao Mineral Shipping Terminal (PE)	120.3
AMA72	🟢	Rehabilitation and Improvement of the Lima - Canta - Unish Road (PE)	314.8
AMA104	🟡	Construction of New Pucallpa Port (PE)	117.8
		TOTAL	3,814.4


PORTO FRANCO MULTIMODAL YARD (NORTH-SOUTH RAILWAY)
AGUIARNÓPOLIS MULTIMODAL YARD (NORTH-SOUTH RAILWAY)
REHABILITATION OF ROAD BR-222 AÇAILÂNDIA (MA) - PORTO DE ITAQUI (MA)
NORTH-SOUTH RAILWAY PHASE I (VILA DO CONDE - AÇAILÂNDIA)
PAVING OF ROAD BR-230 MARABÁ (PA) - ITAITUBA (PA)
SANTARÉM PORT
500-KV TRANSMISSION LINE (TUCURUÍ - MANAUS)
CUIABÁ - SANTARÉM ROAD (BR-163 / MT / PA)
REHABILITATION OF ROAD BR-230 BALSAS (MA) - MARABÁ (PA)
ENVIRONMENTAL AND TERRITORIAL MANAGEMENT PROGRAM (CUIABÁ - SANTARÉM ROUTE) (BR-163 / MT / PA)
COLINAS DO TOCANTINS MULTIMODAL YARD (NORTH-SOUTH RAILWAY)
GUARAÍ MULTIMODAL YARD (NORTH-SOUTH RAILWAY)
Anchor Project: NEW CROSS-NORTHEASTERN RAILWAY PHASE I (SUAPE - SALGUEIRO / PECÉM - ELISEU MARTINS)
Anchor Project: NEW CROSS-NORTHEASTERN RAILWAY PHASE II (ELISEU MARTINS - PORTO FRANCO)
ARAGUAÍNA MULTIMODAL YARD (NORTH-SOUTH RAILWAY)
NORTH-SOUTH RAILWAY - PHASE III (PALMAS - CAMPINORTE)
NORTH-SOUTH RAILWAY - PHASE II (AÇAILÂNDIA - PALMAS)
BRASIL
BOLIVIA
Natal
João Pessoa
Recife
Maceio
Aracaju
Salvador
Ilheus
Fortaleza
Salgueiro
Trindade
São Raimundo Nonato
São Luis
Teresina
Eliseu Martins
São Roque do Paraguaçu
Barreiras
Balsas
Açailândia
Imperatriz
Porto Franco
Belém
Palmas
Gurupi
Figueiropolis
Brasília
Campinorte
Ouro Verde
Anápolis
Goiânia
Uruaçu
Barra do Garças
Tucuruí
Marabá
Macapá
Altamira
São Félix do Xingu
Vila Rica
Santarém
Óbidos
Parintins
Itaituba
Maués
Manaus
Lucas do Rio Verde
Ribeirão Cascalheira
Rosário Oeste
Cuiabá
Cáceres
Pocone
Rondonópolis
Vilhena

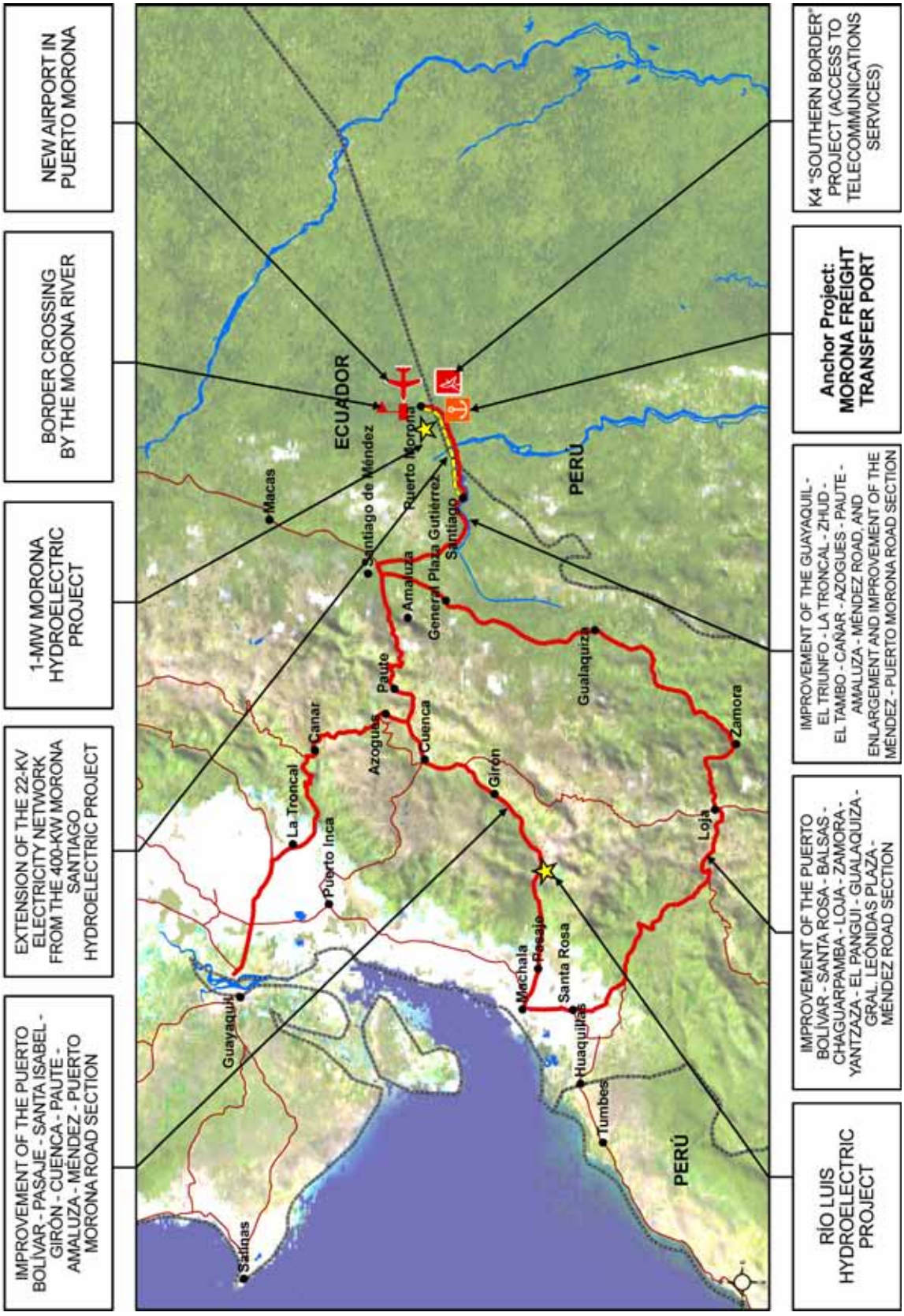
- Enlarge the connection and transportation alternatives between Central-Western and Northern Northeastern Brazil, and the access to new ports and markets in the region.
- Reduce the logistics costs associated with the supply of raw materials and the distribution of products to facilitate the integration 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.

Code	Stage	Amazon Hub: Group 5	Estimated Investment (US$ million)
AMA33	●	Cuiabá - Santarém Road (BR-163 / MT / PA) (BR)	7,000.0
AMA34	●	Environmental and Territorial Management Program (Cuiabá - Santarém Road) (BR-163 / MT / PA) (BR)	12.0
AMA35	●	Santarém Port (BR)	85.0
AMA73	●	New Cross-Northeastern Railway Phase I (Suape - Salgueiro/Pecém - Eliseu Martins) (BR)	3,000.0
AMA76	●	New Cross-Northeastern Railway Phase II (Eliseu Martins-Porto Franco) (BR)	0.0
AMA77	●	North-South Railway Phase I (Vila do Conde - Açailândia) (BR)	1,300.0
AMA78	●	North-South Railway Phase II (Açailândia - Palmas) (BR)	2,500.0
AMA79	●	Aguiarnópolis Multimodal Yard (North-South Railway) (BR)	0.0
AMA80	●	Araguaina Multimodal Yard (North-South Railway) (BR)	0.0
AMA81	●	Guaraí Multimodal Yard (North-South Railway) (BR)	0.0
AMA82	●	Colinas do Tocantins Multimodal Yard (North-South Railway) (BR)	0.0
AMA83	●	Porto Franco Multimodal Yard (North-South Railway) (BR)	0.0
AMA84	●	Rehabilitation of Road BR-222 Açailândia (MA) - Porto de Itaqui (MA) (BR)	0.0
AMA85	●	Rehabilitation of Road BR-230 Balsas (MA) - Marabá (PA) (BR)	0.0
AMA86	●	Paving of Road BR-230 Marabá (PA) - Itaituba (PA) (BR)	0.0
AMA87	●	500 KV Transmission Line (Tucuruí - Manaos) (BR)	1,320.0
AMA105	●	North-South Railway Phase III (Palmas - Campinorte) (BR)	600.0
		TOTAL	15,817.0


IMPROVEMENT OF NAVIGATION CONDITIONS ON THE NAPO RIVER
IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PUTUMAYO RIVER
IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MORONA RIVER
IMPROVEMENT OF NAVIGATION CONDITIONS ON THE IÇÁ RIVER
Anchor Project: IMPROVEMENT OF NAVIGATION CONDITIONS IN THE SOLIMÕES - AMAZON RIVERS SYSTEM
NETWORK OF RIVER TERMINALS IN THE AMAZON RAINFOREST
LETICIA DOCK
IQUITOS LOGISTICS CENTER
MODERNIZATION OF IQUITOS PORT
IMPROVEMENT OF NAVIGATION CONDITIONS ON THE UCAYALI RIVER WATERWAY, BETWEEN PUCALLPA AND THE CONFLUENCE WITH MARAÑON RIVER
IMPROVEMENT OF NAVIGATION CONDITIONS ON THE HUALLAGA RIVER WATERWAY, BETWEEN YURIMAGUAS AND THE CONFLUENCE WITH MARAÑON RIVER
IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MARAÑON RIVER WATERWAY, BETWEEN SARAMERIZA AND THE CONFLUENCE WITH UCAYALI RIVER
VENEZUELA
COLOMBIA
ECUADOR
PERU
BRASIL
BOLIVIA
Río Amazonas
Río Içá
Río Putumayo
Río Napo
Río Morona
Río Ucayali
Río Marañón
Iquitos
Tabatinga
Leticia
Cruzeiro do Sul
Boca do Acre
Porto Velho
Abuna
Guayaramerin
Guajará-Mirim
Riberalta
El Chorro
Puerto Ustariz
Rio Branco
Cobija
Brasiléia
Puerto Heath
Puerto Maldonado
Iñapari
Extrema
Pucallpa
Nuevo Tipcacha
Tingo Maria
Huanuco
Cerro De Pasco
Unish
Tarma
La Oroya
Huancayo
Canta
Yanga
Callao
Lima
Ancon
Pativilca
Huaraz
Chimbote
Trujillo
Pascamayo
Chiclayo
Chachapoyas
Tarapoto
Yurimaguas
Mayobamba
Moyobamba
Juanjui
Huamachuco
Cajamarca
Saramiriza
Orellana
Zamora
Loja
Macara
Paland
Chulucanas
Piura
Paita
Bayóvar
Talara
El Alamor
Tumbes
Jaén
Bagua
Chamaya
Olmos
Pasaje
Girón
Santiago
Gualaquiza
Amaluza
Macas
Canar
Puyo
Riobamba
Ambato
Cabo Pantoja
Nuevo Rocafuerte
Nueva Loja
San Miguel
Santa Ana
Ibarra
Ipiales
Pasto
Chachagui
Florencia
Morelia
Mocoa
Neiva
Popayán
Tumaco
San Lorenzo
Esmeraldas
Santo Domingo de los Colorados
Quito
Baeza
Tena
Latacunga
Ambato
Chone
Manta
Babahoyo
Guayaquil
Salinas
Mitu
San José del Guaviare
San Vicente del Caguán

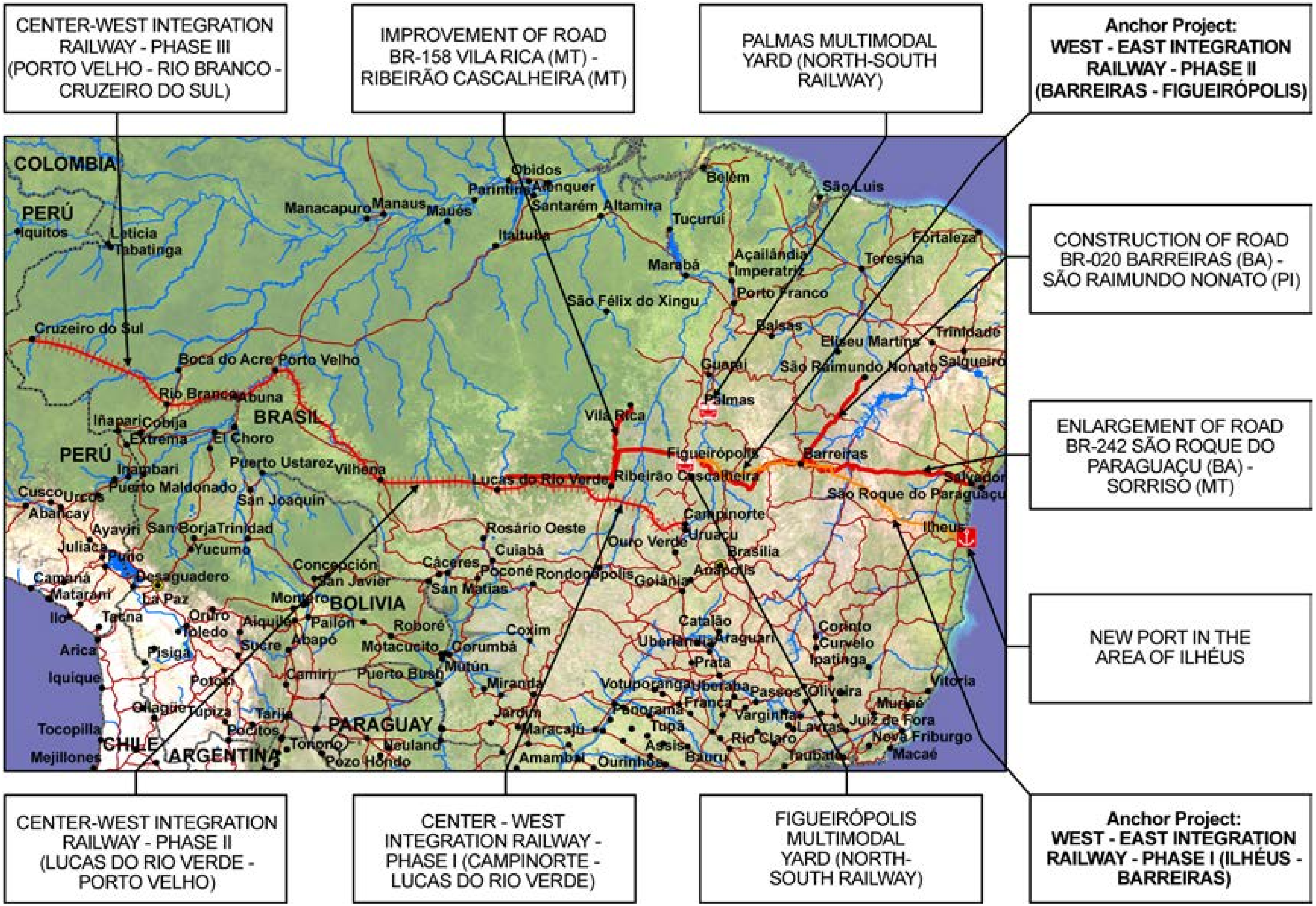
- Improve the navigation condition of the Amazon basin's rivers in order to promote sustainable economic, social and environmental development in the Amazon region, and gradually generate long distance and bioceanic transport flows.

Code	Stage	Amazon Hub: Group 6	Estimated Investment (US$ million)
AMA36	🔵	Improvement of Navigation Conditions in the Solimões - Amazonas Rivers System (BR)	8.0
AMA37	🔴	Improvement of Navigation Conditions on the Içá River (BR)	8.0
AMA38	🟡	Improvement of Navigation Conditions on the Putumayo River (CO - EC - PE)	15.0
AMA39	🔴	Improvement of Navigation Conditions on the Morona River (EC - PE)	2.0
AMA40	🟡	Improvement of Navigation Conditions on the Huallaga River Waterway, between Yurimaguas and the Confluence (PE)	33.0
AMA41	🟡	Improvement of Navigation Conditions on the Marañón River Waterway, between Sarameriza and the Confluence (PE)	11.0
AMA42	🔴	Improvement of Navigation Conditions on the Napo River (EC - PE)	5.8
AMA43	🟡	Improvement of Navigation Conditions on the Ucayali River Waterway, between Pucallpa and the Confluence with Marañón River (PE)	19.0
AMA44	🔴	Iquitos Logistics Center (PE)	15.0
AMA56	🟡	Modernization of Iquitos Port (PE)	39.5
AMA57	🟢	Network of River Terminals in the Amazon Rainforest (BR)	185.0
AMA70	🔴	Leticia Dock (CO)	2.5
		TOTAL	343.8


NEW AIRPORT IN PUERTO MORONA
BORDER CROSSING BY THE MORONA RIVER
1-MW MORONA HYDROELECTRIC PROJECT
EXTENSION OF THE 22-KV ELECTRICITY NETWORK FROM THE 400-KW MORONA SANTIAGO HYDROELECTRIC PROJECT
IMPROVEMENT OF THE PUERTO BOLÍVAR - PASAJE - SANTA ISABEL - GIRÓN - CUENCA - PAUTE - AMALUZA - MÉNDEZ - PUERTO MORONA ROAD SECTION
K4 "SOUTHERN BORDER" PROJECT (ACCESS TO TELECOMMUNICATIONS SERVICES)
Anchor Project: MORONA FREIGHT TRANSFER PORT
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
IMPROVEMENT OF THE PUERTO BOLÍVAR - SANTA ROSA - BALSAS - CHAGUARPAMBA - LOJA - ZAMORA - YANTZAZA - EL PANGUI - GUALAQUIZA - GRAL. LEÓNIDAS PLAZA - MÉNDEZ ROAD SECTION
RÍO LUIS HYDROELECTRIC PROJECT
ECUADOR
PERÚ
PERÚ
Macas
Puerto Morona
Santiago de Méndez
Santiago
General Plaza Gutiérrez
Amaluza
Paute
Azogues
Cañar
La Troncal
Puerto Inca
Cuenca
Girón
Gualaquiza
Zamora
Loja
Machala
Pasaje
Santa Rosa
Huaquillas
Tumbes
Guayaquil
Salinas

- Improve the logistics of national integration among the Ecuadorian provinces of Guayas, Cañar, Azuay, and Morona Santiago, as well as El Oro, Loja, and Zamora - Chinchipe, to consolidate the opportunity of internationally integrating the southern half of Ecuador and the northeastern portion of Peru with the state of Amazonas in Brazil through a river route towards Manaus.

Code	Stage	Amazon Hub: Group 7	Estimated Investment (US$ million)
AMA45	🟡	Morona Freight Transfer Port (EC)	5.0
AMA46	🟢	Improvement of the Guayaquil - El Triunfo - La Troncal - Zhud - El Tambo - Cañar - Azogues - Paute - Amaluza - Méndez Road, and Enlargment and Improvement of the Méndez - Puerto Morona Road Section (EC)	140.0
AMA47	🟢	Improvement of the Puerto Bolívar - Santa Rosa - Balsas - Chaguarpamba - Loja - Zamora - Yantzaza - El Pangui - Gualaquiza - Gral. Leónidas Plaza - Méndez Road Section (EC)	167.7
AMA48	🟢	Improvement of the Puerto Bolívar - Pasaje - Santa Isabel - Girón - Cuenca - Paute - Amaluza - Méndez - Puerto Morona Road Section (EC)	26.8
AMA49	🔴	New Airport in Puerto Morona (EC)	136.4
AMA50	🔴	Extension of the 22-KV Electricity Network from the 400-KW Morona Santiago Hydroelectric Project (EC)	0.3
AMA51	🔴	1-MW Morona Hydroelectric Project (EC)	2.0
AMA52	🔴	Río Luis Hydroelectric Project (EC)	15.5
AMA53	🔴	K4 "Southern Border" Project (Access to Telecommunication Services) (EC)	3.1
AMA54	🔴	Border Crossing by the Morona River (EC - PE)	2.0
		TOTAL	498.8


CENTER-WEST INTEGRATION RAILWAY - PHASE III (PORTO VELHO - RIO BRANCO - CRUZEIRO DO SUL)
IMPROVEMENT OF ROAD BR-158 VILA RICA (MT) - RIBEIRÃO CASCALHEIRA (MT)
PALMAS MULTIMODAL YARD (NORTH-SOUTH RAILWAY)
Anchor Project: WEST - EAST INTEGRATION RAILWAY - PHASE II (BARREIRAS - FIGUEIRÓPOLIS)
CONSTRUCTION OF ROAD BR-020 BARREIRAS (BA) - SÃO RAIMUNDO NONATO (PI)
ENLARGEMENT OF ROAD BR-242 SÃO ROQUE DO PARAGUAÇU (BA) - SORRISO (MT)
NEW PORT IN THE AREA OF ILHÉUS
CENTER-WEST INTEGRATION RAILWAY - PHASE II (LUCAS DO RIO VERDE - PORTO VELHO)
CENTER - WEST INTEGRATION RAILWAY - PHASE I (CAMPINORTE - LUCAS DO RIO VERDE)
FIGUEIRÓPOLIS MULTIMODAL YARD (NORTH-SOUTH RAILWAY)
Anchor Project: WEST - EAST INTEGRATION RAILWAY - PHASE I (ILHÉUS - BARREIRAS)
COLOMBIA
PERÚ
BRASIL
BOLIVIA
PARAGUAY
CHILE
ARGENTINA
Iquitos
Leticia
Tabatinga
Manacapuru
Manaus
Maués
Parintins
Óbidos
Alenquer
Santarém
Altamira
Itaituba
Belém
São Luís
Tucuruí
Marabá
Açailândia
Imperatriz
Teresina
Fortaleza
Porto Franco
São Félix do Xingu
Balsas
Eliseu Martins
Trindade
Salgueiro
São Raimundo Nonato
Guaraí
Palmas
Cruzeiro do Sul
Boca do Acre
Porto Velho
Rio Branco
Abunã
Iñapari
Cobija
Extrema
El Choro
Puerto Ustarez
Vilhena
Inambari
Puerto Maldonado
San Joaquín
Cusco
Urcos
Abancay
Ayaviri
San Borja
Trinidad
Yucumo
Juliaca
Puno
Camaná
Matarani
Desaguadero
La Paz
Ilo
Tacna
Oruro
Toledo
Arica
Pisiga
Iquique
Potosí
Ollagüe
Tupiza
Tocopilla
Mejillones
Tarija
Pocitos
Tonono
Pozo Hondo
Neuland
Aiquile
Sucre
Camiri
Abapó
Pailón
Montero
San Javier
Concepción
Roboré
Motacucito
Puerto Busch
Corumbá
Mutún
Cáceres
San Matías
Poconé
Cuiabá
Rosário Oeste
Rondonópolis
Coxim
Miranda
Jardim
Maracaju
Amambai
Ourinhos
Vila Rica
Lucas do Rio Verde
Ribeirão Cascalheira
Figueirópolis
Barreiras
Salvador
São Roque do Paraguaçu
Ilhéus
Campinorte
Uruaçu
Ouro Verde
Brasília
Goiânia
Anápolis
Catalão
Uberlândia
Araguari
Prata
Corinto
Curvelo
Ipatinga
Votuporanga
Uberaba
Passos
Oliveira
Vitória
Franca
Panorama
Tupã
Assis
Bauru
Varginha
Lavras
Rio Claro
Juiz de Fora
Muriaé
Nova Friburgo
Macaé
Taubaté

- 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.

Code	Stage	Amazon Hub: Group 8	Estimated Investment (US$ million)
AMA68	🔴	Center-West Integration Railway - Phase III (Porto Velho - Rio Branco - Cruzeiro do Sul) (BR)	0.0
AMA88	🟡	West-East Integration Railway - Phase II (Barreiras - Figueirópolis) (BR)	550.0
AMA89	🟢	West-East Integration Railway - Phase I (Ilhéus - Barreiras) (BR)	2,000.0
AMA90	🟡	Center-West Integration Railway - Phase I (Campinorte - Lucas do Rio Verde) (BR)	2,000.0
AMA91	🔴	Center-West Integration Railway - Phase II (Lucas do Rio Verde - Porto Velho) (BR)	0.0
AMA93	🟢	Palmas Multimodal Yard (North-South Railway) (BR)	0.0
AMA94	🟡	Figueirópolis Multimodal Yard (North-South Railway) (BR)	0.0
AMA98	🟢	Enlargment of Road BR-242 São Roque de Paraguaçu (BA) - Sorriso (MT) (BR)	200.0
AMA99	🟢	Improvement of Road BR-158 Vila Rica (MT) - Ribeirão Cascalheira (MT) (BR)	240.0
AMA100	🟢	Construction of Road BR-020 Barreiras (BA) - São Raimundo Nonato (PI) (BR)	520.0
AMA101	🟡	New Port in the Area of Ilhéus (BR)	1,000.0
		TOTAL	6,510.0

I. GENERAL ASPECTS

The countries have agreed to include eighty-eight projects in the Amazon Hub, accounting for an estimated investment of US$ 28,948.9 million, as summarized below:

Table E.1 • **General Indicators of the Amazon Hub**

Group	Name	Number of Projects	Estimated Investment (US$ million)
Group 1	Access to the Putumayo Waterway	7	498.1
Group 2	Access to the Napo Waterway	6	133.0
Group 3	Access to the Huallaga-Marañón Waterway	11	1,333.8
Group 4	Access to the Ucayali Waterway	14	3,814.4
Group 5	Connection between the Amazon Basin and Northern Northeastern Brazil	17	15,817.0
Group 6	Amazon Waterway Network	12	343.8
Group 7	Access to the Morona - Marañón - Amazonas Waterway	10	498.8
Group 8	Porto Velho - Southern Northeastern Brazil Rail Connection	11	6,510.0
	TOTAL	88	28,948.9

II. SOURCE OF FINANCING

Table E.2 • **Source of financing of the Amazon Hub projects**

Source of financing	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Public	55	62.5	22,099.8	77.1
Private	23	26.1	5,978.1	20.8
Public/Private	10	11.4	871.0	2.1
TOTAL	88	100.0	28,948.9	100.0

III. API PROJECTS

Table E.3 • **API Projects - Amazon Hub**

Code	Project Name	Estimated Investment (US$ million)
1	**Paita - Tarapoto - Yurimaguas road, ports, logistics centers and waterways (PE)**	**478.5**
AMA16	Tarapoto - Yurimaguas Road (PE) (*)	231.7
AMA20	Paita Logistics Center (PE)	47.7
AMA21	Yurimaguas Logistics Center (PE)	15.0
AMA24	Paita Port (PE)	266.9
AMA25	Paita - Tarapoto Road (PE) (*)	273.6
AMA40	Improvement of Navigation Conditions on the Huallaga River Waterway, between Yurimaguas and the Confluence with Marañón River (PE)	33.0
AMA41	Improvement of Navigation Conditions on the Marañón River Waterway, between Sarameriza and the Confluence with Ucayali River (PE)	11.0
AMA44	Iquitos Logistics Center (PE)	15.0
AMA56	Modernization of Iquitos Port (PE)	39.6
AMA102	Construction of New Yurimaguas Port (PE)	50.3
2	**Callao - La Oroya - Pucallpa road, ports, logistics centers and waterways (PE)**	**2,936.3**
AMA26	Improvement of Tingo María - Pucallpa Road (PE)	462.5
AMA30	Pucallpa Intermodal Logistics Center (PE)	15.0
AMA31	Modernization of El Callao Port (New Container Dock) (PE)	704.8
AMA32	Lima - Ricardo Palma Expressway (PE)	242.0
AMA43	Improvement of Navigation Conditions on the Ucayali River Waterway, between Pucallpa and the Confluence with Marañón River (PE)	19.0
AMA63	IIRSA Center, Section 2: Ricardo Palma - La Oroya - Turn Off to Cerro de Pasco / La Oroya - Huancayo (PE)	100.0
AMA64	IIRSA Center, Section 3: Turn Off to Cerro de Pasco - Tingo María (PE)	115.6
AMA65	El Callao Logistics Activities Zone (Zal Callao) (PE)	155.8
AMA66	El Callao Multi-Purpose Northern Terminal (PE)	883.5
AMA67	El Callao Mineral Shipping Terminal (PE)	120.3
AMA104	Construction of New Pucallpa Port (PE)	117.8

Code	Project Name	Estimated Investment (US$ million)
3	**Northeastern access to the amazon river (BR - CO - EC - PE)**	**60.8**
AMA37	Improvement of Navigation Conditions on the Içá River (BR)	8.0
AMA38	Improvement of Navigation Conditions on the Putumayo River (CO - EC -PE)	15.0
AMA39	Improvement of Navigation Conditions on the Morona River (EC -PE)	2.0
AMA42	Improvement of Navigation Conditions on the Napo River (EC -PE)	5.8
AMA45	Morona Freight Transfer Port (EC)	5.0
AMA71	Providencia Port (EC)	25.0
	TOTAL	**3,475.6**

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

IV. SECTOR/SUBSECTOR-BASED BREAKDOWN AND TYPE OF WORKS INVOLVED

Table E.4 • **Sector-based breakdown of the Amazon Hub**

	Transport				Energy				Communications			
Subsector	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment
Air	6	7.3	274.7	1.0								
Road	23	28.0	11,452.6	41.5								
Railway	10	12.2	11,950.0	43.3								
River	19	23.2	622.4	2.3								
Sea	9	11.0	3,050.6	11.0								
Multimodal	13	15.9	253.4	0.9								
Border Crossing	2	2.4	4.0	0.0								
Power Generation					2	40.0	17.5	1.3				
Power Interconnection					3	60.0	1,320.6	98.7				
Communication Interconnection									1	100.0	3.1	100.0
TOTAL	82	100.0	27,607.7	100.0	5	100.0	1,338.1	100.0	1	100.0	3.1	100.0

Table E.5 • **Air Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Refitting of airports	2	16.6
New airports	4	258.1
TOTAL	6	274.7

Table E.6 • **Road Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Extension of the road capacity	5	1,352.2
Refitting of road and structures	12	1,995.4
Paving (new work)	6	8,105.0
TOTAL	23	11,452.6

Table E.7 • **Railway Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of railways	10	11,950.0
TOTAL	10	11,950.0

Table E.8 • **River Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Improvement of river navigability	8	101.8
Building of new river ports	5	359.1
Refitting of the existing river ports	6	161.5
TOTAL	19	622.4

Table E.9 • **Maritime Transport**

Type of work	Number of Projects	Estimated Investment (US$ million)
New sea ports	2	1,070.0
Extension of the road infrastructure of the maritime ports	4	971.8
Refitting of sea ports	3	1,008.8
TOTAL	9	3,050.6

Table E.10 • **Multimodal Transport**

Type of work	Number of Projects	Estimated Investment (US$ million)
Transfer stations	13	253.4
TOTAL	13	253.4

Table E.11 • **Border Crossings**

Type of work	Number of Projects	Estimated Investment (US$ million)
Infrastructure for the setting up of border control centers	2	4.0
TOTAL	2	4.0

Table E.12 • **Power Generation**

Type of work	Number of Projects	Estimated Investment (US$ million)
Hydroelectric plants (new ones and refitting) - microcentrals	2	17.5
TOTAL	2	17.5

Table E.13 • **Power Interconnection**

Type of work	Number of Projects	Estimated Investment (US$ million)
Building of new power interconnections	3	1,320.6
TOTAL	3	1,320.6

Table E.14 • **Communication Interconnection**

Type of work	Number of Projects	Estimated Investment (US$ million)
Optic fiber	1	3.1
TOTAL	1	3.1

V. PROGRESS IN THE AMAZON HUB PROJECTS

Table E.15 • **Projects by Progress Attained**

Stage	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Profiling	27	30.7	2,171.9	7.5
Pre-Execution	23	26.1	4,320.0	14.9
Execution	29	33.0	19,361.7	66.9
Concluded	9	10.2	3,095.3	10.7
TOTAL	88	100.0	28,948.9	100.0

Table E.16 • **Concluded Projects**

Code	Project Name	Estimated Investment (US$ million)
AMA16	Tarapoto - Yurimaguas Road (PE)	231.7
AMA22	Bayóvar Port (PE)	70.0
AMA25	Paita - Tarapoto Road (PE)	273.6
AMA34	Environmental and Territorial Management Program (Cuiabá - Santarém Road) (BR-163 / MT / PA) (BR)	12.0
AMA36	Improvement of Navigation Conditions in the Solimões - Amazonas Rivers System (BR)	8.0
AMA78	North-South Railway Phase II (Açailândia - Palmas) (BR)	2,500.0
AMA80	Araguaina Multimodal Yard (North-South Railway) (BR)	0.0
AMA81	Guaraí Multimodal Yard (North-South Railway) (BR)	0.0
AMA82	Colinas do Tocantins Multimodal Yard (North-South Railway) (BR)	0.0
	TOTAL	3,095.3

VI. ANCHOR PROJECTS

The countries identified ten anchor projects in the Amazon Hub, totaling an estimated investment of US$6,687.1 million, according to the following detail:

Table E.17 • **Anchor Projects**

Group	Code	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Project Stage
1	AMA01	Tumaco - Pasto - Mocoa - Puerto Asís Road Corridor (CO)	404.9	Public	National	Execution
2	AMA71	Providencia Port (EC)	25.0	Public	National	Pre-Execution
3	AMA16	Tarapoto - Yurimaguas Road (PE)	231.7	Public/ Private	National	Concluded
4	AMA26	Improvement of Tingo María - Pucallpa Road (PE)	462.5	Public	National	Execution
5	AMA73	New Cross-Northeastern Railway Phase I (Suape - Salgueiro/Pecém - Eliseu Martins) (BR)	3,000.0	Public	National	Execution
5	AMA76	New Cross-Northeastern Railway Phase II (Eliseu Martins-Porto Franco) (BR)	0.0	Public	National	Profiling
6	AMA36	Improvement of Navigation Conditions in the Solimões - Amazon Rivers System (BR)	8.0	Public	National	Concluded
7	AMA45	Morona Freight Transfer Port (EC)	5.0	Public	National	Pre-Execution
8	AMA88	West-Est Integration Railway - Phase II (Barreiras - Figueirópolis) (BR)	550.0	Public	National	Pre-Execution
8	AMA89	West-Est Integration Railway - Phase I (Ilhéus - Barreiras) (BR)	2,000.0	Public	National	Execution
		TOTAL	6,687.1			

ANDEAN HUB

COUNTRY MEMBERS

TOTAL NUMBER OF PROJECTS
65

INVESTMENT
(US$ million)
9,183.5

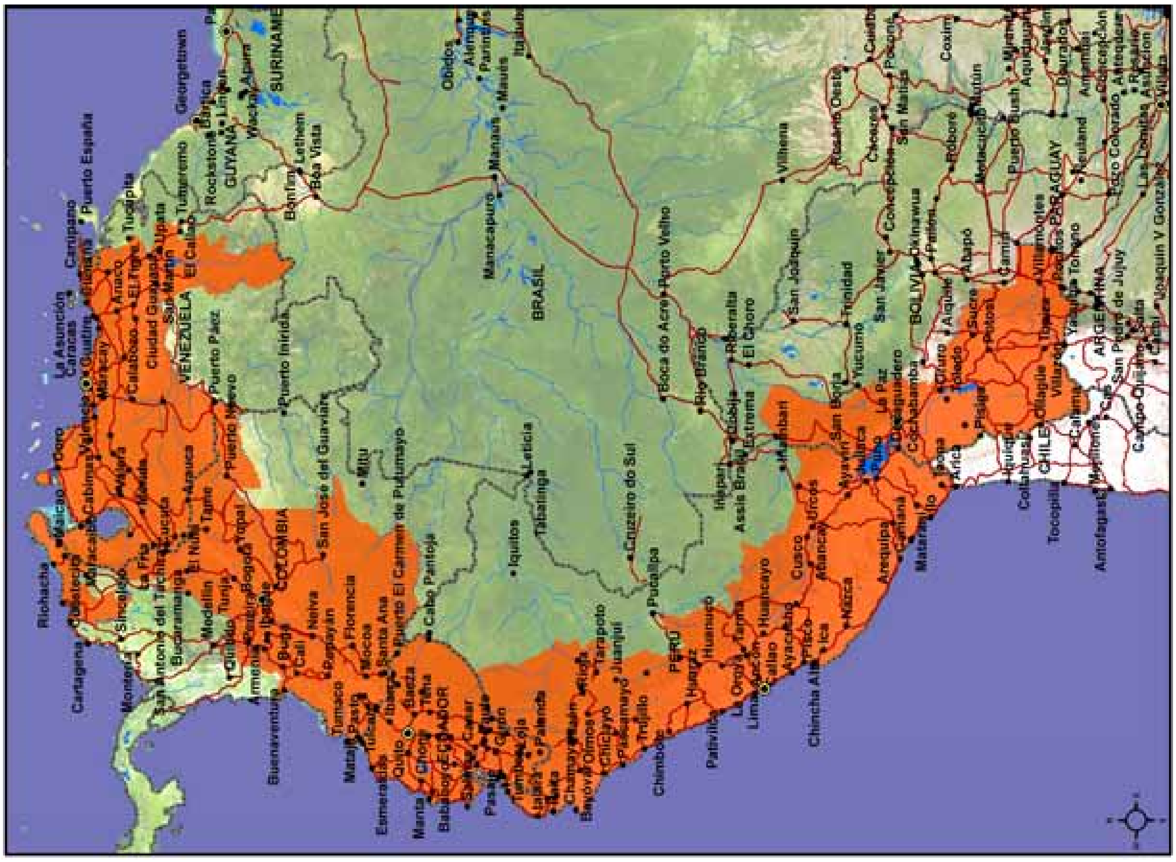
TOTAL NUMBER OF PROJECTS
Percentage by stage

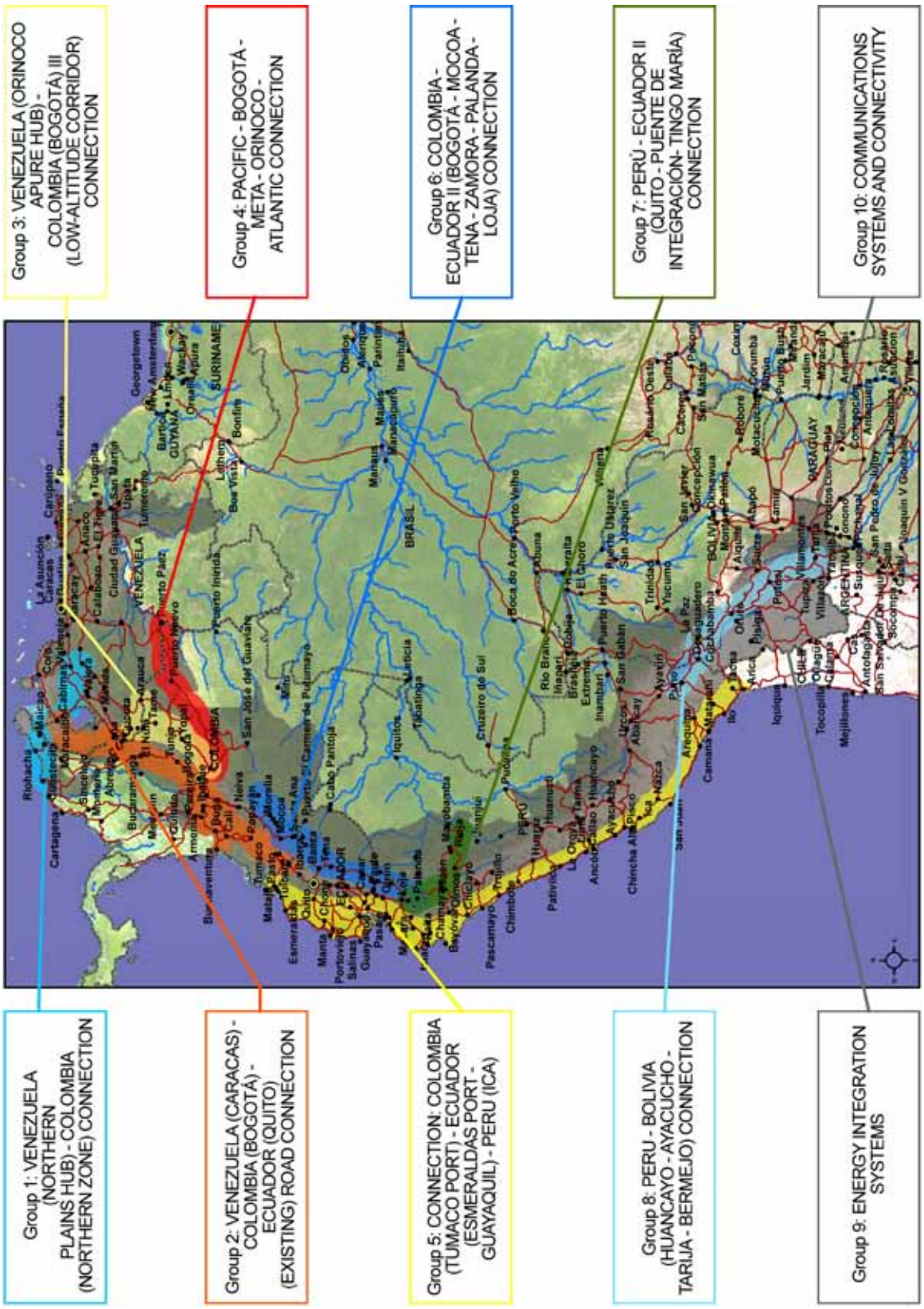
30.8%	PROFILING
12.3%	PRE-EXECUTION
33.8%	EXECUTION
23.1%	CONCLUDED

INVESTMENT
Percentage by stage

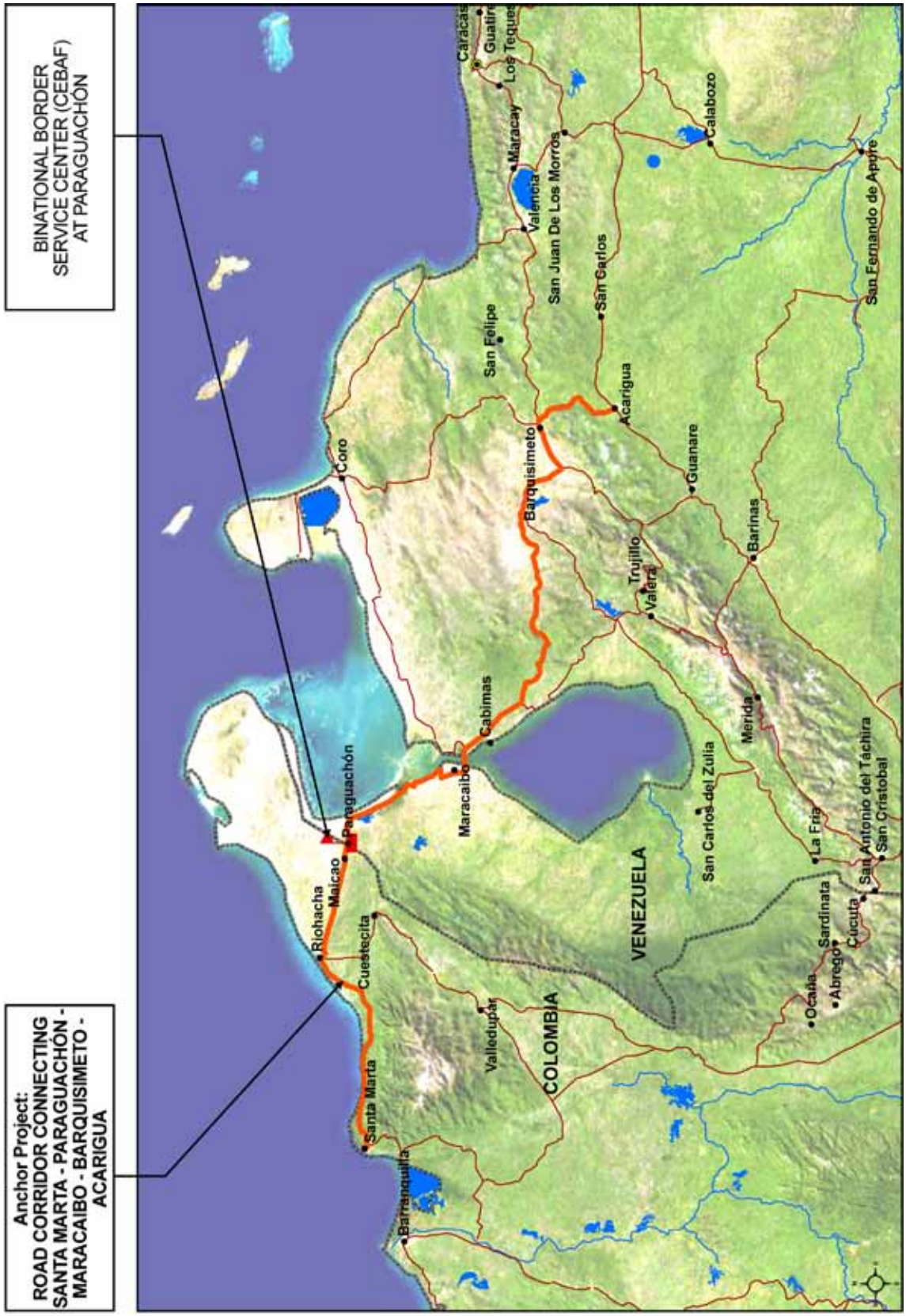
PROFILING	19.0%
PRE-EXECUTION	4.9%
EXECUTION	67.4%
CONCLUDED	8.7%

PROFILING · PRE-EXECUTION · EXECUTION · CONCLUDED


VENEZUELA
COLOMBIA
ECUADOR
PERU
BRASIL
BOLIVIA
CHILE
PARAGUAY
ARGENTINA
GUYANA
SURINAME



Note: The territory of Groups 9 and 10 has not been taken into account for illustration purposes, since the projects included in these groups impact on the total area of influence of the Andean Hub.

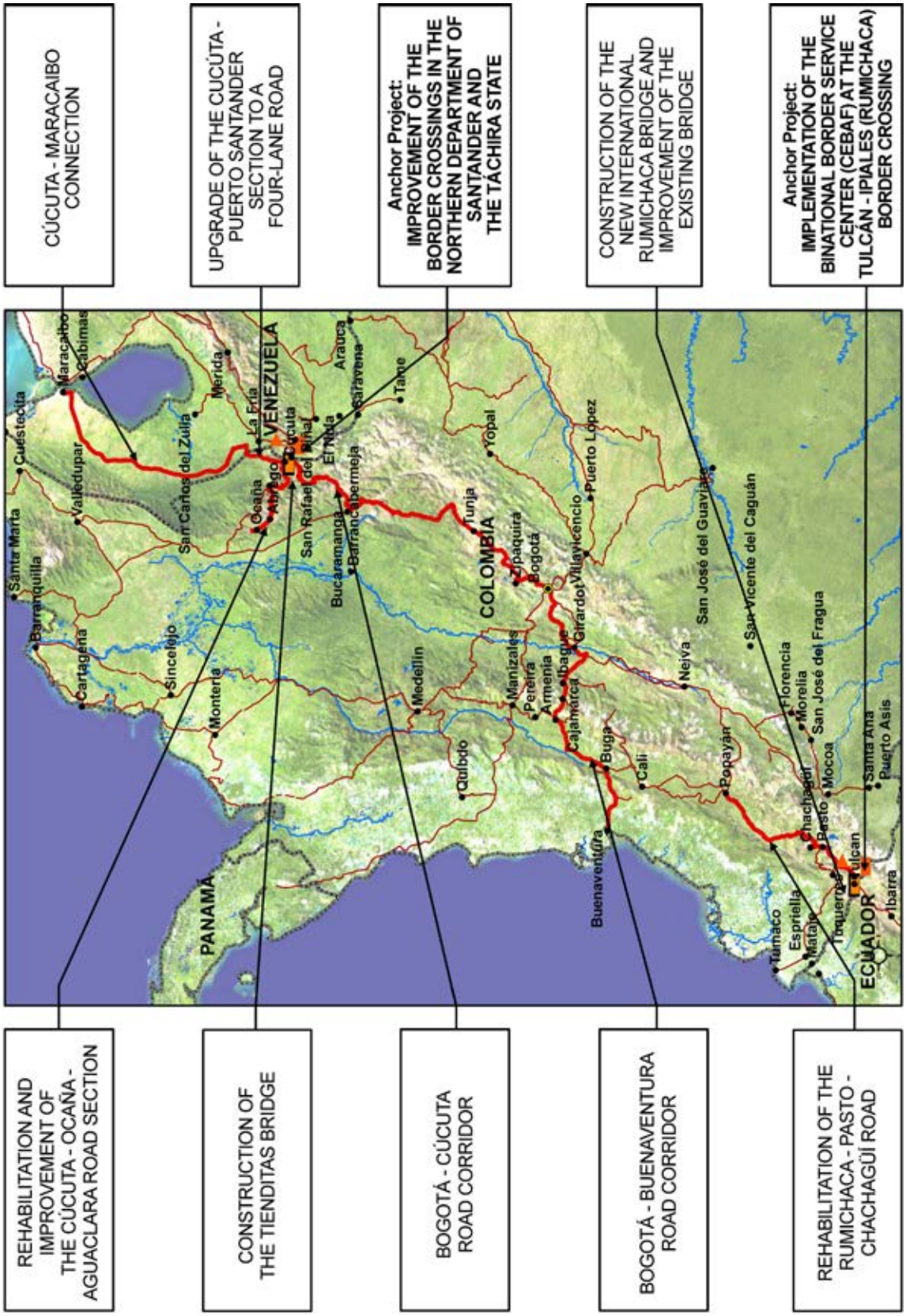

BINATIONAL BORDER SERVICE CENTER (CEBAF) AT PARAGUACHÓN
Anchor Project: ROAD CORRIDOR CONNECTING SANTA MARTA - PARAGUACHÓN - MARACAIBO - BARQUISIMETO - ACARIGUA
Caracas
Guatire
Los Teques
Maracay
Valencia
Calabozo
San Juan De Los Morros
San Carlos
San Fernando de Apure
San Felipe
Acarigua
Coro
Barquisimeto
Guanare
Barinas
Trujillo
Valera
Cabimas
Maracaibo
Paraguachón
Merida
San Carlos del Zulia
La Fria
San Antonio del Táchira
San Cristobal
Riohacha
Maicao
Cuestecita
VENEZUELA
Sardinata
Cúcuta
Ocaña
Abrego
Valledupar
COLOMBIA
Santa Marta
Barranquilla

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

Code	Stage	Andean Hub: Group 1	Estimated Investment (US$ million)
AND01	●	Road Corridor Connecting Santa Marta - Paraguachón - Maracaibo - Barquisimeto - Acarigua (CO - VE) (*)	411.2
AND02	●	Binational Border Service Center (CEBAF) at Paraguachón (VE)	2.0
		TOTAL	2.0

Note: (*) Investments in this existing project have not been included in the estimated total amount of the Group as they were mostly made before IIRSA was launched.

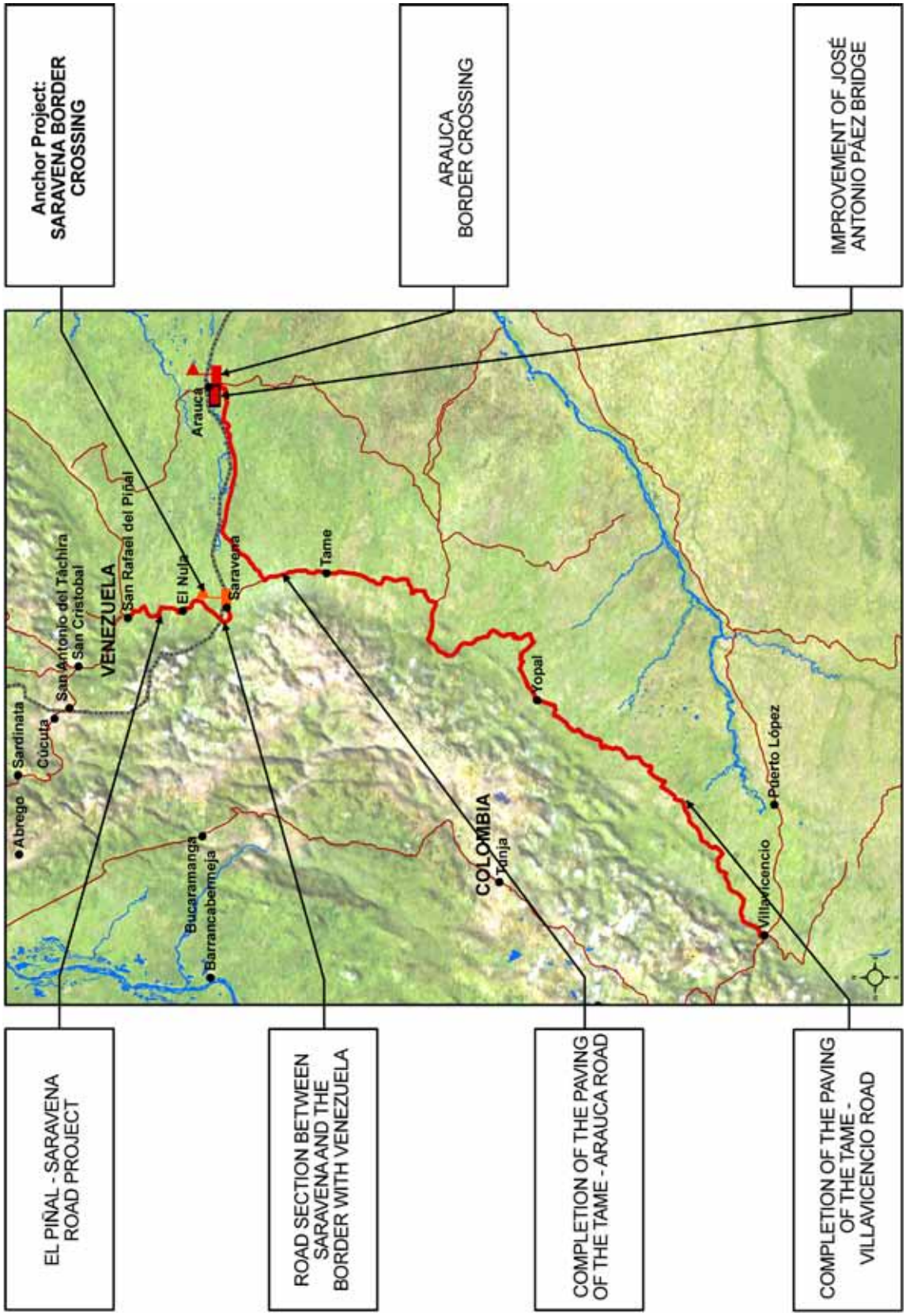
ANDEAN HUB - Group 2:
Venezuela (Caracas) - Colombia (Bogotá) - Ecuador (Quito) (existing) Road connection



- Reinforce economic relations among the most dynamic urban centers of Ecuador, Colombia, and Venezuela through existing paved roads, which entails improving their border crossings and finding solutions to specific bottlenecks.

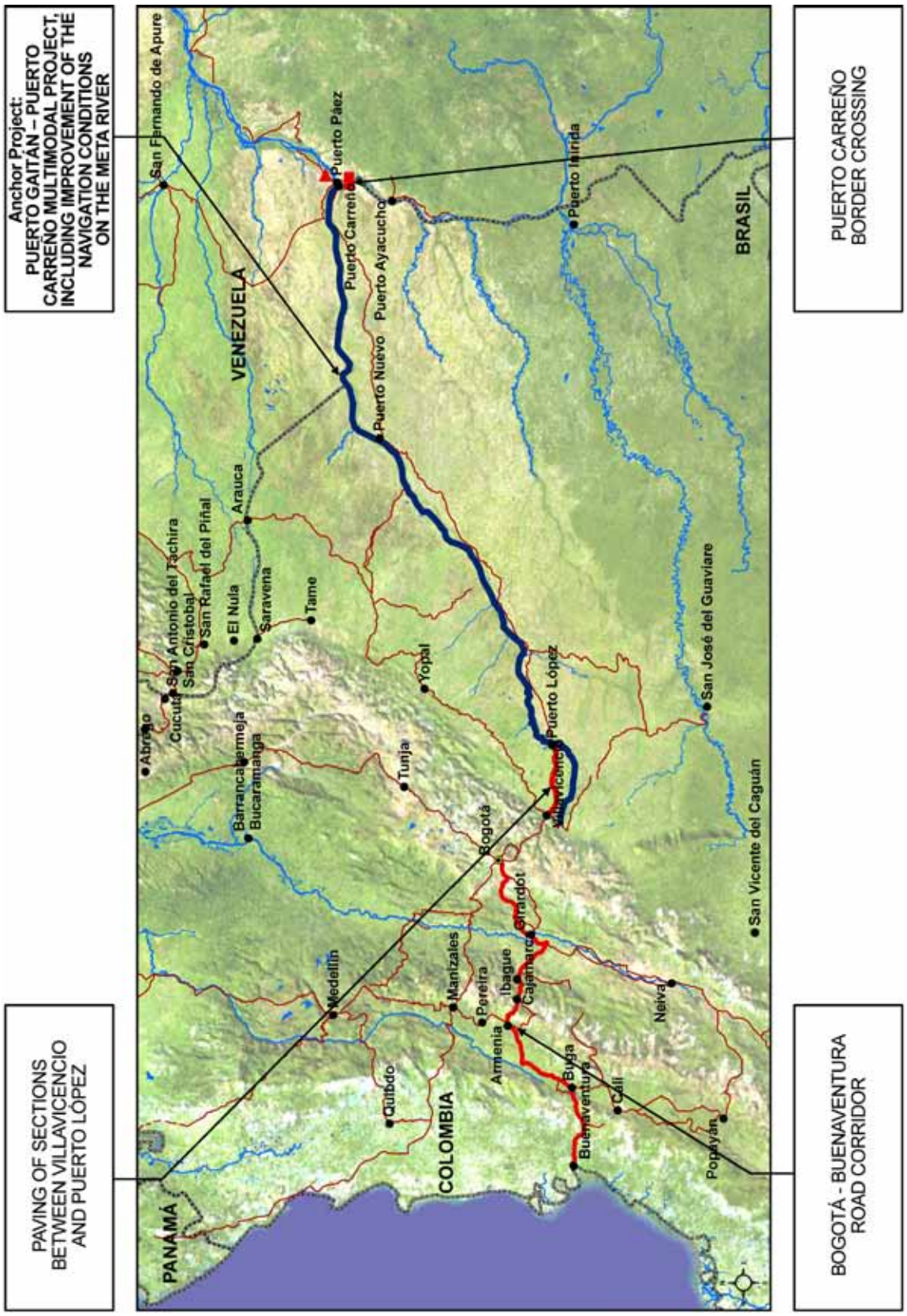
Code	Stage	Andean Hub: Group 2	Estimated Investment (US$ million)
AND04	🟡	Cúcuta - Maracaibo Connection (CO - VE)	0.3
AND05	🟢	Bogotá - Cúcuta Road Corridor (CO)	1,559.0
AND07	🟢	Bogotá - Buenaventura Road Corridor (CO)(*)	1,791.0
AND08	🟢	Rehabilitation of the Rumichaca - Pasto - Chachagüí Road (CO)	221.0
AND81	🔴	Improvement of the Border Crossings in the Northern Department of Santander and the Táchira State (CO - VE)	2.0
AND82	🟡	Implementation of the Binational Border Service Center (CEBAF) at the Tulcán - Ipiales (Rumichaca) Border Crossing (CO - EC)	65.0
AND83	🔴	Construction of the Tienditas Bridge (CO - VE)	0.9
AND84	🔴	Upgrade of the Cúcuta - Puerto Santander Section to a Four-Lane Road (CO)	1.8
AND85	🔴	Rehabilitation and Improvement of the Cúcuta - Ocaña - Aguaclara Road Section (CO)	120.8
AND91	🟢	Construction of the New International Rumichaca Bridge and Improvement of the Existing Bridge (CO - EC)	4.8
		TOTAL	3,766.6

Note: (*) Hinge project with Group 4 of the Andean Hub


Anchor Project:
SARAVENA BORDER
CROSSING
ARAUCA
BORDER CROSSING
IMPROVEMENT OF JOSÉ
ANTONIO PÁEZ BRIDGE
VENEZUELA
COLOMBIA
Arauca
San Rafael del Piñal
El Nula
Saravena
Tame
San Antonio del Táchira
San Cristobal
Sardinata
Cúcuta
Abrego
Bucaramanga
Barrancabermeja
Tunja
Yopal
Pdcrto López
Villavicencio
EL PIÑAL - SARAVENA
ROAD PROJECT
ROAD SECTION BETWEEN
SARAVENA AND THE
BORDER WITH VENEZUELA
COMPLETION OF THE PAVING
OF THE TAME - ARAUCA ROAD
COMPLETION OF THE PAVING
OF THE TAME -
VILLAVICENCIO ROAD

- 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).

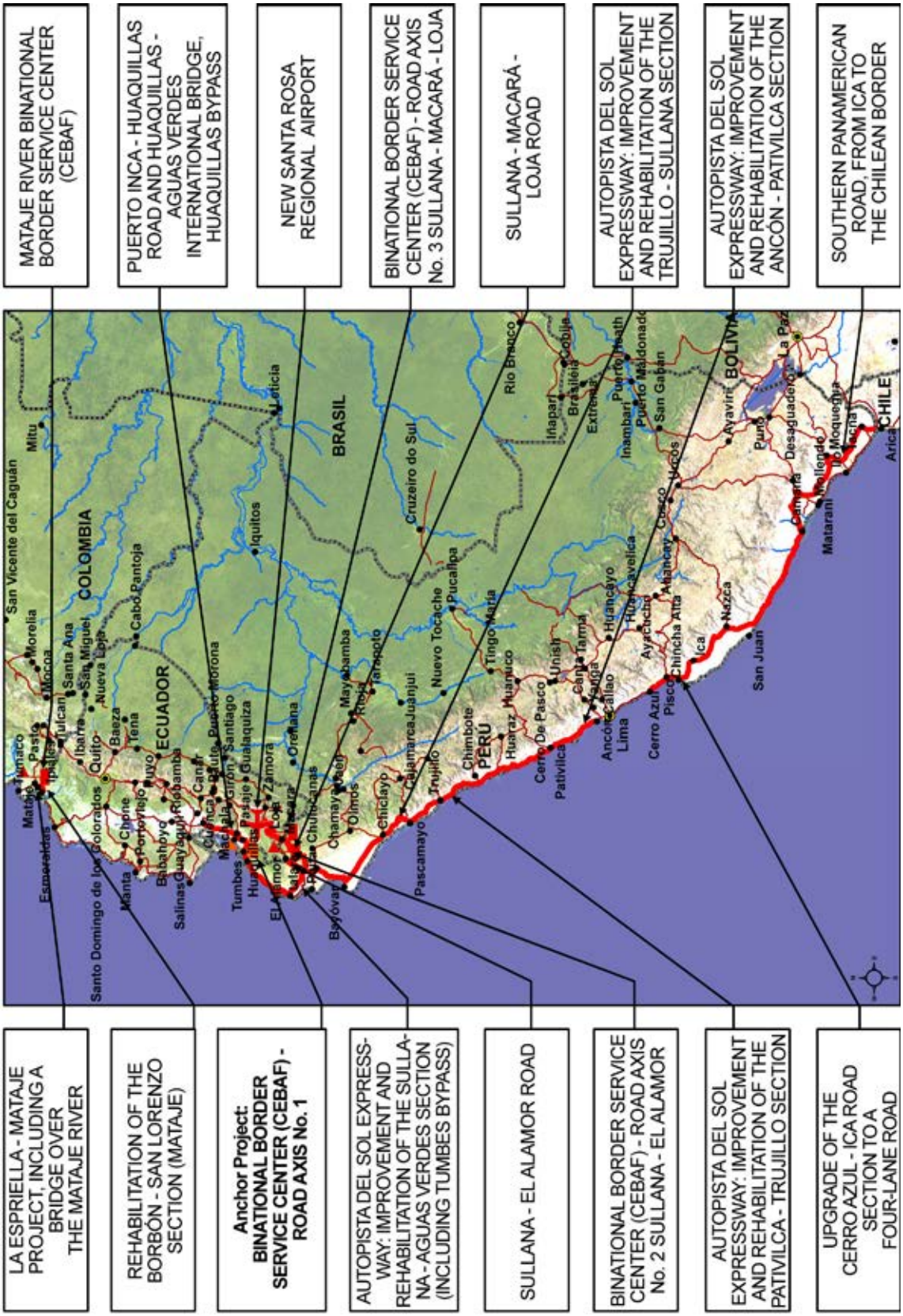
Code	Stage	Andean Hub: Group 3	Estimated Investment (US$ million)
AND10	●	Saravena Border Crossing (CO)	3.3
AND11	●	Road Section between Saravena and the Border with Venezuela (CO)	16.0
AND12	●	Completion of the Paving of Tame - Villavicencio Road (CO)	3.6
AND13	●	Improvement of José Antonio Páez Bridge (CO)	1.3
AND14	●	Completion of the Paving of Tame - Arauca Road (CO)	10.6
AND15	●	Arauca Border Crossing (VE)	2.0
AND16	●	El Piñal - Saravena Road Project (VE)	6.8
		TOTAL	43.6


Anchor Project:
PUERTO GAITÁN – PUERTO CARREÑO MULTIMODAL PROJECT, INCLUDING IMPROVEMENT OF THE NAVIGATION CONDITIONS ON THE META RIVER
PUERTO CARREÑO BORDER CROSSING
PAVING OF SECTIONS BETWEEN VILLAVICENCIO AND PUERTO LÓPEZ
BOGOTÁ - BUENAVENTURA ROAD CORRIDOR
VENEZUELA
COLOMBIA
PANAMÁ
BRASIL
San Fernando de Apure
Puerto Páez
Puerto Carreño
Puerto Ayacucho
Puerto Nuevo
Puerto Inírida
Arauca
San Antonio del Tachira
San Cristobal
San Rafael del Piñal
El Nula
Saravena
Tame
Cucuta
Abrego
Barrancabermeja
Bucaramanga
Yopal
Tunja
Puerto López
Villavicencio
Bogotá
San José del Guaviare
San Vicente del Caguán
Girardot
Medellín
Manizales
Pereira
Ibague
Cajamarca
Armenia
Quibdo
Buga
Buenaventura
Cali
Neiva
Popayán

- 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, the Orinoco Delta) and for opening up these regions to international markets.

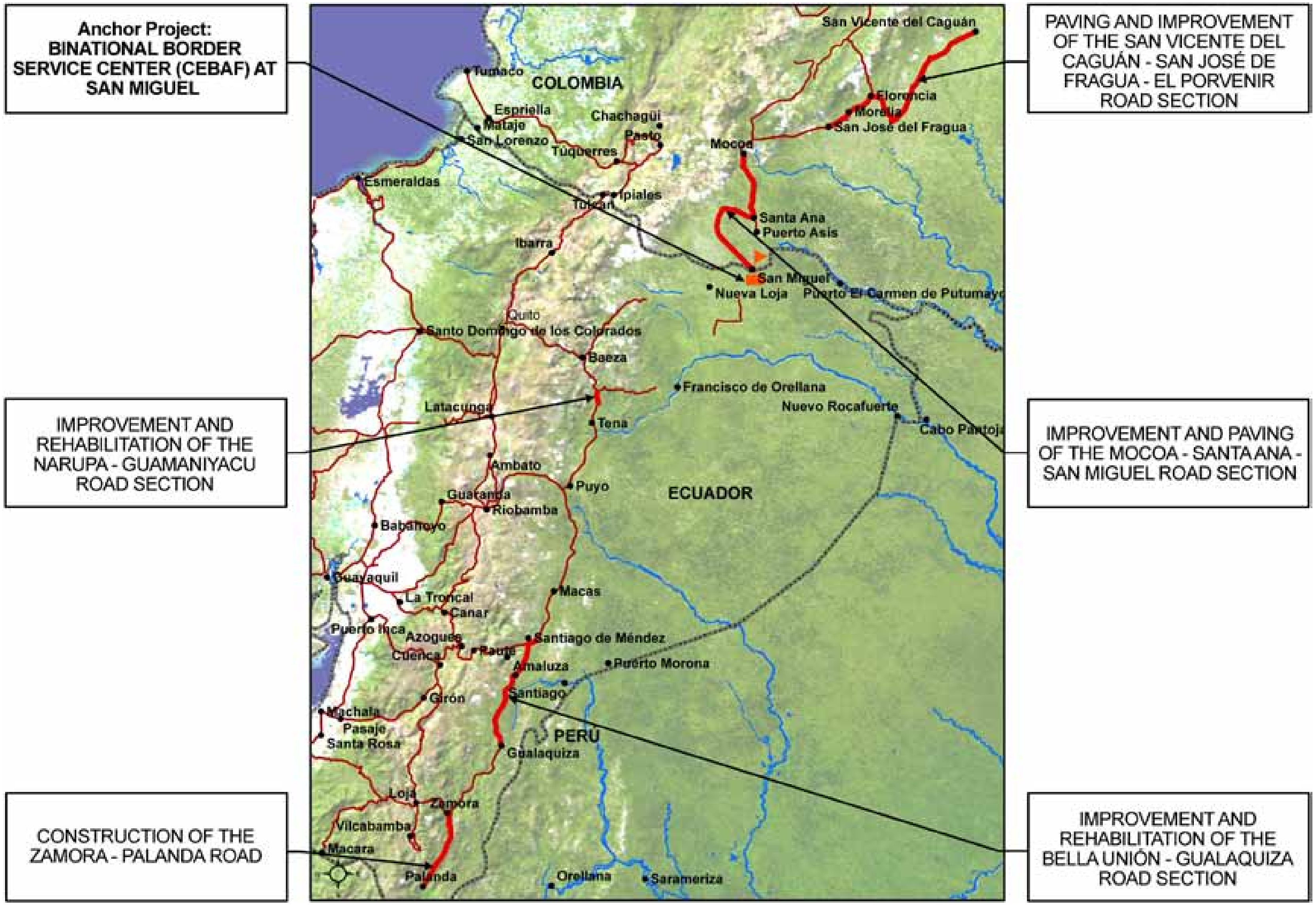
Code	Stage	Andean Hub: Group 4	Estimated Investment (US$ million)
AND07	●	Bogotá - Buenaventura Road Corridor (*) (CO)	1,791.0
AND17	●	Puerto Gaitán - Puerto Carreño Multimodal Project, Including Improvement of the Navigation Conditions on the Meta River (CO)	108.0
AND18	●	Paving of Sections between Villavicencio and Puerto López (CO)	26.0
AND19	●	Puerto Carreño Border Crossing (VE)	1.0
		TOTAL	1,926.0

Note: (*) Hinge Project with Group 2 of the Andean Hub


MATAJE RIVER BINATIONAL BORDER SERVICE CENTER (CEBAF)
PUERTO INCA - HUAQUILLAS ROAD AND HUAQUILLAS - AGUAS VERDES INTERNATIONAL BRIDGE, HUAQUILLAS BYPASS
NEW SANTA ROSA REGIONAL AIRPORT
BINATIONAL BORDER SERVICE CENTER (CEBAF) - ROAD AXIS No. 3 SULLANA - MACARÁ - LOJA
SULLANA - MACARÁ - LOJA ROAD
AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE TRUJILLO - SULLANA SECTION
AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE ANCÓN - PATIVILCA SECTION
SOUTHERN PANAMERICAN ROAD, FROM ICA TO THE CHILEAN BORDER
COLOMBIA
ECUADOR
PERÚ
BRASIL
BOLIVIA
CHILE
LA ESPRIELLA - MATAJE PROJECT, INCLUDING A BRIDGE OVER THE MATAJE RIVER
REHABILITATION OF THE BORBÓN - SAN LORENZO SECTION (MATAJE)
Anchor Project: BINATIONAL BORDER SERVICE CENTER (CEBAF) - ROAD AXIS No. 1
AUTOPISTA DEL SOL EXPRESS-WAY: IMPROVEMENT AND REHABILITATION OF THE SULLA-NA - AGUAS VERDES SECTION (INCLUDING TUMBES BYPASS)
SULLANA - EL ALAMOR ROAD
BINATIONAL BORDER SERVICE CENTER (CEBAF) - ROAD AXIS No. 2 SULLANA - EL ALAMOR
AUTOPISTA DEL SOL EXPRESSWAY: IMPROVEMENT AND REHABILITATION OF THE PATIVILCA - TRUJILLO SECTION
UPGRADE OF THE CERRO AZUL - ICA ROAD SECTION TO A FOUR-LANE ROAD

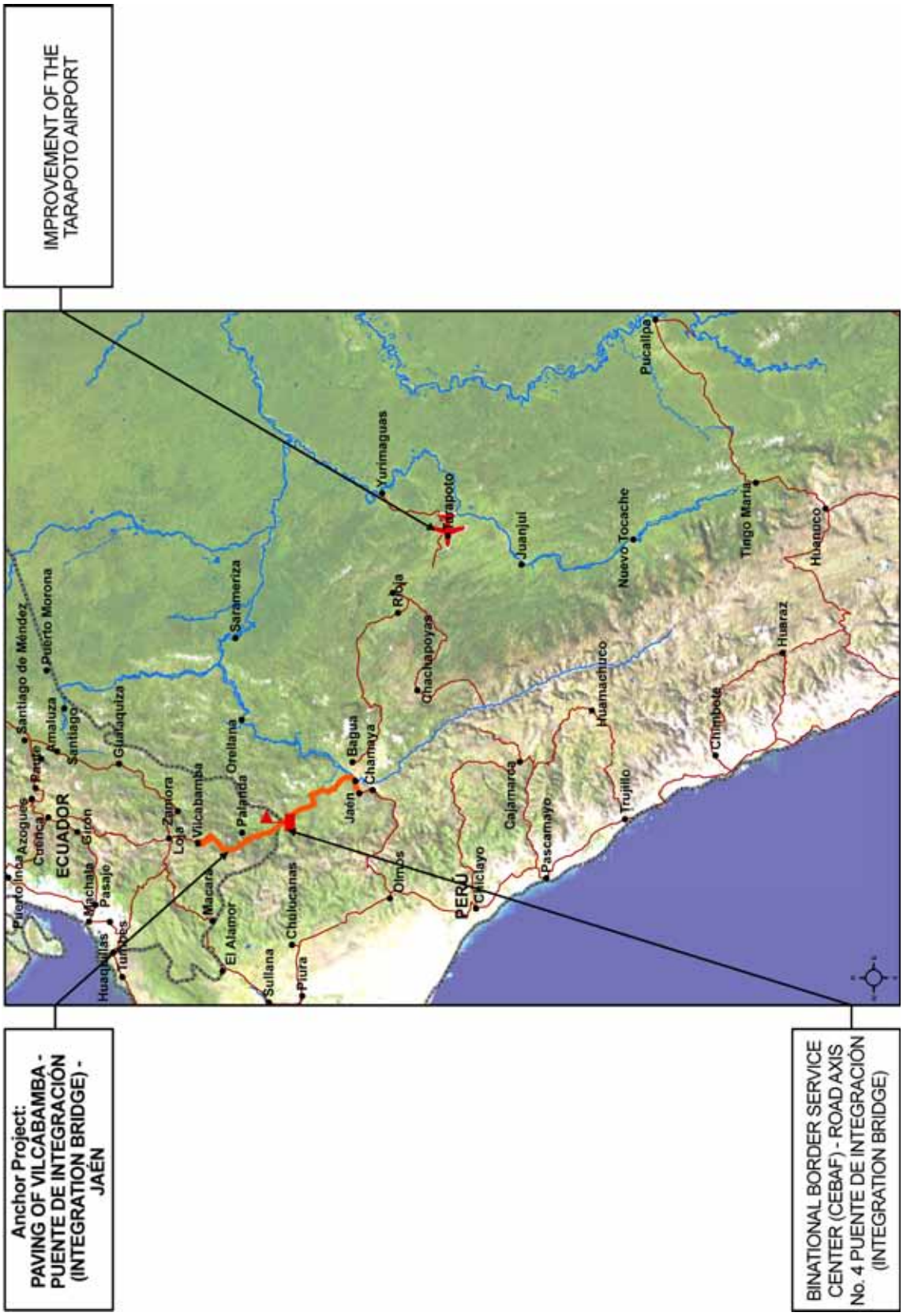
- Reinforce trade and tourism relations (beaches and ecotourism) of major coastal areas in northern Peru, Ecuador, and the Southern Pacific Colombian areas

Code	Stage	Andean Hub: Group 5	Estimated Investment (US$ million)
AND21	●	Binational Border Service Center (CEBAF) Road Axis No. 1 (EC - PE)	15.9
AND22	●	Mataje River Binational Border Service Center (CEBAF) (CO - EC)	3.0
AND23	●	La Espriella - Mataje Project, Including a Bridge over the Mataje River (CO - EC)	25.0
AND24	●	Rehabilitation of the Borbón - San Lorenzo Section (Mataje) (EC)	5.3
AND25	●	New Santa Rosa Regional Airport (EC)	47.1
AND26	●	Puerto Inca - Huaquillas Road and Huaquillas - Aguas Verdes International Bridge, Huaquillas Bypass (EC - PE)	85.8
AND27	●	Autopista del Sol Expressway: Improvement and Rehabilitation of the Ancón - Pativilca Section (PE)	75.0
AND28	●	Autopista del Sol Expressway: Improvement and Rehabilitation of the Sullana - Aguas Verdes Section (Including Tumbes Bypass) (PE)	70.4
AND29	●	Autopista del Sol Expressway: Improvement and Rehabilitation of the Pativilca - Trujillo Section (PE)	401.7
AND30	●	Autopista del Sol Expressway: Improvement and Rehabilitation of the Trujillo - Sullana Section (PE)	400.1
AND75	●	Upgrade of the Cerro Azul - Ica Road Section to a Four-Lane Road (PE)	231.8
AND87	●	Southern Panamerican Road, from Ica to the Chilean Border (PE)	360.0
AND88	●	Sullana - El Alamor Road (PE)	29.5
AND89	●	Sullana - Macará - Loja Road (PE)	48.3
AND92	●	Binational Border Service Center (CEBAF) Road Axis No. 2 Sullana - El Alamor (EC - PE)	40.0
AND93	●	Binational Border Service Center (CEBAF) Road Axis No. 3 Sullana - Macará - Loja (EC - PE)	0.0
		TOTAL	1,838.9


Anchor Project: BINATIONAL BORDER SERVICE CENTER (CEBAF) AT SAN MIGUEL
PAVING AND IMPROVEMENT OF THE SAN VICENTE DEL CAGUÁN - SAN JOSÉ DE FRAGUA - EL PORVENIR ROAD SECTION
IMPROVEMENT AND REHABILITATION OF THE NARUPA - GUAMANIYACU ROAD SECTION
IMPROVEMENT AND PAVING OF THE MOCOA - SANTA ANA - SAN MIGUEL ROAD SECTION
CONSTRUCTION OF THE ZAMORA - PALANDA ROAD
IMPROVEMENT AND REHABILITATION OF THE BELLA UNIÓN - GUALAQUIZA ROAD SECTION
COLOMBIA
ECUADOR
PERU
San Vicente del Caguán
Florencia
Morelia
San José del Fragua
Tumaco
Espriella
Mataje
San Lorenzo
Chachagüí
Pasto
Túquerres
Mocoa
Esmeraldas
Ipiales
Tulcán
Santa Ana
Puerto Asis
Ibarra
San Miguel
Nueva Loja
Puerto El Carmen de Putumayo
Quito
Santo Domingo de los Colorados
Baeza
Francisco de Orellana
Nuevo Rocafuerte
Latacunga
Tena
Cabo Pantoja
Ambato
Puyo
Guaranda
Riobamba
Babahoyo
Guayaquil
La Troncal
Macas
Canar
Puerto Inca
Azogues
Santiago de Méndez
Cuenca
Paute
Amaluza
Puerto Morona
Santiago
Girón
Machala
Pasaje
Santa Rosa
Gualaquiza
Loja
Zamora
Vilcabamba
Macara
Palanda
Orellana
Saramerizа

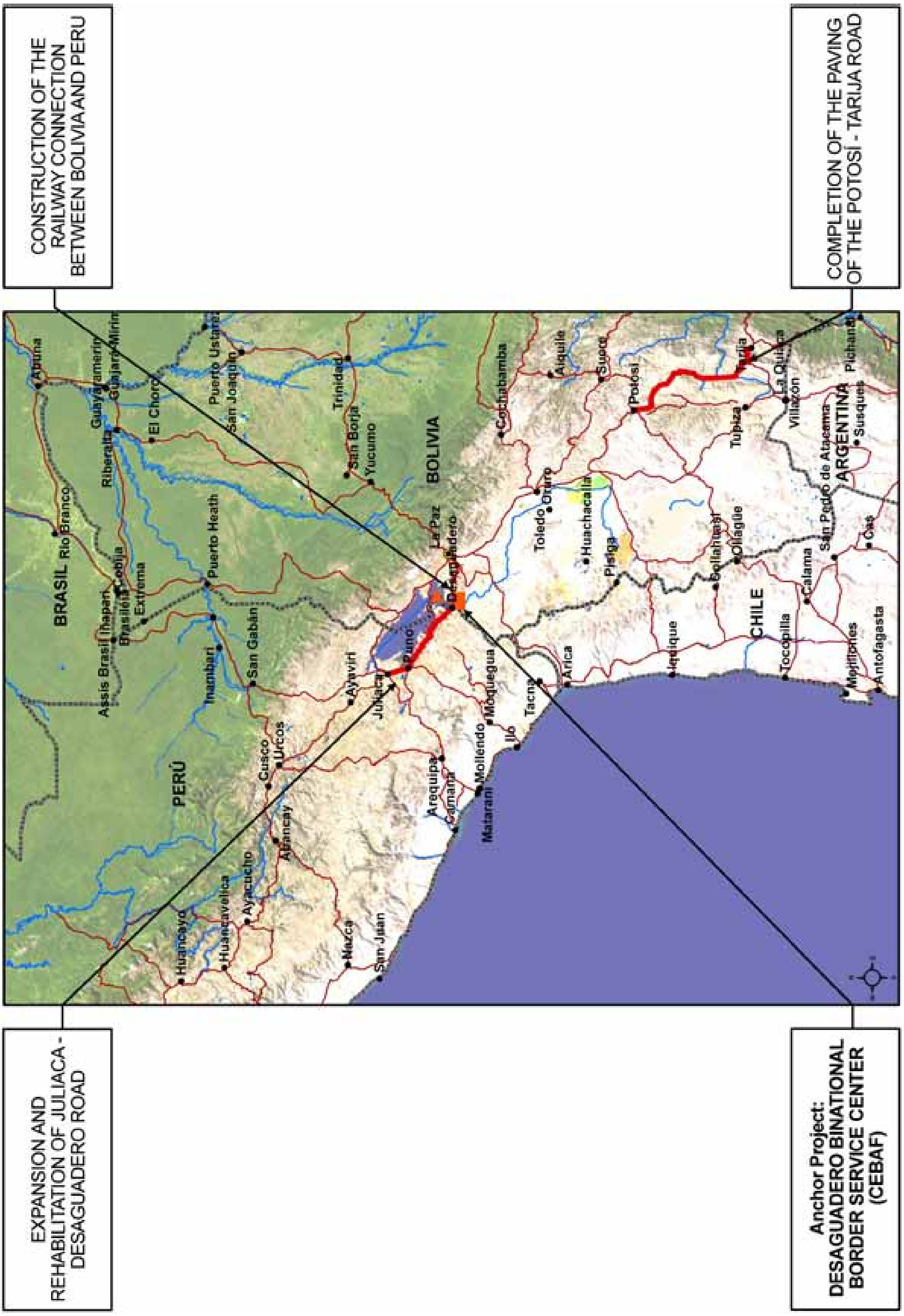
- Develop a corridor that would articulate areas in central and southern Colombia with Amazon provinces of northern and central Ecuador (Tena, Puyo) and areas of southern Ecuador (Loja) within international trade schemes.

Code	Stage	Andean Hub: Group 6	Estimated Investment (US$ million)
AND31	●	Binational Border Service Center (CEBAF) at San Miguel (CO - EC)	25.0
AND35	●	Improvement and Rehabilitation of the Bella Unión - Gualaquiza Road Section (EC)	23.2
AND37	●	Construction of the Zamora - Palanda Road (EC)	1.3
AND38	●	Improvement and Rehabilitation of the Narupa - Guamaniyacu Road Section (EC)	23.6
AND79	●	Improvement and Paving of the Mocoa - Santa Ana - San Miguel Road Section (CO)	133.6
AND90	●	Paving and Improvement of the San Vicente del Caguán - San José de Fragua - El Porvenir Road Section (CO)	239.3
		TOTAL	446.0


IMPROVEMENT OF THE TARAPOTO AIRPORT
Anchor Project: PAVING OF VILCABAMBA - PUENTE DE INTEGRACIÓN (INTEGRATION BRIDGE) - JAÉN
BINATIONAL BORDER SERVICE CENTER (CEBAF) - ROAD AXIS No. 4 PUENTE DE INTEGRACIÓN (INTEGRATION BRIDGE)
ECUADOR
PERU
Puerto Lindo
Azogues
Cuenca
Paute
Amaluza
Santiago
Santiago de Méndez
Puerto Morona
Guaduquiza
Girón
Machala
Pasaje
Zamora
Loja
Vilcabamba
Palanda
Orellana
Saramiriza
Macará
El Alamor
Huaquillas
Tumbes
Sullana
Chulucanas
Piura
Olmos
Chiclayo
Jaén
Bagua
Chamaya
Rioja
Chachapoyas
Yurimaguas
Tarapoto
Juanjui
Pucallpa
Nuevo Tocache
Tingo María
Huánuco
Huaraz
Huamachuco
Cajamarca
Pascamayo
Trujillo
Chimbote

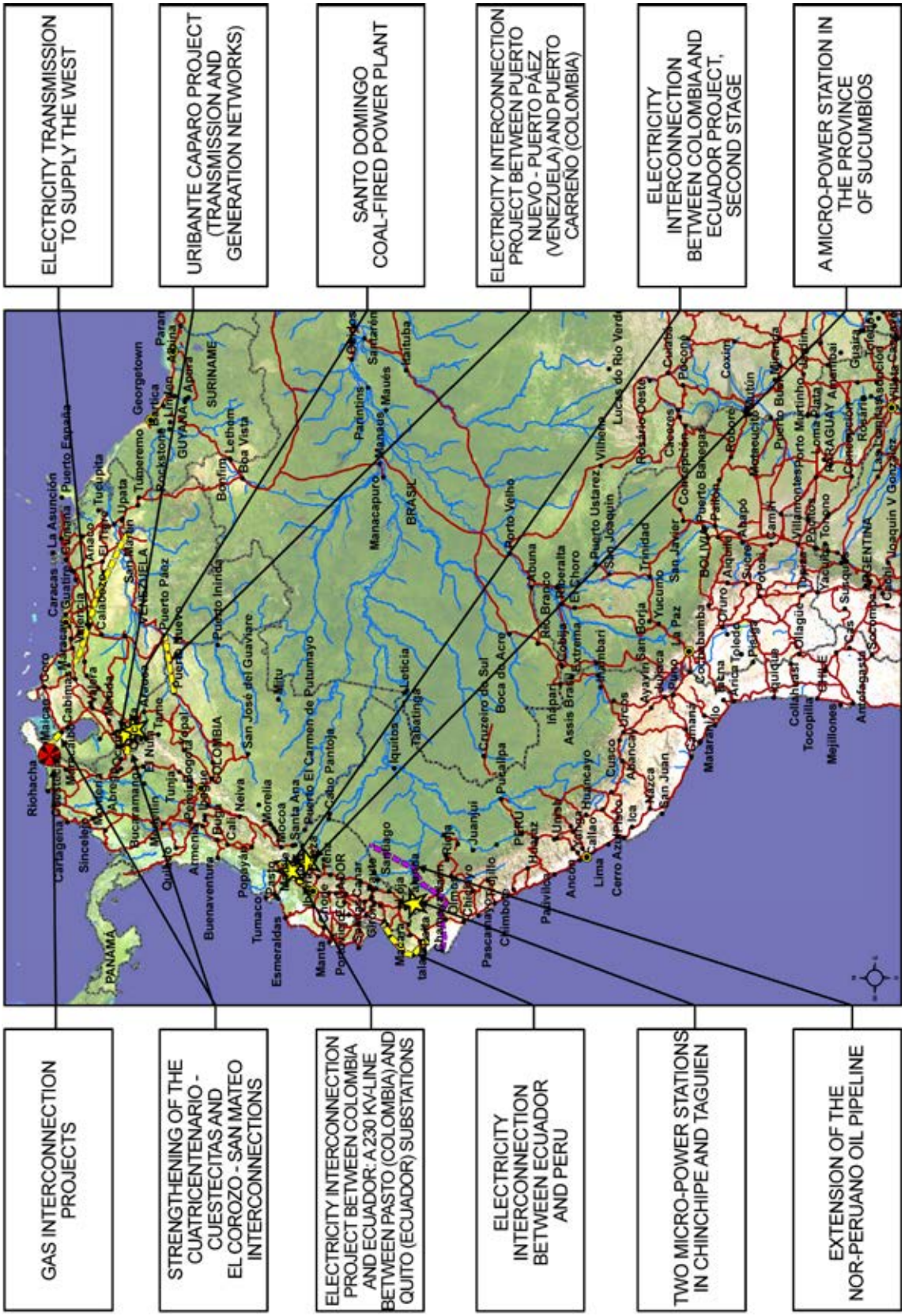
- Develop a new international trade corridor by improving the roads that connect the cities of Loja, Tarapoto, and Tingo María. This corridor would join the southern Andean region of Ecuador (Loja and Cuenca) and the northern and central rainforest of Peru (San Ignacio, Moyobamba, Rioja, Tarapoto, and Tingo María).

Code	Stage	Andean Hub: Group 7	Estimated Investment (US$ million)
AND39	●	Paving of Vilcamba - Puente de Integración - Jaén (EC - PE)	334.6
AND43	●	Binational Border Service Center (CEBAF) Road Axis No. 4 Puente de Integración (Integration Bridge) (EC - PE)	2.5
AND45	●	Improvement of the Tarapoto Airport (PE)	6.9
		TOTAL	344.0


CONSTRUCTION OF THE RAILWAY CONNECTION BETWEEN BOLIVIA AND PERU
COMPLETION OF THE PAVING OF THE POTOSÍ - TARIJA ROAD
EXPANSION AND REHABILITATION OF JULIACA - DESAGUADERO ROAD
Anchor Project: DESAGUADERO BINATIONAL BORDER SERVICE CENTER (CEBAF)
BRASIL
PERÚ
BOLIVIA
CHILE
ARGENTINA
Huancayo
Huancavelica
Ayacucho
Abancay
Cusco
Urcos
Nazca
San Juan
Arequipa
Camaná
Matarani
Mollendo
Ilo
Moquegua
Tacna
Arica
Juliaca
Puno
Ayaviri
Desaguadero
La Paz
Oruro
Toledo
Cochabamba
Sucre
Potosí
Tarija
Tupiza
Villazón
La Quiaca
Iquique
Tocopilla
Calama
Antofagasta
Mejillones
San Pedro de Atacama
Ollagüe
Pisiga
Huachacalla
Trinidad
San Borja
Yucumo
Riberalta
Guayaramerín
Guajará-Mirim
El Choro
Puerto Heath
Cobija
Brasiléia
Assis Brasil
Iñapari
Extrema
Rio Branco
Inambari
San Gabán
Puerto Ustares
San Joaquín
Aiquile
Susques
Pichanal

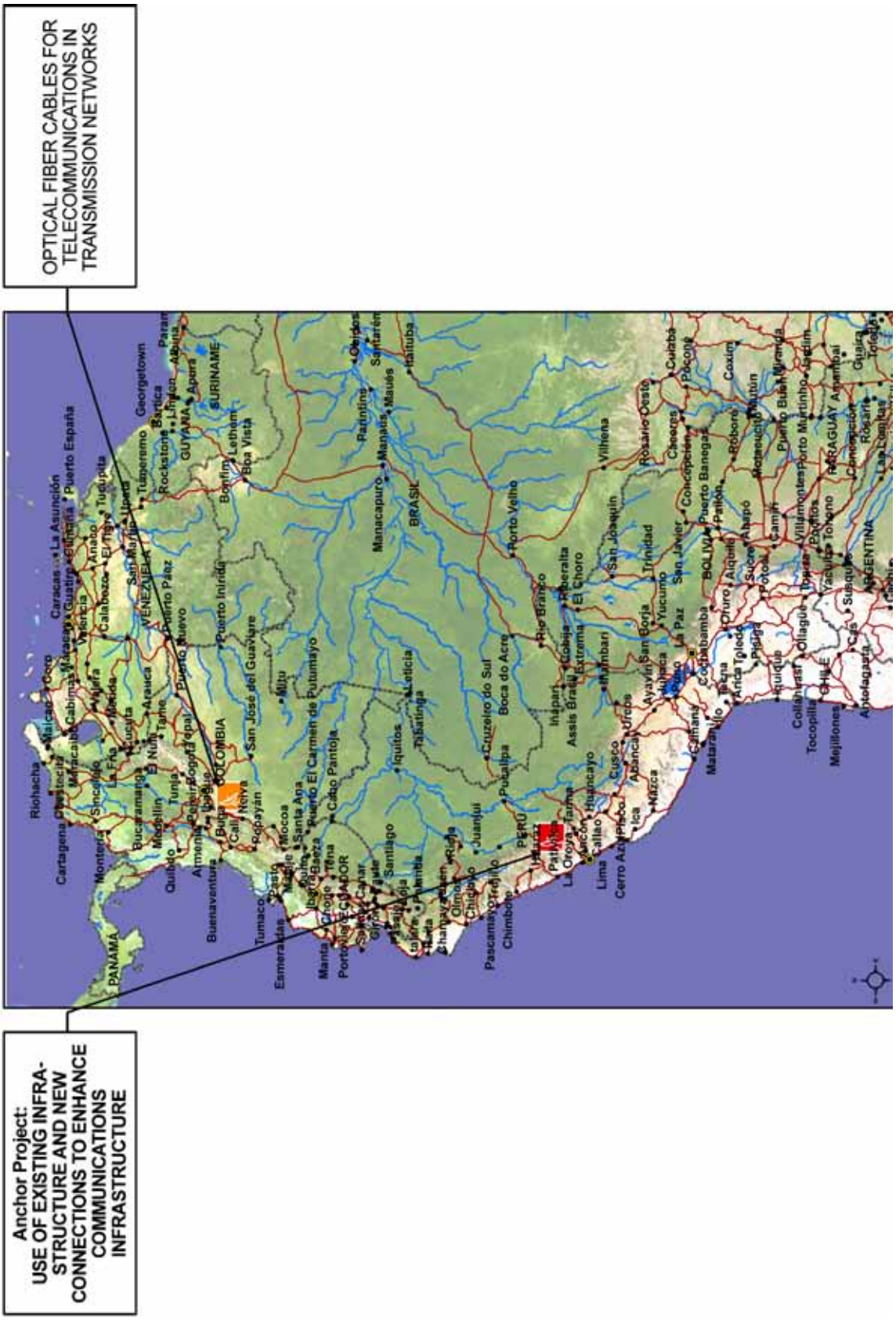
- Reinforce tourism and economic relations among the Andean cities of Peru and Bolivia through existing paved routes, and extend these to the central Andean area of Peru and northwestern Argentina.

Code	Stage	Andean Hub: Group 8	Estimated Investment (US$ million)
AND47	●	Desaguadero Binational Border Service Center (CEBAF) (BO - PE)	40.2
AND48	●	Completion of the Paving of Potosí - Tarija Road (BO)	238.2
AND51	●	Expansion and Rehabilitation of the Juliaca - Desaguadero Road (PE)	208.3
AND54	●	Construction of the Railway Connection between Bolivia and Peru (BO - PE)	390.0
		TOTAL	876.7


ELECTRICITY TRANSMISSION TO SUPPLY THE WEST
URIBANTE CAPARO PROJECT (TRANSMISSION AND GENERATION NETWORKS)
SANTO DOMINGO COAL-FIRED POWER PLANT
ELECTRICITY INTERCONNECTION PROJECT BETWEEN PUERTO NUEVO - PUERTO PÁEZ (VENEZUELA) AND PUERTO CARREÑO (COLOMBIA)
ELECTRICITY INTERCONNECTION BETWEEN COLOMBIA AND ECUADOR PROJECT, SECOND STAGE
A MICRO-POWER STATION IN THE PROVINCE OF SUCUMBÍOS
GAS INTERCONNECTION PROJECTS
STRENGTHENING OF THE CUATRICENTENARIO - CUESTECITAS AND EL COROZO - SAN MATEO INTERCONNECTIONS
ELECTRICITY INTERCONNECTION PROJECT BETWEEN COLOMBIA AND ECUADOR: A 230 KV-LINE BETWEEN PASTO (COLOMBIA) AND QUITO (ECUADOR) SUBSTATIONS
ELECTRICITY INTERCONNECTION BETWEEN ECUADOR AND PERU
TWO MICRO-POWER STATIONS IN CHINCHIPE AND TAGUIEN
EXTENSION OF THE NOR-PERUANO OIL PIPELINE

- 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.

Code	Stage	Andean Hub: Group 9	Estimated Investment (US$ million)
AND56	●	Strengthening of the Cuatricentenario - Cuestecitas and El Corozo - San Mateo Interconnections (CO - VE)	125.2
AND57	●	Electricity Interconnection Project between Colombia and Ecuador. A 230 KV-Line between Pasto (Colombia) and Quito (Ecuador) Substations (CO - EC)	45.4
AND58	●	Two Micro-Power Stations in Chinchipe and Taguien (EC)	5.0
AND59	●	A Micro-Power Station in the Province of Sucumbíos (EC)	0.0
AND60	●	Extension of the Nor-Peruano Oil Pipeline (EC - PE)	0.0
AND61	●	Gas Interconnection Projects (CO)	335.0
AND62	●	Santo Domingo Coal-Fired Power Plant (VE)	625.0
AND63	●	Uribante Caparo Project (Transmission and Generation Networks) (VE)	0.0
AND64	●	Electricity Interconnection Project between Puerto Nuevo - Puerto Páez (Venezuela) and Puerto Carreño (Colombia) (CO)	5.0
AND65	●	Electricity Interconnection between Ecuador and Peru (EC - PE)	0.0
AND66	●	Electricity Interconnection between Colombia - Ecuador Project, Second Stage (CO - EC)	0.0
AND67	●	Electricity Transmission to Supply the West (VE)	590.0
		TOTAL	1,730.6


OPTICAL FIBER CABLES FOR TELECOMMUNICATIONS IN TRANSMISSION NETWORKS
Anchor Project:
USE OF EXISTING INFRA-STRUCTURE AND NEW CONNECTIONS TO ENHANCE COMMUNICATIONS INFRASTRUCTURE

- 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.

Code	Stage	Andean Hub: Group 10	Estimated Investment (US$ million)
AND68	●	Use of the Existing Infrastructure and New Connections to Enhance Communications Infrastructure (BO - CO - EC - PE - VE)	0.1
AND69	●	Optical Fiber Cables for Telecommunications in Transmission Networks (BO - CO - EC - PE - VE)	0.0
		TOTAL	0.1

I. GENERAL ASPECTS

The countries have agreed to include sixty-five projects in the Andean Hub, accounting for an estimated investment of US$ 9,183.5 million, as summarized below:

Table F.1 • **General Indicators of the Andean Hub**

Group	Name	Number of Projects	Estimated Investment (US$ million)
Group 1	Venezuela (Northern Plains Hub) - Colombia (Northern Zone) Connection	2	2.0
Group 2	Venezuela (Caracas) - Colombia (Bogotá) - Ecuador (Quito) (Existing) Road Connection	10	3,766.6
Group 3	Venezuela (Orinoco Apure Hub) - Colombia (Bogotá) III (Low-Altitude Corridor) Connection	7	43.6
Group 4	Pacific - Bogotá - Meta - Orinoco - Atlantic Connection	4	1,926.0
Group 5	Connection: Colombia (Tumaco Port) - Ecuador (Esmeraldas Port - Guayaquil) - Peru (Ica)	16	1,838.9
Group 6	Colombia - Ecuador II (Bogotá - Mocoa - Tena - Zamora - Palanda - Loja) Connection	6	446.0
Group 7	Peru - Ecuador II (Quito - Puente de Integración - Tingo María) Connection	3	344.0
Group 8	Peru - Bolivia (Huancayo - Ayacucho - Tarija - Bermejo) Connection	4	876.7
Group 9	Energy Integration Systems	12	1,730.6
Group 10	Communications Systems and Connectivity	2	0.1
	TOTAL	65	9,183.5

Note: (*) The total in the Number of Projects and Estimated Investment columns do not match the mathematical total amounts due to the existence of a Hinge Project: Bogotá - Buenaventura Road Corridor, belonging in Group 2 and Group 4 of this Hub

II. SOURCE OF FINANCING

Table F.2 • **Source of financing of the Andean Hub projects**

Source of Financing	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Public	46	70.8	6,649.1	72.4
Private	9	13.8	1,298.9	14.1
Public/Private	10	15.4	1,235.5	13.5
TOTAL	65	100.0	9,183.5	100.0

Table F.3 • **API Projects - Andean Hub**

Code	Project Name	Estimated Investment (US$ million)
4	**Caracas - Bogotá - Buenaventura / Quito road corridor (CO - EC - VE)**	**3,350.0**
AND05	Bogotá - Cúcuta Road Corridor (CO)	1,559.0
AND07	Bogotá - Buenaventura Road Corridor (CO)	1,791.0
5	**Colombia - Ecuador border interconnection (CO - EC)**	**228.4**
AND31	Binational Border Service Center (CEBAF) at San Miguel (CO - EC)	25.0
AND79	Improvement and Paving of the Mocoa - Santa Ana - San Miguel Road Section (CO)	133.6
AND82	Implementation of the Binational Border Service Center (CEBAF) at the Tulcán - Ipiales (Rumichaca) Border Crossing, Including Improvement of the Rumichaca Bridge (CO - EC)	65.0
AND91	Construction of the New International Rumichaca Bridge and Improvement of the Existing Bridge (CO - EC)	4.8
6	**Colombia - Venezuela border crossings connectivity system (CO - VE)**	**5.0**
AND02	Binational Border Service Center (CEBAF) at Paraguachón (VE)	2.0
AND13	Improvement of José Antonio Páez Bridge (CO) (*)	1.3
AND19	Puerto Carreño Border Crossing (VE)	1.0
AND81	Improvement of the Border Crossings in the Northern Department of Santander and the Táchira State (CO - VE)	2.0
7	**Desaguadero binational border service center (CEBAF) (BO - PE)**	**40.2**
AND47	Desaguadero Binational Border Service Center (CEBAF) (BO - PE)	40.2
8	**Autopista del sol expressway: improvement and rehabilitation of the Sullana aguas verdes section (including tumbes bypass) (PE)**	**70.4**
AND28	Autopista del Sol Expressway: Improvement and Rehabilitation of the Sullana - Aguas Verdes Section (Including Tumbes Bypass) (PE)	70.4
	TOTAL	**3,694.0**

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

IV. SECTOR/SUBSECTOR-BASED BREAKDOWN AND TYPE OF WORKS INVOLVED

Table F.4 • Sector-based breakdown of the Andean Hub

	Transport				Energy				Communications			
Subsector	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment
Air	2	3.9	54.1	0.7								
Road	34	66.6	6,698.8	89.9								
Railway	1	2.0	390.0	5.2								
River	1	2.0	108.0	1.5								
Border Crossing	13	25.5	201.9	2.7								
Power Generation					3	25.0	630.0	36.4				
Power Interconnection					9	75.0	1,100.6	63.6				
Communication Interconnection									2	100.0	0.1	100.0
TOTAL	51	100.0	7,452.8	100.0	12	100.0	1,730.6	100.0	2	100.0	0.1	100.0

Table F.5 • Air Transport

Type of Work	Number of Projects	Estimated Investment (US$ million)
Refitting of airports	1	6.9
New airports	1	47.2
TOTAL	2	54.1

Table F.6 • Road Transport

Type of Work	Number of Projects	Estimated Investment (US$ million)
Extension of the road capacity	7	3,834.5
Refitting of road and structures	13	1,764.0
Paving (new work)	10	854.0
Bridges (new ones and refitting)	3	7.0
Road maintenance	1	239.3
TOTAL	34	6,698.8

Table F.7 • **Railway Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of railways	1	390.0
TOTAL	1	390.0

Table F.8 • **River Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Improvement of river navigability	1	108.0
TOTAL	1	108.0

Table F.9 • **Border Crossings**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Infrastructure for the setting up of border control centers	13	201.9
TOTAL	13	201.9

Table F.10 • **Energy Regulatory Harmonization**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Hydroelectric plants (new ones and refitting) - microcentrals	2	5.0
Carboelectric plants	1	625.0
TOTAL	3	630.0

Table F.11 • **Power Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of new power interconnections	8	975.4
Refitting of power interconnections	1	125.2
TOTAL	9	1,100.6

Table F.12 • **Communication Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Optic fiber	1	0.0
Telecommunication networks	1	0.1
TOTAL	2	0.1

V. PROGRESS IN THE ANDEAN HUB PROJECTS

Table F.13 • **Projects by Progress Attained**

Stage	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Profiling	20	30.8	1,743.4	19.0
Pre-Execution	8	12.3	451.7	4.9
Execution	22	33.8	6,186.1	67.4
Concluded	15	23.1	802.3	8.7
TOTAL	65	100.0	9,183.5	100.0

Table F.14 • **Concluded Projects**

Code	Project Name	Estimated Investment (US$ million)
AND12	Completion of the Paving of Tame - Villavicencio Road (CO)	3.6
AND13	Improvement of José Antonio Páez Bridge (CO)	1.3
AND14	Completion of the Paving of Tame - Arauca Road (CO)	10.6
AND18	Paving of Sections between Villavicencio and Puerto López (CO)	26.0
AND21	Binational Border Service Center (CEBAF) Road Axis No. 1 (EC - PE)	15.9
AND25	New Santa Rosa Regional Airport (EC)	47.1
AND26	Puerto Inca - Huaquillas Road and Huaquillas - Aguas Verdes International Bridge, Huaquillas Bypass (EC - PE)	85.8
AND38	Improvement and Rehabilitation of the Narupa - Guamaniyacu Road Section (EC)	23.6
AND56	Strengthening of the Cuatricentenario - Cuestecitas and El Corozo - San Mateo Interconnections (CO - VE)	125.2
AND57	Electricity Interconnection Project between Colombia and Ecuador. A 230 KV-Line between Pasto (Colombia) and Quito (Ecuador) Substations (CO - EC)	45.4
AND60	Extension of the Nor-Peruano Oil Pipeline (EC - PE)	0.0
AND61	Gas Interconnection Projects (CO)	335.0
AND64	Electricity Interconnection Project between Puerto Nuevo - Puerto Páez (Venezuela) and Puerto Carreño (Colombia) (CO)	5.0
AND88	Sullana - El Alamor Road (PE)	29.5
AND89	Sullana - Macará - Loja Road (PE)	48.3
	TOTAL	802.3

VI. ANCHOR PROJECTS

The countries identified ten anchor projects in the Andean Hub, totaling an estimated investment of US$ 594.1 million, according to the following detail:

Table F.15 • **Anchor Projects**

Group	Code	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Project Stage
1	AND01	Road Corridor Connecting Santa Marta - Paraguachón - Maracaibo - Barquisimeto - Acarigua (CO - VE) (*)	411.2	Public/ Private	Binational	Execution
2	AND81	Improvement of the Border Crossings in the Northern Department of Santander and the Táchira State (CO - VE)	2.0	Public	Binational	Profiling
2	AND82	Implementation of the Binational Border Service Center (CEBAF) at the Tulcán - Ipiales (Rumichaca) Border Crossing, Including Improvement of the Rumichaca Bridge (CO - EC)	65.0	Public	Binational	Pre-Execution
3	AND10	Saravena Border Crossing (CO)	3,3	Public	Nacional	Profiling
4	AND17	Puerto Gaitán - Puerto Carreño Multimodal Project, Including Improvement of the Navigation Conditions on the Meta River (CO)	108.0	Public	Nacional	Execution
5	AND21	Binational Border Service Center (CEBAF) Road Axis No. 1 (EC - PE)	15.9	Public	Binational	Concluded
6	AND31	Binational Border Service Center (CEBAF) at San Miguel (CO - EC)	25.0	Public	Binational	Pre-Execution
7	AND39	Paving of Vilcamba - Puente de Integración - Jaén (EC - PE)	334.6	Public	Binational	Execution
8	AND47	Desaguadero Binational Border Service Center (CEBAF) (BO - PE)	40.2	Public	Binational	Pre-Execution
10	AND68	Use of the Existing Infrastructure and New Connections to Enhance Communications Infrastructure (BO - CO - EC - PE - VE)	0.1	Private	Multi national	Execution
		TOTAL	594.1			

Note: (*) Investments in this existing project have not been included in the estimated total amount as they were mostly made before IIRSA was launched.

CAPRICORN HUB

COUNTRY MEMBERS

TOTAL NUMBER OF PROJECTS
80

INVESTMENT
(US$ million)
13,974.6

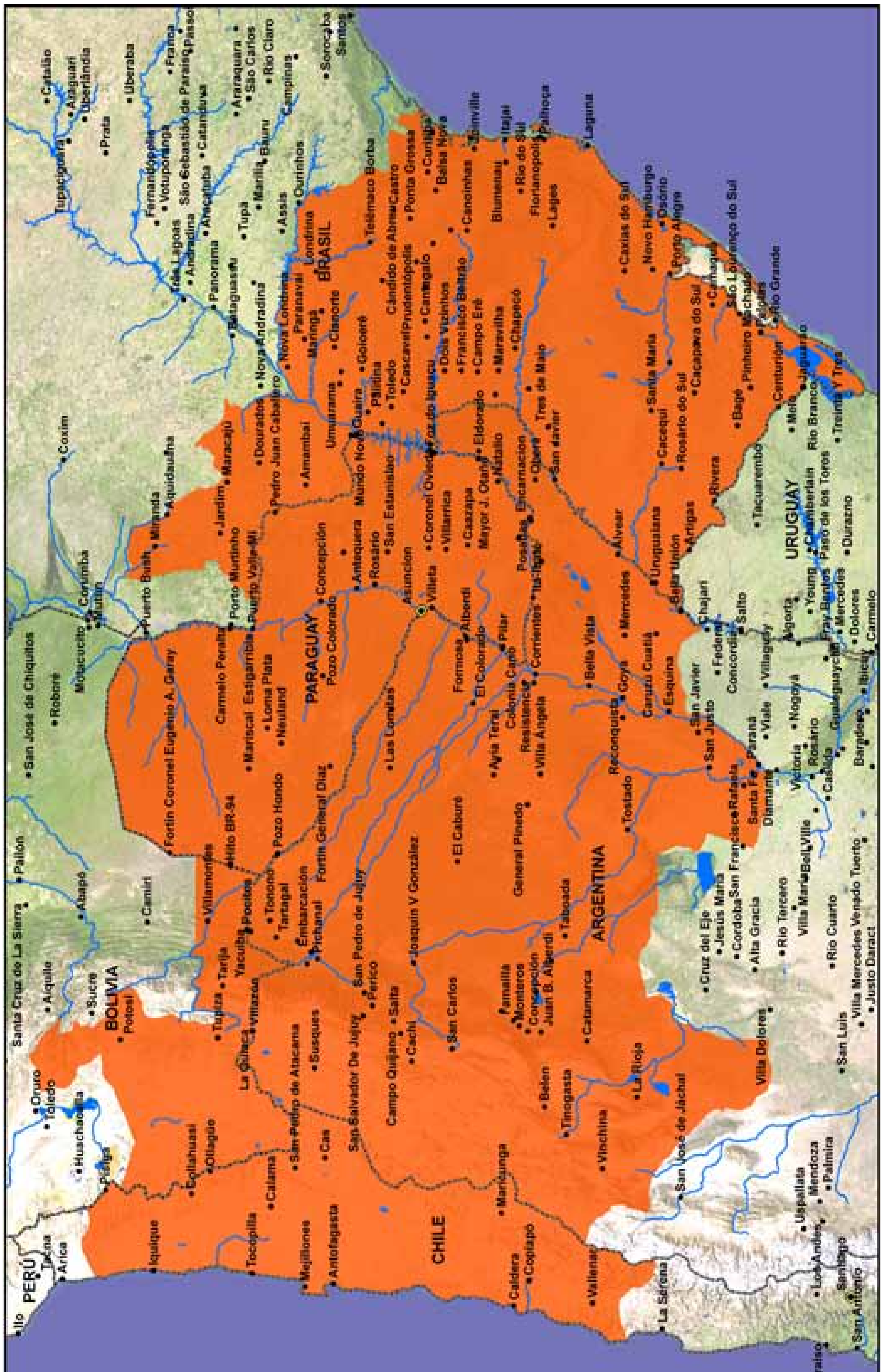
TOTAL NUMBER OF PROJECTS
Percentage by stage

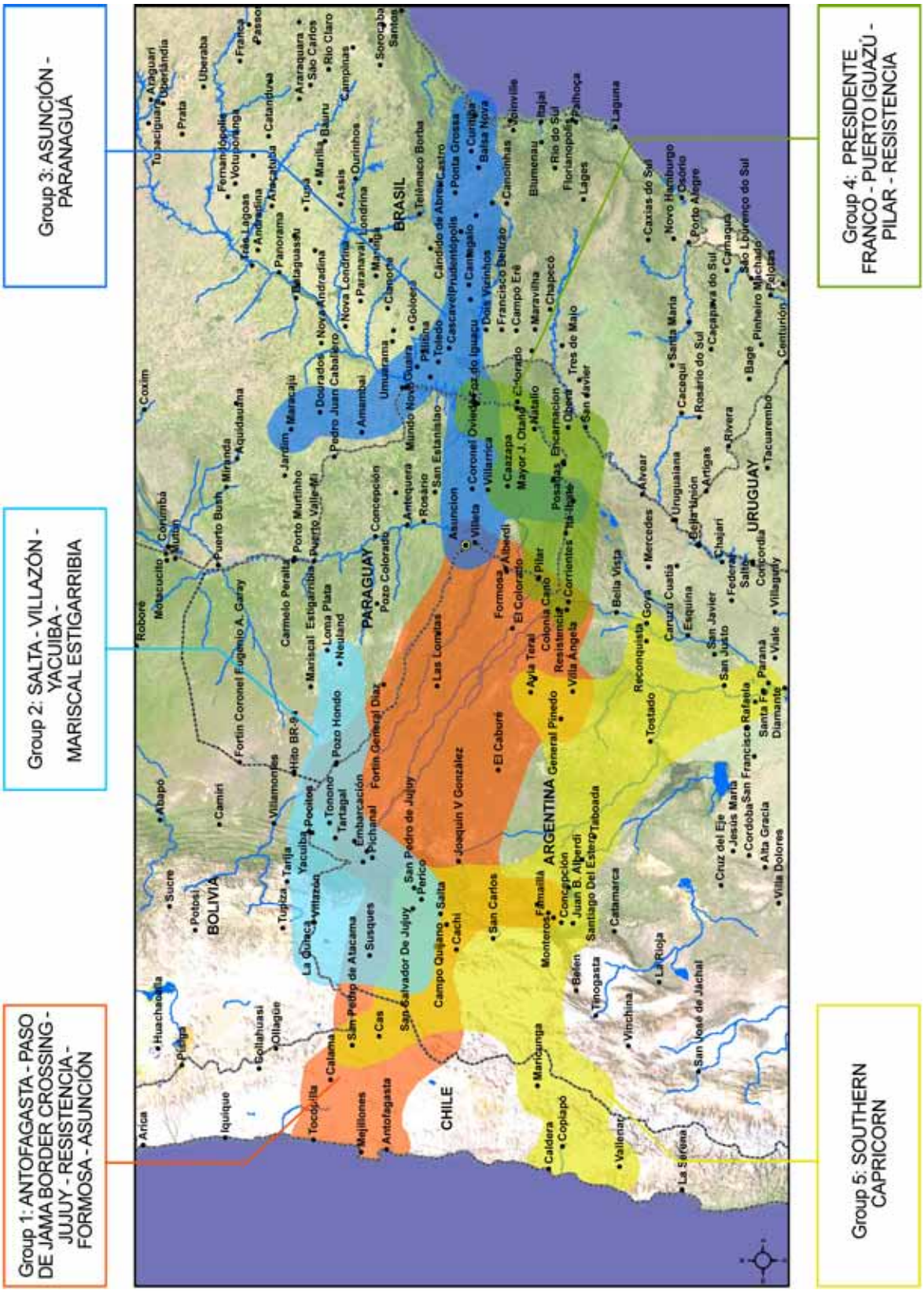
22.5%	PROFILING
42.5%	PRE-EXECUTION
22.5%	EXECUTION
12.5%	CONCLUDED

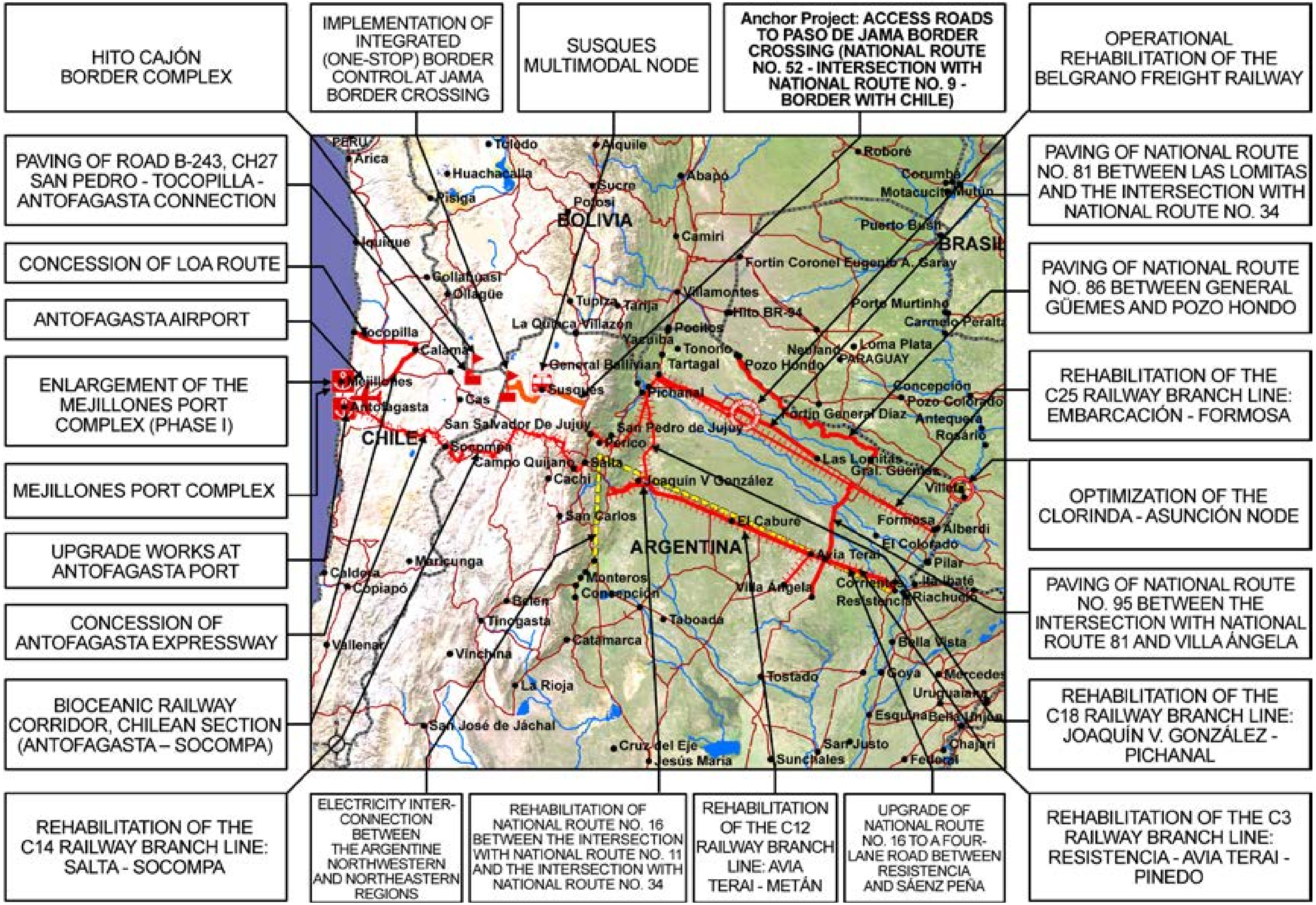
INVESTMENT
Percentage by stage

PROFILING	9.6%
PRE-EXECUTION	56.5%
EXECUTION	25.5%
CONCLUDED	8.4%

PROFILING · PRE-EXECUTION · EXECUTION · CONCLUDED


PERU
BOLIVIA
CHILE
PARAGUAY
BRASIL
ARGENTINA
URUGUAY

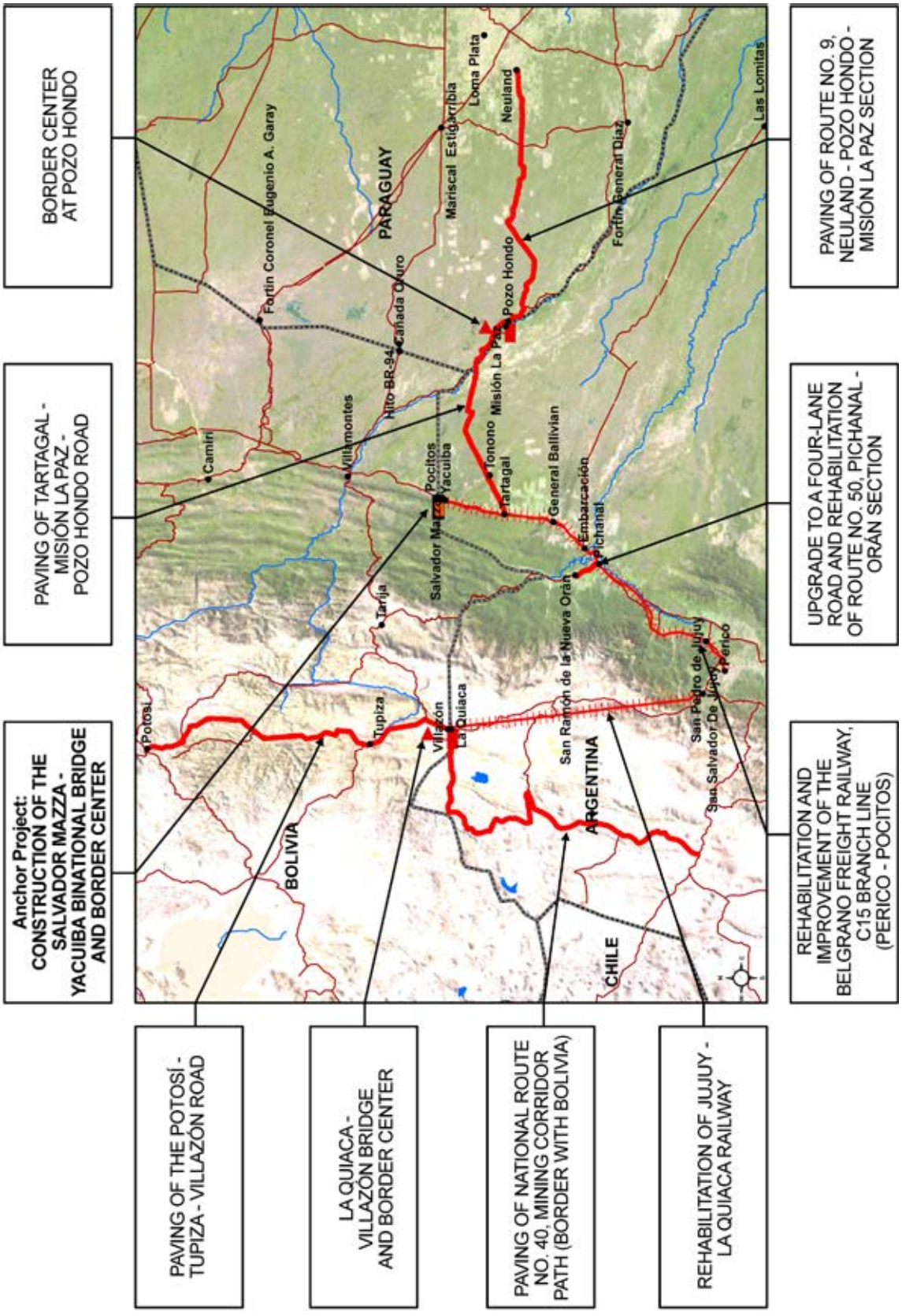

Group 1: ANTOFAGASTA - PASO DE JAMA BORDER CROSSING - JUJUY - RESISTENCIA - FORMOSA - ASUNCIÓN
Group 2: SALTA - VILLAZÓN - YACUIBA - MARISCAL ESTIGARRIBIA
Group 3: ASUNCIÓN - PARANAGUÁ
Group 4: PRESIDENTE FRANCO - PUERTO IGUAZÚ - PILAR - RESISTENCIA
Group 5: SOUTHERN CAPRICORN
BOLIVIA
PARAGUAY
BRASIL
ARGENTINA
URUGUAY
CHILE


HITO CAJÓN BORDER COMPLEX
IMPLEMENTATION OF INTEGRATED (ONE-STOP) BORDER CONTROL AT JAMA BORDER CROSSING
SUSQUES MULTIMODAL NODE
Anchor Project: ACCESS ROADS TO PASO DE JAMA BORDER CROSSING (NATIONAL ROUTE NO. 52 - INTERSECTION WITH NATIONAL ROUTE NO. 9 - BORDER WITH CHILE)
OPERATIONAL REHABILITATION OF THE BELGRANO FREIGHT RAILWAY
PAVING OF ROAD B-243, CH27 SAN PEDRO - TOCOPILLA - ANTOFAGASTA CONNECTION
PAVING OF NATIONAL ROUTE NO. 81 BETWEEN LAS LOMITAS AND THE INTERSECTION WITH NATIONAL ROUTE NO. 34
CONCESSION OF LOA ROUTE
PAVING OF NATIONAL ROUTE NO. 86 BETWEEN GENERAL GÜEMES AND POZO HONDO
ANTOFAGASTA AIRPORT
ENLARGEMENT OF THE MEJILLONES PORT COMPLEX (PHASE I)
REHABILITATION OF THE C25 RAILWAY BRANCH LINE: EMBARCACIÓN - FORMOSA
MEJILLONES PORT COMPLEX
OPTIMIZATION OF THE CLORINDA - ASUNCIÓN NODE
UPGRADE WORKS AT ANTOFAGASTA PORT
PAVING OF NATIONAL ROUTE NO. 95 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE 81 AND VILLA ÁNGELA
CONCESSION OF ANTOFAGASTA EXPRESSWAY
BIOCEANIC RAILWAY CORRIDOR, CHILEAN SECTION (ANTOFAGASTA – SOCOMPA)
REHABILITATION OF THE C18 RAILWAY BRANCH LINE: JOAQUÍN V. GONZÁLEZ - PICHANAL
REHABILITATION OF THE C14 RAILWAY BRANCH LINE: SALTA - SOCOMPA
ELECTRICITY INTER-CONNECTION BETWEEN THE ARGENTINE NORTHWESTERN AND NORTHEASTERN REGIONS
REHABILITATION OF NATIONAL ROUTE NO. 16 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE NO. 11 AND THE INTERSECTION WITH NATIONAL ROUTE NO. 34
REHABILITATION OF THE C12 RAILWAY BRANCH LINE: AVIA TERAI - METÁN
UPGRADE OF NATIONAL ROUTE NO. 16 TO A FOUR-LANE ROAD BETWEEN RESISTENCIA AND SÁENZ PEÑA
REHABILITATION OF THE C3 RAILWAY BRANCH LINE: RESISTENCIA - AVIA TERAI - PINEDO
BOLIVIA
CHILE
ARGENTINA
BRASIL
PARAGUAY
PERU

- Improve supply options in the northwest region in Argentina, the south of Bolivia and Paraguay.
- Open an outlet to the Pacific for production from the northwest in Argentina and the south of Bolivia and Paraguay.
- Increase competitiveness of the Hub's products.
- Connectivity of northwestern Argentina and the north of Chile with the Paraguay-Paraná Waterway.
- Take profit from the complementary opportunities for the development of integrated tourism (northwestern Argentina, south of Bolivia and north of Chile).

Code	Stage	Capricorn Hub: Group 1	Estimated Investment (US$ million)
CAP01	●	Access Roads to Paso de Jama Border Crossing (National Route No. 52 - Intersection with National Route No. 9 - Border with Chile) (AR)	54.0
CAP02	●	Implementation of Integrated (One-Stop) Border Control at Jama Border Crossing (AR - CH)	4.0
CAP03	●	Electricity Interconnection between the Argentine Northwestern and Northeastern Regions (AR)	725.0
CAP04	●	Operational Rehabilitation of the Belgrano Freight Railway (AR)	350.0
CAP06	●	Paving of National Route No. 81 between Las Lomitas and the Intersection with National Route No. 34 (AR)	100.0
CAP07	●	Optimization of the Clorinda - Asunción Node (AR - PY)	101.2
CAP08	●	Enlargment of the Mejillones Port Complex (Phase I) (CH)	120.0
CAP09	●	Upgrade Works at Antofagasta Port (CH)	18.0
CAP37	●	Rehabilitation of the C3 Railway Branch Line: Resistencia - Avia Terai - Pinedo (AR)	104.0
CAP38	●	Rehabilitation of the C12 Railway Branch Line: Avia Terai - Metán (AR)	212.0
CAP39	●	Rehabilitation of the C14 Railway Branch Line: Salta - Socompa (AR)	60.0
CAP40	●	Rehabilitation of the C25 Railway Branch Line: Embarcación - Formosa (AR)	64.0
CAP41	●	Rehabilitation of the C18 Railway Branch Line: Joaquín V. González - Pichanal (AR)	50.0
CAP42	●	Rehabilitation of National Route No. 16 between the Intersection with Nation Route No. 11 and the Intersection with National Route No. 34 (AR)	350.0
CAP43	●	Paving of National Route No. 86 between Gral. Güemes and Pozo Hondo (AR)	200.0
CAP44	●	Paving of National Route No. 95 between the Intersection with National Route No. 81 and Villa Ángela (AR)	90.0
CAP46	●	Concession of Antofagasta Expressway (CH)	370.0
CAP47	●	Concession of Loa Route (CH)	389.0
CAP80	●	Mejillones Port Complex (CH)	80.0
CAP85	●	Susques multimodal node (AR)	0.0
CAP88	●	Antofagasta Airport (CH)	28.0
CAP89	●	Hito Cajón Border Complex (CH)	5.0
CAP90	●	Paving of Road B-243, CH27 San Pedro - Tocopilla - Antofagasta Connection (CH)	3.0
CAP91	●	Bioceanic Railway Corridor, Chilean Section (Antofagasta - Socompa) (CH) (*)	0.0
CAP95	●	Upgrade of National Route No. 16: Resistencia - Sáenz Peña (AR)	300.0
		TOTAL	3,777.2

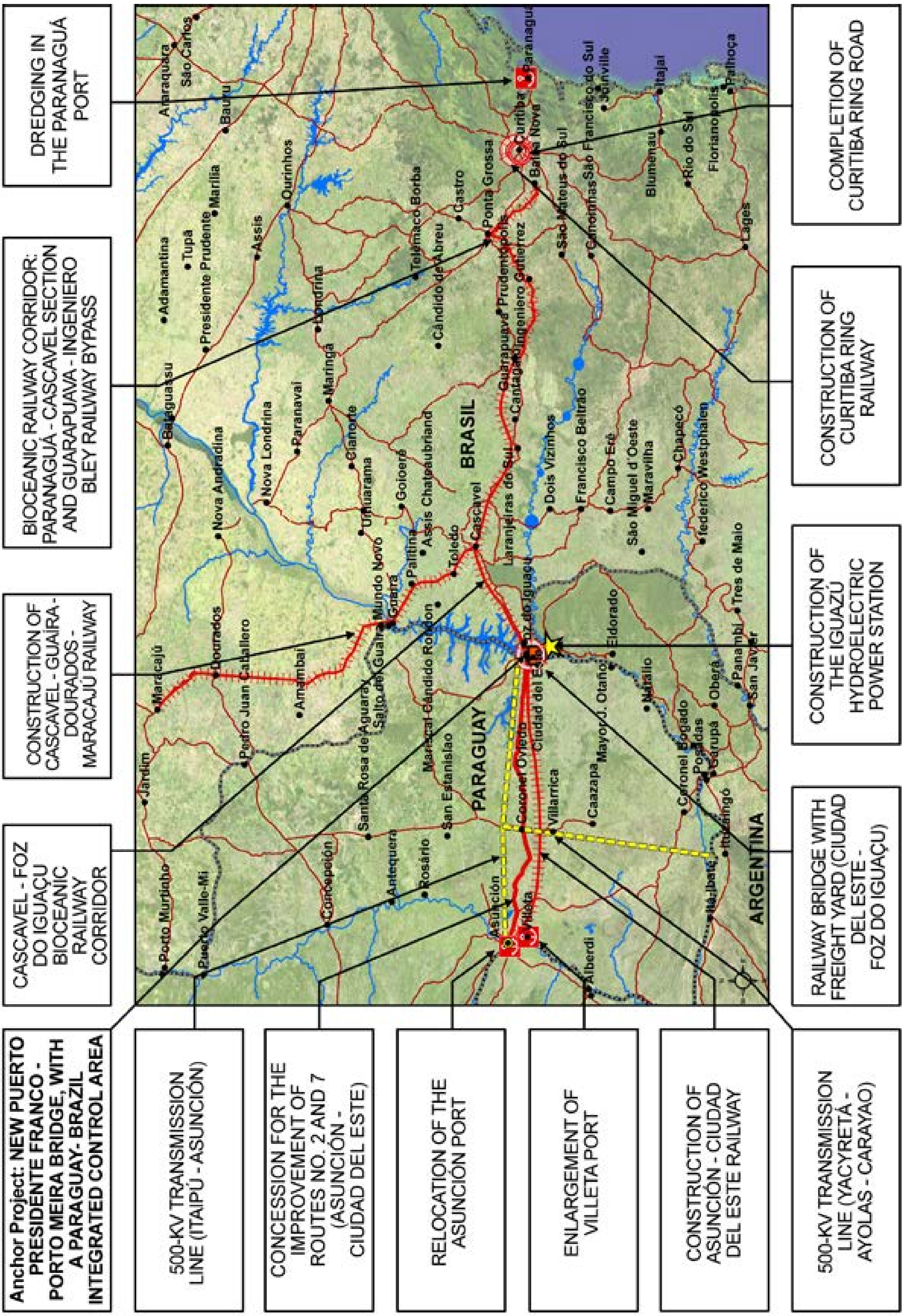
Note: (*) Pre-existing work. Eventually define actions required to incorporate the section to the Bioceanic Railway Corridor.


BORDER CENTER AT POZO HONDO
PAVING OF TARTAGAL - MISIÓN LA PAZ - POZO HONDO ROAD
Anchor Project: CONSTRUCTION OF THE SALVADOR MAZZA - YACUIBA BINATIONAL BRIDGE AND BORDER CENTER
PAVING OF ROUTE NO. 9, NEULAND - POZO HONDO - MISIÓN LA PAZ SECTION
UPGRADE TO A FOUR-LANE ROAD AND REHABILITATION OF ROUTE NO. 50, PICHANAL - ORÁN SECTION
REHABILITATION AND IMPROVEMENT OF THE BELGRANO FREIGHT RAILWAY, C15 BRANCH LINE (PERICO - POCITOS)
PAVING OF THE POTOSÍ - TUPIZA - VILLAZÓN ROAD
LA QUIACA - VILLAZÓN BRIDGE AND BORDER CENTER
PAVING OF NATIONAL ROUTE NO. 40, MINING CORRIDOR PATH (BORDER WITH BOLIVIA)
REHABILITATION OF JUJUY - LA QUIACA RAILWAY
PARAGUAY
BOLIVIA
CHILE
ARGENTINA
Fortín Coronel Eugenio A. Garay
Mariscal Estigarribia
Loma Plata
Neuland
Fortín General Díaz
Las Lomitas
Cañada Oruro
Pozo Hondo
Misión La Paz
Tonono
Tartagal
General Ballivian
Embarcación
Ichanal
Camiri
Villamontes
Pocitos
Yacuiba
Salvador Mazza
Tarija
San Ramón de la Nueva Orán
San Pedro de Jujuy
Perico
San Salvador De Jujuy
Potosí
Tupiza
Villazón
La Quiaca

- Reduce costs and provide greater security to trade in goods and services among Argentina - Bolivia - Paraguay.
- Articulate the Central Interoceanic and Capricorn Hubs.

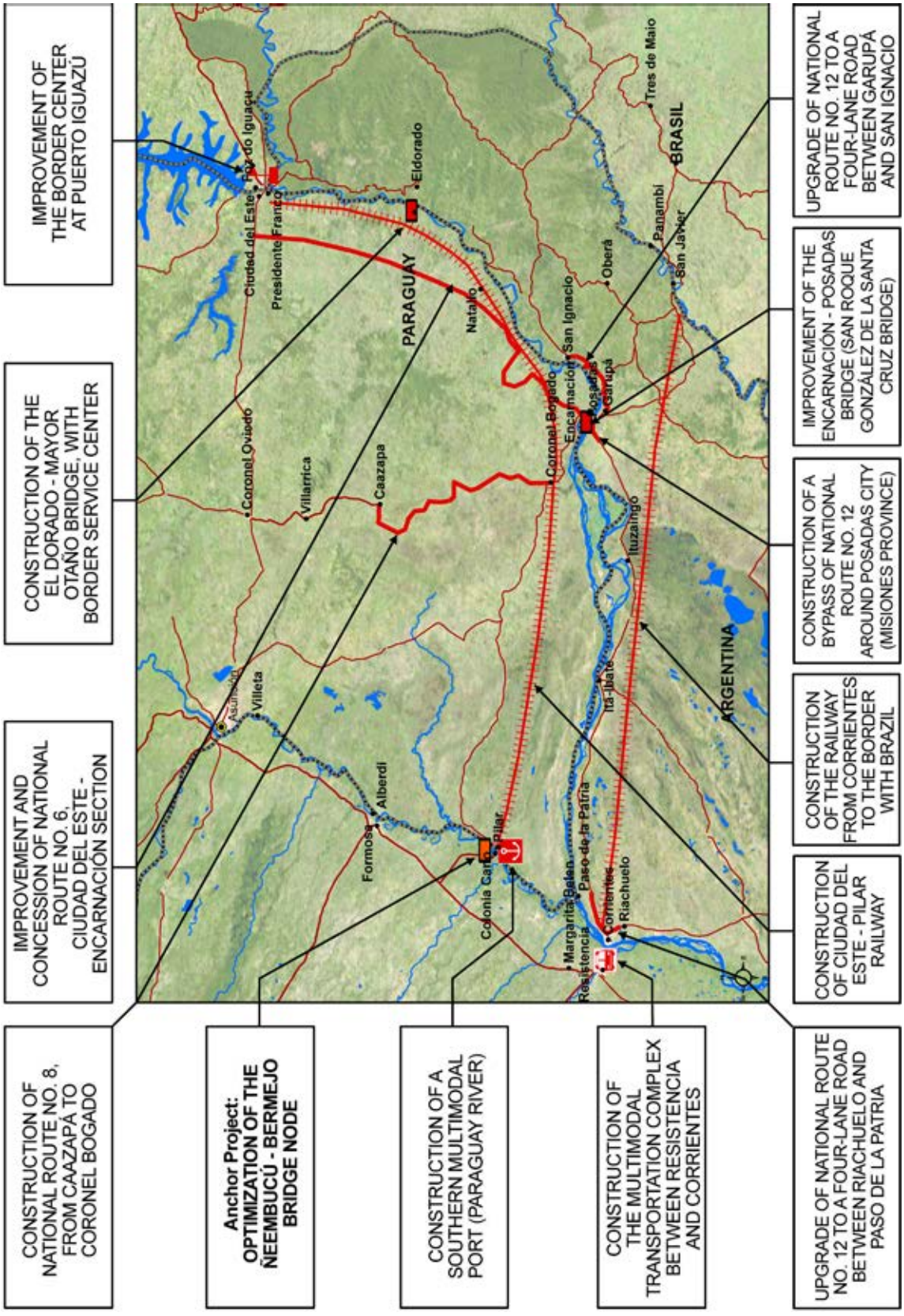
Code	Stage	Capricorn Hub: Group 2	Estimated Investment (US$ million)
CAP10	🟡	Construction of the Salvador Mazza - Yacuiba Binational Bridge and Border Center (AR - BO)	23.0
CAP11	🟡	Rehabilitation of Jujuy - La Quiaca Railway (AR)	62.0
CAP12	🟡	Paving of Tartagal - Misión La Paz - Pozo Hondo Road (AR)	150.0
CAP48	🟡	Rehabilitation and Improvement of the Belgrano Freight Railway, C15 Branch Line (Perico - Pocitos) (AR)	60.0
CAP49	🟢	Upgrade to a Four-Lane Road and Rehabilitation of Route No. 50, Pichanal - Orán Section (AR)	30.0
CAP50	🟡	Paving of National Route No. 40, Mine Corridor Path (Border with Bolivia) (AR)	400.0
CAP51	🟡	Pozo Hondo Border Center (PY)	1.5
CAP70	🟡	Paving of Route No. 9 - Neuland - Pozo Hondo - Misión La Paz Section (PY)	144.0
CAP81	🔴	La Quiaca - Villazón Bridge and Border Center (AR - BO)	15.0
CAP92	🟢	Paving of Potosí - Tupiza - Villazón Road (BO) (*)	180.4
		TOTAL	1,065.9

Note: (*) Hinge project with Group 1 of the Central Interoceanic Hub


Anchor Project: NEW PUERTO PRESIDENTE FRANCO - PORTO MEIRA BRIDGE, WITH A PARAGUAY- BRAZIL INTEGRATED CONTROL AREA
CASCAVEL - FOZ DO IGUAÇU BIOCEANIC RAILWAY CORRIDOR
CONSTRUCTION OF CASCAVEL - GUAÍRA - DOURADOS - MARACAJÚ RAILWAY
BIOCEANIC RAILWAY CORRIDOR: PARANAGUÁ - CASCAVEL SECTION AND GUARAPUAVA - INGENIERO BLEY RAILWAY BYPASS
DREDGING IN THE PARANAGUÁ PORT
500-KV TRANSMISSION LINE (ITAIPÚ - ASUNCIÓN)
CONCESSION FOR THE IMPROVEMENT OF ROUTES NO. 2 AND 7 (ASUNCIÓN - CIUDAD DEL ESTE)
RELOCATION OF THE ASUNCIÓN PORT
ENLARGEMENT OF VILLETA PORT
CONSTRUCTION OF ASUNCIÓN - CIUDAD DEL ESTE RAILWAY
500-KV TRANSMISSION LINE (YACYRETÁ - AYOLAS - CARAYAO)
RAILWAY BRIDGE WITH FREIGHT YARD (CIUDAD DEL ESTE - FOZ DO IGUAÇU)
CONSTRUCTION OF THE IGUAZÚ HYDROELECTRIC POWER STATION
CONSTRUCTION OF CURITIBA RING RAILWAY
COMPLETION OF CURITIBA RING ROAD
PARAGUAY
BRASIL
ARGENTINA
Asunción
Villeta
Coronel Oviedo
Ciudad del Este
Foz do Iguaçu
Villarrica
Cascavel
Guarapuava
Ponta Grossa
Curitiba
Paranaguá
Balsa Nova
Maracajú
Dourados
Guaíra
Toledo
Concepción
Pedro Juan Caballero
Encarnación
Posadas

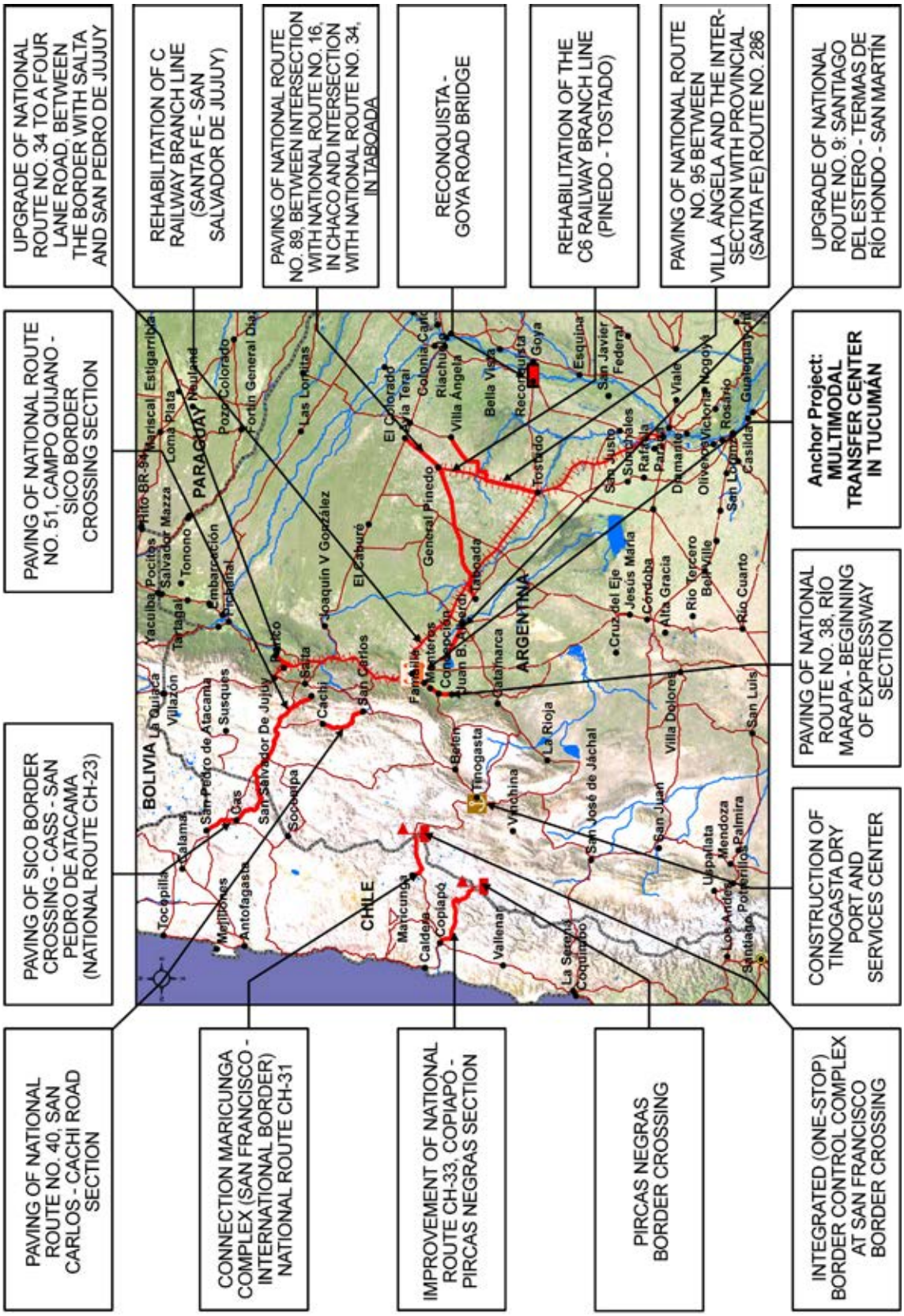
- Consolidate a high-capacity, low-cost system for moving bulk cargo from the region to international markets.
- Promote socio-economic regional development.

Code	Stage	Capricorn Hub: Group 3	Estimated Investment (US$ million)
CAP14	🟡	New Puerto Presidente Franco - Porto Meira Bridge, with a Paraguay - Brazil Integrated Control Area (BR - PY)	0.0
CAP15	🟢	Dredging in the Paranaguá Port (BR)	394.0
CAP16	🟢	Completion of Curitiba Ring Road (BR)	140.0
CAP17	🟡	Construction of Curitiba Ring Railway (BR)	0.0
CAP18	🟡	Concession for the Improvement of Routes No. 2 and 7 (Asunción - Ciudad del Este) (PY)	136.0
CAP19	🟡	Construction of Asunción - Ciudad del Este Railway (PY)	297.5
CAP20	🔴	Cascavel - Foz do Iguaçu Bioceanic Railway Corridor (BR)	324.0
CAP22	🟡	Relocation of the Asunción Port (PY)	25.0
CAP52	🔴	Railway Bridge with Freight Yard (Ciudad del Este - Foz do Iguaçu) (BR - PY)	41.0
CAP53	🟡	Bioceanic Railway Corridor: Paranaguá - Cascavel Section and Guarapuava - Ingeniero Bley Railway Bypass (BR)	1,500.0
CAP54	🔴	Enlargment of Villeta Port (PY)	30.0
CAP67	🟢	500-KV Transmission Line (Itaipú - Asunción) (BR - PY)	555.0
CAP68	🟡	500-KV Transmission Line (Yacyretá - Ayolas - Carayao) (PY)	200.0
CAP69	🟢	Construction of the Iguazú Hydroelectric Power Station (PY)	260.0
CAP93	🟡	Construction of the Cascavel - Guaira - Dourados -Maracajú Railway (BR)	1,100.0
		TOTAL	5,002.5


IMPROVEMENT OF THE BORDER CENTER AT PUERTO IGUAZÚ
CONSTRUCTION OF THE EL DORADO - MAYOR OTAÑO BRIDGE, WITH BORDER SERVICE CENTER
IMPROVEMENT AND CONCESSION OF NATIONAL ROUTE NO. 6, CIUDAD DEL ESTE - ENCARNACIÓN SECTION
CONSTRUCTION OF NATIONAL ROUTE NO. 8, FROM CAAZAPÁ TO CORONEL BOGADO
Anchor Project: OPTIMIZATION OF THE ÑEEMBUCÚ - BERMEJO BRIDGE NODE
CONSTRUCTION OF A SOUTHERN MULTIMODAL PORT (PARAGUAY RIVER)
CONSTRUCTION OF THE MULTIMODAL TRANSPORTATION COMPLEX BETWEEN RESISTENCIA AND CORRIENTES
UPGRADE OF NATIONAL ROUTE NO. 12 TO A FOUR-LANE ROAD BETWEEN RIACHUELO AND PASO DE LA PATRIA
CONSTRUCTION OF CIUDAD DEL ESTE - PILAR RAILWAY
CONSTRUCTION OF THE RAILWAY FROM CORRIENTES TO THE BORDER WITH BRAZIL
CONSTRUCTION OF A BYPASS OF NATIONAL ROUTE NO. 12 AROUND POSADAS CITY (MISIONES PROVINCE)
IMPROVEMENT OF THE ENCARNACIÓN - POSADAS BRIDGE (SAN ROQUE GONZÁLEZ DE LA SANTA CRUZ BRIDGE)
UPGRADE OF NATIONAL ROUTE NO. 12 TO A FOUR-LANE ROAD BETWEEN GARUPÁ AND SAN IGNACIO
PARAGUAY
BRASIL
ARGENTINA
Ciudad del Este
Presidente Franco
Puerto Iguazú
Eldorado
Tres de Mayo
Panambí
San Javier
Oberá
Natalio
San Ignacio
Encarnación
Posadas
Garupá
Coronel Bogado
Coronel Oviedo
Villarrica
Caazapa
Ituzaingó
Villeta
Asunción
Alberdi
Formosa
Pilar
Colonia Carlos
Ita-Ibaté
Paso de la Patria
Margarita Belen
Corrientes
Riachuelo
Resistencia

- Make intra-regional economic development more dynamic.
- Improve options so as to have outlets for the region's products towards the Paraguay-Paraná Waterway.

Code	Stage	Capricorn Hub: Group 4	Estimated Investment (US$ million)
CAP23	🟡	Optimization of the Ñeembucú - Bermejo Bridge Node (AR - PY)	61.2
CAP24	🔴	Construction of the Railway from Corrientes to the Border with Brazil (AR)	0.0
CAP25	🟡	Construction of the Multimodal Transportation Complex between Resistencia and Corrientes (AR)	175.0
CAP26	🟢	Improvement of the Border Center at Puerto Iguazú (AR)	2.0
CAP27	🟡	Improvement of the Posadas - Encarnación Bridge (San Roque González de la Santa Cruz Bridge) (AR - PY)	52.2
CAP29	🟡	Construction of Ciudad del Este - Pilar Railway (PY)	438.6
CAP31	🔴	Construction of a Southern Multimodal Port (Paraguay River) (PY)	120.0
CAP32	🟢	Construction of National Route No. 8, from Caazapá to Coronel Bogado (PY)	181.0
CAP33	🟢	Improvement and concession of National Route No. 6 (Ciudad del Este - Encarnación) (PY)	136.0
CAP56	🔵	Construction of a Bypass of National Route No. 12 around Posadas City (Misiones Province) (AR)	35.0
CAP94	🔴	Construction of the El Dorado - Mayor Otaño Bridge, with Border Service Center (AR - PY)	0.0
CAP96	🔴	Upgrade of National Route No. 12 to a Four-Lane Road between Riachuelo and Paso de la Patria (AR)	80.0
CAP97	🔴	Upgrade of National Route No. 12 to a Four-Lane Road between Garupá and San Ignacio (AR)	92.0
		TOTAL	1,373.0


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 ÁNGELA AND THE INTER-SECTION 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 TUCUMAN
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 SECTION
CONSTRUCTION OF TINOGASTA DRY PORT AND SERVICES CENTER
PAVING OF NATIONAL ROUTE NO. 40, SAN CARLOS - CACHI ROAD SECTION
CONNECTION MARICUNGA COMPLEX (SAN FRANCISCO - INTERNATIONAL BORDER) NATIONAL ROUTE CH-31
IMPROVEMENT OF NATIONAL ROUTE CH-33, COPIAPÓ - PIRCAS NEGRAS SECTION
PIRCAS NEGRAS BORDER CROSSING
INTEGRATED (ONE-STOP) BORDER CONTROL COMPLEX AT SAN FRANCISCO BORDER CROSSING
BOLIVIA
PARAGUAY
ARGENTINA
CHILE

- 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 economic and social development, connectivity, and intra-regional integration.
- Enable a new option for trade flows between the region and the Pacific markets.

Code	Stage	Capricorn Hub: Group 5	Estimated Investment (US$ million)
CAP57	🟡	Multimodal Transfer Center in Tucumán (AR)	20.0
CAP58	🟡	Rehabilitation of the C6 Railway Branch Line (Pinedo - Tostado) (AR)	100.0
CAP59	🟡	Rehabilitation of the C Railway Branch Line (Santa Fe - San Salvador de Jujuy) (AR)	270.0
CAP60	🟡	Reconquista - Goya Road Bridge (AR)	850.0
CAP61	🔵	Paving of National Route No. 95 between Villa Ángela and the Intersection wit Provincial (Santa Fe) Route No. 286 (AR)	37.0
CAP62	🟡	Upgrade of National Route No. 34 to a Four-Lane Road, between the Border with Salta and San Pedro de Jujuy (AR)	140.0
CAP63	🟢	Paving of National Route No. 38, Río Marapa - Beginning of Expressway Section (AR)	300.0
CAP64	🟡	Paving of National Route No. 40, San Carlos - Cachi Road Section (AR)	350.0
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 (AR)	95.0
CAP72	🔴	Integrated (One Stop) Border Control Complex at San Francisco Border Crossing (AR - CH)	4.0
CAP73	🟢	Connection Maricunga Complex (San Francisco - International Border) National Route CH-31 (CH)	70.0
CAP75	🔴	Paving of Sico Border Crossing - Cass - San Pedro de Atacama (National Route CH-23) (CH)	30.0
CAP76	🔴	Improvement of National Route CH-33, Copiapó - Pircas Negras Section (CH)	30.0
CAP77	🔴	Pircas Negras Border Crossing (AR - CH) (*)	5.0
CAP78	🟢	Paving of National Route No. 51, Campo Quijano - Sico Border Crossing Section (AR)	180.0
CAP82	🔴	Construction of Tinogasta Dry Port and Services Center (AR)	0.0
CAP98	🔴	Upgrade of National Route No. 9: Santiago del Estero - Termas de Río Hondo - San Martín (AR)	275.0
		TOTAL	2,756.0

Note: (*) Hinge project with Group 4 of the MERCOSUR-Chile Hub

I. GENERAL ASPECTS

The countries have agreed to include eighty projects in the Capricorn Hub, accounting for an estimated investment of US$ 13,974.6 million, as summarized below:

Table G.1 • **General Indicators of the Capricorn Hub**

Group	Name	Number of Projects	Estimated Investment (US$ million)
Group 1	Antofagasta - Paso de Jama Border Crossing - Jujuy - Resistencia - Formosa - Asunción	25	3,777.2
Group 2	Salta - Villazón - Yacuiba - Mariscal Estigarribia	10	1,065.9
Group 3	Asunción - Paranaguá	15	5,002.5
Group 4	Presidente Franco - Puerto Iguazú - Pilar - Resistencia	13	1,373.0
Group 5	Southern Capricorn	17	2,756.0
	TOTAL	80	13,974.6

II. SOURCE OF FINANCING

Table G.2 • **Source of financing of the Capricorn Hub projects**

Source of Financing	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Public	60	75.0	10,852.1	77.7
Private	8	10.0	1,217.0	8.7
Public/Private	12	15.0	1,905.5	13.6
TOTAL	80	100.0	13,974.6	100.0

III. API PROJECTS

Table G.3 • **API Projects - Capricorn Hub**

Code	Name of Project	Estimated Investment (US$ million)
9	**Construction of the Salvador Mazza - Yacuiba Binational Bridge and Border Center (AR - BO)**	**23.0**
CAP10	Construction of the Salvador Mazza - Yacuiba Binational Bridge and Border Center (AR - BO)	23.0
10	**Argentina - Bolivia west connection (AR - BO)**	**477.0**
CAP11	Rehabilitation of Jujuy - La Quiaca Railway (AR)	62.0
CAP50	Paving of National Route No. 40, Mine Corridor Path (Border with Bolivia) (AR)	400.0
CAP81	La Quiaca - Villazón Bridge and Border Center (AR - BO)	15.0
11	**Paranaguá - Antofagasta bioceanic railway corridor (AR - BR - CH - PY)**	**2,740.8**
CAP20	Cascavel - Foz do Iguaçu Bioceanic Railway Corridor (BR)	324.0
CAP23	Optimization of the Ñeembucú - Bermejo Bridge Node (AR - PY)	61.2
CAP29	Construction of Ciudad del Este - Pilar Railway (PY)	438.6
CAP37	Rehabilitation of the C3 Railway Branch Line: Resistencia - Avia Terai - Pinedo (AR)	104.0
CAP38	Rehabilitation of the C12 Railway Branch Line: Avia Terai - Metán (AR)	212.0
CAP39	Rehabilitation of the C14 Railway Branch Line: Salta - Socompa (AR)	60.0
CAP52	Railway Bridge with Freight Yard (Ciudad del Este - Foz do Iguaçu) (BR - PY)	41.0
CAP53	Bioceanic Railway Corridor: Paranaguá - Cascavel Section and Guarapuava - Ingeniero Bley Railway Bypass (BR)	1,500.0
CAP91	Bioceanic Railway Corridor, Chilean Section (Antofagasta - Socompa) (CH) (*)	0.0
12	**Foz do Iguaçu - Ciudad del Este - Asunción - Clorinda road connection (AR - BR - PY)**	**237.2**
CAP07	Optimization of the Clorinda - Asunción Node (AR - PY)	101.2
CAP14	New Puerto Presidente Franco - Porto Meira Bridge, with a Paraguay - Brazil Integrated Control Area (BR - PY)	0.0
CAP18	Concession for the Improvement of Routes No. 2 and 7 (Asunción - Ciudad del Este) (PY)	136.0
13	**Itaipu - Asunción - Yacyretá 500-kv transmission line (BR - PY)**	**755.0**
CAP68	500-KV Transmission Line (Yacyretá - Ayolas - Carayao) (PY)	200.0
CAP67	500-KV Transmission Line (Itaipú - Asunción) (BR - PY)	555.0
	TOTAL	**4,233.0**

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

IV. SECTOR/SUBSECTOR-BASED BREAKDOWN AND TYPE OF WORKS INVOLVED

Table G.4 • **Sector-based breakdown of the Capricorn Hub**

	Transport				Energy			
Subsector	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment
Air	1	1.3	28.0	0.2				
Road	36	47.4	6,205.9	50.7				
Railway	19	25.0	5,033.0	41.2				
River	3	3.9	175.0	1.4				
Sea	4	5.3	612.0	5.0				
Multimodal	3	3.9	20.0	0.2				
Border Crossing	10	13.2	160.7	1.3				
Power Generation					1	25.0	260.0	14.9
Power Interconnection					3	75.0	1,480.0	85.1
TOTAL	76	100.0	12,234.6	100.0	4	100.0	1,740.0	100.0

Table G.5 • **Air Transport**

Type of Work	**Number of Projects**	**Estimated Investment** (US$ million)
New Airports	1	28.0
TOTAL	1	28.0

Table G.6 • **Road Transport**

Type of Work	**Number of Projects**	**Estimated Investment** (US$ million)
Extension of the road capacity	9	1,812.0
Refitting of road and structures	5	853.0
Paving (new work)	15	2,227.4
Bridges (new ones and refitting)	5	1,138.5
Road by-pass and access to cities	2	175.0
TOTAL	36	6,205.9

Table G.7 • **Railway Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of railways	8	3,701.0
Refitting of railways	10	1,332.0
Railway by-pass	1	0.0
TOTAL	19	5,033.0

Table G.8 • **River Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of new river ports	1	120.0
Refitting of the existing river ports	2	55.0
TOTAL	3	175.0

Table G.9 • **Maritime Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Extension of the road infrastructure of the maritime ports	2	98.0
Refitting of sea ports	2	514.0
TOTAL	4	612.0

Table G.10 • **Multimodal Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Transfer stations	2	20.0
Multimodal transportation	1	0.0
TOTAL	3	20.0

Table G.11 • **Border Crossings**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Infrastructure for the setting up of border control centers	6	33.0
Refitting of existing infrastructure in border control centers	1	2.0
Extension of infrastructure and capacity of border control centers	3	125.7
TOTAL	10	160.7

Table G.12 • **Power Generation**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Hydroelectric plants (new ones and refitting) - microcentrals	1	260.0
TOTAL	1	260.0

Table G.13 • **Power Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of new power interconnections	3	1,480.0
TOTAL	3	1,480.0

V. PROGRESS IN THE CAPRICORN HUB PROJECTS

Table G.14 • **Projects by Progress Attained**

Stage	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Profiling	18	22.5	1,348.9	9.6
Pre-Execution	34	42.5	7,891.3	56.5
Execution	18	22.5	3,561.4	25.5
Concluded	10	12.5	1,173.0	8.4
TOTAL	80	100.0	13,974.6	100.0

Table G.15 • **Concluded Projects**

Code	Project Name	Estimated Investment (US$ million)
CAP01	Access Roads to Paso de Jama Border Crossing (National Route No. 52 - Intersection with National Route No. 9 - Border with Chile) (AR)	54.0
CAP02	Implementation of Integrated (One-Stop) Border Control at Jama Border Crossing (AR - CH)	4.0
CAP03	Electricity Interconnection between the Argentine Northwestern and Northeastern Regions (AR)	725.0
CAP06	Paving of National Route No. 81 between Las Lomitas and the Intersection with National Route No. 34 (AR)	100.0
CAP08	Enlargment of the Mejillones Port Complex (Phase I) (CH)	120.0
CAP09	Upgrade Works at Antofagasta Port (CH)	18.0
CAP56	Construction of a Bypass of National Route No. 12 around Posadas City (Misiones Province) (AR)	35.0
CAP61	Paving of National Route No. 95 between Villa Ángela and the Intersection with Provincial (Santa Fe) Route No. 286 (AR)	37.0
CAP80	Mejillones Port Complex (CH)	80.0
CAP91	Bioceanic Railway Corridor, Chilean Section (Antofagasta - Socompa) (CH) (*)	0.0
	TOTAL	1,173.0

Note: (*) Pre-existing work. Eventually define actions required to incorporate the section to the Bioceanic Railway Corridor.

VI. ANCHOR PROJECTS

The countries identified five anchor projects in the Capricorn Hub, totaling an estimated investment of US$158.2 million, according to the following detail:

Table G.16 • **Anchor Projects**

Group	Code	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Project Stage
1	CAP01	Access Roads to Paso de Jama Border Crossing (National Route No. 52 - Intersection with National Route No. 9 - Border with Chile) (AR)	54.0	Public	National	Concluded
2	CAP10	Construction of the Salvador Mazza - Yacuiba Binational Bridge and Border Center (AR - BO)	23.0	Public	Binational	Pre-Execution
3	CAP14	Nuevo Puente Puerto Presidente Franco - Porto Meira, con área de control integrado Paraguay - Brasil (BR - PY)	0.0	Public	Binational	Pre-Execution

Group	Code	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Project Stage
4	CAP23	New Puerto Presidente Franco - Porto Meira Bridge, with a Paraguay - Brazil Integrated Control Area (BR - PY)	61.2	Public	Binational	Pre-Execution
5	CAP57	Multimodal Transfer Center in Tucumán (AR)	20.0	Public	National	Pre-Execution
		TOTAL	158.2			

GUIANESE SHIELD HUB

COUNTRY MEMBERS

TOTAL NUMBER OF PROJECTS
20

INVESTMENT
(US$ million)
4,560.4

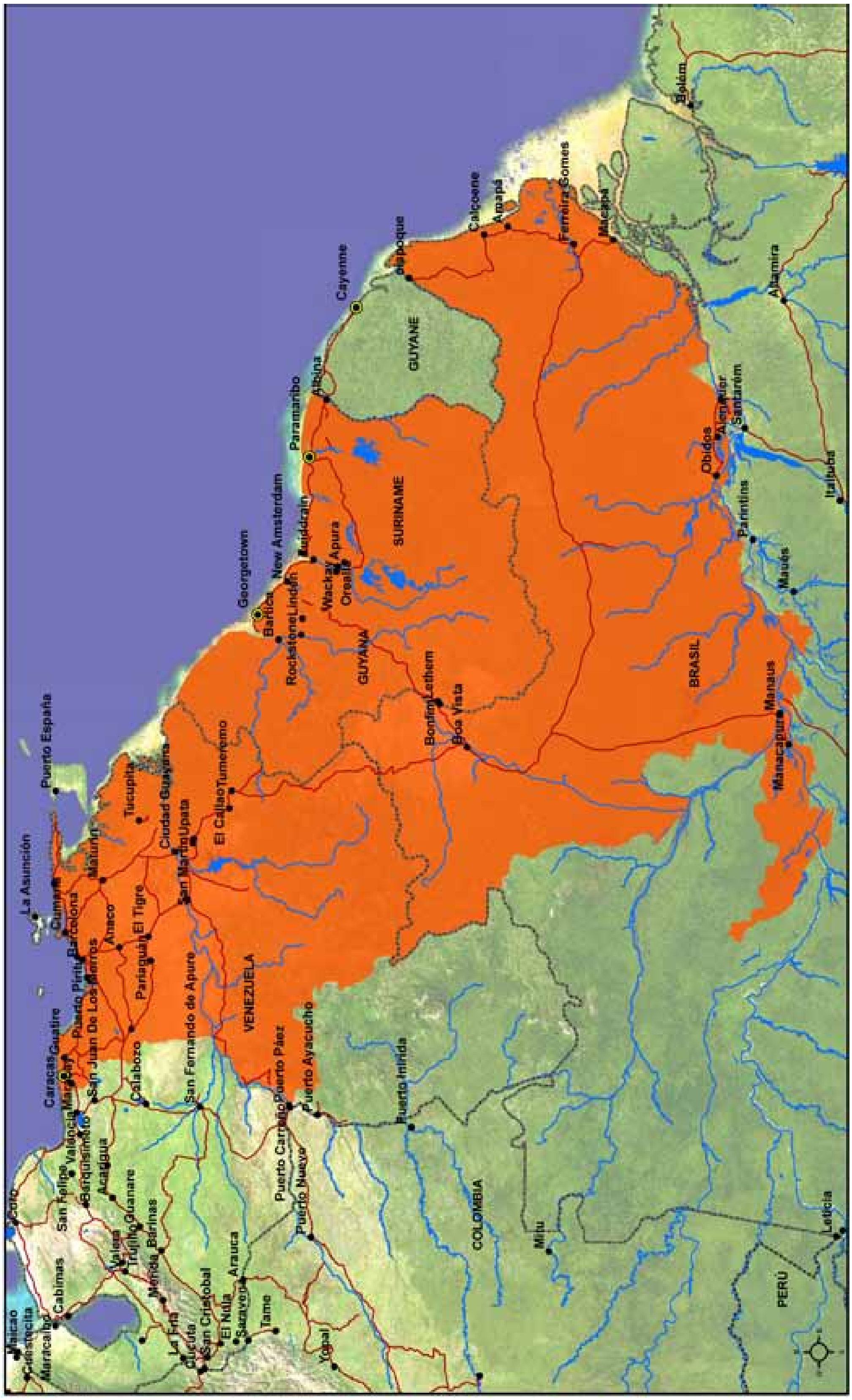
TOTAL NUMBER OF PROJECTS
Percentage by stage

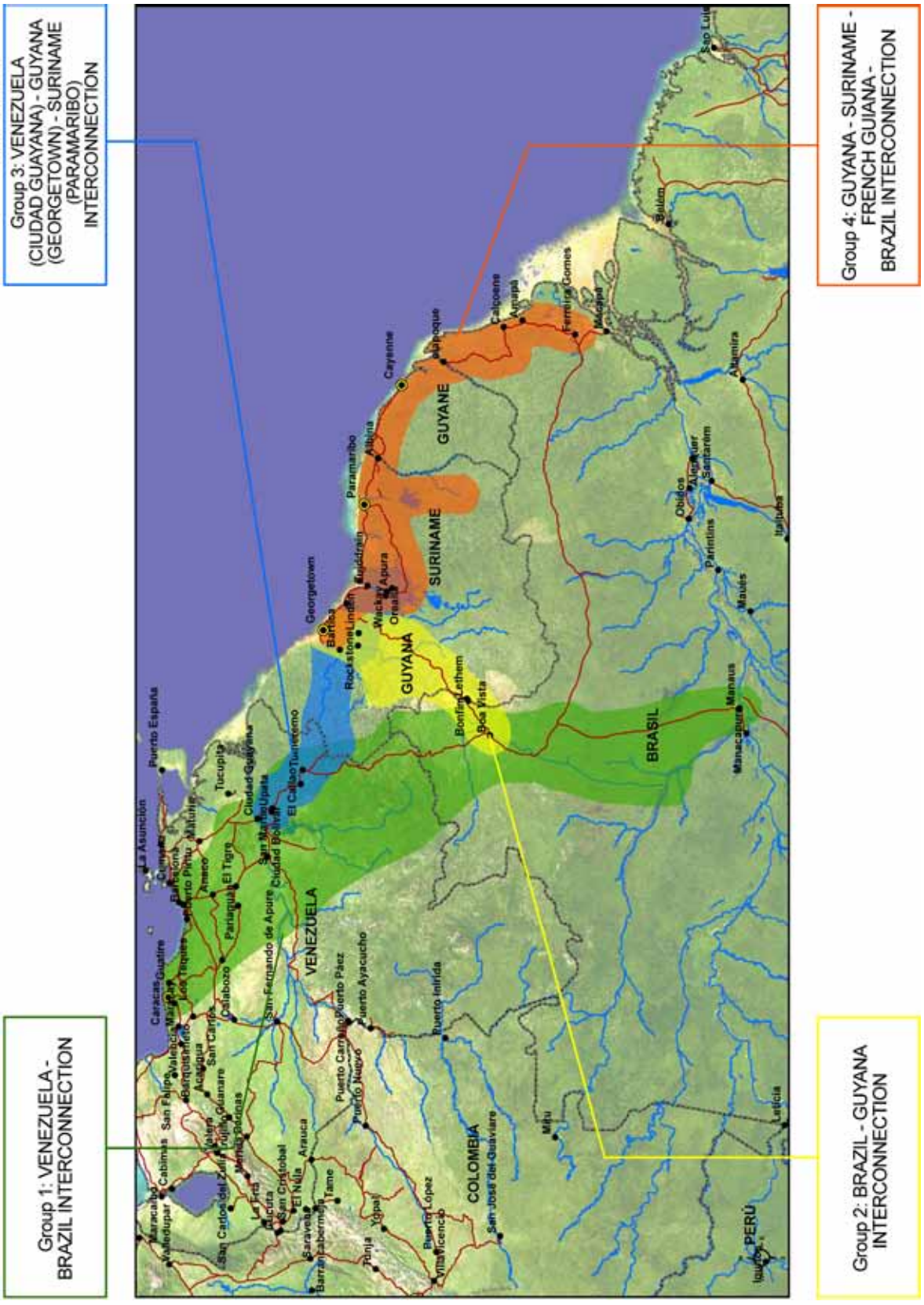
35.0%	PROFILING
10.0%	PRE-EXECUTION
25.0%	EXECUTION
30.0%	CONCLUDED

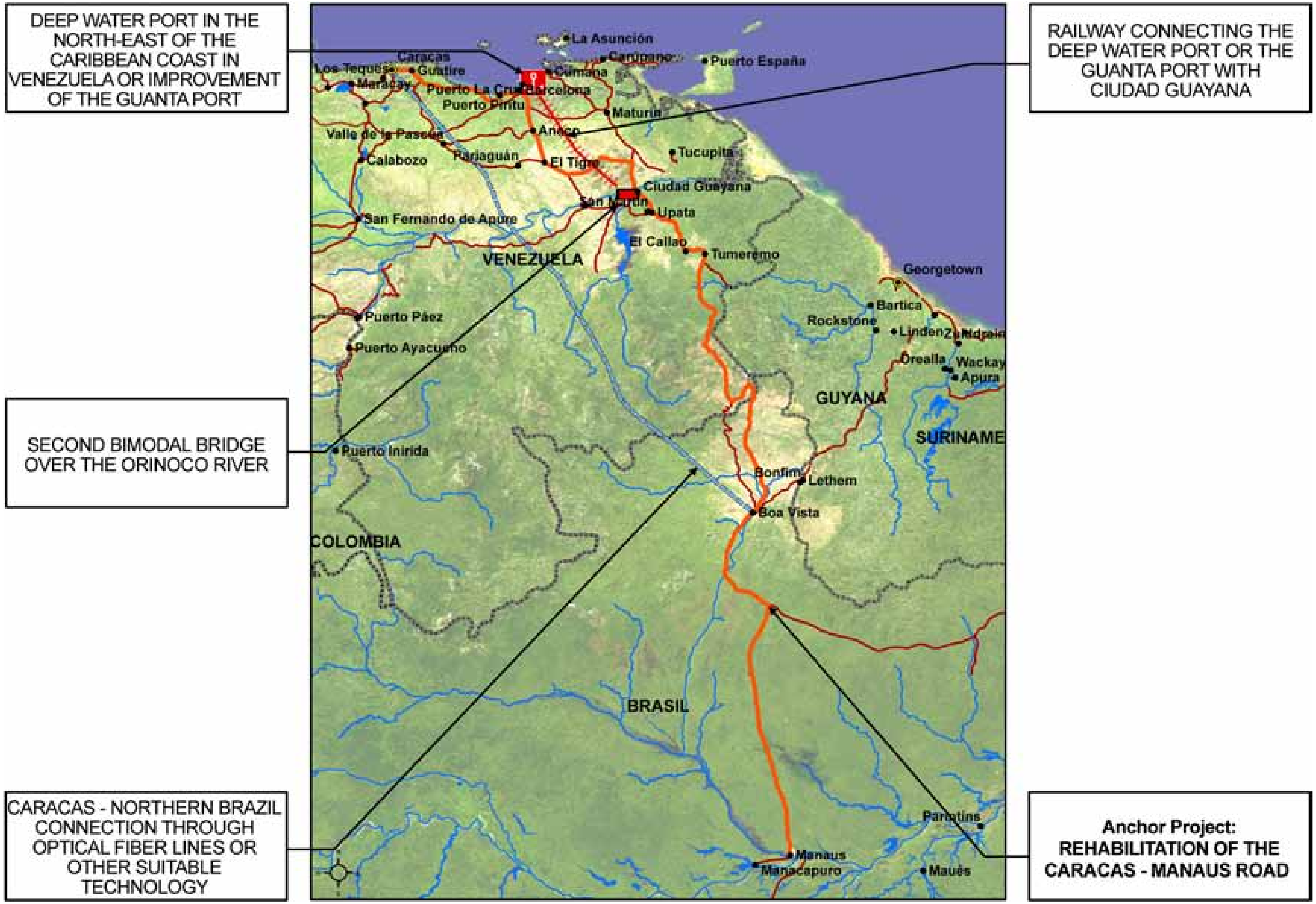
INVESTMENT
Percentage by stage

PROFILING	7.7%
PRE-EXECUTION	71.7%
EXECUTION	19.0%
CONCLUDED	1.6%

PROFILING PRE-EXECUTION EXECUTION CONCLUDED

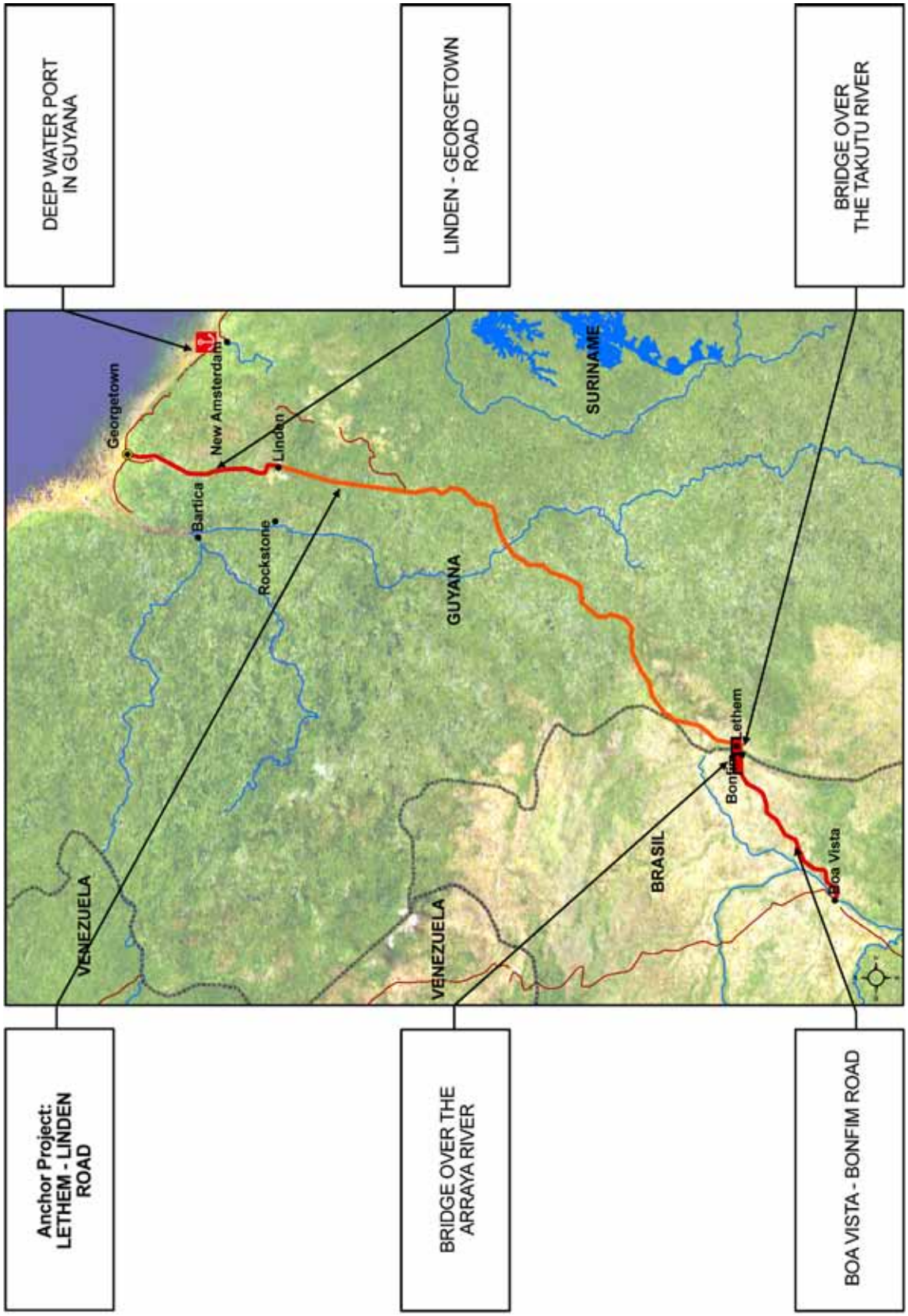

VENEZUELA
GUYANA
SURINAME
GUYANE
BRASIL
COLOMBIA
PERÚ
Caracas
Georgetown
Paramaribo
Cayenne
La Asunción
Puerto España
Ciudad Guayana
Tucupita
El Callao
Tumeremo
San Fernando de Apure
Puerto Ayacucho
Puerto Páez
Puerto Carreño
Puerto Inírida
Bonfim
Lethem
Boa Vista
Manaus
Manacapuru
Óbidos
Santarém
Parintins
Maués
Itaituba
Altamira
Belém
Macapá
Ferreira Gomes
Amapá
Calçoene
Albina
New Amsterdam
Bartica
Linden
Rockstone
Mitú
Leticia
Maracaibo
Cabimas
San Cristóbal
Arauca
Tame
Yopal
Valencia
Barquisimeto
Acarigua
Guanare
Barinas
Mérida
Calabozo
Barcelona
Puerto Píritu
Cumaná
Maturín
Anaco
El Tigre
Pariaguán


Group 3: VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (PARAMARIBO) INTERCONNECTION
Group 4: GUYANA - SURINAME - FRENCH GUIANA - BRAZIL INTERCONNECTION
Group 1: VENEZUELA - BRAZIL INTERCONNECTION
Group 2: BRAZIL - GUYANA INTERCONNECTION
VENEZUELA
GUYANA
SURINAME
GUYANE
BRASIL
COLOMBIA
PERÚ
Georgetown
Paramaribo
Cayenne
Puerto España
Caracas
Manaus
Belem
Boa Vista


DEEP WATER PORT IN THE NORTH-EAST OF THE CARIBBEAN COAST IN VENEZUELA OR IMPROVEMENT OF THE GUANTA PORT
RAILWAY CONNECTING THE DEEP WATER PORT OR THE GUANTA PORT WITH CIUDAD GUAYANA
SECOND BIMODAL BRIDGE OVER THE ORINOCO RIVER
CARACAS - NORTHERN BRAZIL CONNECTION THROUGH OPTICAL FIBER LINES OR OTHER SUITABLE TECHNOLOGY
Anchor Project:
REHABILITATION OF THE CARACAS - MANAUS ROAD
La Asunción
Carúpano
Puerto España
Caracas
Los Teques
Guatire
Maracay
Cumana
Puerto La Cruz
Barcelona
Puerto Píritu
Maturín
Valle de la Pascua
Anaco
Calabozo
Pariaguán
El Tigre
Tucupita
Ciudad Guayana
San Martín
Upata
San Fernando de Apure
El Callao
Tumeremo
VENEZUELA
Georgetown
Bartica
Rockstone
Linden
Zandrain
Puerto Páez
Puerto Ayacucho
Orealla
Wackay
Apura
GUYANA
SURINAME
Puerto Inírida
Bonfim
Lethem
Boa Vista
COLOMBIA
BRASIL
Parintins
Manaus
Manacapuro
Maués

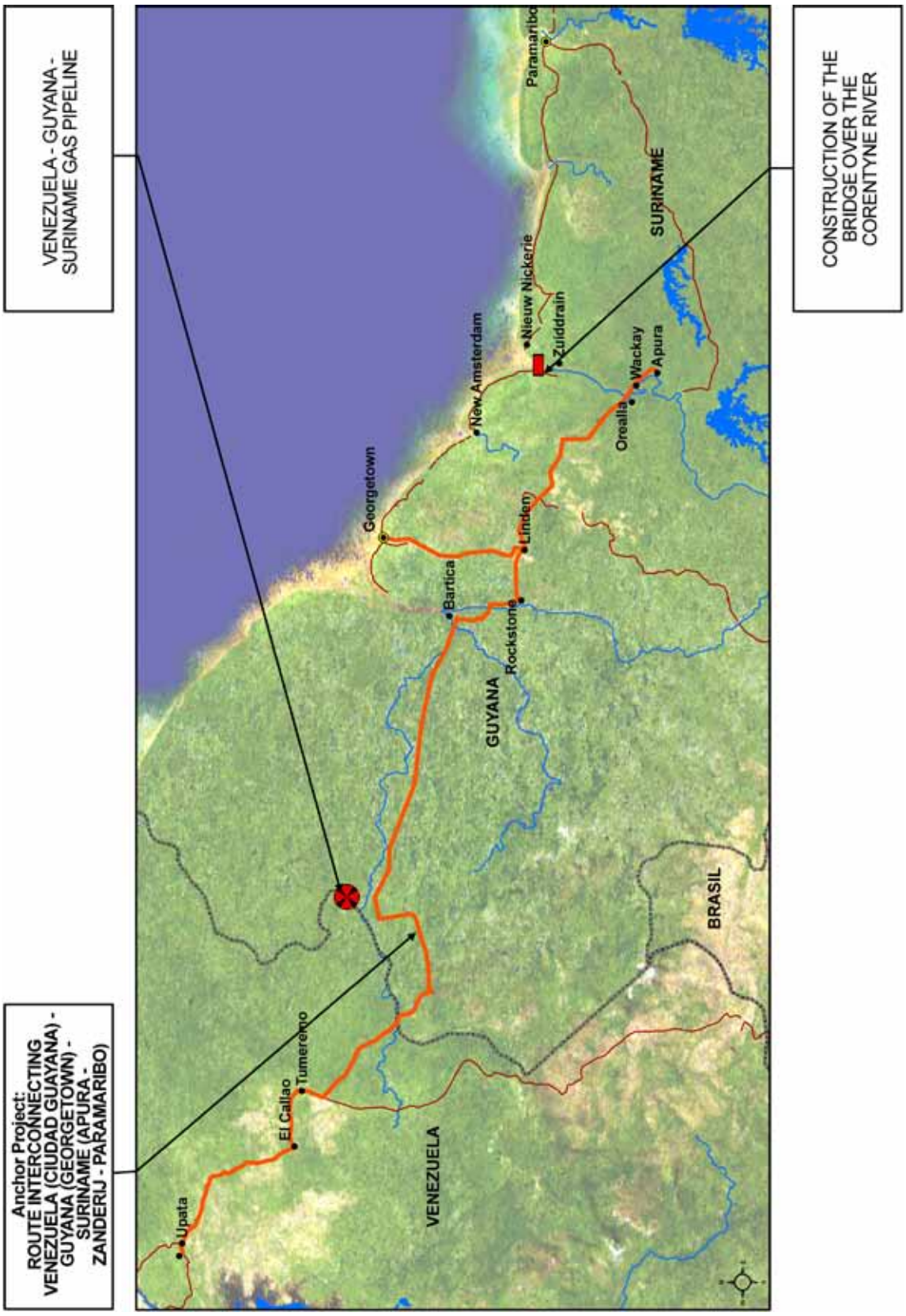
- Develop economic sectors having potential, such as heavy industry, durable goods, mining and jewelry, agribusiness and tourism (both ecotourism and Caribbean-style tourism), using the paved route between Caracas and Manaus and the transmission line between Guri and Boa Vista as the starting points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

Code	Stage	Guianese Shield Hub: Group 1	Estimated Investment (US$ million)
GUY01	●	Rehabilitation of the Caracas - Manaus Road (BR - VE)	407.0
GUY03	●	Deep Water Port in the North-East of the Caribbean Coast in Venezuela or Improvement of the Guanta Port (VE)	0.0
GUY04	●	Railway Connection the Deep Water Port or the Guanta Port with Ciudad Guayana (VE)	0.0
GUY05	●	Second Bimodal Bridge over the Orinoco River (VE)	0.0
GUY08	●	Caracas - Northern Brazil Connection through Optica Fiber Lines or Other Suitable Technology (BR - VE)	0.0
		TOTAL	407.0


DEEP WATER PORT IN GUYANA
LINDEN - GEORGETOWN ROAD
BRIDGE OVER THE TAKUTU RIVER
Georgetown
New Amsterdam
Linden
Bartica
Rockstone
SURINAME
GUYANA
Lethem
Bonfim
Boa Vista
BRASIL
VENEZUELA
VENEZUELA
Anchor Project: LETHEM - LINDEN ROAD
BRIDGE OVER THE ARRAYA RIVER
BOA VISTA - BONFIM ROAD

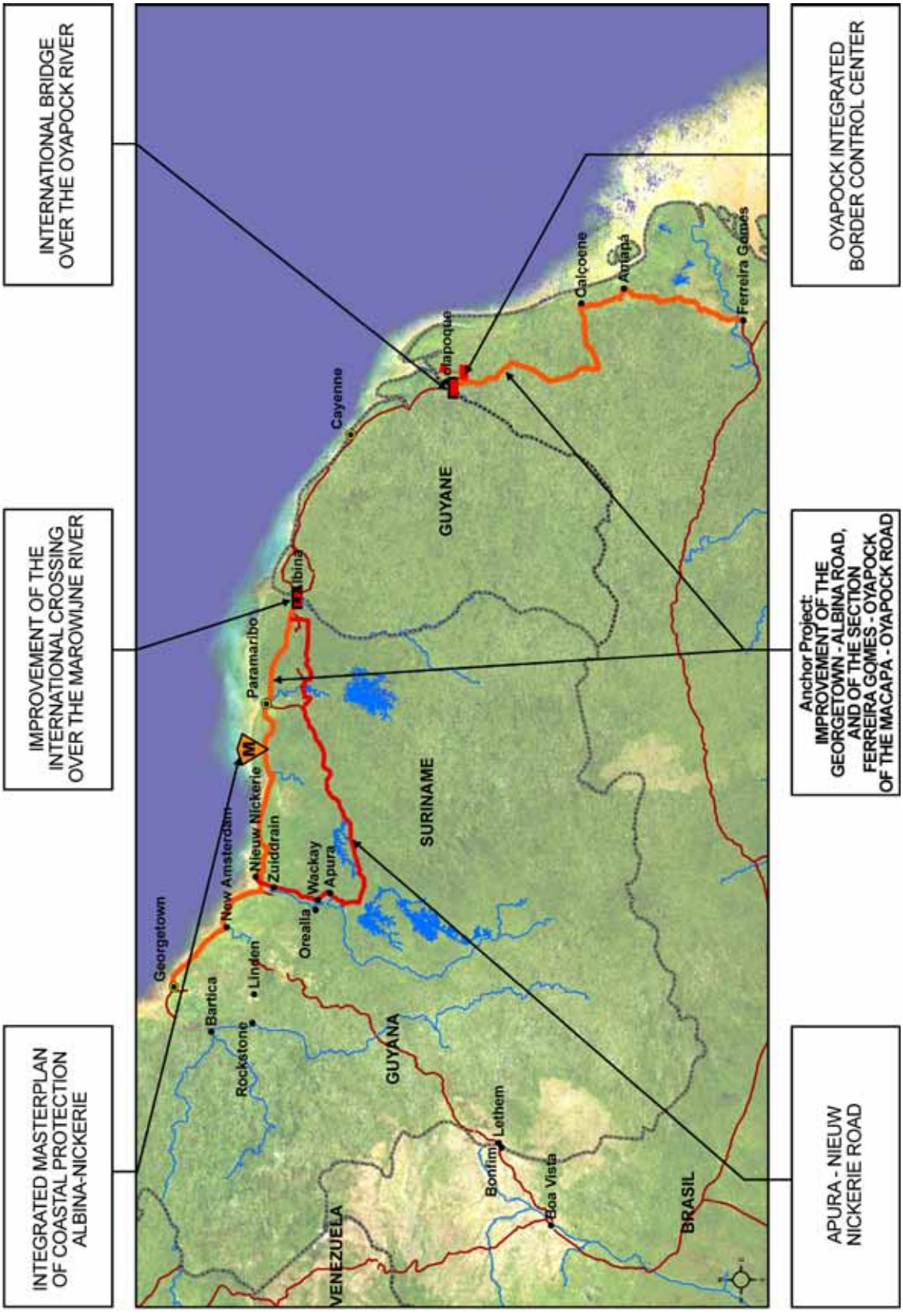
- Support the sustainable development and integration of the Brazilian states of Amazonas and Roraima with Guyana through the consolidation of the infrastructure that connects both countries.

Code	Stage	Guianese Shield Hub: Group 2	Estimated Investment (US$ million)
GUY09	●	Lethem - Linden Road (GU)	250.0
GUY10	●	Bridge over the Arraya River (BR)	1.5
GUY11	●	Bridge over the Takutu River (BR - GU)	10.0
GUY12	●	Deep Water Port in Guyana (GU)	0.0
GUY42	●	Boa Vista - Bonfim Road (BR)	0.0
GUY43	●	Linden - Georgetown Road (GU)	0.0
		TOTAL	261.5


VENEZUELA - GUYANA - SURINAME GAS PIPELINE
CONSTRUCTION OF THE BRIDGE OVER THE CORENTYNE RIVER
Anchor Project:
ROUTE INTERCONNECTING VENEZUELA (CIUDAD GUAYANA) - GUYANA (GEORGETOWN) - SURINAME (APURA - ZANDERIJ - PARAMARIBO)
Upata
El Callao
Tumereno
VENEZUELA
GUYANA
BRASIL
Georgetown
Bartica
Rockstone
Linden
New Amsterdam
Nieuw Nickerie
Zuiddrain
Paramaribo
SURINAME
Wackay
Apura
Orealla

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

Code	Stage	Guianese Shield Hub: Group 3	Estimated Investment (US$ million)
GUY18	●	Routes Interconnecting Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Apura - Zanderij - Paramaribo) (GU - SU - VE)	300.8
GUY24	●	Construction of the Bridge over the Corentine River (GU - SU)	1.0
GUY38	●	Venezuela - Guyana - Suriname Gas Pipeline (GU - SU - VE)	0.0
		TOTAL	301.8


INTERNATIONAL BRIDGE OVER THE OYAPOCK RIVER
IMPROVEMENT OF THE INTERNATIONAL CROSSING OVER THE MAROWIJNE RIVER
INTEGRATED MASTERPLAN OF COASTAL PROTECTION ALBINA-NICKERIE
OYAPOCK INTEGRATED BORDER CONTROL CENTER
Anchor Project: IMPROVEMENT OF THE GEORGETOWN - ALBINA ROAD, AND OF THE SECTION FERREIRA GOMES - OYAPOCK OF THE MACAPA - OYAPOCK ROAD
APURA - NIEUW NICKERIE ROAD
GUYANE
SURINAME
GUYANA
VENEZUELA
BRASIL
Georgetown
New Amsterdam
Nieuw Nickerie
Zuidrain
Wackay
Apura
Albina
Paramaribo
Cayenne
Oiapoque
Calçoene
Amapá
Ferreira Gomes
Bartica
Linden
Rockstone
Orealla
Bonfim
Lethem
Boa Vista

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

Code	Stage	Guianese Shield Hub: Group 4	Estimated Investment (US$ million)
GUY26	●	Improvement of the Georgetown - Albina Road, and the Section Ferreira Gomes - Oyapock of the Macapá - Oyapock Road (BR - GU - SU)	350.1
GUY27	●	Improvement of the International Crossing over the Marowijne River (SU)	50.0
GUY29	●	Apura - Nieuw Nickerie Road (SU)	110.0
GUY35	●	International Bridge over the Oyapock River (BR)	60.0
GUY40	●	Integrated Master Plan of Costal Protection Albina - Nickerie (SU)	3,020.0
GUY41	●	Centro de control integrado Fronterizo Oyapock (BR)	0.0
		TOTAL	3,590.1

I. GENERAL ASPECTS

The countries have agreed to include eighteen projects in the Guianese Shield Hub, accounting for an estimated investment of US$4,560.4 million, as summarized below:

Table H.1 • **General Indicators of the Guianese Shield Hub**

Group	Name	Number of Projects	Estimated Investment (US$ million)
Group 1	Venezuela - Brazil Interconnection	5	407.0
Group 2	Brazil - Guyana Interconnection	6	261.5
Group 3	Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Paramaribo) Interconnection	3	301.8
Group 4	Guyana - Suriname - French Guiana - Brazil Interconnection	6	3,590.1
	TOTAL	20	4,560.4

II. SOURCE OF FINANCING

Table H.2 • **Source of financing of the Guianese Shield Hub**

Source of financing	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Public	15	75.0	839.5	18.4
Private	1	5.0	0.0	0.0
Public/Private	4	20.0	3,720.9	81.6
TOTAL	20	100.0	4,560.4	100.0

III. API PROJECTS

Table H.3 • **API Projects - Guianese Shield Hub**

Code	Project Name	Estimated Investment (US$ million)
14	**Rehabilitation of the Caracas - Manaus Road (BR - VE)**	**407.0**
GUY01	Rehabilitation of the Caracas - Manaus Road (BR - VE)	407.0
15	**Boa Vista - Bonfim - Lethem - Linden - Georgetown Road (BR - GU)**	**250.0**
GUY09	Lethem - Linden Road (GU)	250.0
GUY42	Boa Vista - Bonfim Road (BR)	0.0
GUY43	Linden - Georgetown Road (GU)	0.0
16	**Routes Interconnecting Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Apura - Zanderij - Paramaribo), Including the Construction of the Bridge over the Corentine River (GU - SU - VE)**	**301.8**
GUY18	Routes Interconnecting Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Apura - Zanderij - Paramaribo) (GU - SU - VE)	300.8
GUY24	Construction of the Bridge over the Corentine River (GU - SU)	1.0
	TOTAL	**958.8**

IV. SECTOR/SUBSECTOR-BASED BREAKDOWN AND TYPE OF WORKS INVOLVED

Table H.4 • **Sector-based breakdown of the Guianese Shield Hub**

	Transport				Energy				Communications			
Subsector	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment
Road	13	72.2	1,540.4	33.8								
Railway	1	5.6	0.0	0.0								
Sea	3	16.6	3,020.0	66.2								
Border Crossing	1	5.6	0.0	0.0								
Power Generation					1	100.0	0.0	0.0				
Communication Interconnection									1	100.0	0.0	0.0
TOTAL	18	100.0	4,560.4	100.0	1	100.0	0.0	100.0	1	100.0	0.0	100.0

Table H.5 • **Road Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Refitting of road and structures	2	460.1
Paving (new work)	4	550.8
Bridges (new ones and refitting)	6	122.5
Road maintenance	1	407.0
TOTAL	13	1,540.4

Table H.6 • **Railway Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of railways	1	0.0
TOTAL	1	0.0

Table H.7 • **Maritime Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
New sea ports	2	0.0
Extension of the road infrastructure of the maritime ports	1	3,020.0
TOTAL	3	3,020.0

Table H.8 • **Border Crossings**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Infrastructure for the setting up of border control centers	1	0.0
TOTAL	1	0.0

Table H.9 • **Power Generation**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Other energy infrastructures	1	0.0
TOTAL	1	0.0

Table H.10 • **Communication Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Optic Fiber	1	0.0
TOTAL	1	0.0

PROGRESS IN THE GUIANESE SHIELD HUB PROJECTS

Table H.11 • **Projects by Progress Attained**

Stage	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Profiling	7	35.0	351.8	7.7
Pre-Execution	2	10.0	3,270.0	71.7
Execution	5	25.0	867.1	19.0
Concluded	6	30.0	71.5	1.6
TOTAL	20	100.0	4,560.4	100.0

Table H.12 • **Concluded Projects**

Code	Project Name	Estimated Investment (US$ million)
GUY08	Caracas - Northern Brazil Connection through Optica Fiber Lines or Other Suitable Technology (BR - VE)	0.0
GUY10	Bridge over the Arraya River (BR)	1.5
GUY11	Bridge over the Takutu River (BR - GU)	10.0
GUY35	International Bridge over the Oyapock River (BR)	60.0
GUY42	Boa Vista - Bonfim Road (BR)	0.0
GUY43	Linden - Georgetown Road (GU)	0.0
	TOTAL	71.5

VI. ANCHOR PROJECTS

The countries identified four anchor projects in the Guianese Shield Hub, totaling an estimated investment of US$1,307.9 million, according to the following detail:

Table H.13 • **Anchor Projects**

Group	Code	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Project Stage
1	GUY01	Rehabilitation of the Caracas - Manaus Road (BR - VE)	407.0	Public	Binational	Execution
2	GUY09	Lethem - Linden Road (GU)	250.0	Public	National	Pre-Execution
3	GUY18	Routes Interconnecting Venezuela (Ciudad Guayana) - Guyana (Georgetown) - Suriname (Apura - Zanderij - Paramaribo) (GU - SU - VE)	300.8	Public/ Private	Trinational	Profiling
4	GUY26	Improvement of the Georgetown - Albina Road, and the Section Ferreira Gomes - Oyapock of the Macapá - Oyapock Road (BR - GU - SU)	350.1	Public/ Private	Trinational	Execution
		TOTAL	1,307.9			

PARAGUAY - PARANA WATERWAY HUB

COUNTRY MEMBERS

TOTAL NUMBER OF PROJECTS
94

INVESTMENT
(US$ million)
7,865.1

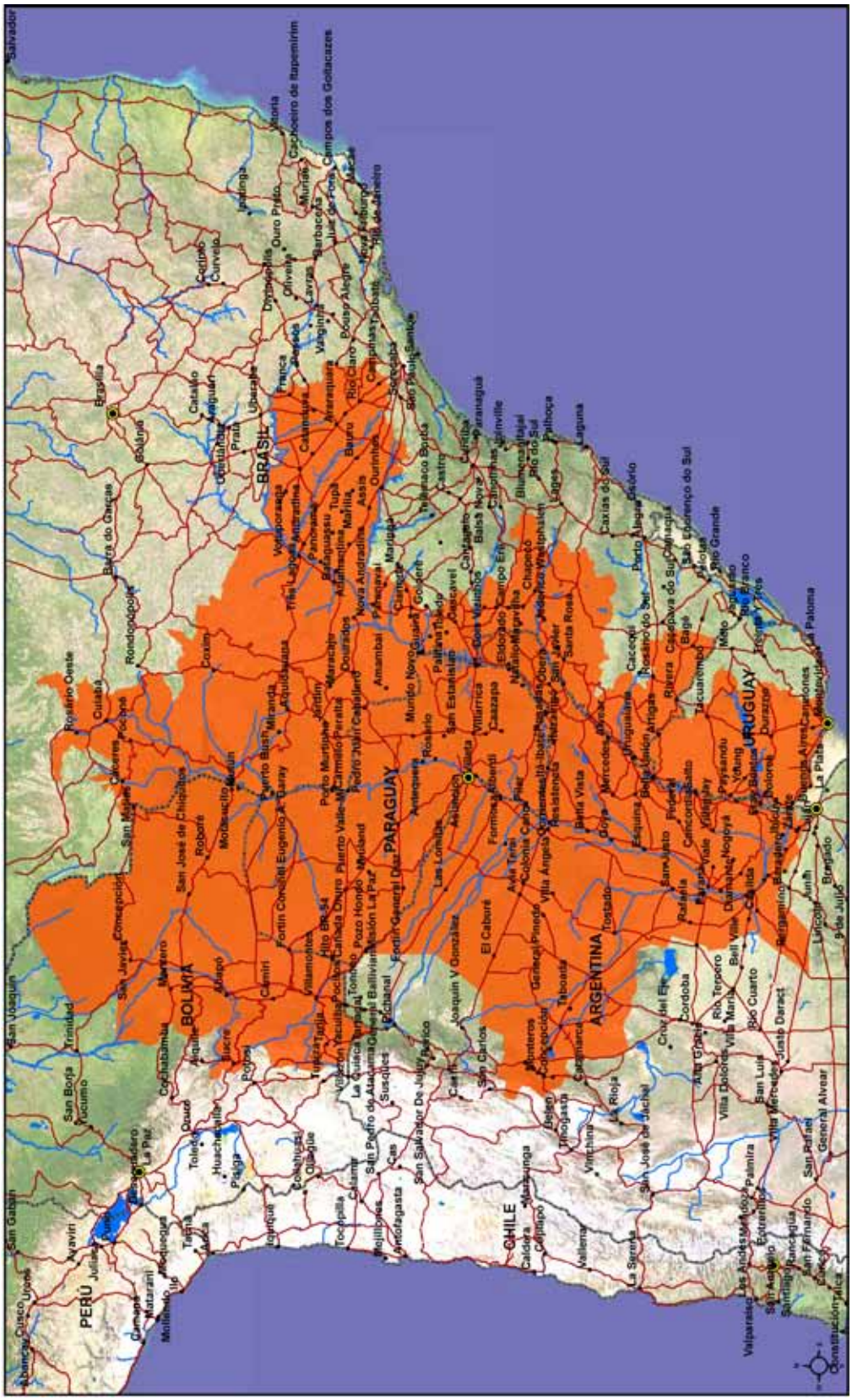
TOTAL NUMBER OF PROJECTS
Percentage by stage

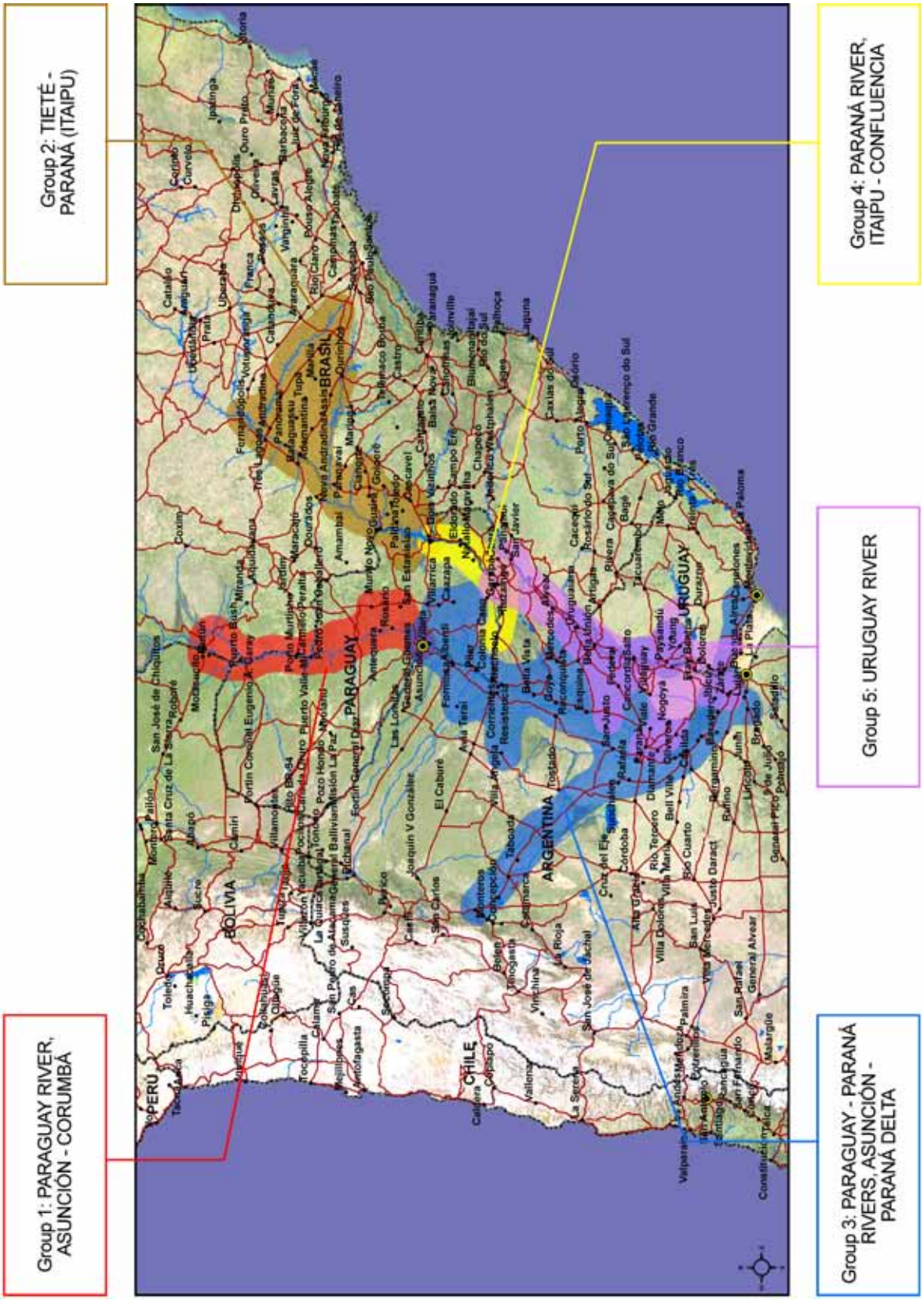
34.1%	PROFILING
35.1%	PRE-EXECUTION
22.3%	EXECUTION
8.5%	CONCLUDED

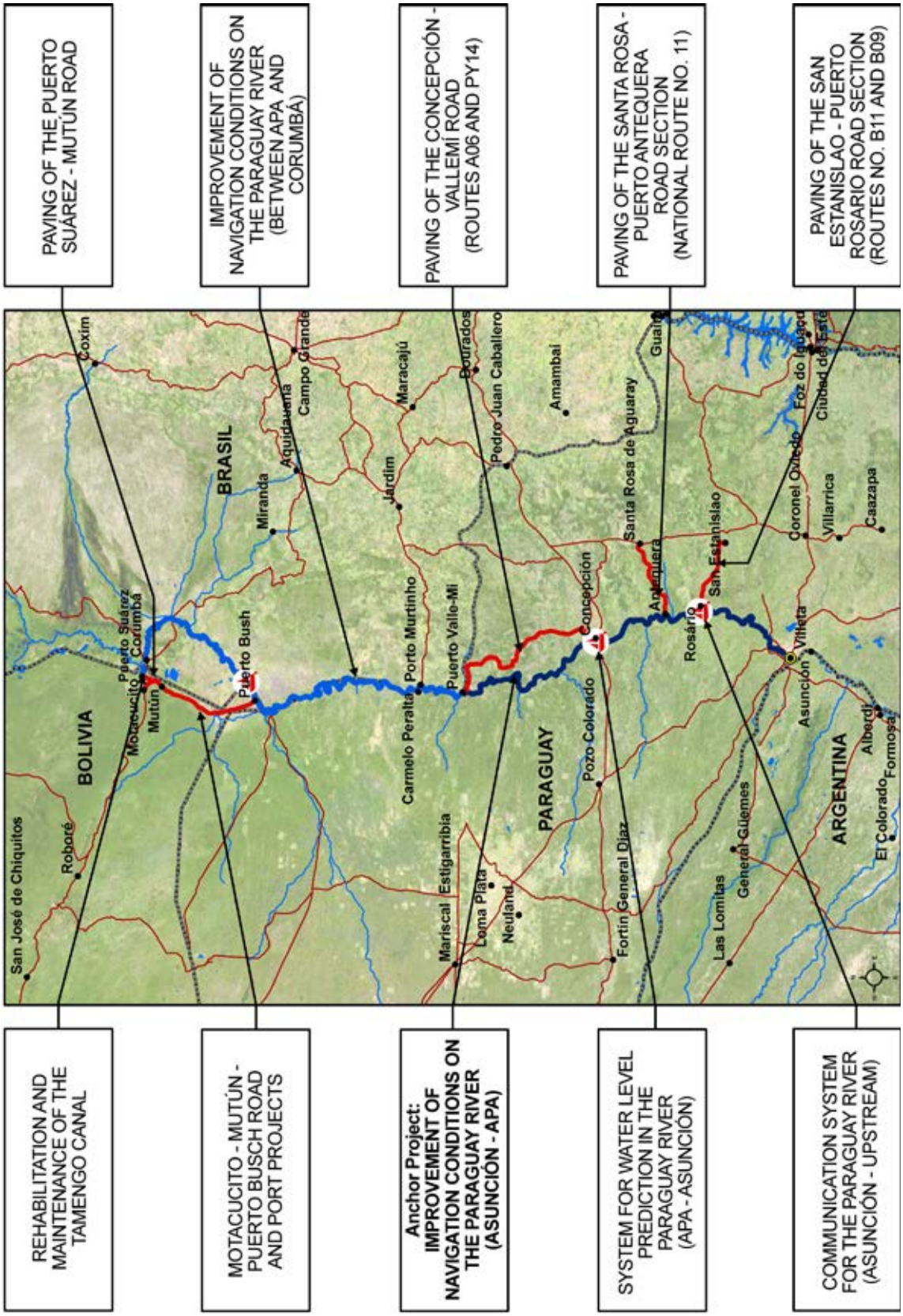
INVESTMENT
Percentage by stage

PROFILING	19.3%
PRE-EXECUTION	34.7%
EXECUTION	29.5%
CONCLUDED	16.5%

PROFILING · PRE-EXECUTION · EXECUTION · CONCLUDED

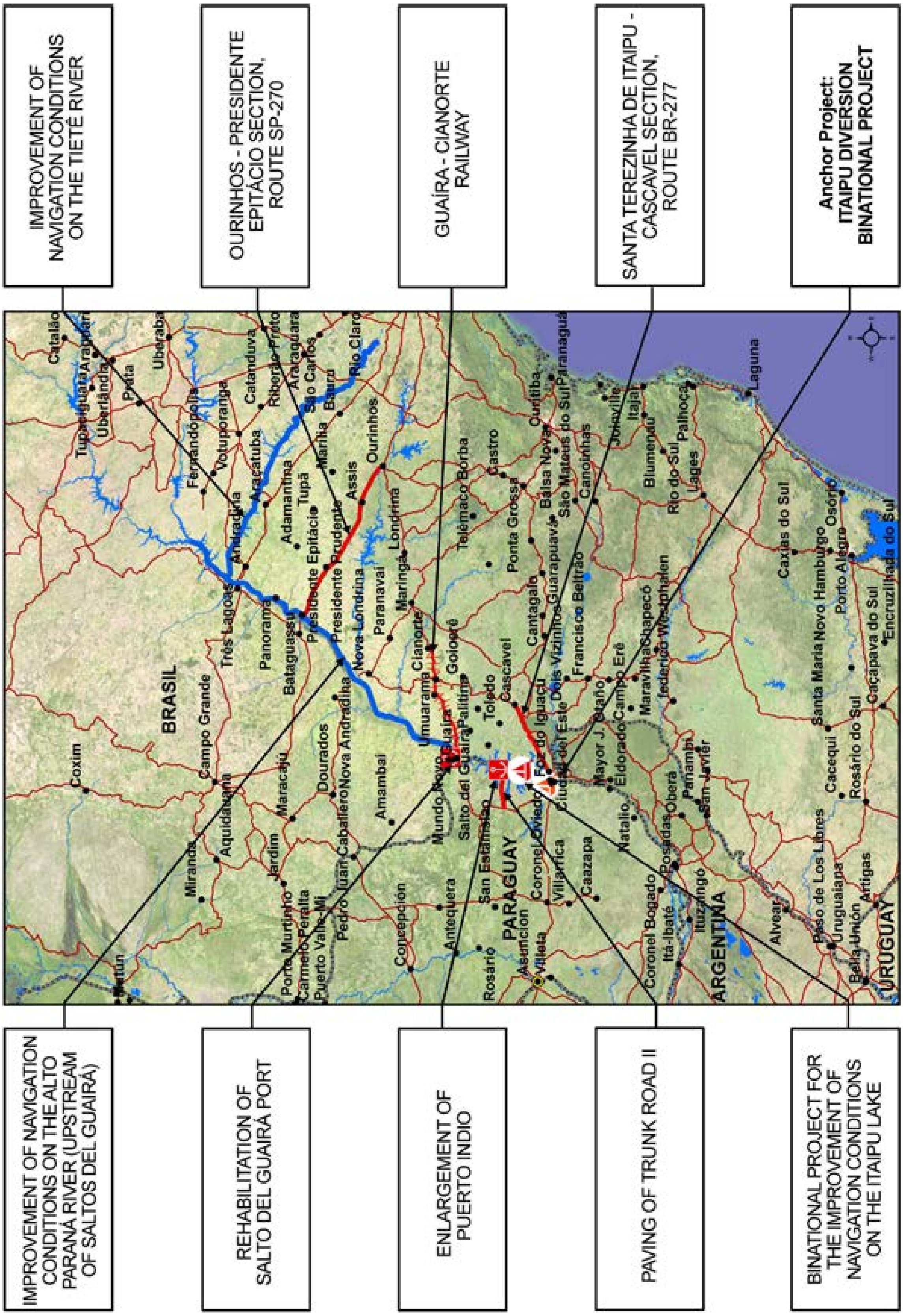

BRASIL
PARAGUAY
BOLIVIA
ARGENTINA
URUGUAY
CHILE
PERÚ


Group 2: TIETÉ - PARANÁ (ITAIPU)
Group 4: PARANÁ RIVER, ITAIPU - CONFLUENCIA
Group 5: URUGUAY RIVER
Group 1: PARAGUAY RIVER, ASUNCIÓN - CORUMBÁ
Group 3: PARAGUAY - PARANÁ RIVERS, ASUNCIÓN - PARANÁ DELTA
BRASIL
PARAGUAY
ARGENTINA
URUGUAY
BOLIVIA
CHILE
PERÚ


PAVING OF THE PUERTO SUAREZ - MUTÚN ROAD
IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (BETWEEN APA AND CORUMBÁ)
PAVING OF THE CONCEPCIÓN - VALLEMÍ ROAD (ROUTES A06 AND PY14)
PAVING OF THE SANTA ROSA - PUERTO ANTEQUERA ROAD SECTION (NATIONAL ROUTE NO. 11)
PAVING OF THE SAN ESTANISLAO - PUERTO ROSARIO ROAD SECTION (ROUTES NO. B11 AND B09)
REHABILITATION AND MAINTENANCE OF THE TAMENGO CANAL
MOTACUCITO - MUTÚN - PUERTO BUSCH ROAD AND PORT PROJECTS
Anchor Project: IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER (ASUNCIÓN - APA)
SYSTEM FOR WATER LEVEL PREDICTION IN THE PARAGUAY RIVER (APA - ASUNCIÓN)
COMMUNICATION SYSTEM FOR THE PARAGUAY RIVER (ASUNCIÓN - UPSTREAM)
BOLIVIA
BRASIL
PARAGUAY
ARGENTINA
Coxim
Campo Grande
Aquidauana
Miranda
Maracajú
Jardim
Bodoquena
Pedro Juan Caballero
Amambai
Guaira
Foz do Iguaçu
Ciudad del Este
Coronel Oviedo
Villarrica
Caazapa
Santa Rosa de Aguaray
Antequera
San Estanislao
Concepción
Rosário
Vilheta
Asunción
Alberdi
Formosa
El Colorado
Pozo Colorado
Fortin General Diaz
General Guemes
Las Lomitas
Mariscal Estigarribia
Loma Plata
Neuland
Carmelo Peralta
Porto Murtinho
Puerto Valle-Mi
Puerto Bush
Puerto Suárez
Corumbá
Motacucito
Mutún
Roboré
San José de Chiquitos

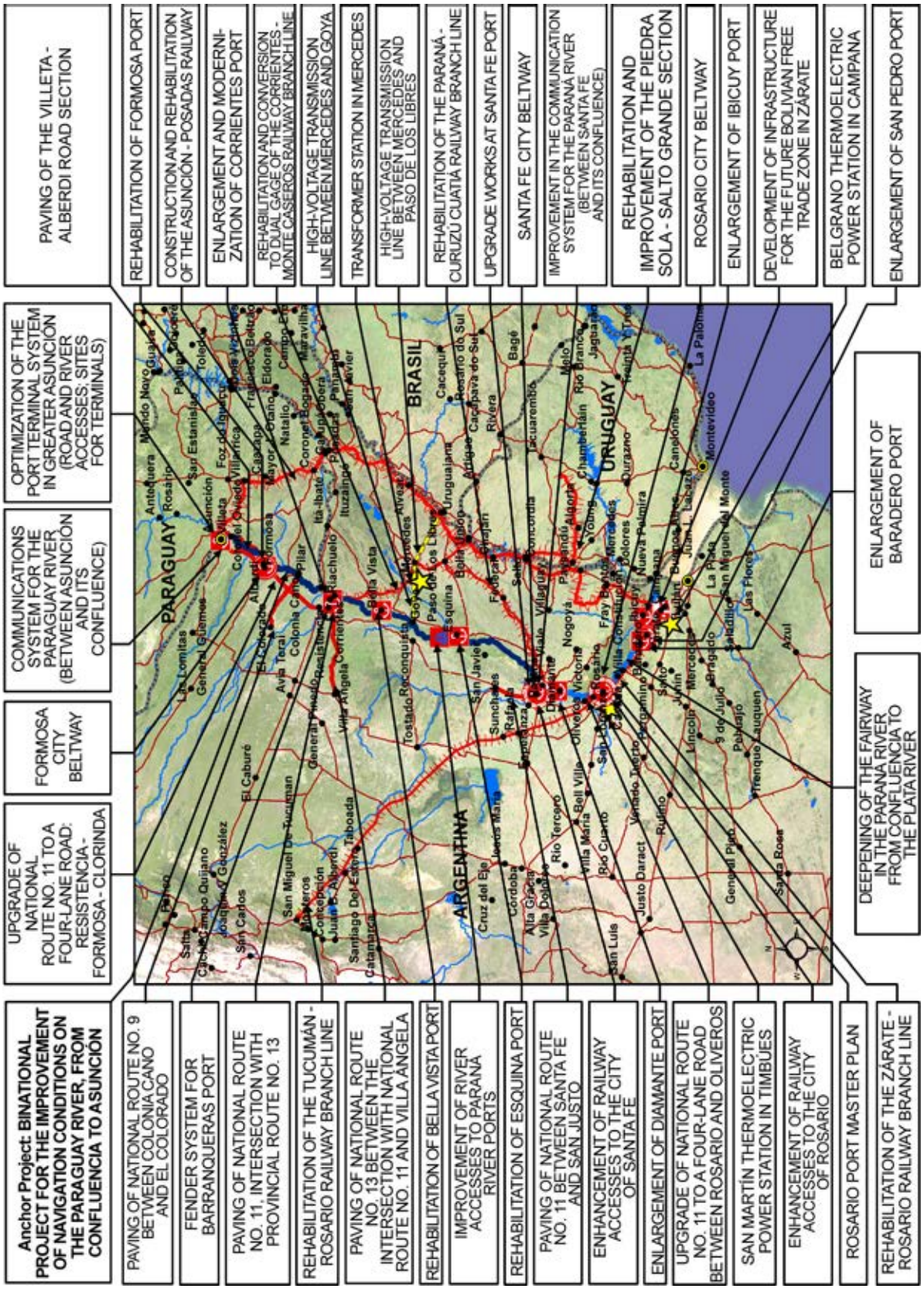
- Improve economic and social integration of the regions of Paraguay, Bolivia, and Brazil that share the basin.
- Strengthen and boost the integration of the production chains along the Hub.
- Strengthen competitiveness in inland countries and regions by efficiently connecting them to the Atlantic ocean.

Code	Stage	Paraguay-Paraná Waterway Hub: Group 1	Estimated Investment (US$ million)
HPP01	🟡	Motacucito - Mutún - Puerto Busch Road and Port Projects (BO)	202.8
HPP03	🟢	Paving of the Puerto Suárez - Mutún Road (BO)	18.8
HPP07	🟡	Improvement of the Navigation Conditions on the Paraguay River (between Apa and Corumbá) (BO - BR - PY)	39.0
HPP08	🔴	Communications system for the Paraguay River (Asunción - upstream) (BO - PY)	4.0
HPP09	🟡	Improvement of the Navigation Conditions on the Paraguay River (Asunción - Apa) (PY)	88.3
HPP10	🟢	Paving of the San Estanislao - Puerto Rosario Road Section (Routes No. B11 and B09) (PY)	33.5
HPP11	🟢	Paving of the Santa Rosa - Puerto Antequera Road Section (National Route No. 11) (PY)	27.0
HPP12	🟡	Paving of the Concepción - Vallemí Road (Routes No. A06 and PY14) (PY)	90.0
HPP106	🟡	System for Water Level Prediction in the Paraguay River (Apa - Asunción) (BO - PY)	0.0
HPP122	🔴	Rehabilitation and Maintenance of the Tamengo Canal (BO)	10.5
		TOTAL	513.9


IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ALTO PARANÁ RIVER (UPSTREAM OF SALTOS DEL GUAIRÁ)
REHABILITATION OF SALTO DEL GUAIRÁ PORT
ENLARGEMENT OF PUERTO INDIO
PAVING OF TRUNK ROAD II
BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE ITAIPU LAKE
IMPROVEMENT OF NAVIGATION CONDITIONS ON THE TIETÊ RIVER
OURINHOS - PRESIDENTE EPITÁCIO SECTION, ROUTE SP-270
GUAÍRA - CIANORTE RAILWAY
SANTA TEREZINHA DE ITAIPU - CASCAVEL SECTION, ROUTE BR-277
Anchor Project: ITAIPU DIVERSION BINATIONAL PROJECT
BRASIL
PARAGUAY
ARGENTINA
URUGUAY

- 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 countries and regions by efficiently connecting them to the Atlantic ocean.

Code	Stage	Paraguay-Paraná Waterway Hub: Group 2	Estimated Investment (US$ million)
HPP15	🔴	Guaíra - Cianorte Railway (BR)	300.0
HPP19	🟡	Improvement of the Navigation Conditions on the Tietê River (BR)	800.0
HPP25	🟢	Santa Terezinha de Itaipú - Cascavel Section, Route BR-277 (BR)	4.9
HPP27	🟢	Ourinhos - Presidente Epitácio Section, Route SP-270 (BR)	900.0
HPP28	🟡	Itaipú Diversion Binational Project (BR - PY)	0.0
HPP29	🟢	Binational Project for the Improvement of the Navigation Conditions on the Itaipú Lake (BR - PY)	0.0
HPP30	🔴	Enlargment of Puerto Indio (PY)	1.2
HPP31	🔴	Rehabilitation of Salto del Guairá Port (PY)	0.8
HPP32	🔴	Paving of Trunk Road II (PY)	25.6
HPP108	🟢	Improvement of the Navigation Conditions on the Alto Paraná River (Upstream of Saltos del Guairá) (BR)	25.0
		TOTAL	2,057.5


Anchor Project: BINATIONAL PROJECT FOR THE IMPROVEMENT OF NAVIGATION CONDITIONS ON THE PARAGUAY RIVER, FROM CONFLUENCIA TO ASUNCIÓN
PAVING OF NATIONAL ROUTE NO. 9 BETWEEN COLONIA CANO AND EL COLORADO
FENDER SYSTEM FOR BARRANQUERAS PORT
PAVING OF NATIONAL ROUTE NO. 11. INTERSECTION WITH PROVINCIAL ROUTE NO. 13
REHABILITATION OF THE TUCUMÁN - ROSARIO RAILWAY BRANCH LINE
PAVING OF NATIONAL ROUTE NO. 13 BETWEEN THE INTERSECTION WITH NATIONAL ROUTE NO. 11 AND VILLA ANGELA
REHABILITATION OF BELLA VISTA PORT
IMPROVEMENT OF RIVER ACCESSES TO PARANÁ RIVER PORTS
REHABILITATION OF ESQUINA PORT
PAVING OF NATIONAL ROUTE NO. 11 BETWEEN SANTA FE AND SAN JUSTO
ENHANCEMENT OF RAILWAY ACCESSES TO THE CITY OF SANTA FE
ENLARGEMENT OF DIAMANTE PORT
UPGRADE OF NATIONAL ROUTE NO. 11 TO A FOUR-LANE ROAD BETWEEN ROSARIO AND OLIVEROS
SAN MARTÍN THERMOELECTRIC POWER STATION IN TIMBÚES
ENHANCEMENT OF RAILWAY ACCESSES TO THE CITY OF ROSARIO
ROSARIO PORT MASTER PLAN
REHABILITATION OF THE ZÁRATE - ROSARIO RAILWAY BRANCH LINE
UPGRADE OF NATIONAL ROUTE NO. 11 TO A FOUR-LANE ROAD: RESISTENCIA - FORMOSA - CLORINDA
FORMOSA CITY BELTWAY
COMMUNICATIONS SYSTEM FOR THE PARAGUAY RIVER (BETWEEN ASUNCIÓN AND ITS CONFLUENCE)
OPTIMIZATION OF THE PORT TERMINAL SYSTEM IN GREATER ASUNCIÓN (ROAD AND RIVER ACCESSES; SITES FOR TERMINALS)
PAVING OF THE VILLETA - ALBERDI ROAD SECTION
REHABILITATION OF FORMOSA PORT
CONSTRUCTION AND REHABILITATION OF THE ASUNCIÓN - POSADAS RAILWAY
ENLARGEMENT AND MODERNIZATION OF CORRIENTES PORT
REHABILITATION AND CONVERSION TO DUAL GAGE OF THE CORRIENTES - MONTE CASEROS RAILWAY BRANCH LINE
HIGH-VOLTAGE TRANSMISSION LINE BETWEEN MERCEDES AND GOYA
TRANSFORMER STATION IN MERCEDES
HIGH-VOLTAGE TRANSMISSION LINE BETWEEN MERCEDES AND PASO DE LOS LIBRES
REHABILITATION OF THE PARANÁ - CURUZÚ CUATIÁ RAILWAY BRANCH LINE
UPGRADE WORKS AT SANTA FE PORT
SANTA FE CITY BELTWAY
IMPROVEMENT IN THE COMMUNICATION SYSTEM FOR THE PARANÁ RIVER (BETWEEN SANTA FE AND ITS CONFLUENCE)
REHABILITATION AND IMPROVEMENT OF THE PIEDRA SOLA - SALTO GRANDE SECTION
ROSARIO CITY BELTWAY
ENLARGEMENT OF IBICUY PORT
DEVELOPMENT OF INFRASTRUCTURE FOR THE FUTURE BOLIVIAN FREE TRADE ZONE IN ZÁRATE
BELGRANO THERMOELECTRIC POWER STATION IN CAMPANA
ENLARGEMENT OF SAN PEDRO PORT
ENLARGEMENT OF BARADERO PORT
DEEPENING OF THE FAIRWAY IN THE PARANÁ RIVER FROM CONFLUENCIA TO THE PLATA RIVER
PARAGUAY
BRASIL
ARGENTINA
URUGUAY

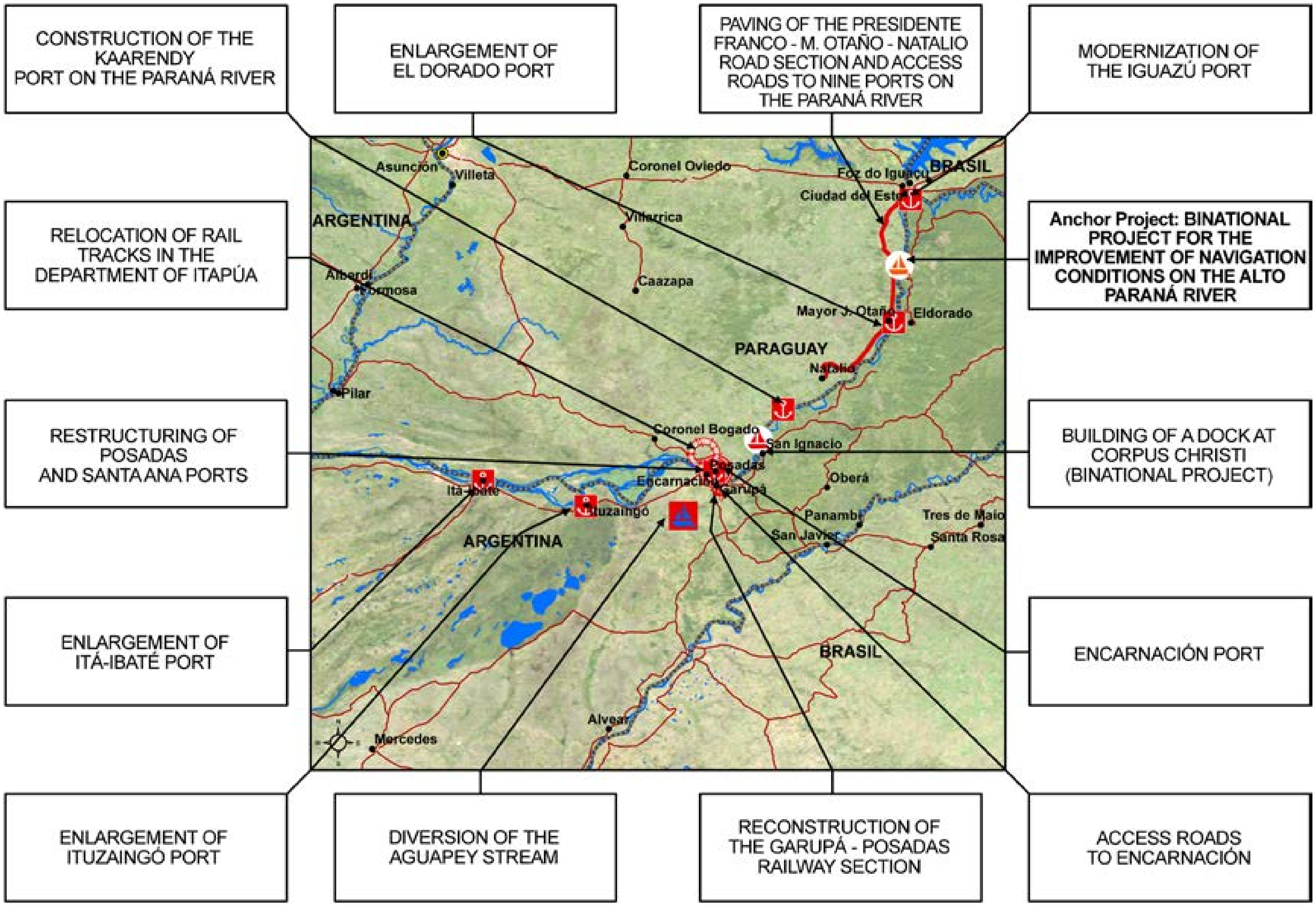
- Strengthen and boost the integration of the production chains along the Hub.
- Reinforce integration of inland countries and regions with global markets by efficiently connecting them to the Atlantic ocean.
- Improve the efficiency of the production system of the region and the quality of life of the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

Code	Stage	Paraguay-Paraná Waterway Hub: Group 3	Estimated Investment (US$ million)
HPP05	●	Development of Infrastructure for the Future Bolivian Free Trade Zone in Zárate (BO) (*)	0.0
HPP33	●	Improvement in the Communications System for the Paraná River (between Santa Fe and Confluencia) (AR)	30.0
HPP34	●	Belgrano Thermoelectric Power Station in Campana (AR)	650.0
HPP35	●	San Martín Thermoelectric Power Station in Timbúes (AR)	500.0
HPP36	●	Transformer Station in Mercedes (AR)	25.0
HPP37	●	Rehabilitation of the Paraná - Curuzú Cuatiá Railway Branch Line (AR)	0.0
HPP38	●	Rehabilitation of the Tucumán - Rosario Railway Branch Line (AR)	200.0
HPP39	●	Rehabilitation and Conversion to Dual Gage of the Corrientes - Monte Caseros Railway Branch Line (AR)	0.0
HPP40	●	Enhancement of the Railway Accesses to the City of Rosario (AR)	92.0
HPP41	●	Enhancement of the Railway Accesses to the City of Santa Fe (AR)	0.0
HPP42	●	Binational Project for the Improvement of the Navigation Conditions on the Paraguay River, from Confluencia to Asunción (AR - PY)	45.5
HPP43	●	Improvement of River Accesses to Paraná River Ports (AR)	15.0
HPP44	●	Deepening of the Fairway in the Paraná River from Confluencia to the Plata River (AR)	110.0
HPP45	●	Enlargment of Baradero Port (AR)	0.0
HPP46	●	Enlargment of Ibicuy Port (AR)	3.0
HPP47	●	Enlargment of San Pedro Port (AR)	36.0
HPP48	●	Enlargment of Diamante Port(AR)	20.0
HPP49	●	Enlargment and Modernization of Corrientes Port (AR)	12.0
HPP50	●	Rosario Port Master Plan (AR)	8.0
HPP51	●	Rehabilitation of Bella Vista Port (AR)	10.0
HPP52	●	Rehabilitation of Esquina Port (AR)	7.0
HPP53	●	Upgrade Works at Santa Fe Port (AR)	110.0
HPP54	●	Fender System for Barranqueras Port (AR)	10.0

(cont.)

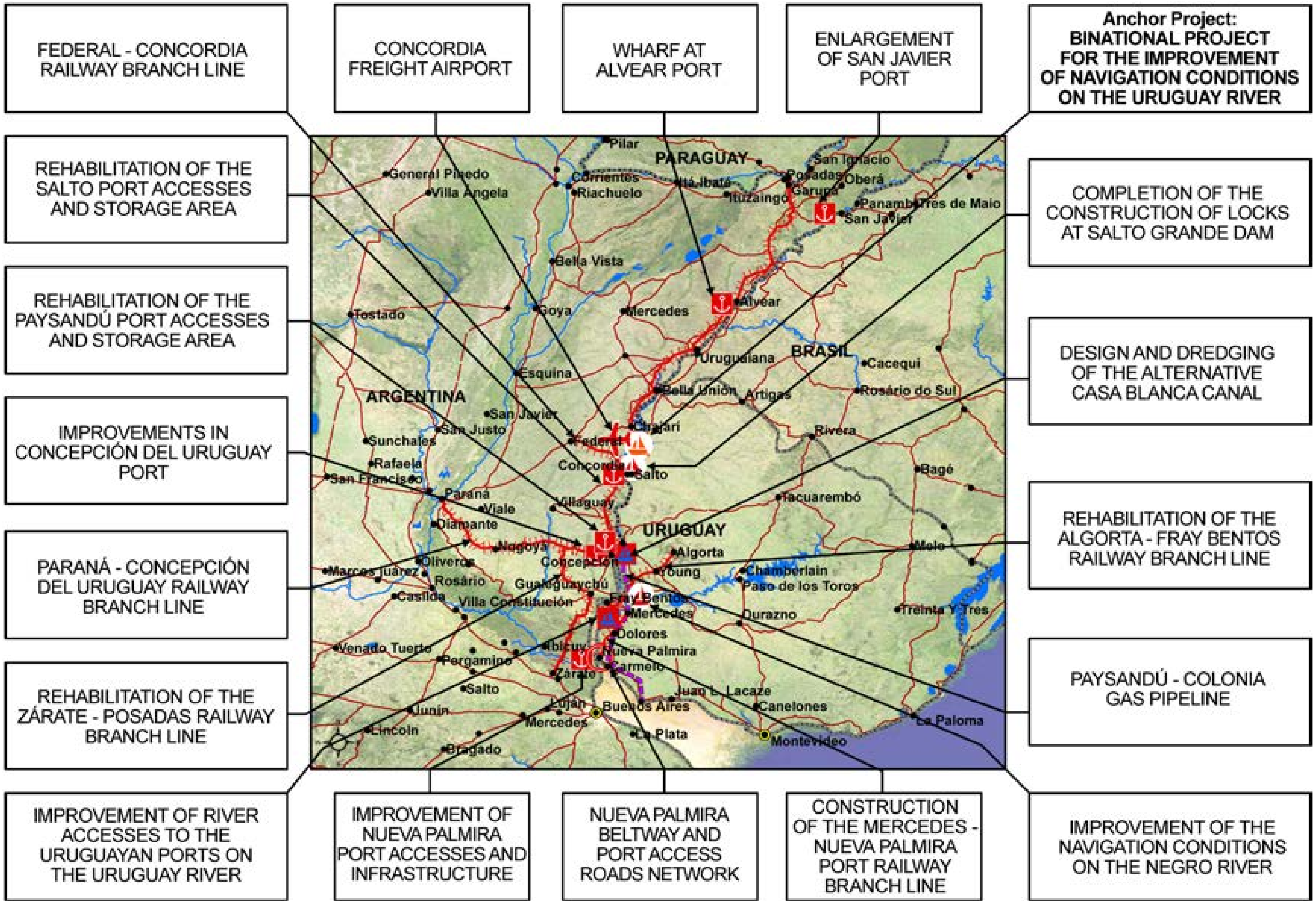
Code	Stage	Paraguay-Paraná Waterway Hub: Group 3	Estimated Investment (US$ million)
HPP55	🔴	Formosa City Beltway (AR)	10.0
HPP56	🟢	Santa Fe City Beltway (AR)	200.0
HPP57	🟢	Rosario City Beltway (AR)	600.0
HPP58	🟢	Paving of National Route No. 11, Intersection with Provincial Route No. 13 (AR)	70.0
HPP59	🟢	Paving of National Route No. 11 between Santa Fe and San Justo (AR)	40.0
HPP60	🟡	Paving of National Route No. 13 between the Intersection with National Route No. 11 and Villa Ángela (AR)	90.0
HPP61	🟢	Paving of National Route No. 9 between Colonia Cano and El Colorado (AR)	60.0
HPP62	🔴	Communications system for the Paraguay River (Asunción - Confluencia) (PY)	3.0
HPP63	🔴	Optimization of the Port Terminal System in Greater Asunción (Road and River Accesses; Sites for Terminals) (PY)	0.0
HPP64	🟡	Paving of the Villeta - Alberdi Road Section (PY)	51.0
HPP65	🟡	Rehabilitation and Improvement of Piedra Sola - Salto Grande Section (UY)	127.3
HPP67	🔴	Rehabilitation of the Zárate - Rosario Branch Line (AR)	42.0
HPP98	🟢	Rehabilitation of Formosa Port (AR)	6.0
HPP103	🟡	Construction and rehabilitation of the Asunción - Posadas Railway (AR - PY)	166.0
HPP116	🟢	High-Voltage Transmission Line between Mercedes and Goya (AR)	25.0
HPP117	🟡	High-Voltage Transmission Line between Mercedes and Paso de los Libres (AR)	15.0
HPP123	🔴	Upgrade of National Route No. 11 to a Four-Lane Road between Rosario and Oliveros (AR)	45.0
HPP124	🔴	Upgrade of National Route No. 11 to a Four-Lane Road: Resistencia - Formosa - Clorinda (AR)	330.0
		TOTAL	3,763.8

Note: (*) The final inclusion of this project will be subject of the results of bilateral discussions.


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
RELOCATION OF RAIL TRACKS IN THE DEPARTMENT OF ITAPÚA
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
Asunción
Villeta
Coronel Oviedo
Foz do Iguaçu
BRASIL
Ciudad del Este
ARGENTINA
Villarrica
Alberdi
Formosa
Caazapa
Mayor J. Otaño
Eldorado
PARAGUAY
Natalio
Pilar
Coronel Bogado
San Ignacio
Posadas
Encarnación
Garupá
Oberá
Itá-Ibaté
Ituzaingó
Panambi
Tres de Maio
San Javier
Santa Rosa
ARGENTINA
BRASIL
Alvear
Mercedes

- 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 countries and regions by efficiently connecting them to the Atlantic ocean.

Code	Stage	Paraguay-Paraná Waterway Hub: Group 4	Estimated Investment (US$ million)
HPP66	🟡	Restructuring of Posadas and Santa Ana Ports (AR)	10,0
HPP68	🔴	Enlargment of El Dorado Port (AR)	0,0
HPP69	🟡	Enlargment of Ituzaingó Port (AR)	27,0
HPP70	🟡	Enlargment of Itá-Ibaté Port (AR)	10,0
HPP71	🔴	Building of a Dock at Corpus Christi (Binational Project) (AR - PY)	0,0
HPP72	🔴	Binational Project for the Improvement of Navigation Conditions on the Alto Paraná River (AR - PY)	0,0
HPP73	🔵	Access Roads to Encarnación (PY)	26,0
HPP76	🟡	Relocation of Rail Tracks in the Departament of Itapúa (PY)	90,0
HPP77	🔵	Diversion of the Aguapey Stream (PY)	64,0
HPP78	🟡	Construction of the Kaarendy Port on the Paraná River (PY)	9,9
HPP79	🟡	Paving of the Presidente Franco - M. Otaño - Natalio Road Section and Access Roads to Nine Ports on the Paraná River (PY)	142,0
HPP80	🔴	Modernization of the Iguazú Port (AR)	0,0
HPP105	🟡	Reconstruction of the Garupá - Posadas Railway Section (AR)	100,0
HPP107	🔵	Encarnación Port (PY)	18,0
		TOTAL	496,9


FEDERAL - CONCORDIA RAILWAY BRANCH LINE
CONCORDIA FREIGHT AIRPORT
WHARF AT ALVEAR PORT
ENLARGEMENT OF SAN JAVIER PORT
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
DESIGN AND DREDGING OF THE ALTERNATIVE CASA BLANCA CANAL
IMPROVEMENTS IN CONCEPCIÓN DEL URUGUAY PORT
REHABILITATION OF THE ALGORTA - FRAY BENTOS RAILWAY BRANCH LINE
PARANÁ - CONCEPCIÓN DEL URUGUAY RAILWAY BRANCH LINE
PAYSANDÚ - COLONIA GAS PIPELINE
REHABILITATION OF THE ZÁRATE - POSADAS RAILWAY BRANCH LINE
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
PARAGUAY
ARGENTINA
BRASIL
URUGUAY
Pilar
Corrientes
Riachuelo
General Pinedo
Villa Angela
Itá Ibaté
Ituzaingó
San Ignacio
Posadas
Oberá
Garupá
Tres de Maio
San Javier
Bella Vista
Alvear
Tostado
Goya
Mercedes
Uruguaiana
Cacequi
Rosário do Sul
Esquina
Bella Unión
Artigas
San Javier
San Justo
Sunchales
Rafaela
San Francisco
Chajarí
Federal
Rivera
Concordia
Salto
Bagé
Paraná
Viale
Villaguay
Tacuarembó
Diamante
Nogoyá
Algorta
Melo
Marcos Juárez
Oliveros
Concepción
Young
Chamberlain
Paso de los Toros
Rosário
Gualeguaychú
Casilda
Villa Constitución
Fray Bentos
Mercedes
Durazno
Treinta Y Tres
Dolores
Venado Tuerto
Ibicuy
Nueva Palmira
Pergamino
Zárate
Carmelo
Salto
Juan L. Lacaze
Luján
Junín
Buenos Aires
Canelones
Mercedes
Lincoln
La Plata
Montevideo
La Paloma
Bragado

- 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.

Code	Stage	Paraguay-Paraná Waterway Hub: Group 5	Estimated Investment (US$ million)
HPP82	🔴	Rehabilitation of the Zárate - Posadas Railway Branch Line (AR)	0.0
HPP83	🔴	Improvement of River Accesses to the Uruguayan Ports on the Uruguay River (UY)	1.0
HPP84	🔴	Enlargment of San Javier Port (AR)	0.0
HPP85	🔴	Wharf at Alvear Port (AR)	0.0
HPP86	🟡	Improvements in Concepción del Uruguay Port (AR)	8.0
HPP87	🟡	Completion of the Construction of Locks at Salto Grande Dam (AR - UY)	300.0
HPP88	🟡	Binational Project for the Improvement of Navigation Conditions on the Uruguay River (AR - UY)	40.0
HPP89	🔴	Paysandú - Colonia Gas Pipeline (UY)	90.0
HPP90	🔴	Construction of the Mercedes - Nueva Palmira Port Railway Branch Line (UY)	90.0
HPP92	🟡	Design and Dredging of the Alternative Casa Blanca Canal (UY)	3.0
HPP94	🔵	Improvement of Nueva Palmira Port Accesses and Infrastructure (UY)	10.0
HPP95	🔵	Rehabilitation of the Paysandú Port, Accesses and Storage Area (UY)	6.0
HPP96	🟢	Rehabilitation of the Salto Port, Accesses and Storage Area (UY)	4.0
HPP97	🟡	Nueva Palmira Beltway and Port Access Roads Network (UY)	15.0
HPP115	🔴	Improvement of the Navigation Conditions on the Negro River (UY)	350.0
HPP118	🔴	Concordia Freight Airport (AR)	0.0
HPP119	🟡	Paraná - Concepción del Uruguay Railway Branch Line (AR)	8.0
HPP120	🟡	Rehabilitation of the Algorta - Fray Bentos Railway Branch Line (UY)	100.0
HPP121	🟡	Federal - Concordia Railway Branch Line (AR)	8.0
		TOTAL	1,033.0

I. GENERAL ASPECTS

The countries have agreed to include ninety-four projects in the Paraguay-Paraná Waterway Hub, accounting for an estimated investment of US$ 7,865.1 million, as summarized below:

Table I.1 • **General Indicators of the Paraguay-Paraná Waterway Hub**

Group	Name	Number of projects	Estimated Investment (US$ million)
Group 1	Paraguay River, Asunción - Corumbá	10	513.9
Group 2	Tietê - Paraná (Itaipú)	10	2,057.5
Group 3	Paraguay - Paraná Rivers, Asunción - Paraná Delta	41	3,763.8
Group 4	Paraná River, Itaipu - Confluence	14	496.9
Group 5	Uruguay River	19	1,033.0
	TOTAL	94	7,865.1

II. SOURCE OF FINANCING

Table I.2 • **Source of financing of the Paraguay-Paraná Waterway Hub projects**

Source of Financing	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Public	84	89.4	6,737.6	85.7
Private	2	2.1	228.5	2.9
Public/Private	8	8.5	899.0	11.4
TOTAL	94	100.0	7,865.1	100.0

III. API PROJECTS

Table I.3 · **API Projects - Paraguay-Paraná Waterway Hub**

Code	Project Name	Estimated Investment (US$ million)
17	**Improvement of navigation conditions on the Rivers of the Plata Basin (AR - BO - PY - UY)**	**1,158.3**
HPP07	Improvement of the Navigation Conditions on the Paraguay River (between Apa and Corumbá) (BO - BR - PY)	39.0
HPP09	Improvement of the Navigation Conditions on the Paraguay River (Asunción - Apa) (PY)	88.3
HPP19	Improvement of the Navigation Conditions on the Tietê River (BR)	800.0
HPP42	Binational Project for the Improvement of the Navigation Conditions on the Paraguay River, from Confluencia to Asunción (AR - PY)	45.5
HPP44	Deepening of the Fairway in the Paraná River from Confluencia to the Plata River (AR)	110.0
HPP72	Binational Project for the Improvement of Navigation Conditions on the Alto Paraná River (AR - PY)	0.0
HPP88	Binational Project for the Improvement of Navigation Conditions on the Uruguay River (AR - UY)	40.0
HPP106	System for Water Level Prediction in the Paraguay River (Apa - Asunción) (BO - PY)	0.0
HPP108	Improvement of the Navigation Conditions on the Alto Paraná River (Upstream of Saltos del Guairá) (BR)	25.0
HPP122	Rehabilitation and Maintenance of the Tamengo Canal (BO)	10.5
18	**Paraguay - Argentina - Uruguay railway interconnection (AR - PY - UY)**	**293.3**
HPP65	Rehabilitation and Improvement of Piedra Sola - Salto Grande Section (UY)	127.3
HPP82	Rehabilitation of the Zárate - Posadas Railway Branch Line (AR)	0.0
HPP103	Construction and rehabilitation of the Asunción - Posadas Railway (AR - PY)	166.0
19	**Rehabilitation of the Algorta - Fray Bentos Railway Branch Line (UY)**	**100.0**
HPP120	Rehabilitation of the Algorta - Fray Bentos Railway Branch Line (UY)	100.0
20	**Nueva Palmira Beltway and Port Access Roads Network (UY)**	**15.0**
HPP97	Nueva Palmira Beltway and Port Access Roads Network (UY)	15.0
	TOTAL	**1,566.6**

IV. SECTOR/SUBSECTOR-BASED BREAKDOWN AND TYPE OF WORKS INVOLVED

Table I.4 · **Sector-based breakdown of the Paraguay-Paraná Waterway Hub**

	Transport				Energy				Communications			
Subsector	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment
Air	1	1.2	0.0	0.0								
Road	21	25.0	2,778.8	43.0								
Railway	16	19.0	1,323.3	20.5								
River	44	52.4	2,154.2	33.4								
Multimodal	2	2.4	202.8	3.1								
Power Generation					3	42.9	1,214.0	88.7				
Power Interconnection					4	57.1	155.0	11.3				
Communication Interconnection									3	100.0	37.0	100.0
TOTAL	84	100.0	6,459.1	100.0	7	100.0	1,369.0	100.0	3	100.0	37.0	100.0

Table I.5 · **Air Transport**

Type of Work	**Number of Projects**	**Estimated Investment** (US$ million)
New airports	1	0.0
TOTAL	1	0.0

Table I.6 · **Road Transport**

Type of Work	**Number of Projects**	**Estimated Investment** (US$ million)
Extension of the road capacity	7	1,415.5
Refitting of road and structures	1	0.0
Paving (new work)	8	512.3
Road by-pass and access to cities	5	851.0
TOTAL	21	2,778.8

Table I.7 · **Railway Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of railways	4	406.0
Refitting of railways	10	825.3
Railway by-pass	2	92.0
TOTAL	16	1,323.3

Table I.8 · **River Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Improvement of river navigability	18	1,827.3
Building of new river ports	2	27.9
Refitting of the existing river ports	24	299.0
TOTAL	44	2,154.2

Table I.9 · **Multimodal Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Transfer stations	1	0.0
Mulltimodal transportation	1	202.8
TOTAL	2	202.8

Table I.10 · **Power Generation**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Hydroelectric plants (new ones and refitting) - microcentrals	1	64.0
Thermoelectric plants	2	1,150.0
TOTAL	3	1,214.0

Table I.11 · **Power Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of new power interconnections	4	155.0
TOTAL	4	155.0

Table I.12 · **Communication Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Optic fiber	3	37.0
TOTAL	3	37.0

V. PROGRESS IN THE PARAGUAY-PARANÁ WATERWAY HUB PROJECTS

Table I.13 · **Projects by Progress Attained**

Stage	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Profiling	32	34.1	1,520.2	19.3
Pre-Execution	33	35.1	2,724.3	34.7
Execution	21	22.3	2,321.6	29.5
Concluded	8	8.5	1,299.0	16.5
TOTAL	94	100.0	7,865.1	100.0

Table I.14 • **Concluded Projects**

Code	Project Name	Estimated Investment (US$ million)
HPP34	Belgrano Thermoelectric Power Station in Campana (AR)	650.0
HPP35	San Martín Thermoelectric Power Station in Timbúes (AR)	500.0
HPP36	Transformer Station in Mercedes (AR)	25.0
HPP73	Access Roads to Encarnación (PY)	26.0
HPP77	Diversion of the Aguapey Stream (PY)	64.0
HPP94	Improvement of Nueva Palmira Port Accesses and Infrastructure (UY)	10.0
HPP95	Rehabilitation of the Paysandú Port, Accesses and Storage Area (UY)	6.0
HPP107	Encarnación Port (PY)	18.0
	TOTAL	1,299.0

VI. ANCHOR PROJECTS

The countries identified five anchor projects in the Paraguay-Paraná Waterway Hub, totaling an estimated investment of US$173.8 million, according to the following detail:

Table I.15 • **Anchor Projects**

Group	Code	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Project Stage
1	HPP09	Improvement of the Navigation Conditions on the Paraguay River (Asunción - Apa) (PY)	88.3	Public	National	Pre-Execution
2	HPP28	Itaipú Diversion Binational Project (BR - PY)	0.0	Public/ Privado	Binational	Pre-Execution
3	HPP42	Binational Project for the Improvement of the Navigation Conditions on the Paraguay River, from Confluencia to Asunción (AR - PY)	45.5	Public	Binational	Execution
4	HPP72	Binational Project for the Improvement of Navigation Conditions on the Alto Paraná River (AR - PY)	0.0	Public	Binational	Profiling
5	HPP88	Binational Project for the Improvement of Navigation Conditions on the Uruguay River (AR - UY)	40.0	Public	Binational	Pre-Execution
		TOTAL	173.8			

CENTRAL INTEROCEANIC HUB

COUNTRY MEMBERS

TOTAL NUMBER OF PROJECTS

62

INVESTMENT

(US$ million)

8,830.5

TOTAL NUMBER OF PROJECTS

Percentage by stage

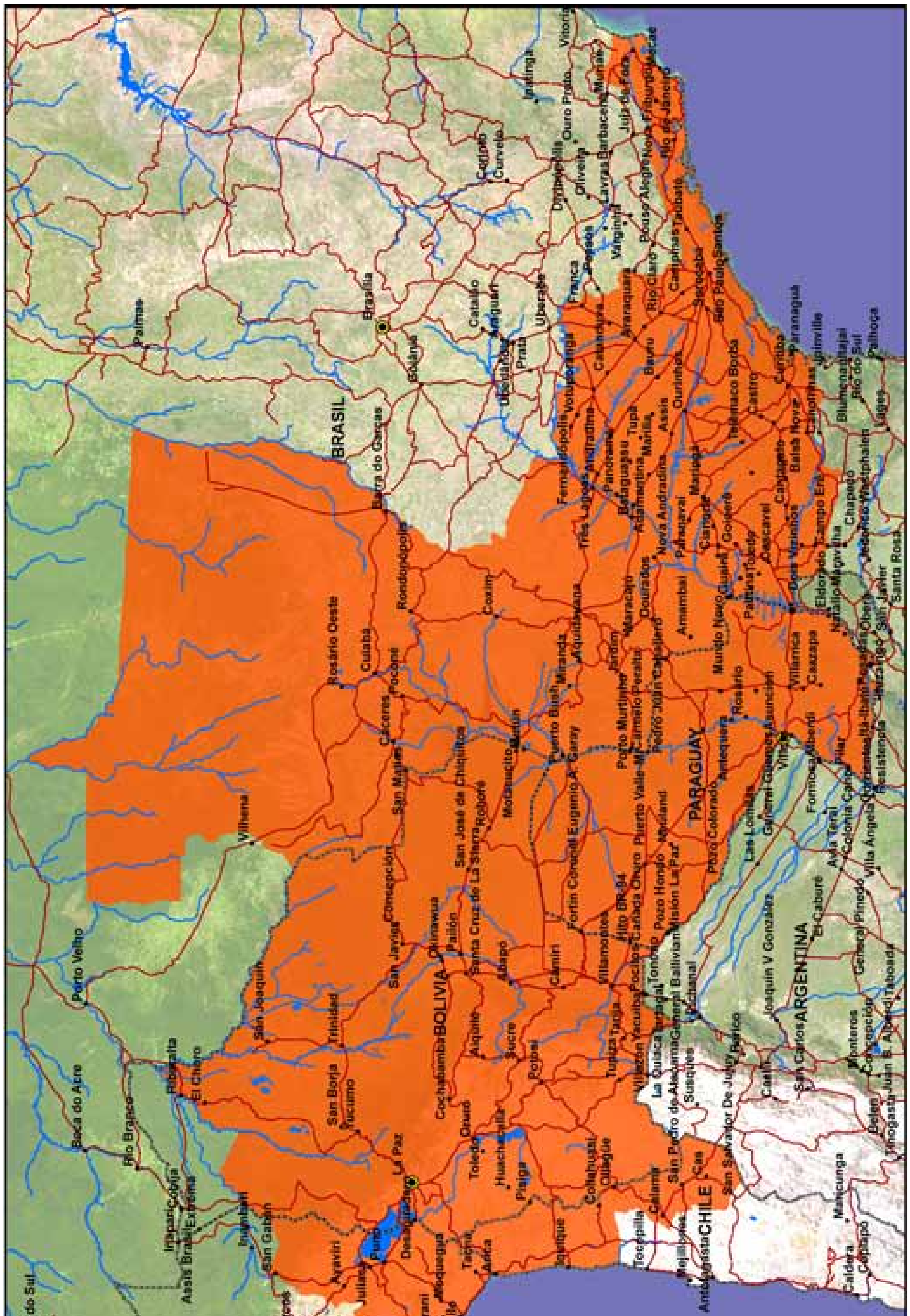
19.4%	PROFILING
24.2%	PRE-EXECUTION
38.7%	EXECUTION
17.7%	CONCLUDED

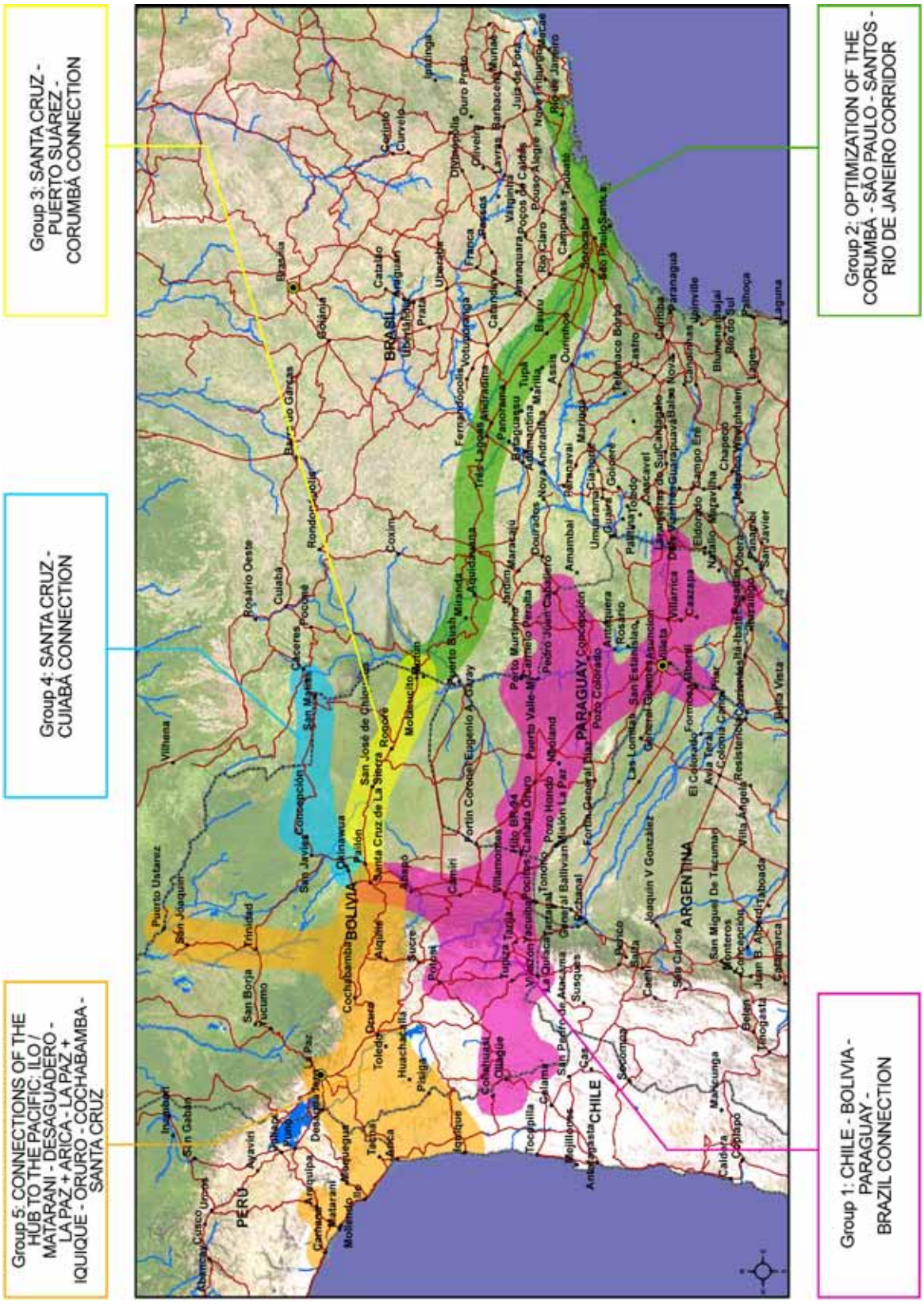
INVESTMENT

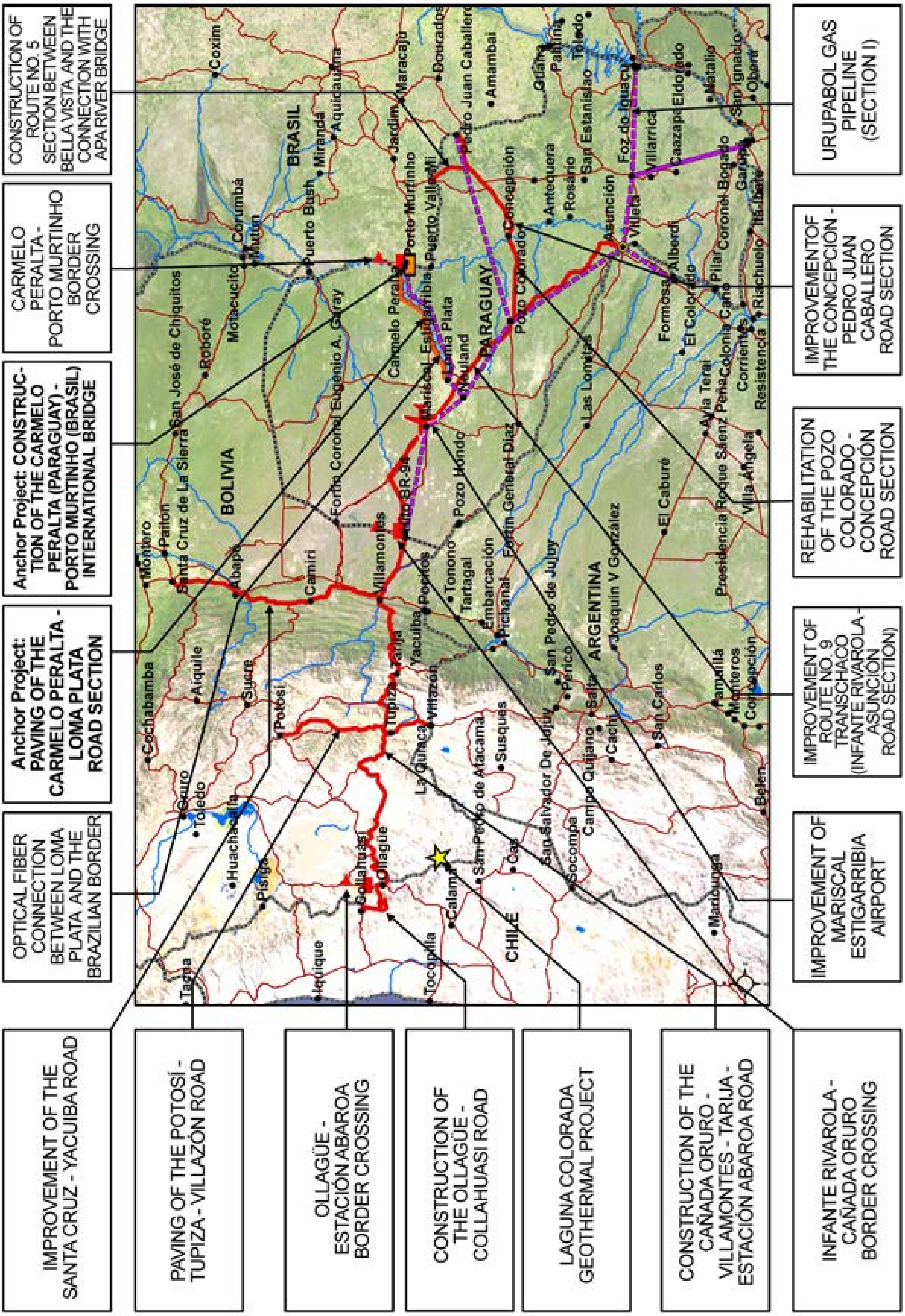
Percentage by stage

PROFILING	6.5%
PRE-EXECUTION	27.9%
EXECUTION	63.4%
CONCLUDED	2.2%

PROFILING · PRE-EXECUTION · EXECUTION · CONCLUDED


BRASIL
BOLIVIA
PARAGUAY
ARGENTINA
CHILE
PERU


Group 3: SANTA CRUZ - PUERTO SUÁREZ - CORUMBÁ CONNECTION
Group 4: SANTA CRUZ - CUIABÁ CONNECTION
Group 5: CONNECTIONS OF THE HUB TO THE PACIFIC: ILO/ MATARANI - DESAGUADERO - LA PAZ + ARICA - LA PAZ + IQUIQUE - ORURO - COCHABAMBA - SANTA CRUZ
Group 2: OPTIMIZATION OF THE CORUMBÁ - SÃO PAULO - SANTOS - RIO DE JANEIRO CORRIDOR
Group 1: CHILE - BOLIVIA - PARAGUAY - BRAZIL CONNECTION
BRASIL
BOLIVIA
PARAGUAY
ARGENTINA
CHILE
PERU


OPTICAL FIBER CONNECTION BETWEEN LOMA PLATA AND THE BRAZILIAN BORDER
Anchor Project: PAVING OF THE CARMELO PERALTA - LOMA PLATA ROAD SECTION
Anchor Project: CONSTRUCTION OF THE CARMELO PERALTA (PARAGUAY) - PORTO MURTINHO (BRASIL) INTERNATIONAL BRIDGE
CARMELO PERALTA - PORTO MURTINHO BORDER CROSSING
CONSTRUCTION OF ROUTE NO. 5 SECTION BETWEEN BELLA VISTA AND THE CONNECTION WITH APA RIVER BRIDGE
IMPROVEMENT OF THE SANTA CRUZ - YACUIBA ROAD
PAVING OF THE POTOSÍ - TUPIZA - VILLAZÓN ROAD
OLLAGÜE - ESTACIÓN ABAROA BORDER CROSSING
CONSTRUCTION OF THE OLLAGÜE - COLLAHUASI ROAD
LAGUNA COLORADA GEOTHERMAL PROJECT
CONSTRUCTION OF THE CAÑADA ORURO - VILLAMONTES - TARIJA - ESTACIÓN ABAROA ROAD
INFANTE RIVAROLA - CAÑADA ORURO BORDER CROSSING
IMPROVEMENT OF MARISCAL ESTIGARRIBIA AIRPORT
IMPROVEMENT OF ROUTE NO. 9 TRANSCHACO (INFANTE RIVAROLA - ASUNCIÓN ROAD SECTION)
REHABILITATION OF THE POZO COLORADO - CONCEPCIÓN ROAD SECTION
IMPROVEMENTOF THE CONCEPCIÓN - PEDRO JUAN CABALLERO ROAD SECTION
URUPABOL GAS PIPELINE (SECTION I)
BOLIVIA
BRASIL
PARAGUAY
ARGENTINA
CHILE

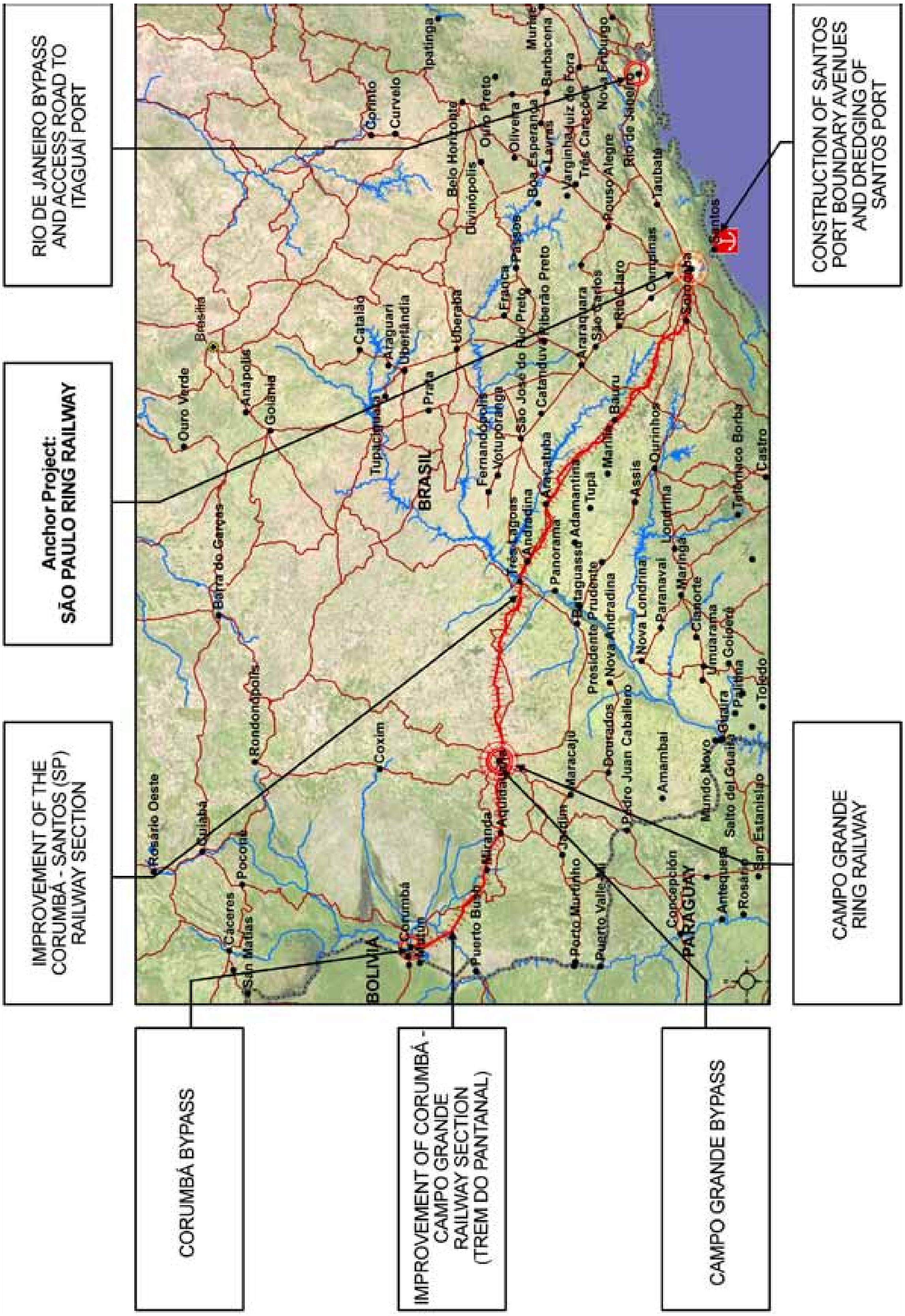
- Interconnect regional production areas (transportation, energy, and communications)
- Provide new access of the hinterlands to the Pacific ocean, articulating isolated territories

Code	Stage	Central Interoceanic Hub: Group 1	Estimated Investment (US$ million)
IOC01	🟡	Paving of the Carmelo Peralta - Loma Plata Road Section (PY)	127.5
IOC02	🟢	Construction of the Cañada Oruro - Villamontes - Tarija - Estación Abaroa Road (BO)	210.0
IOC03	🟡	Ollagüe - Estación Abaroa Border Crossing (BO - CH)	5.0
IOC04	🟢	Paving of the Potosí - Tupiza - Villazón Road (BO) (*)	180.4
IOC05	🔴	Construction of the Ollagüe - Collahuasi Road (CH)	40.0
IOC06	🔴	Optical Fiber Connection between Loma Plata and the Brazilian Border (PY)	2.0
IOC07	🟡	Improvement of the Mariscal Estigarribia Airport (PY)	30.0
IOC08	🔴	Carmelo Peralta - Porto Murtinho Border Crossing (BR - PY)	0.0
IOC09	🟡	Infante Rivarola - Cañada Oruro Border Crossing (BO - PY)	2.0
IOC10	🟡	URUPABOL Pipeline (Section I) (BO - PY) (**)	0.0
IOC59	🟡	Laguna Colorada Geothermal Project (BO)	321.8
IOC60	🟢	Improvement of the Santa Cruz - Yacuiba Road (BO)	104.0
IOC72	🟢	Improvement of Route No. 9 Transchaco (Infante Rivarola - Asunción Road Section) (PY)	170.0
IOC73	🟢	Rehabilitation of Pozo Colorado - Concepción Road Section (PY)	32.0
IOC74	🟢	Improvement of the Concepción - Pedro Juan Caballero Road Section (PY)	0.0
IOC75	🟡	Construction of Route No. 5 between Bella Vista and the Connection with Apa River Bridge (PY)	48.0
IOC77	🔴	Construction of the Carmelo Peralta (Paraguay) - Porto Murtinho (Brazil) International Bridge (BR - PY)	0.0
		TOTAL	1,272.7

Note:

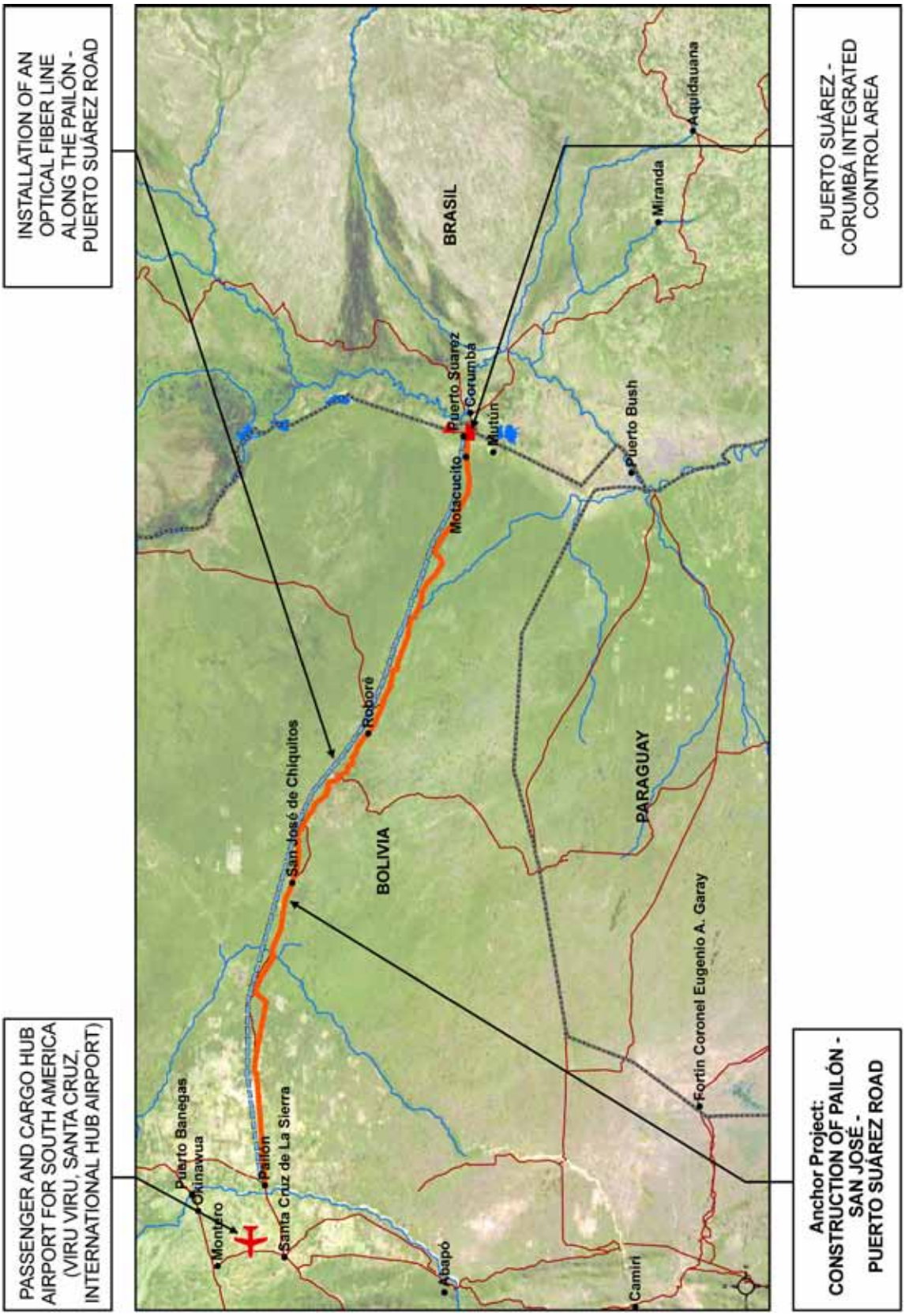
(*) Hinge project with groupo 2 of the Capricorn Hub

(**) This project is supplemented with section II of Group 5 in the MERCOSUR-Chile Hub, which includes Uruguay


RIO DE JANEIRO BYPASS AND ACCESS ROAD TO ITAGUAÍ PORT
Anchor Project: SÃO PAULO RING RAILWAY
IMPROVEMENT OF THE CORUMBÁ - SANTOS (SP) RAILWAY SECTION
CONSTRUCTION OF SANTOS PORT BOUNDARY AVENUES AND DREDGING OF SANTOS PORT
CAMPO GRANDE RING RAILWAY
CORUMBÁ BYPASS
IMPROVEMENT OF CORUMBÁ - CAMPO GRANDE RAILWAY SECTION (TREM DO PANTANAL)
CAMPO GRANDE BYPASS
BRASIL
BOLIVIA
PARAGUAY

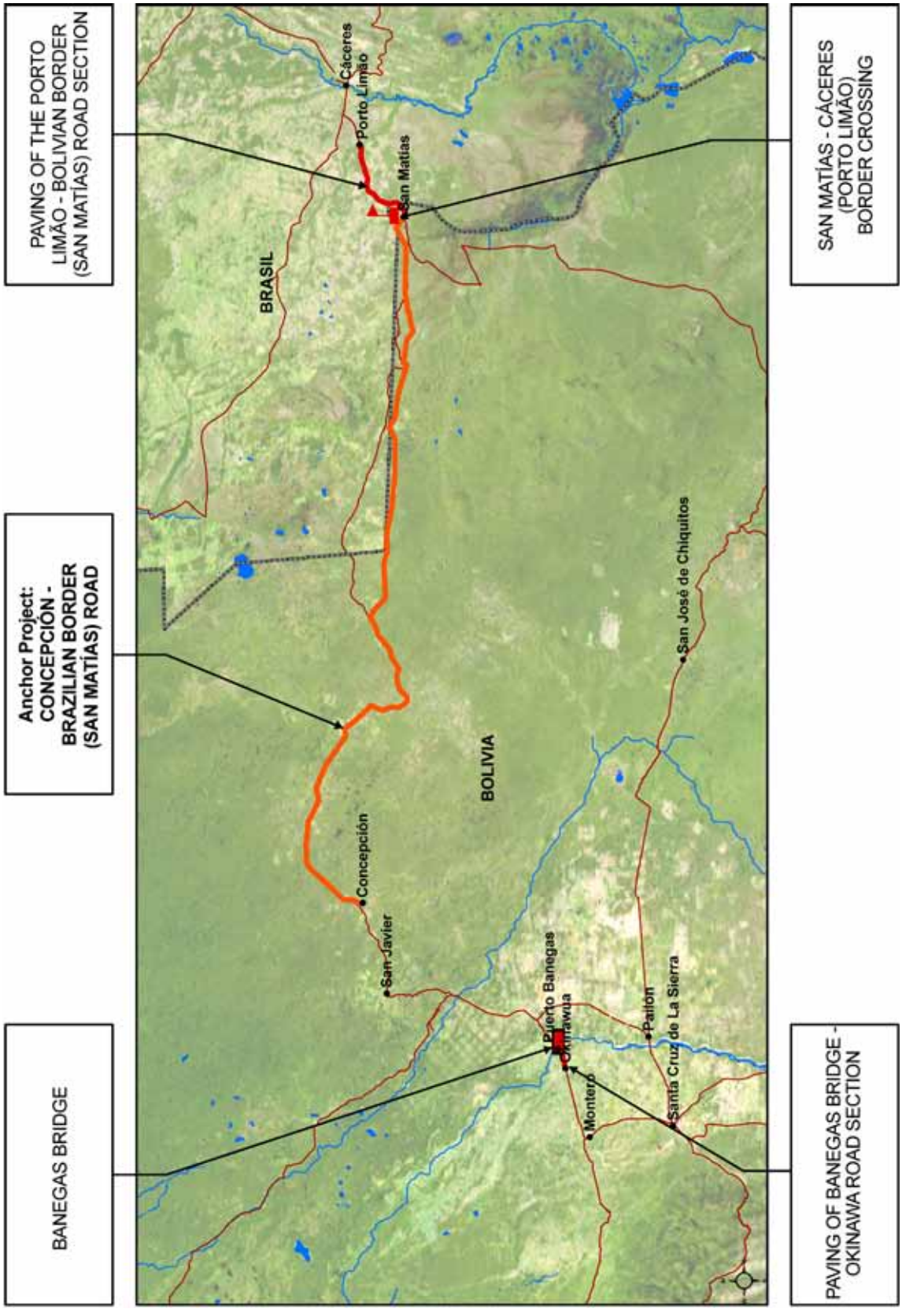
- Significantly reduce cargo transportation costs from Brazil, Bolivia, and Paraguay to the Atlantic ocean and among these countries as well
- Increase the countries economic complementation.
- Increase the railway component in the regional transportation matrix
- Support tourism in the region of Pantanal

Code	Stage	Central Interoceanic Hub: Group 2	Estimated Investment (US$ million)
IOC11	●	São Paulo Ring Railway (BR)	1,500.0
IOC13	●	Campo Grande Ring Railway (BR)	31.0
IOC14	●	Campo Grande Bypass (BR)	30.0
IOC15	●	Corumbá Bypass (BR)	8.0
IOC16	●	Río de Janeiro Bypass and Access Road to Itaguaí Port (BR)	614.0
IOC17	●	Improvement of the Corumbá - Santos (SP) Railway Section (BR)	2,250.0
IOC19	●	Construction of Santos Port Boundary Avenues and Dredging of Santos Port (BR)	334.4
IOC20	●	Improvement of Corumbá - Campo Grande Railway Section (Trem Do Pantanal) (BR)	22.0
		TOTAL	4,789.4


INSTALLATION OF AN OPTICAL FIBER LINE ALONG THE PAILÓN - PUERTO SUÁREZ ROAD
PUERTO SUÁREZ - CORUMBÁ INTEGRATED CONTROL AREA
PASSENGER AND CARGO HUB AIRPORT FOR SOUTH AMERICA (VIRU VIRU, SANTA CRUZ, INTERNATIONAL HUB AIRPORT)
Anchor Project: CONSTRUCTION OF PAILÓN - SAN JOSÉ - PUERTO SUÁREZ ROAD
BRASIL
BOLIVIA
PARAGUAY
Aquidauana
Miranda
Puerto Suarez
Corumbá
Puerto Bush
Motacucito
Roboré
San José de Chiquitos
Puerto Banegas
Chiriguana
Montero
Pailón
Santa Cruz de La Sierra
Abapó
Camiri
Fortin Coronel Eugenio A. Garay

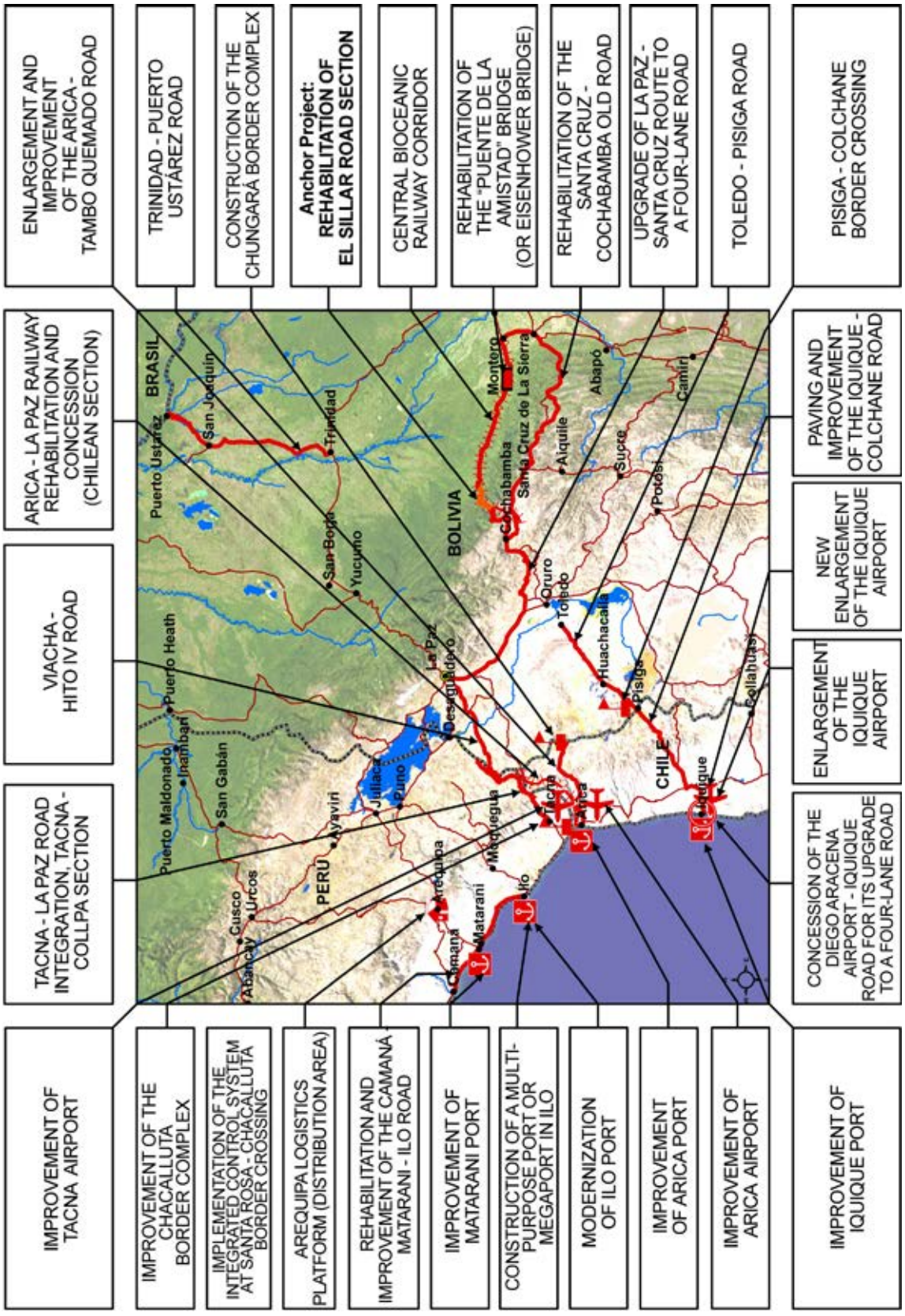
- Complete the railway and road connection in the Hub
- Significantly reduce cargo transportation costs from Brazil, Bolivia, and Paraguay to the Atlantic ocean, the Pacific ocean, and among these countries as well
- Increase the countries' economic complementation
- Support tourism in the region of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

Code	Stage	Central Interoceanic Hub: Group 3	Estimated Investment (US$ million)
IOC22	●	Construction of Pailón - San José - Puerto Suárez Road (BO)	409.0
IOC24	●	Instalation of an Optical Fiber Line along the Pailón - Puerto Suárez Road (BO)	2.5
IOC25	●	Puerto Suárez - Corumbá Integrated Control Area (BO - BR)	2.0
IOC78	●	Passenger and Cargo Hub Airport for South America (Viru Viru, Santa Cruz, International Hub Airport) (BO)	20.0
		TOTAL	433.5


PAVING OF THE PORTO LIMÃO - BOLIVIAN BORDER (SAN MATÍAS) ROAD SECTION
SAN MATÍAS - CÁCERES (PORTO LIMÃO) BORDER CROSSING
Anchor Project: CONCEPCIÓN - BRAZILIAN BORDER (SAN MATÍAS) ROAD
BANEGAS BRIDGE
PAVING OF BANEGAS BRIDGE - OKINAWA ROAD SECTION
BRASIL
BOLIVIA
Cáceres
Porto Limão
San Matias
Concepción
San Javier
Puerto Banegas
Okinawa
Montero
Paiton
Santa Cruz de La Sierra
San José de Chiquitos

- 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

Code	Stage	Central Interoceanic Hub: Group 4	Estimated Investment (US$ million)
IOC26	●	Concepción - Brazilian Border (San Matías) Road (BO)	79.5
IOC27	●	Banegas Bridge (BO)	41.0
IOC28	●	Paving of Banegas Bridge - Okinawa Road Section (BO)	0.0
IOC29	●	San Matías - Cáceres (Porto Limão) Border Crossing (BO - BR)	2.0
IOC30	●	Paving of the Porto Limão - Bolivian Border (San Matías) Road Section (BR)	13.0
		TOTAL	135.5


ENLARGEMENT AND IMPROVEMENT OF THE ARICA - TAMBO QUEMADO ROAD
TRINIDAD - PUERTO USTÁREZ ROAD
CONSTRUCTION OF THE CHUNGARÁ BORDER COMPLEX
Anchor Project: REHABILITATION OF EL SILLAR ROAD SECTION
CENTRAL BIOCEANIC RAILWAY CORRIDOR
REHABILITATION OF THE "PUENTE DE LA AMISTAD" BRIDGE (OR EISENHOWER BRIDGE)
REHABILITATION OF THE SANTA CRUZ - COCHABAMBA OLD ROAD
UPGRADE OF LA PAZ - SANTA CRUZ ROUTE TO A FOUR-LANE ROAD
TOLEDO - PISIGA ROAD
PISIGA - COLCHANE BORDER CROSSING
ARICA - LA PAZ RAILWAY REHABILITATION AND CONCESSION (CHILEAN SECTION)
VIACHA - HITO IV ROAD
TACNA - LA PAZ ROAD INTEGRATION, TACNA - COLLPA SECTION
PAVING AND IMPROVEMENT OF THE IQUIQUE - COLCHANE ROAD
NEW ENLARGEMENT OF THE IQUIQUE AIRPORT
ENLARGEMENT OF THE IQUIQUE AIRPORT
CONCESSION OF THE DIEGO ARACENA AIRPORT - IQUIQUE ROAD FOR ITS UPGRADE TO A FOUR-LANE ROAD
IMPROVEMENT OF TACNA AIRPORT
IMPROVEMENT OF THE CHACALLUTA BORDER COMPLEX
IMPLEMENTATION OF THE INTEGRATED CONTROL SYSTEM AT SANTA ROSA - CHACALLUTA BORDER CROSSING
AREQUIPA LOGISTICS PLATFORM (DISTRIBUTION AREA)
REHABILITATION AND IMPROVEMENT OF THE CAMANÁ - MATARANI - ILO ROAD
IMPROVEMENT OF MATARANI PORT
CONSTRUCTION OF A MULTI-PURPOSE PORT OR MEGAPORT IN ILO
MODERNIZATION OF ILO PORT
IMPROVEMENT OF ARICA PORT
IMPROVEMENT OF ARICA AIRPORT
IMPROVEMENT OF IQUIQUE PORT
BRASIL
BOLIVIA
PERU
CHILE
Puerto Ustárez
San Joaquín
Trinidad
Montero
Santa Cruz de La Sierra
Cochabamba
Abapó
Camiri
Aiquile
Sucre
Potosí
Puerto Heath
Puerto Maldonado
Inambari
San Gabán
San Boyá
Yucumo
La Paz
Desaguadero
Oruro
Toledo
Huachacalla
Pisiga
Collahuasi
Iquique
Juliaca
Puno
Ayaviri
Tacna
Arica
Arequipa
Mollendo
Matarani
Ilo
Camaná
Cusco
Urcos
Abancay

- Increase trade among the countries and also towards the international markets
- Reduce the Hub's transportation costs towards the Pacific region
- Reduce import costs from the Pacific region
- Increase synergy among the groups of projects
- Increase reliability as well as the transportation standards of the Group
- Foster the development and consolidation of border trade
- Provide a physical connection to the MERCOSUR

Code	Stage	Central Interoceanic Hub: Group 5	Estimated Investment (US$ million)
IOC31	🟡	Rehabilitation of El Sillar Road Section (BO)	122.5
IOC32	🟢	Toledo - Pisiga Road (BO)	130.5
IOC33	🔵	Pisiga - Colchane Border Crossing (BO - CH)	10.0
IOC34	🔵	Improvement of Arica Airport (CH)	10.0
IOC35	🟢	Improvement of Arica Port (CH)	50.0
IOC36	🔵	Paving and Improvement of the Iquique - Colchane Road (CH)	42.0
IOC38	🟢	Rehabilitation of the Santa Cruz - Cochabamba Old Road (BO)	35.0
IOC39	🔵	Rehabilitation of the "Puente de la Amistad" Bridge (or Eisenhower Bridge) (BO)	3.0
IOC40	🟢	Enlargement and Improvement of the Arica - Tambo Quemado Road (CH)	50.0
IOC42	🟢	Rehabilitation and Improvement of the Camaná - Matarani - Ilo Road (PE)	344.9
IOC61	🔴	Modernization of Ilo Port (PE)	240.0
IOC62	🔵	Improvement of Matarani Port (PE)	37.0
IOC65	🟢	Improvement of Iquique Port (CH)	33.0
IOC66	🟢	Arica - La Paz Railway Rehabilitation and Concession (Chilean Section) (CH)	50.0
IOC67	🟢	Improvement of Tacna Airport (PE)	51.5
IOC69	🔵	Enlargement of the Iquique Airport (CH)	16.6
IOC70	🔴	Arequipa Logistics Platform (Distribution Area) (PE)	33.5
IOC71	🟢	Concession of the Diego Aracena Airport - Iquique Road for its Upgrade to a Four-Lane Road (CH)	232.0
IOC79	🟡	Tacna - La Paz Road Integration, Tacna - Collpa Section (BO - PE)	147.7
IOC80	🟢	Upgrade of La Paz - Santa Cruz Route to a Four-Lane Road (BO)	269.0
IOC81	🟡	Central Bioceanic Railway Corridor (BO)	6.7
IOC82	🔴	Trinidad - Puerto Ustarez Road (BO)	226.0
IOC83	🟢	Viacha - Hito IV Road (BO)	16.0
IOC84	🔴	Construction of a Multi-Purpose Port or Megaport in Ilo (BO)	10.0
IOC85	🟡	Construction of the Chungará Border Complex (CH)	30.0
IOC86	🔵	Improvement of the Chacalluta Border Complex (CH)	1.0
IOC87	🔴	New Enlargement of the Iquique Airport (CH)	0.0
IOC88	🔴	Implementation of the Integrated Control System at Santa Rosa - Chacalluta Border Crossing (CH - PE)	1.5
		TOTAL	2,199.4

I. GENERAL ASPECTS

The countries have agreed to include sixty-two projects in the Central Interoceanic Hub, accounting for an estimated investment of US$8,830.5 million, as summarized below:

Table J.1 · **General Indicators of the Central Interoceanic Hub**

Group	Name	Number of Projects	Estimated Investment (US$ million)
Group 1	Chile - Bolivia - Paraguay - Brazil Connection	17	1,272.7
Group 2	Optimization of the Corumbá - São Paulo - Santos - Rio de Janeiro Corridor	8	4,789.4
Group 3	Santa Cruz - Puerto Suárez - Corumbá Connection	4	433.5
Group 4	Santa Cruz - Cuiabá Connection	5	135.5
Group 5	Connections of the Hub to the Pacific: Ilo / Matarani - Desaguadero - La Paz + Arica - La Paz + Iquique - Oruro - Cochabamba - Santa Cruz	28	2,199.4
	TOTAL	62	8,830.5

II. SOURCE OF FINANCING

Table J.2 · **Source of financing of the Central Interoceanic Hub**

Source of financing	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Public	45	72.6	4,271.4	48.4
Private	10	16.1	2,735.6	31.0
Public/Private	7	11.3	1,823.5	20.6
TOTAL	62	100.0	8,830.5	100.0

III. API PROJECTS

Table J.3 · **API Projects - Central Interoceanic Hub**

Code	Project Name	Estimated Investment (US$ million)
21	**Passenger and Cargo Hub Airport for South America (Viru Viru, Santa Cruz, International Hub Airport) (BO)**	**20.0**
IOC78	Passenger and Cargo Hub Airport for South America (Viru Viru, Santa Cruz, International Hub Airport) (BO)	20.0
22	**Improvement of road connectivity in the Central Interoceanic hub (BO - BR)**	**431.5**
IOC14	Campo Grande Bypass (BR)	30.0
IOC25	Puerto Suárez - Corumbá Integrated Control Area (BO - BR)	2.0
IOC32	Toledo - Pisiga Road (BO)	130.5
IOC80	Upgrade of La Paz - Santa Cruz Route to a Four-Lane Road (BO)	269.0
23	**Infante Rivarola - Cañada Oruro Border Crossing (BO - PY)**	**2.0**
IOC09	Infante Rivarola - Cañada Oruro Border Crossing (BO - PY)	2.0
24	**Central Bioceanic Railway Corridor (Bolivian Section) (BO)**	**6.7**
IOC81	Central Bioceanic Railway Corridor (Bolivian Section) (BO)	6.7
	TOTAL	**460.2**

IV. SECTOR/SUBSECTOR-BASED BREAKDOWN AND TYPE OF WORKS INVOLVED

Table J.4 · **Sector-based breakdown of the Central Interoceanic Hub**

	Transport				Energy				Communications			
Subsector	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment
Air	6	10.4	128.1	1.5								
Road	30	51.7	3,725.0	43.8								
Railway	6	10.4	3,859.7	45.4								
River	1	1.7	10.0	0.1								
Sea	5	8.6	694.4	8.2								
Multimodal	1	1.7	33.5	0.4								
Border Crossing	9	15.5	53.5	0.6								
Power Generation					1	50.0	321.8	100.0				
Power Interconnection					1	50.0	0.0	0.0				
Communication Interconnection									2	100.0	4.5	100.0
TOTAL	58	100.0	8,504.2	100.0	2	100.0	321.8	100.0	2	100.0	4.5	100.0

Table J.5 · **Air Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Refitting of airports	1	30.0
Extension of airports	5	98.1
TOTAL	6	128.1

Table J.6 · **Road Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Extension of the road capacity	3	648.7
Refitting of road and structures	8	796.4
Paving (new work)	13	1,583.9
Bridges (new ones and refitting)	3	44.0
Circunvalación vial (by-pass) y accesos a ciudades	3	652.0
TOTAL	30	3,725.0

Table J.7 · **Railway Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of railways	1	6.7
Refitting of railways	3	2,322.0
Railway by-pass	2	1,531.0
TOTAL	6	3,859.7

Table J.8 · **River Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of new river ports	1	10.0
TOTAL	1	10.0

Table J.9 • **Maritime Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Extension of the road infrastructure of the maritime ports	4	360.0
Refitting of sea ports	1	334.4
TOTAL	5	694.4

Table J.10 • **Multimodal Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Transfer stations	1	33.5
TOTAL	1	33.5

Table J.11 • **Border Crossings**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Infrastructure for the setting up of border control centers	6	48.5
Refitting of existing infrastructure in border control centers	1	1.0
Extension of infrastructure and capacity of border control centers	2	4.0
TOTAL	9	53.5

Table J.12 • **Power Generation**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Other energy infrastructures	1	321.8
TOTAL	1	321.8

Table J.13 · **Power Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of new power interconnections	1	0.0
TOTAL	1	0.0

Table J.14 · **Communication Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Optic fiber	2	4.5
TOTAL	2	4.5

V. PROGRESS IN THE CENTRAL INTEROCEANIC HUB PROJECTS

Table J.15 · **Projects by Progress Attained**

Stage	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Profiling	12	19.4	575.5	6.5
Pre-Execution	15	24.2	2,461.7	27.9
Execution	24	38.7	5,599.7	63.4
Concluded	11	17.7	193.6	2.2
TOTAL	62	100.0	8,830.5	100.0

Table J.16 · **Concluded Projects**

Code	Project Name	Estimated Investment (US$ million)
IOC13	Campo Grande Ring Railway (BR)	31.0
IOC15	Corumbá Bypass (BR)	8.0
IOC20	Improvement of Corumbá - Campo Grande Railway Section (Trem Do Pantanal) (BR)	22.0
IOC30	Paving of the Porto Limão - Bolivian Border (San Matías) Road Section (BR)	13.0
IOC33	Pisiga - Colchane Border Crossing (BO - CH)	10.0
IOC34	Improvement of Arica Airport (CH)	10.0
IOC36	Paving and Improvement of the Iquique - Colchane Road (CH)	42.0
IOC39	Rehabilitation of the "Puente de la Amistad" Bridge (or Eisenhower Bridge) (BO)	3.0
IOC62	Improvement of Matarani Port (PE)	37.0
IOC69	Enlargement of the Iquique Airport (CH)	16.6
IOC86	Improvement of the Chacalluta Border Complex (CH)	1.0
	TOTAL	193.6

VI. ANCHOR PROJECTS

The countries identified six anchor projects in the Central Interoceanic Hub, totaling an estimated investment of US$2,238.5 million, according to the following detail:

Table J.17 · **Anchor Projects**

Group	Code	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Project Stage
1	IOC01	Paving of the Carmelo Peralta - Loma Plata Road Section (PY)	127.5	Public	Nacional	Pre-Execution
1	IOC77	Construction of the Carmelo Peralta (Paraguay Porto Murtinho (Brazil) International Bridge (BR - PY)	0.0	Public	Binacional	Profiling
2	IOC11	São Paulo Ring Railway (BR)	1,500.0	Public/ Private	Nacional	Pre-Execution
3	IOC22	Construction of Pailón - San José - Puerto Suárez Road (BO)	409.0	Public	Nacional	Execution
4	IOC26	Concepción - Brazilian Border (San Matías) Road (BO)	79.5	Public/ Private	Nacional	Pre-Execution
5	IOC31	Rehabilitation of El Sillar Road Section (BO)	122.5	Public	Nacional	Pre-Execution
		TOTAL	2,238.5			

MERCOSUR - CHILE HUB

COUNTRY MEMBERS

TOTAL NUMBER OF PROJECTS
122

INVESTMENT
(US$ million)
52,701.1

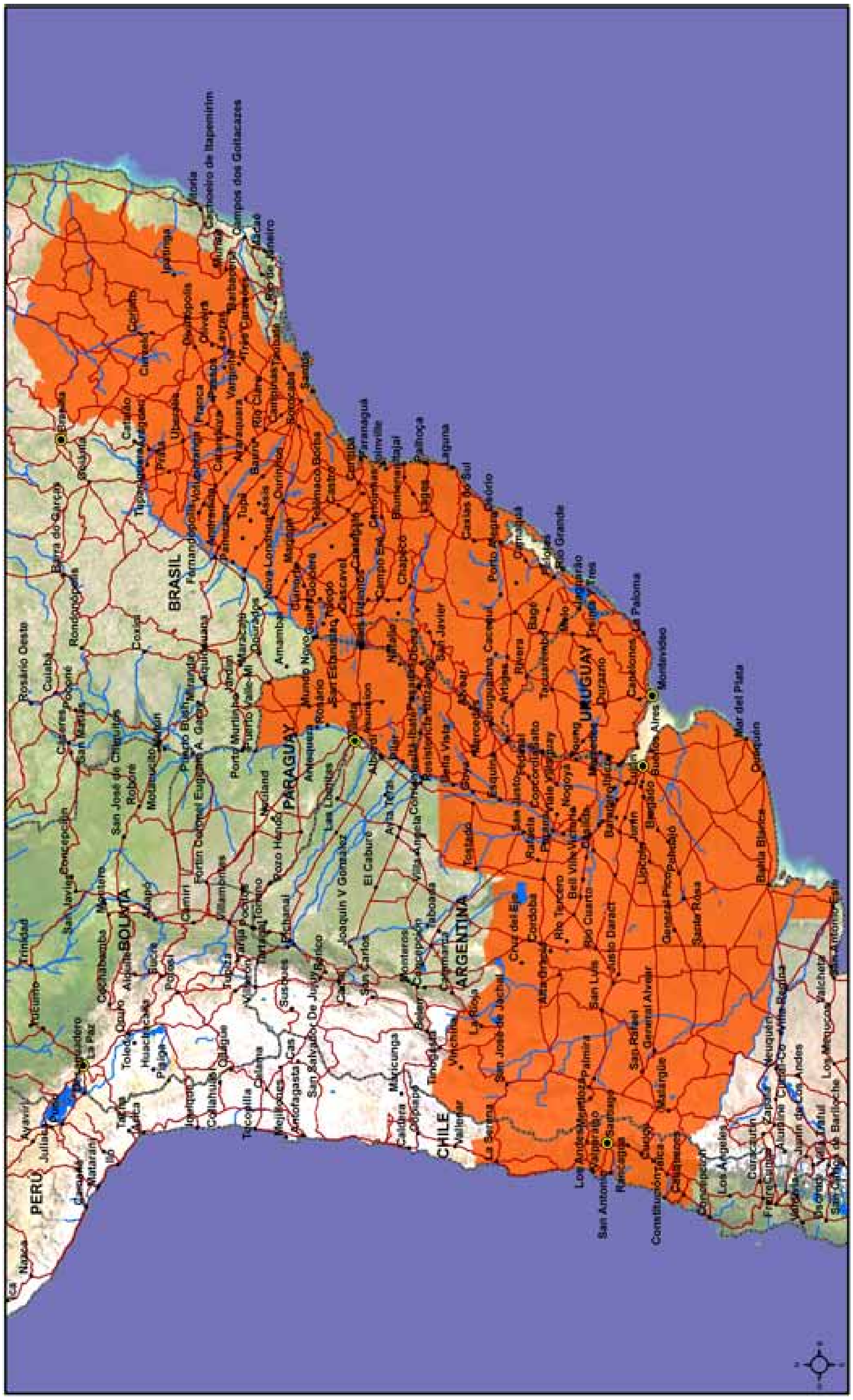
TOTAL NUMBER OF PROJECTS
Percentage by stage

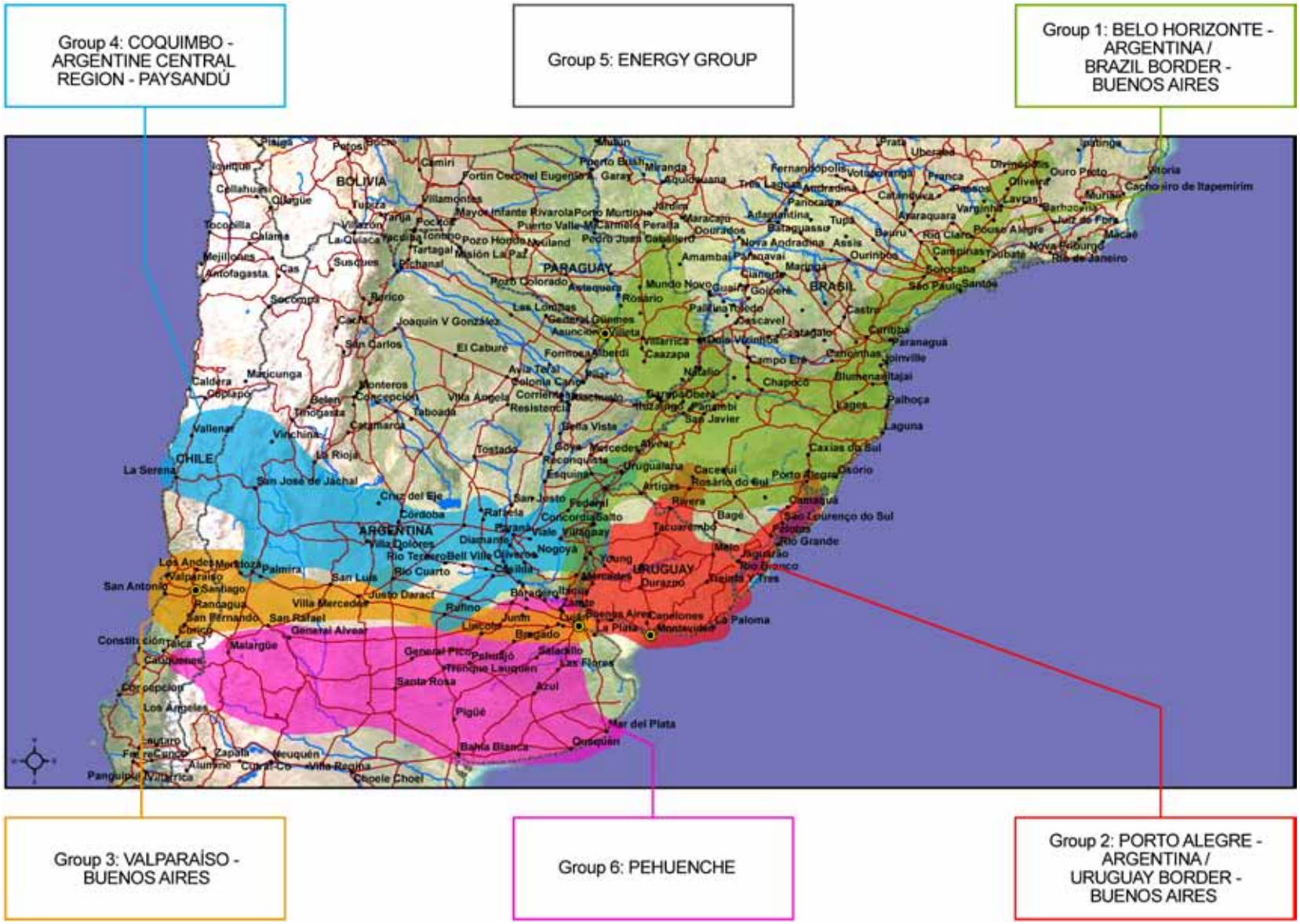
27.0%	PROFILING
29.5%	PRE-EXECUTION
28.7%	EXECUTION
14.8%	CONCLUDED

INVESTMENT
Percentage by stage

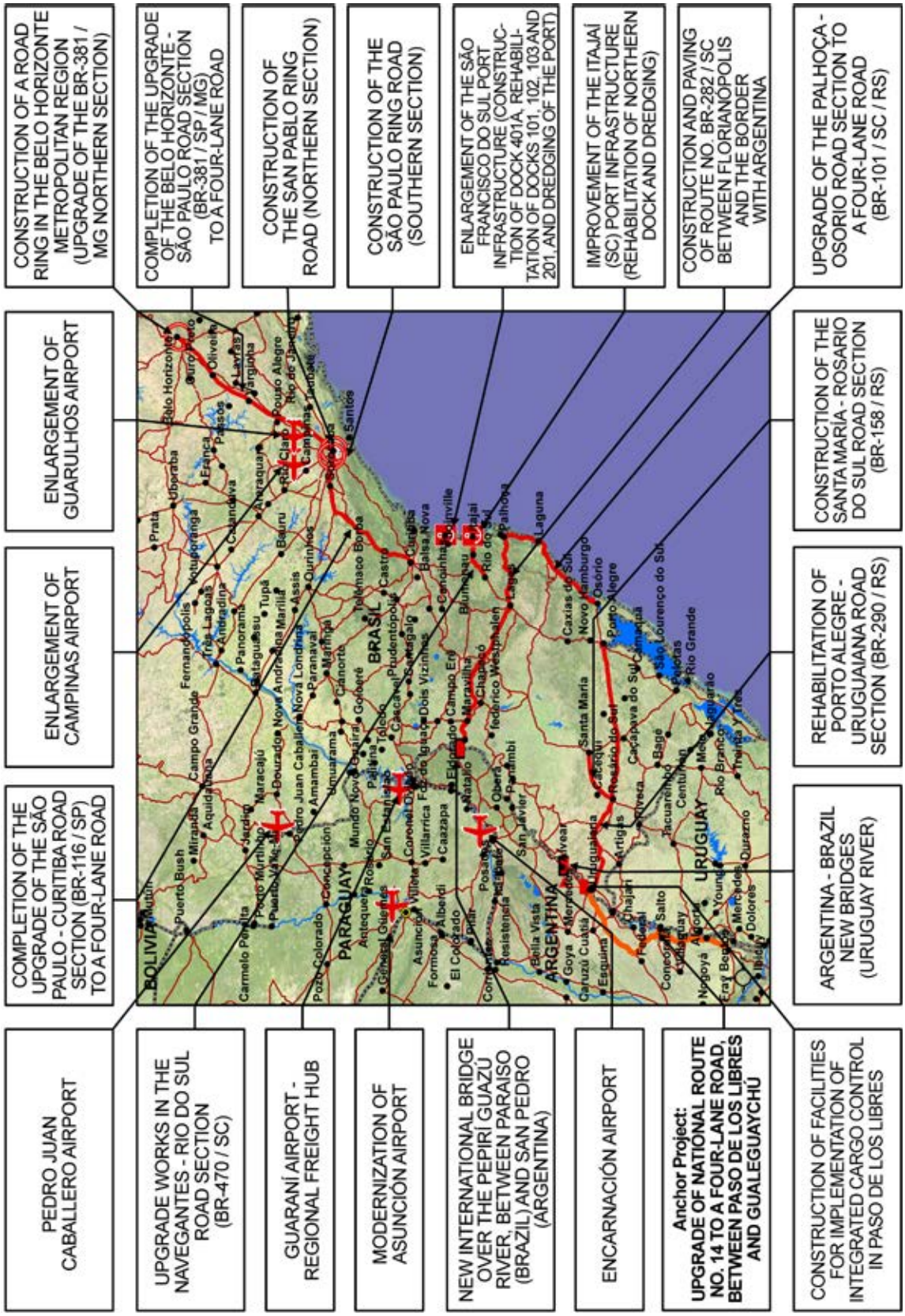
PROFILING	16.0%
PRE-EXECUTION	44.3%
EXECUTION	25.8%
CONCLUDED	13.9%

PROFILING PRE-EXECUTION EXECUTION CONCLUDED


PERU
BOLIVIA
BRASIL
PARAGUAY
CHILE
ARGENTINA
URUGUAY

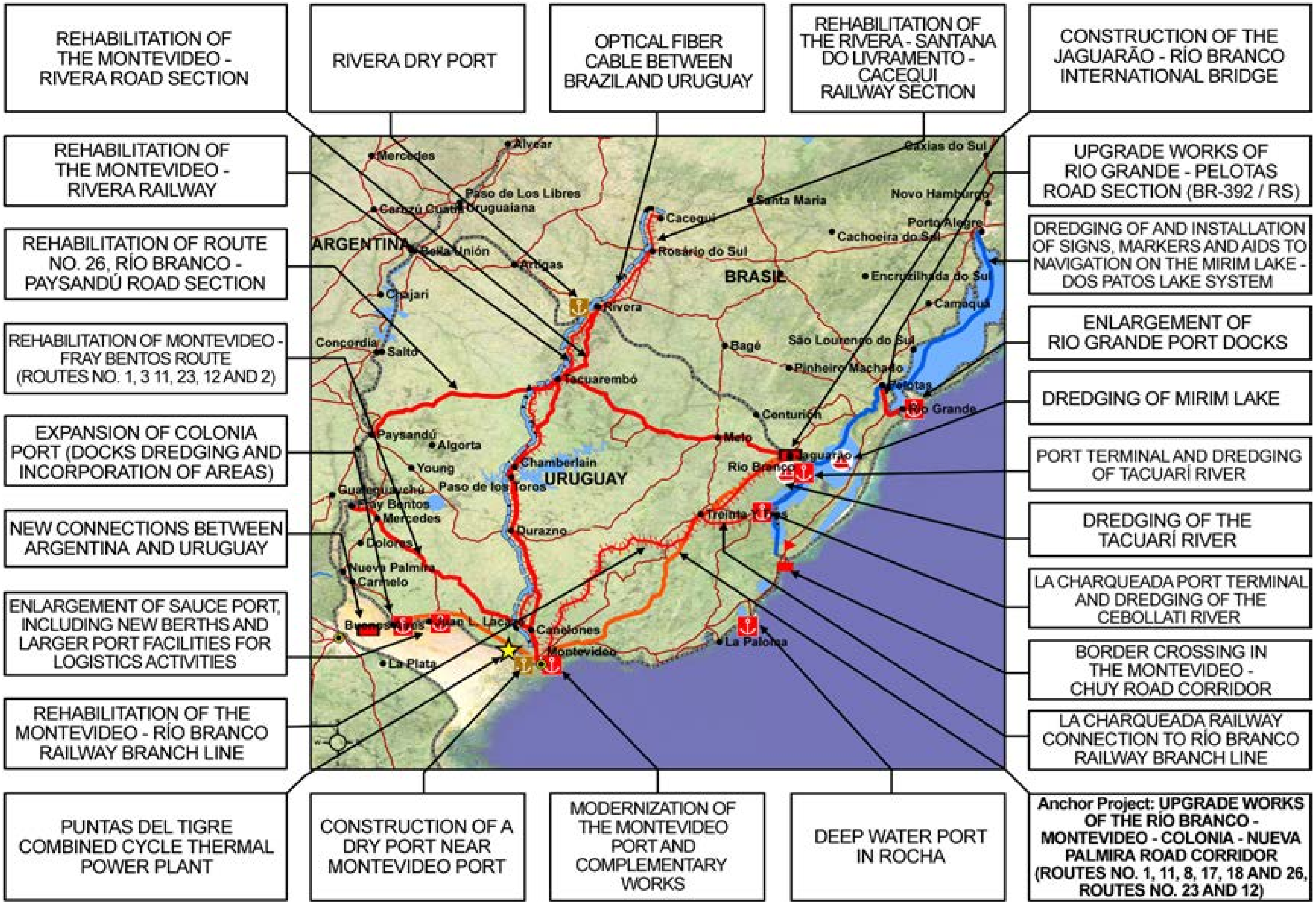


Note: The territory of Group 5 has not been taken into account for illustration purposes, since the projects included in this group impact on the total area of influence of the MERCOSUR-Chile Hub.


CONSTRUCTION OF A ROAD RING IN THE BELO HORIZONTE METROPOLITAN REGION (UPGRADE OF THE BR-381 / MG NORTHERN SECTION)
COMPLETION OF THE UPGRADE OF THE BELO HORIZONTE - SÃO PAULO ROAD SECTION (BR-381 / SP / MG) TO A FOUR-LANE ROAD
CONSTRUCTION OF THE SAN PABLO RING ROAD (NORTHERN SECTION)
CONSTRUCTION OF THE SÃO PAULO RING ROAD (SOUTHERN SECTION)
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)
IMPROVEMENT OF THE ITAJAÍ (SC) PORT INFRASTRUCTURE (REHABILITATION OF NORTHERN DOCK AND DREDGING)
CONSTRUCTION AND PAVING OF ROUTE NO. BR-282 / SC BETWEEN FLORIANÓPOLIS AND THE BORDER WITH ARGENTINA
UPGRADE OF THE PALHOÇA - OSORIO ROAD SECTION TO A FOUR-LANE ROAD (BR-101 / SC / RS)
ENLARGEMENT OF GUARULHOS AIRPORT
ENLARGEMENT OF CAMPINAS AIRPORT
COMPLETION OF THE UPGRADE OF THE SÃO PAULO - CURITIBA ROAD SECTION (BR-116 / SP) TO A FOUR-LANE ROAD
CONSTRUCTION OF THE SANTA MARÍA - ROSARIO DO SUL ROAD SECTION (BR-158 / RS)
REHABILITATION OF PORTO ALEGRE - URUGUAIANA ROAD SECTION (BR-290 / RS)
ARGENTINA - BRAZIL NEW BRIDGES (URUGUAY RIVER)
PEDRO JUAN CABALLERO AIRPORT
UPGRADE WORKS IN THE NAVEGANTES - RIO DO SUL ROAD SECTION (BR-470 / SC)
GUARANÍ AIRPORT - REGIONAL FREIGHT HUB
MODERNIZATION OF ASUNCIÓN AIRPORT
NEW INTERNATIONAL BRIDGE OVER THE PEPIRÍ GUAZÚ RIVER, BETWEEN PARAISO (BRAZIL) AND SAN PEDRO (ARGENTINA)
ENCARNACIÓN AIRPORT
Anchor Project: UPGRADE OF NATIONAL ROUTE NO. 14 TO A FOUR-LANE ROAD, BETWEEN PASO DE LOS LIBRES AND GUALEGUAYCHÚ
CONSTRUCTION OF FACILITIES FOR IMPLEMENTATION OF INTEGRATED CARGO CONTROL IN PASO DE LOS LIBRES
BRASIL
PARAGUAY
ARGENTINA
URUGUAY
BOLIVIA

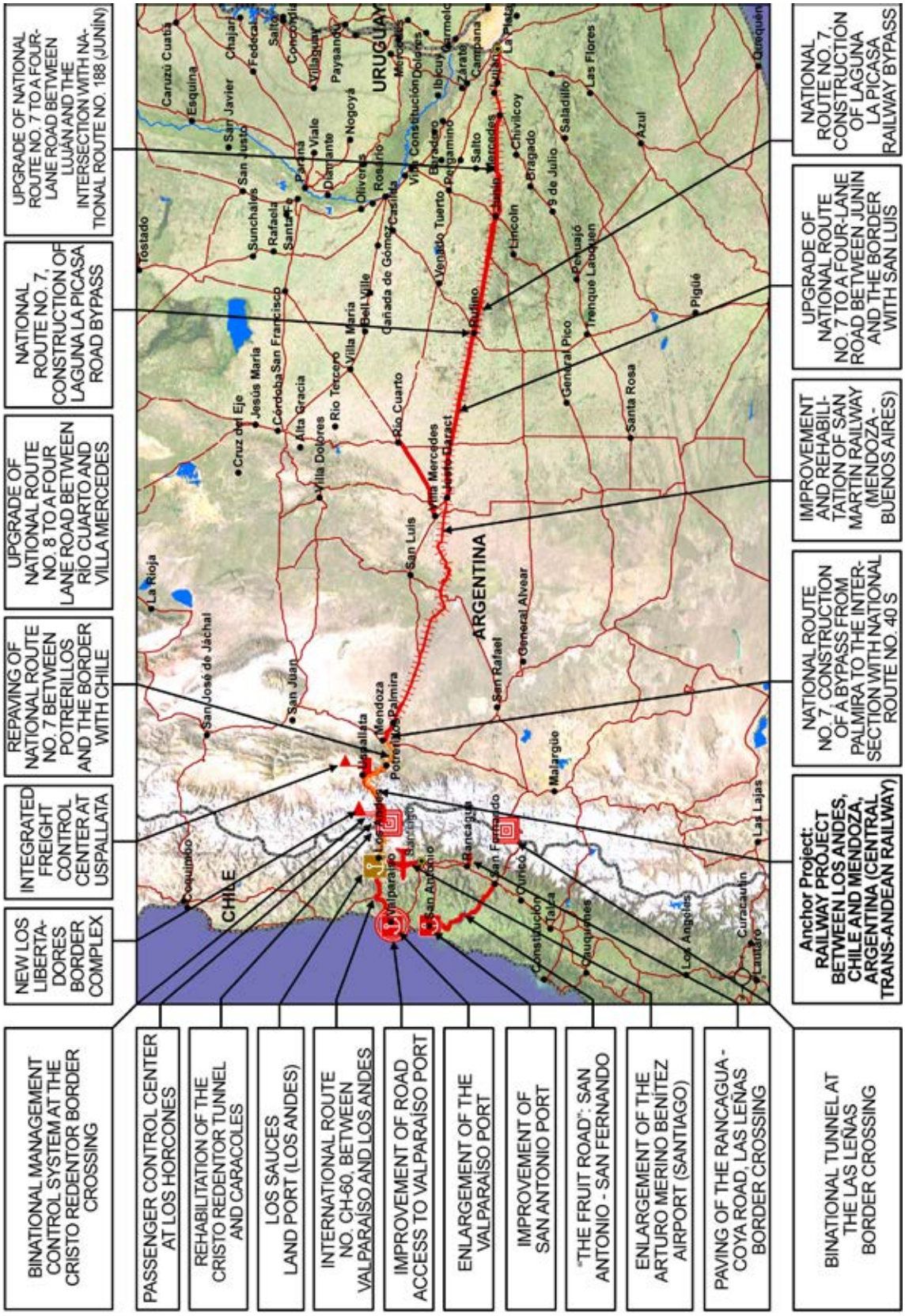
- Achieve, consolidate and improve the necessary infrastructure and logistics standards for the good performance of the region in global markets.
- Make good use of the conditions of scale and demand in the area to attract public-private partnerships and disseminate the experience to other Hubs.
- Optimize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

Code	Stage	MERCOSUR - Chile Hub: Group 1	Estimated Investment (US$ million)
MCC01	●	Upgrade of National Route No. 14 to a Four-Lane Road, Between Paso de Los Libres and Gualeguaychú (AR)	780.0
MCC02	●	Construction of Facilities for Implementation of Integrated Cargo Control in Paso de Los Libres (AR)	10.0
MCC04	●	Completion of the Upgrade of the Belo Horizonte - San Pablo Road Section (BR-381 / SP / MG) (BR)	1,300.0
MCC05	●	Upgrade Works in the Navegantes - Río do Sul Road Section (BR-470 / SC) to a Four-Lane Road (BR)	400.0
MCC06	●	Enlargement of Campinas Airport (BR)	1,032.0
MCC07	●	Enlargement of Guarulhos Airport (BR)	970.0
MCC08	●	Enlargement of the São Francisco do Sul Port Infrastructure (Construction of the Dock 401A, Rehabilitation of the Docks 101,102, 103 Y 201 and Dredging of the Port) (BR)	131.6
MCC09	●	Improvement of the Itajaí (SC) Port Infrastructure (Rehabilitation of Northern Dock and Dredging) (BR)	68.0
MCC10	●	Construction of a Road Ring in the Belo Horizonte Metropolitan Region (Upgrade of the BR-381 / MG Northern Section) (BR)	650.0
MCC11	●	Completion of the Upgrade of the San Pablo - Curitiba Road Section (BR-116 / SP) to a Four-Line Road (BR)	350.0
MCC12	●	Construction of the São Paulo Ring Road (Southern Section) (BR)	2,700.0
MCC13	●	Construction and Paving of Route No. BR-282 / SC, Between Florianópolis and the Border with Argentina (BR)	100.0
MCC14	●	Construction of the Santa María - Rosario do Sul Road Section (BR-158 / RS) (BR)	30.0
MCC15	●	Upgrade of the Palhoça - Osorio Road Section to a Four-Lane Road (BR-101 / SC / RS) (BR)	2,000.0
MCC16	●	Argentina - Brazil New Bridges (Uruguay River) (AR - BR)	0.0
MCC18	●	Rehabilitation of Porto Alegre - Uruguaiana Road Section (BR-290 / RS) (BR)	170.0
MCC82	●	Pedro Juan Caballero Airport (PY)	2.5
MCC83	●	Guaraní Airport - Regional Freight Hub (PY)	50.0
MCC84	●	Encarnación Airport (PY)	25.0
MCC119	●	Modernization of Asunción Airport (PY)	0.0
MCC131	●	New International Bridge over the Pepirí Guazú River, Between Paraiso (Brazil) and San Pedro (Argentina) (AR - BR)	8.0
MCC132	●	Construction of the São Paulo Ring Road (Northern Section) (BR)	2,810.0
		TOTAL	13,587.1


REHABILITATION OF THE MONTEVIDEO - RIVERA ROAD SECTION
RIVERA DRY PORT
OPTICAL FIBER CABLE BETWEEN BRAZIL AND URUGUAY
REHABILITATION OF THE RIVERA - SANTANA DO LIVRAMENTO - CACEQUI RAILWAY SECTION
CONSTRUCTION OF THE JAGUARÃO - RÍO BRANCO INTERNATIONAL BRIDGE
REHABILITATION OF THE MONTEVIDEO - RIVERA RAILWAY
UPGRADE WORKS OF RIO GRANDE - PELOTAS ROAD SECTION (BR-392 / RS)
REHABILITATION OF ROUTE NO. 26, RÍO BRANCO - PAYSANDÚ ROAD SECTION
DREDGING OF AND INSTALLATION OF SIGNS, MARKERS AND AIDS TO NAVIGATION ON THE MIRIM LAKE - DOS PATOS LAKE SYSTEM
REHABILITATION OF MONTEVIDEO - FRAY BENTOS ROUTE (ROUTES NO. 1, 3 11, 23, 12 AND 2)
ENLARGEMENT OF RIO GRANDE PORT DOCKS
DREDGING OF MIRIM LAKE
EXPANSION OF COLONIA PORT (DOCKS DREDGING AND INCORPORATION OF AREAS)
PORT TERMINAL AND DREDGING OF TACUARÍ RIVER
NEW CONNECTIONS BETWEEN ARGENTINA AND URUGUAY
DREDGING OF THE TACUARÍ RIVER
ENLARGEMENT OF SAUCE PORT, INCLUDING NEW BERTHS AND LARGER PORT FACILITIES FOR LOGISTICS ACTIVITIES
LA CHARQUEADA PORT TERMINAL AND DREDGING OF THE CEBOLLATI RIVER
BORDER CROSSING IN THE MONTEVIDEO - CHUY ROAD CORRIDOR
REHABILITATION OF THE MONTEVIDEO - RÍO BRANCO RAILWAY BRANCH LINE
LA CHARQUEADA RAILWAY CONNECTION TO RÍO BRANCO RAILWAY BRANCH LINE
PUNTAS DEL TIGRE COMBINED CYCLE THERMAL POWER PLANT
CONSTRUCTION OF A DRY PORT NEAR MONTEVIDEO PORT
MODERNIZATION OF THE MONTEVIDEO PORT AND COMPLEMENTARY WORKS
DEEP WATER PORT IN ROCHA
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)
Alvear
Mercedes
Paso de Los Libres
Uruguaiana
ARGENTINA
Bella Unión
Artigas
Chajari
Concordia
Salto
Santa Maria
Cacequi
Rosário do Sul
Rivera
Tacuarembó
BRASIL
Caxias do Sul
Novo Hamburgo
Porto Alegre
Cachoeira do Sul
Encruzilhada do Sul
Camaquã
Bagé
São Lourenço do Sul
Pinheiro Machado
Pelotas
Rio Grande
Centurión
Melo
Rio Branco
Paysandú
Algorta
Young
Chamberlain
URUGUAY
Paso de los Toros
Fray Bentos
Mercedes
Durazno
Dolores
Nueva Palmira
Carmelo
Treinta y Tres
Canelones
Montevideo
La Plata
La Paloma

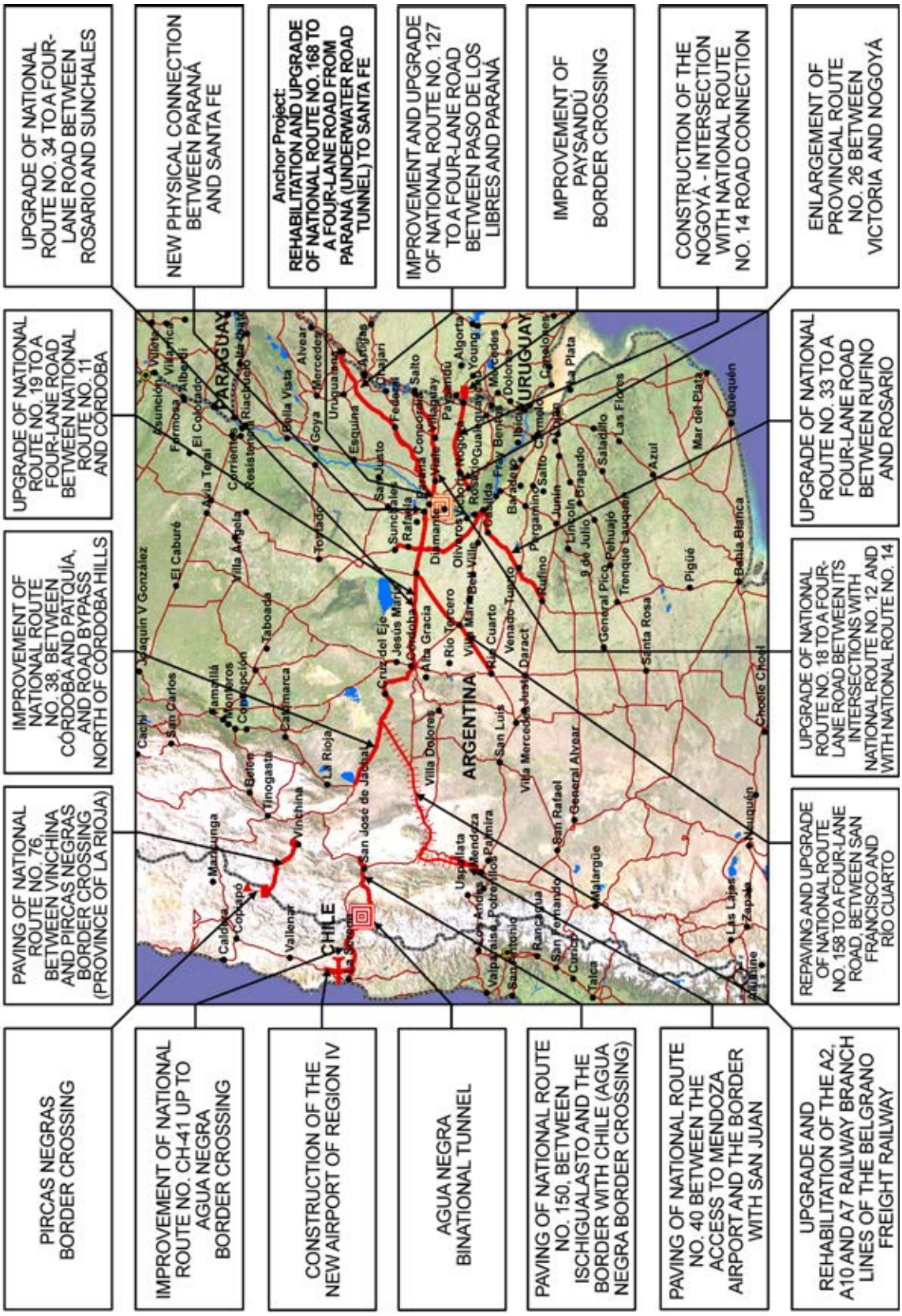
- Achieve, consolidate and improve the necessary infrastructure and logistics standards for the good performance of the region in global markets.
- Make good use of the conditions of scale and demand in the area to attract public-private partnerships and disseminate the experience to other Hubs.
- Optimize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

Code	Stage	MERCOSUR - Chile Hub: Group 2	Estimated Investment (US$ million)
MCC19	🟢	Upgrade Works of the Río Branco - Montevideo - Colonia - Nueva Palmira Road Corridor (Routes No. 1, 11, 8, 17, 18 Y 26, Routes No. 23 and 12) (UY)	246.2
MCC20	🟢	Upgrade Works of Rio Grande - Pelotas Road Section (BR-392 / RS) (BR)	500.0
MCC21	🟢	Enlargement of Río Grande Port Docks (BR)	435.7
MCC22	🟡	Construction of the Jaguarão - Río Branco International Bridge (BR - UY)	93.5
MCC23	🔴	Border Crossing in the Montevideo - Chuy Road Corridor (UY)	15.0
MCC26	🔵	Puntas del Tigre Combined Cycle Thermal Power Plant (UY)	170.0
MCC27	🟢	Rehabilitation of the Montevideo - Rivera Road Section (UY)	85.6
MCC28	🟢	Rehabilitation of Route No. 26, Río Branco - Paysandú Road Section (UY)	39.8
MCC29	🟢	Rehabilitation of Montevideo - Fray Bentos Route (Routes No. 1, 3, 11, 23, 12 and 2) (UY)	38.0
MCC30	🟡	Rehabilitation of the Montevideo - Rivera Railway (UY)	134.8
MCC70	🟢	Modernization of the Montevideo Port and Complementary Works (UY)	189.0
MCC71	🟡	New Connections between Argentina and Uruguay (AR - UY)	121.0
MCC85	🟢	Dredging of Mirim Lake (BR)	0.0
MCC86	🔵	Expansion of Colonia Port (Docks, Dredging and Incorporation of Areas) (UY)	14.0
MCC87	🟢	Enlargement of Sauce Port, Including New Berths and Larger Port Facilities for Logistics Activities (UY)	10.0
MCC90	🔴	Construction of a Dry Port near Montevideo Port (UY)	25.0
MCC93	🔴	Rehabilitation of the Montevideo - Río Branco Railway Branch Line (UY)	200.0
MCC113	🟡	Rivera Dry Port (UY)	2.0
MCC115	🔵	Rehabilitation of the Rivera - Santana do Livramento - Cacequí Railway Section (BR - UY)	5.0
MCC117	🔴	La Charqueada Railway Connection to Río Branco Railway Branch Line (UY)	40.0
MCC139	🔴	Optical Fiber Cable between Brazil and Uruguay (BR - UY)	0.0
MCC150	🟡	Deep Water Port in Rocha (UY)	1,000.0
MCC157	🟡	Dredging of the Tacuarí River (BR)	0.0
MCC158	🔴	Dredging of and Installation of Signs, Markers and Aids to Navigation on the Mirim Lake - Dos Patos Lake System (BR)	0.0
MCC159	🟡	La Charqueada Port Terminal and Dredging of the Cebollati River (UY)	7.0
MCC160	🟡	Port Terminal and Dredging of Tacuarí River (UY)	7.0
		TOTAL	3,378.6


UPGRADE OF NATIONAL ROUTE NO. 7 TO A FOUR-LANE ROAD BETWEEN LUJAN AND THE INTERSECTION WITH NATIONAL ROUTE NO. 188 (JUNÍN)
NATIONAL ROUTE NO. 7, CONSTRUCTION OF LAGUNA LA PICASA ROAD BYPASS
UPGRADE OF NATIONAL ROUTE NO. 8 TO A FOUR LANE ROAD BETWEEN RIO CUARTO AND VILLA MERCEDES
REPAVING OF NATIONAL ROUTE NO. 7 BETWEEN POTRERILLOS AND THE BORDER WITH CHILE
INTEGRATED FREIGHT CONTROL CENTER AT USPALLATA
NEW LOS LIBERTADORES BORDER COMPLEX
BINATIONAL MANAGEMENT CONTROL SYSTEM AT THE CRISTO REDENTOR BORDER CROSSING
PASSENGER CONTROL CENTER AT LOS HORCONES
REHABILITATION OF THE CRISTO REDENTOR TUNNEL AND CARACOLES
LOS SAUCES LAND PORT (LOS ANDES)
INTERNATIONAL ROUTE NO. CH-60, BETWEEN VALPARAÍSO AND LOS ANDES
IMPROVEMENT OF ROAD ACCESS TO VALPARAÍSO PORT
ENLARGEMENT OF THE VALPARAÍSO PORT
IMPROVEMENT OF SAN ANTONIO PORT
"THE FRUIT ROAD": SAN ANTONIO - SAN FERNANDO
ENLARGEMENT OF THE ARTURO MERINO BENÍTEZ AIRPORT (SANTIAGO)
PAVING OF THE RANCAGUA - COYA ROAD, LAS LEÑAS BORDER CROSSING
BINATIONAL TUNNEL AT THE LAS LEÑAS BORDER CROSSING
Anchor Project: RAILWAY PROJECT BETWEEN LOS ANDES, CHILE AND MENDOZA, ARGENTINA (CENTRAL TRANS-ANDEAN RAILWAY)
NATIONAL ROUTE NO. 7, CONSTRUCTION OF A BYPASS FROM PALMIRA TO THE INTERSECTION WITH NATIONAL ROUTE NO. 40 S
IMPROVEMENT AND REHABILITATION OF SAN MARTÍN RAILWAY (MENDOZA - BUENOS AIRES)
UPGRADE OF NATIONAL ROUTE NO. 7 TO A FOUR-LANE ROAD BETWEEN JUNÍN AND THE BORDER WITH SAN LUIS
NATIONAL ROUTE NO. 7, CONSTRUCTION OF LAGUNA LA PICASA RAILWAY BYPASS
CHILE
ARGENTINA
URUGUAY

- 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 trade and services flows between the Argentine and Chilean economic centers.
- Optimize the logistics base so that the industry located in this area can reinforce its competitiveness at the global level.
- Promote Chile to serve as a logistics platform for the remaining countries of the Hub to develop markets for their products and services in Asia.

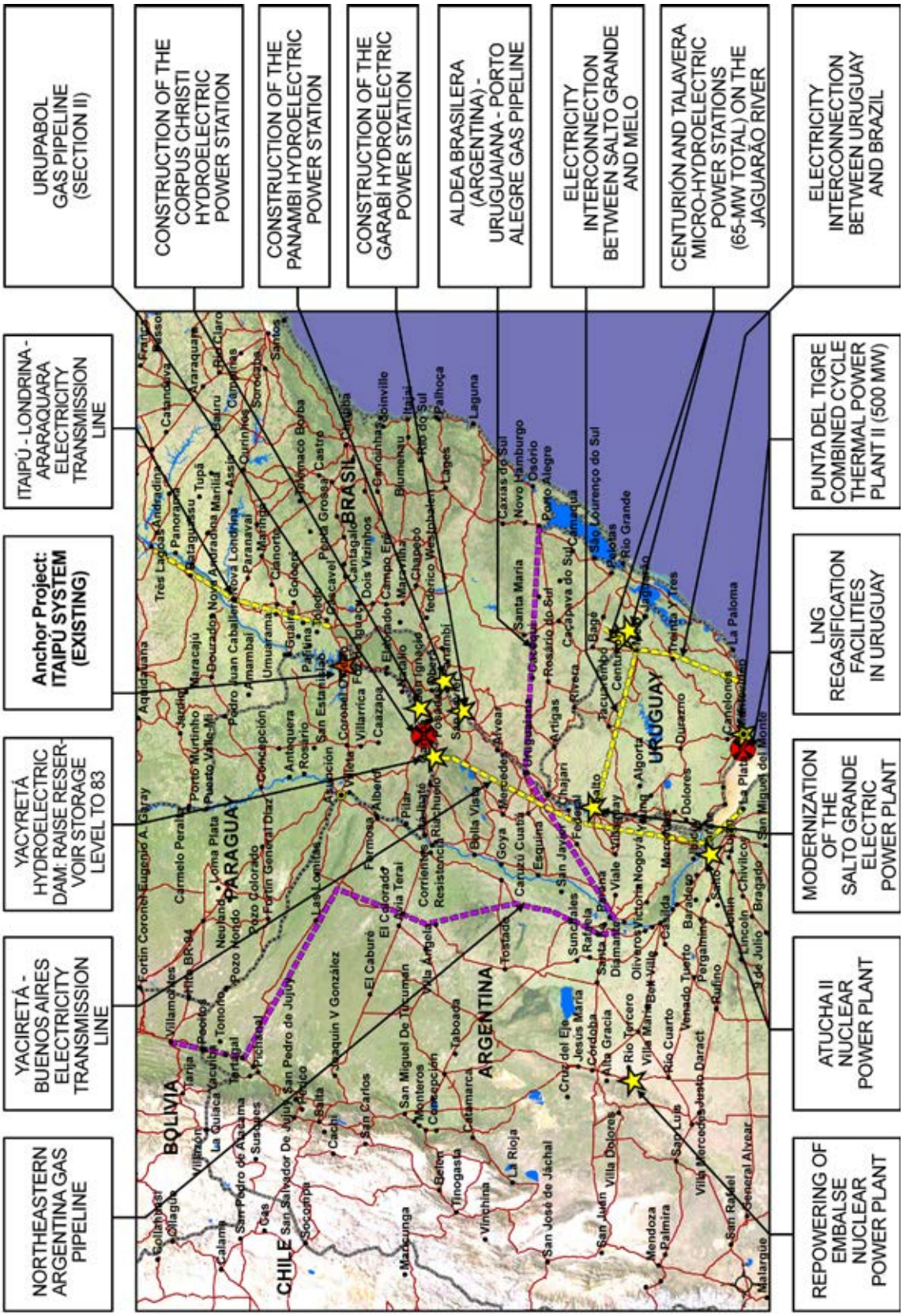
Code	Stage	MERCOSUR - Chile Hub: Group 3	Estimated Investment (US$ million)
MCC33	🟡	Railway Project between Los Andes, Chile and Mendoza, Argentina (Central Trans-Andean Railway) (AR - CH)	5,100.0
MCC39	🟢	Repaving of National Route No. 7 between Potrerillos and the Border with Chile (AR)	52.0
MCC40	🔵	National Route No. 7, Construction of Laguna La Picasa Road Bypass (AR)	20.0
MCC41	🔵	National Route No. 7, Construction of Laguna La Picasa Railway Bypass (AR)	30.0
MCC42	🟡	National Route No. 7, Construction of a Bypass from Palmira to the Intersection with National Route No. 40 S (AR)	25.0
MCC43	🟡	Upgrade of National Route No. 7 to a Four-Lane Road between Luján and the Intersection with National Route No. 188 (Junín) (AR)	90.0
MCC45	🟢	International Route No. CH-60, between Valparaíso and Los Andes (CH)	351.0
MCC46	🔵	Improvement of Road Access to Valparaíso Port (CH)	105.0
MCC48	🔵	Los Sauces Land Port (Los Andes) (CH)	10.0
MCC49	🟢	"The Fruit Road": San Antonio - San Fernando (CH)	360.0
MCC51	🟢	Improvement of San Antonio Port (CH)	350.0
MCC120	🔴	Improvement and Rehabilitation of San Martín Railway (Mendoza - Buenos Aires) (AR)	90.0
MCC133	🟡	Enlargement of the Arturo Merino Benítez Airport (Santiago) (CH)	696.0
MCC134	🟡	Enlargement of the Valparaíso Port (CH)	400.0
MCC135	🟡	Paving of the Rancagua - Coya Road, Las Leñas Border Crossing (CH)	35.0
MCC136	🟡	Binational Tunnel at the Las Leñas Border Crossing (AR - CH)	1,000.0
MCC140	🔴	Upgrade of National Route No. 7 to a Four-Lane Road between Junín and the Border with San Luis (AR)	800.0
MCC142	🔴	Upgrade of National Route No. 8 to a Four-Lane Road between Río Cuarto and Villa Mercedes (AR)	240.0
MCC151	🟡	Integrated Freight Control Center at Uspallata (AR)	90.0
MCC152	🟡	Passenger Control Center at Los Horcones (AR)	35.0
MCC153	🟡	New Los Libertadores Border Complex (CH)	0.0
MCC154	🟡	Rehabilitation of the Cristo Redentor Tunnel and Caracoles (AR - CH)	4.0
MCC155	🟡	Binational Management Control System at the Cristo Redentor Border Crossing (AR - CH)	14.0
		TOTAL	9,897.0


UPGRADE OF NATIONAL ROUTE NO. 34 TO A FOUR-LANE ROAD BETWEEN ROSARIO AND SUNCHALES
NEW PHYSICAL CONNECTION BETWEEN PARANÁ AND SANTA FE
Anchor Project: REHABILITATION AND UPGRADE OF NATIONAL ROUTE NO. 168 TO A FOUR-LANE ROAD FROM PARANÁ (UNDERWATER ROAD TUNNEL) TO SANTA FE
IMPROVEMENT AND UPGRADE OF NATIONAL ROUTE NO. 127 TO A FOUR-LANE ROAD BETWEEN PASO DE LOS LIBRES AND PARANÁ
IMPROVEMENT OF PAYSANDÚ BORDER CROSSING
CONSTRUCTION OF THE NOGOYÁ - INTERSECTION WITH NATIONAL ROUTE NO. 14 ROAD CONNECTION
ENLARGEMENT OF PROVINCIAL ROUTE NO. 26 BETWEEN VICTORIA AND NOGOYÁ
UPGRADE OF NATIONAL ROUTE NO. 19 TO A FOUR-LANE ROAD BETWEEN NATIONAL ROUTE NO. 11 AND CÓRDOBA
IMPROVEMENT OF NATIONAL ROUTE NO. 38, BETWEEN CÓRDOBA AND PATQUÍA, AND ROAD BYPASS NORTH OF CÓRDOBA HILLS
PAVING OF NATIONAL ROUTE NO. 76, BETWEEN VINCHINA AND PIRCAS NEGRAS BORDER CROSSING (PROVINCE OF LA RIOJA)
UPGRADE OF NATIONAL ROUTE NO. 33 TO A FOUR-LANE ROAD BETWEEN RUFINO AND ROSARIO
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
REPAVING AND UPGRADE OF NATIONAL ROUTE NO. 158 TO A FOUR-LANE ROAD, BETWEEN SAN FRANCISCO AND RÍO CUARTO
PIRCAS NEGRAS BORDER CROSSING
IMPROVEMENT OF NATIONAL ROUTE NO. CH-41 UP TO AGUA NEGRA BORDER CROSSING
CONSTRUCTION OF THE NEW AIRPORT OF REGION IV
AGUA NEGRA BINATIONAL TUNNEL
PAVING OF NATIONAL ROUTE NO. 150, BETWEEN ISCHIGUALASTO AND THE BORDER WITH CHILE (AGUA NEGRA BORDER CROSSING)
PAVING OF NATIONAL ROUTE NO. 40 BETWEEN THE ACCESS TO MENDOZA AIRPORT AND THE BORDER WITH SAN JUAN
UPGRADE AND REHABILITATION OF THE A2, A10 AND A7 RAILWAY BRANCH LINES OF THE BELGRANO FREIGHT RAILWAY
PARAGUAY
URUGUAY
ARGENTINA
CHILE

- 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.
- Boost the development of ecotourism in the region.
- Develop and improve the regional productive chains.

Code	Stage	MERCOSUR - Chile Hub: Group 4	Estimated Investment (US$ million)
MCC52		Rehabilitation and Upgrade of National Route No. 168 to a Four-Lane Road from Paraná (Underwater Road Tunnel) to Santa Fe (AR)	40.0
MCC53		Enlargement of Provincial Route No. 26 between Victoria and Nogoyá (AR)	6.0
MCC54		Construction of the Nogoyá Intersection with National Route No. 14 Road Connection(AR)	0.0
MCC57		Repaving and Upgrade of National Route No. 158 to a Four-Lane Road, between San Francisco and Río Cuarto (AR)	400.0
MCC59		Upgrade of National Route No. 18 to a Four-Lane Road, between its Intersections with National Route No. 12 and National Route No. 14 (AR)	400.0
MCC94		Paving of National Route No. 150, between Ischigualasto and the Border with Chile (Agua Negra Border Crossing) (AR)	73.0
MCC95		Paving of National Route No. 76, between Vinchina and Pircas Negras Border Crossing (Province of La Rioja (AR)	120.0
MCC96		Improvement of National Route No. 38, between Córdoba and Patquía, and Road Bypass North of Córdoba Hills (AR)	100.0
MCC97		Upgrade and Rehabilitation of the A2, A10 and A7 Railway Branch Line of the Belgrano Freight Railway (AR)	225.0
MCC99		Improvement of Paysandú Border Crossing (UY)	12.0
MCC100		Upgrade of National Route No. 19 to a Four-Line Road between National Route No. 11 and Córdoba (AR)	529.0
MCC108		Pircas Negras Border Crossing (AR- CH) (*)	5.0
MCC110		Agua Negra Binational Tunnel (AR - CH)	850.0
MCC112		Improvement of National Route No. CH-41 up to Agua Negra Border Crossing (CH)	60.0
MCC121		New Physical Connection between Paraná and Santa Fe (AR)	1.8
MCC122		Improvement and Upgrade of National Route No. 127 to a Four-Lane Road between Paso de Los Libres and Paraná (AR)	50.0
MCC137		Construction of the New Airport of Region IV (CH)	75.0
MCC143		Upgrade of National Route No. 33 to a Four-Lane Road between Rufino and Rosario (AR)	500.0
MCC144		Upgrade of National Route No. 34 to a Four-Lane Road between Rosario and Sunchales (AR)	500.0
MCC145		Paving of National Route No. 40 between the Access to Mendoza Airport and the Border with San Juan (AR)	210.0
		TOTAL	4,156.8

Note: (*) Hinge Project with Group 5 of the Capricorn Hub


URUPABOL GAS PIPELINE (SECTION II)
CONSTRUCTION OF THE CORPUS CHRISTI HYDROELECTRIC POWER STATION
CONSTRUCTION OF THE PANAMBI HYDROELECTRIC POWER STATION
CONSTRUCTION OF THE GARABÍ 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 RESERVOIR 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
BOLIVIA
PARAGUAY
BRASIL
URUGUAY
ARGENTINA
CHILE

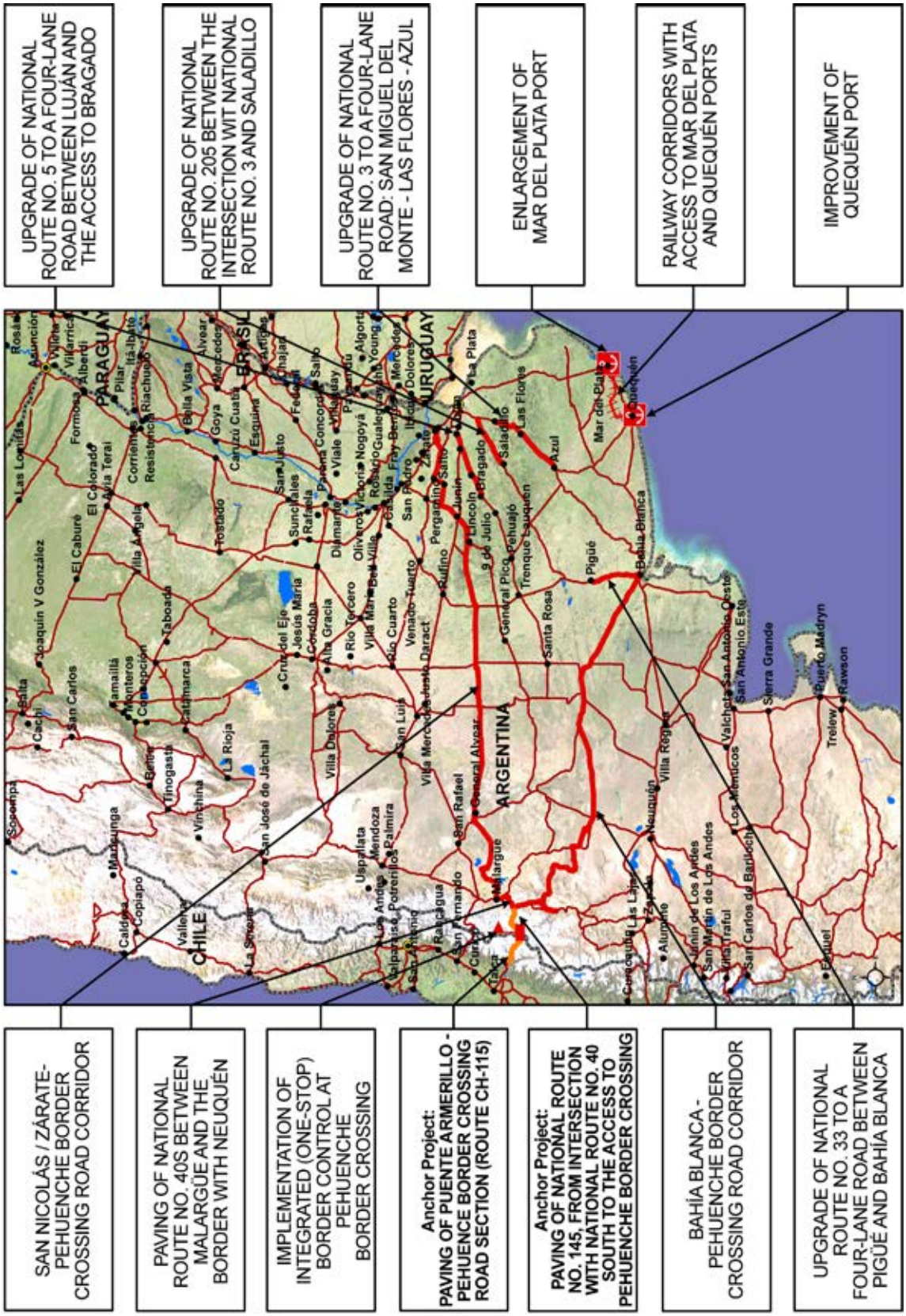
- Enhance the dependability of the electric and gas systems in the area
- Strengthen and increase energy generation, transmission, and distribution capacity in a densely populated, highly industrialized area
- Diversify the energy matrix of the MERCOSUR countries

Code	Stage	MERCOSUR - Chile Hub: Group 5	Estimated Investment (US$ million)
MCC03	●	Yacyretá - Buenos Aires Electricity Transmission Line (AR)	600.0
MCC61	●	Itaipú System (Existing) (BR - PY) (*)	16,000.0
MCC62	●	Construction of the Corpus Christi Hydroelectric Power Station (AR - PY)	4,200.0
MCC63	●	Construction of the Garabí Hydroelectric Power Station (AR - BR)	2,728.0
MCC64	●	Yacyretá Hydroelectric Dam: Raise Reservoir Storage Level to 83 (AR - PY)	1,200.0
MCC65	●	Aldea Brasileña (Argentina) - Uruguaiana - Porto Alegre Gas Pipeline (BR)	510.0
MCC66	●	Itaipú - Londrina - Araraquara Electricity Transmission Line (BR)	149.1
MCC68	●	Northeastern Argentina Gas Pipeline (AR)	1,000.0
MCC101	●	Atucha II Nuclear Power Plant (AR)	740.0
MCC102	●	LNG Regasification Facilities in Uruguay (AR - UY)	500.0
MCC103	●	Punta del Tigre Combined Cycle Thermal Power Plant II (500 MW) (UY)	531.0
MCC104	●	Centurión and Talavera Micro-Hydroelectric Power Stations (65-MW Total) on the Jaguarão River (UY)	60.0
MCC123	●	Electricity Interconnection between Uruguay and Brazil (BR - UY)	349.0
MCC125	●	Electricity Interconnection between Salto Grande and Melo (UY)	100.0
MCC129	●	Repowering of Embalse Nuclear Power Plant (AR)	1,000.0
MCC130	●	URUPABOL Gas Pipeline (Section II) (**)	2,300.0
MCC138	●	Construction of the Panambí Hydroelectric Power Station (AR - BR)	2,474.0
MCC156	●	Modernization of the Salto Grande Electric Power Plant (UY)	0.0
		TOTAL	18,441.1

Notes:

(*) Investments in this existing project have not been included in the estimated total amount of the group as they were mostly made before IIRSA was launched.

(**) This project is supplemented with Section I of Group 1 in the Central Interoceanic Hub, which includes Bolivia.


UPGRADE OF NATIONAL ROUTE NO. 5 TO A FOUR-LANE ROAD BETWEEN LUJÁN AND THE ACCESS TO BRAGADO
UPGRADE OF NATIONAL ROUTE NO. 205 BETWEEN THE INTERSECTION WIT NATIONAL ROUTE NO. 3 AND SALADILLO
UPGRADE OF NATIONAL ROUTE NO. 3 TO A FOUR-LANE ROAD: SAN MIGUEL DEL MONTE - LAS FLORES - AZUL
ENLARGEMENT OF MAR DEL PLATA PORT
RAILWAY CORRIDORS WITH ACCESS TO MAR DEL PLATA AND QUEQUÉN PORTS
IMPROVEMENT OF QUEQUÉN PORT
SAN NICOLÁS / ZÁRATE-PEHUENCHE BORDER CROSSING ROAD CORRIDOR
PAVING OF NATIONAL ROUTE NO. 40S BETWEEN MALARGÜE AND THE BORDER WITH NEUQUÉN
IMPLEMENTATION OF INTEGRATED (ONE-STOP) BORDER CONTROL AT PEHUENCHE BORDER CROSSING
Anchor Project: PAVING OF PUENTE ARMERILLO - PEHUENCE BORDER CROSSING ROAD SECTION (ROUTE CH-115)
Anchor Project: PAVING OF NATIONAL ROUTE NO. 145, FROM INTERSECTION WITH NATIONAL ROUTE NO. 40 SOUTH TO THE ACCESS TO PEHUENCHE BORDER CROSSING
BAHÍA BLANCA - PEHUENCHE BORDER CROSSING ROAD CORRIDOR
UPGRADE OF NATIONAL ROUTE NO. 33 TO A FOUR-LANE ROAD BETWEEN PIGÜÉ AND BAHÍA BLANCA
PARAGUAY
BRASIL
URUGUAY
ARGENTINA
CHILE

- Offer connectivity alternatives and services to the trade flows in the countries that make up the MERCOSUR and Chile.
- Make the intra-regional development more dynamic.
- Promote the development of integrated tourism in the region.

Code	Stage	MERCOSUR - Chile Hub: Group 6	Estimated Investment (US$ million)
MCC35	🟡	Implementation of the Integrated (One-Stop) Border Control at Pehuenche Border Crossing (AR - CH)	40.0
MCC37	🟢	Paving of National Route No. 145, from Intersection with National Route No. 40 South to the Access to Pehuenche Border Crossing (AR)	63.0
MCC38	🟢	Paving of National Route No. 40S between Malargüe and the Border with Neuquén (AR)	90.0
MCC47	🔵	Paving of Puente Armerillo - Pehuenche Border Crossing Road Section (Route CH-115) (CH)	60.0
MCC76	🔴	San Nicolás / Zárate - Pehuenche Border Crossing Road Corridor (AR)	1,000.0
MCC77	🔴	Railway Corridors with Access to Mar del Plata and Quequén Ports (AR)	35.0
MCC78	🔴	Enlargement of Mar del Plata Port (AR)	6.5
MCC79	🔴	Improvement of Quequén Port (AR)	40.0
MCC118	🔴	Bahía Blanca - Pehuenche Border Crossing Road Corridor (AR)	1,000.0
MCC146	🔴	Upgrade of National Route No. 3 to a Four-Line Road: San Miguel del Monte - Las Flores - Azul (AR)	166.0
MCC147	🔴	Upgrade of National Route No. 5 to a Four-Line Road between Luján and the Access to Bragado (AR)	240.0
MCC148	🔴	Upgrade of National Route No. 33 to a Four-Line Road between Pigüé and Bahía Blanca (AR)	260.0
MCC149	🔴	Upgrade of National Route No. 205 to a Four-Line Road between the Intersection with National Route No. 3 and Saladillo (AR)	240.0
		TOTAL	3,240.5

I. GENERAL ASPECTS

The countries have agreed to include one hundred and twenty-two projects in the MERCOSUR-Chile Hub, accounting for an estimated investment of US$52,701.1 million, as summarized below:

Table K.1 • **General Indicators of the MERCOSUR-Chile hub**

Group	Name	Number of Projects	Estimated Investment (US$ million)
Group 1	Belo Horizonte - Argentina / Brazil Border - Buenos Aires	22	13,587.1
Group 2	Porto Alegre - Límite Argentina / Uruguay - Buenos Aires	26	3,378.6
Group 3	Valparaíso - Buenos Aires	23	9,897.0
Group 4	Coquimbo - Argentine Central Region - Paysandú	20	4,156.8
Group 5	Energy Group	18	18,441.1
Group 6	Pehuenche	13	3,240.5
	TOTAL	122	52,701.1

II. SOURCE OF FINANCING

Table K.2 • **Source of financing of the MERCOSUR-Chile Hub projects**

Source of financing	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Public	87	71.3	28,590.7	54.3
Private	14	11.5	9,857.0	18.7
Public/Private	21	17.2	14,253.4	27.0
TOTAL	122	100.0	52,701.1	100.0

Table K.3 · **API Projects - MERCOSUR-Chile hub**

Code	Project Name	Estimated Investment (US$ million)
25	**Northeastern Argentina Gas Pipeline (AR)**	**1,000.0**
MCC68	Northeastern Argentina Gas Pipeline (AR)	1,000.0
26	**Construction of the Jaguarão - Río Branco International Bridge (BR - UY)**	**93.5**
MCC22	Construction of the Jaguarão - Río Branco International Bridge (BR - UY)	93.5
27	**Multimodal transportation in the Laguna Merín and Lagoa dos Patos system**	**14.0**
MCC85	Dredging of Mirim Lake (BR)	0.0
MCC157	Dredging of the Tacuarí River (BR)	0.0
MCC158	Dredging of and Installation of Signs, Markers and Aids to Navigation on the Mirim Lake - Dos Patos Lake System (BR)	0.0
MCC159	La Charqueada Port Terminal and Dredging of the Cebollati River (UY)	7.0
MCC160	Port Terminal and Dredging of Tacuarí River (UY)	7.0
28	**Montevideo - Cacequi railway corridor**	**139.8**
MCC30	Rehabilitation of the Montevideo - Rivera Railway (UY)	134.8
MCC115	Rehabilitation of the Rivera - Santana do Livramento - Cacequí Railway Section (BR - UY)	5.0
29	**Optimization of the Cristo Redentor border crossing system**	**143.0**
MCC151	Integrated Freight Control Center at Uspallata (AR)	90.0
MCC152	Passenger Control Center at Los Horcones (AR)	35.0
MCC153	New Los Libertadores Border Complex (CH)	0.0
MCC154	Rehabilitation of the Cristo Redentor Tunnel and Caracoles (AR - CH)	4.0
MCC155	Binational Management Control System at the Cristo Redentor Border Crossing (AR - CH)	14.0
30	**Agua Negra Binational Tunnel (AR - CH)**	**850.0**
MCC110	Agua Negra Binational Tunnel (AR - CH)	850.0
	TOTAL	**2,240.3**

IV. SECTOR/SUBSECTOR-BASED BREAKDOWN AND TYPE OF WORKS INVOLVED

Table K.4 · **Sector-based breakdown of the MERCOSUR-Chile hub**

	Transporte				Energia				Comunicaciones			
Subsector	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment
Air	8	7.8	2,850.5	8.3								
Road	57	55.9	22,462.9	65.9								
Railway	9	8.8	5,859.8	17.2								
River	7	6.9	38.0	0.1								
Sea	9	8.8	2,620.8	7.7								
Multimodal	2	2.0	27.0	0.1								
Border Crossing	10	9.8	231.0	0.7								
Power Generation					13	68.4	14,113.0	75.8				
Power Interconnection					6	31.6	4,498.1	24.2				
Communication Interconnection									1	100.0	0,0	100.0
TOTAL	102	100.0	34,090.0	100.0	19	100.0	18,611.1	100.0	1	100.0	0.0	100.0

Table K.5 · **Air Transport**

Type of Work	**Number of Projects**	**Estimated Investment** (US$ million)
Refitting of airports	1	0.0
New airports	2	100.0
Extension of airports	5	2,750.5
TOTAL	8	2,850.5

Table K.6 · **Road Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Extension of the road capacity	23	10,057.0
Refitting of road and structures	15	3,365.6
Paving (new work)	8	781.0
Bridges (new ones and refitting)	5	224.3
Road by-pass and access to cities	4	6,185.0
Tunnels (new ones and refitting)	2	1,850.0
TOTAL	57	22,462.9

Table K.7 · **Railway Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of railways	1	200.0
Refitting of railways	8	5,659.8
TOTAL	9	5,859.8

Table K.8 · **River Transport**

Tipo de Obra	Número de Proyectos	Inversión Estimada (millones de US$)
Improvement of river navigability	3	0.0
Building of new river ports	2	14.0
Refitting of the existing river ports	2	24.0
TOTAL	7	38.0

Table K.9 · **Maritime Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
New sea ports	1	1,000.0
Extension of the road infrastructure of the maritime ports	6	1,117.1
Refitting of sea ports	2	503.7
TOTAL	9	2,620.8

Table K.10 · **Multimodal Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Transfer stations	2	27.0
TOTAL	2	27.0

Table K.11 · **Border Crossings**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Infrastructure for the setting up of border control centers	5	70.0
Refitting of existing infrastructure in border control centers	1	12.0
Extension of infrastructure and capacity of border control centers	4	149.0
TOTAL	10	231.0

Table K.12 · **Power Generation**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Hydroelectric plants (new ones and refitting) - microcentrals	7	10,662.0
Thermoelectric plants	2	701.0
Generation by means of nuclear power	2	1,740.0
Other energy infrastructures	2	1,010.0
TOTAL	13	14,113.0

Table K.13 · **Power Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of new power interconnections	6	4,498.1
TOTAL	6	4,498.1

Table K.14 · **Communication Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Optic fiber	1	0.0
TOTAL	1	0.0

V. PROGRESS IN THE MERCOSUR-CHILE HUB PROJECTS

Table K.15 · **Projects by Progress Attained**

Stage	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Profiling	33	27.0	8,462.3	16.0
Pre-Execution	36	29.5	23,329.8	44.3
Execution	35	28.7	13,595.9	25.8
Concluded	18	14.8	7,313.1	13.9
TOTAL	122	100.0	52,701.1	100.0

Table K.16 • **Concluded Projects**

Code	Project Name	Estimated Investment (US$ million)
MCC01	Upgrade of National Route No. 14 to a Four-Lane Road, Between Paso de Los Libres and Gualeguaychú (AR)	780.0
MCC03	Yacyretá - Buenos Aires Electricity Transmission Line (AR)	600.0
MCC04	Completion of the Upgrade of the Belo Horizonte - San Pablo Road Section (BR-381 / SP / MG) (BR)	1,300.0
MCC12	Construction of the São Paulo Ring Road (Southern Section) (BR)	2,700.0
MCC13	Construction and Paving of Route No. BR-282 / SC, Between Florianópolis and the Border with Argentina (BR)	100.0
MCC14	Construction of the Santa María - Rosario do Sul Road Section (BR-158 / RS) (BR)	30.0
MCC26	Puntas del Tigre Combined Cycle Thermal Power Plant (UY)	170.0
MCC40	National Route No. 7, Construction of Laguna La Picasa Road Bypass (AR)	20.0
MCC41	National Route No. 7, Construction of Laguna La Picasa Railway Bypass (AR)	30.0
MCC46	Improvement of Road Access to Valparaíso Port (CH)	105.0
MCC47	Paving of Puente Armerillo - Pehuenche Border Crossing Road Section (Route CH-115) (CH)	60.0
MCC48	Los Sauces Land Port (Los Andes) (CH)	10.0
MCC52	Rehabilitation and Upgrade of National Route No. 168 to a Four-Lane Road from Paraná (Underwater Road Tunnel) to Santa Fe (AR)	40.0
MCC61	Itaipú System (Existing) (BR - PY) (*)	16,000.0
MCC64	Yacyretá Hydroelectric Dam: Raise Reservoir Storage Level to 83 (AR - PY)	1,200.0
MCC66	Itaipú - Londrina - Araraquara Electricity Transmission Line (BR)	149.1
MCC86	Expansion of Colonia Port (Docks, Dredging and Incorporation of Areas) (UY)	14.0
MCC115	Rehabilitation of the Rivera - Santana do Livramento - Cacequí Railway Section (BR - UY)	5.0
	TOTAL	7,313.1

Note (*) Investments in this existing project have not been included in the estimated total amount of the group as they were mostly made before IIRSA was launched.

VI. ANCHOR PROJECTS

The countries identified seven anchor projects in the MERCOSUR-Chile Hub, totaling an estimated investment of US$6,289.2 million, according to the following detail:

Table K.17 • **Anchor Projects**

Group	Code	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Project Stage
1	MCC01	Upgrade of National Route No. 14 to a Four-Lane Road, Between Paso de Los Libres and Gualeguaychú (AR)	780.0	Public	National	Concluded
2	MCC19	Upgrade Works of the Río Branco - Montevideo - Colonia - Nueva Palmira Road Corridor (Routes No. 1, 11, 8, 17, 18 Y 26, Routes No. 23 and 12) (UY)	246.2	Public/ Private	National	Execution
3	MCC33	Railway Project between Los Andes, Chile and Mendoza, Argentina (Central Trans-Andean Railway) (AR - CH)	5,100.0	Private	Binational	Pre-Execution
4	MCC52	Rehabilitation and Upgrade of National Route No. 168 to a Four-Lane Road from Paraná (Underwater Road Tunnel) to Santa Fe (AR)	40.0	Public	National	Concluded
5	MCC61	Itaipú System (Existing) (BR - PY) (*)	16,000.0	Public	Binational	Concluded
6	MCC37	Paving of National Route No. 145, from Intersection with National Route No. 40 South to the Access to Pehuenche Border Crossing (AR)	63.0	Public	National	Execution
6	MCC47	Paving of Puente Armerillo - Pehuenche Border Crossing Road Section (Route CH-115) (CH)	60.0	Public	National	Concluded
		TOTAL	6,289.2			

Note (*) Investments in this existing project have not been included in the estimated total amount of the group as they were mostly made before IIRSA was launched.

PERU - BRASIL - BOLIVIA HUB

COUNTRY MEMBERS

TOTAL NUMBER OF PROJECTS

26

INVESTMENT

(US$ million)

29,089.8

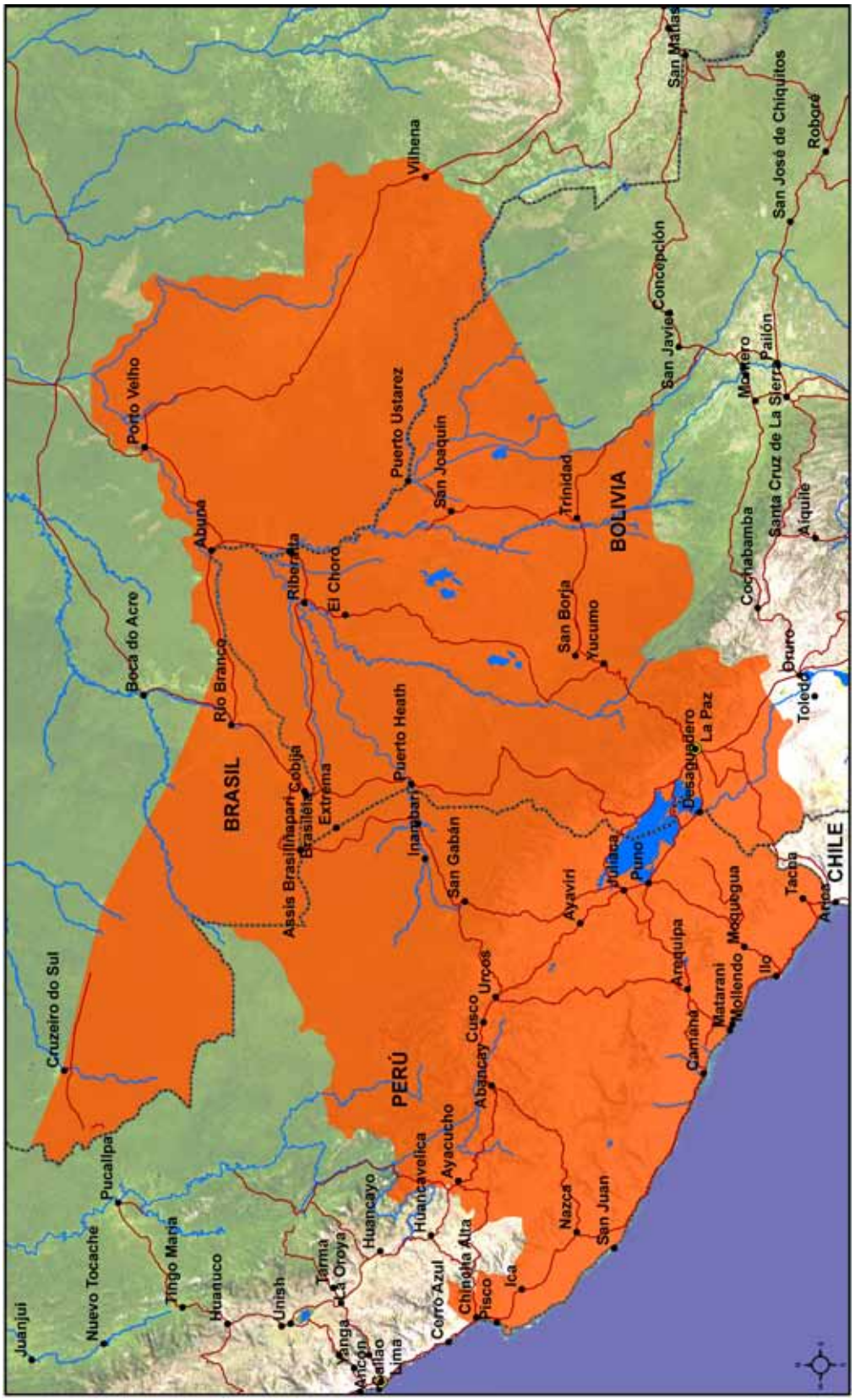
TOTAL NUMBER OF PROJECTS

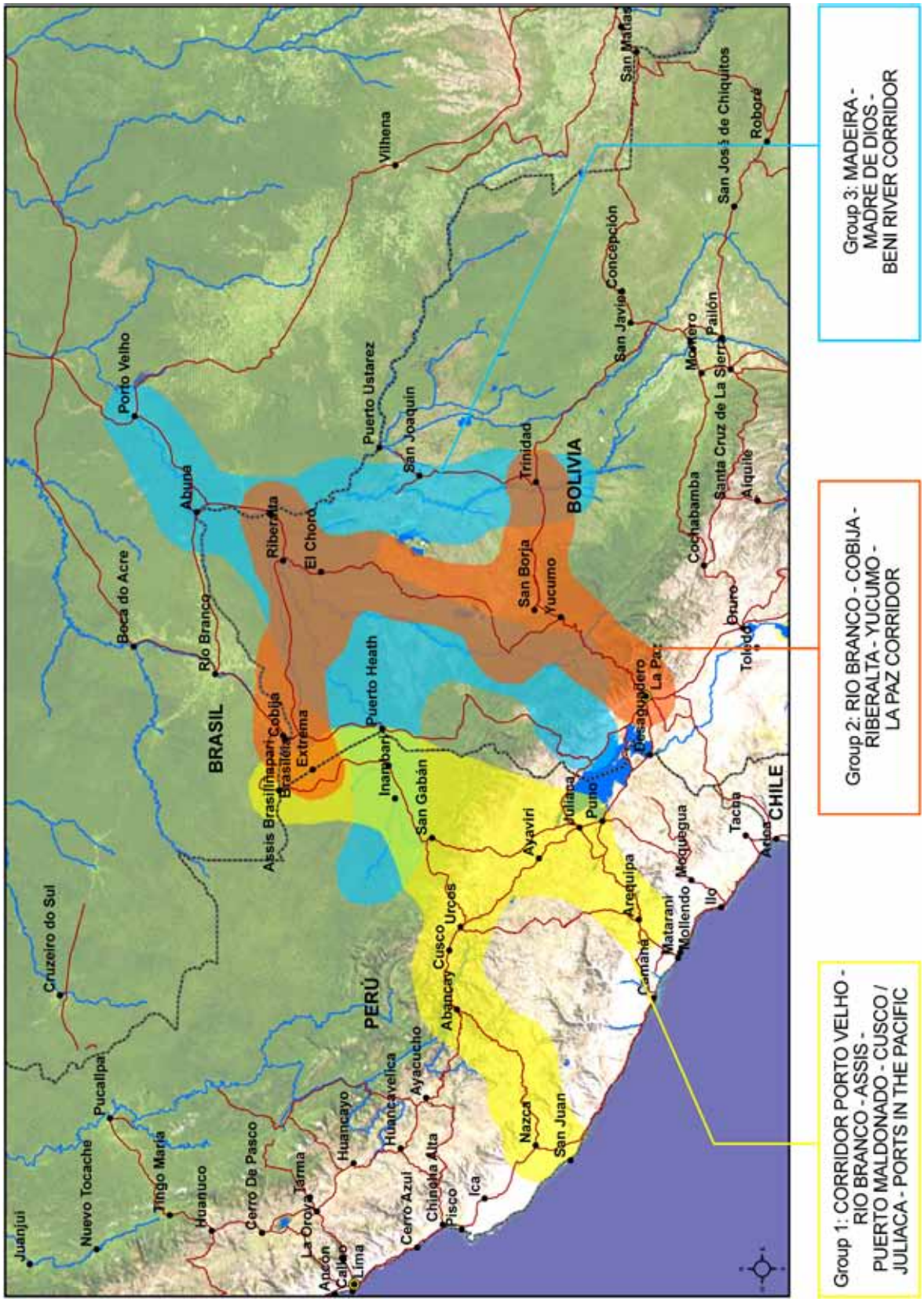
Percentage by stage

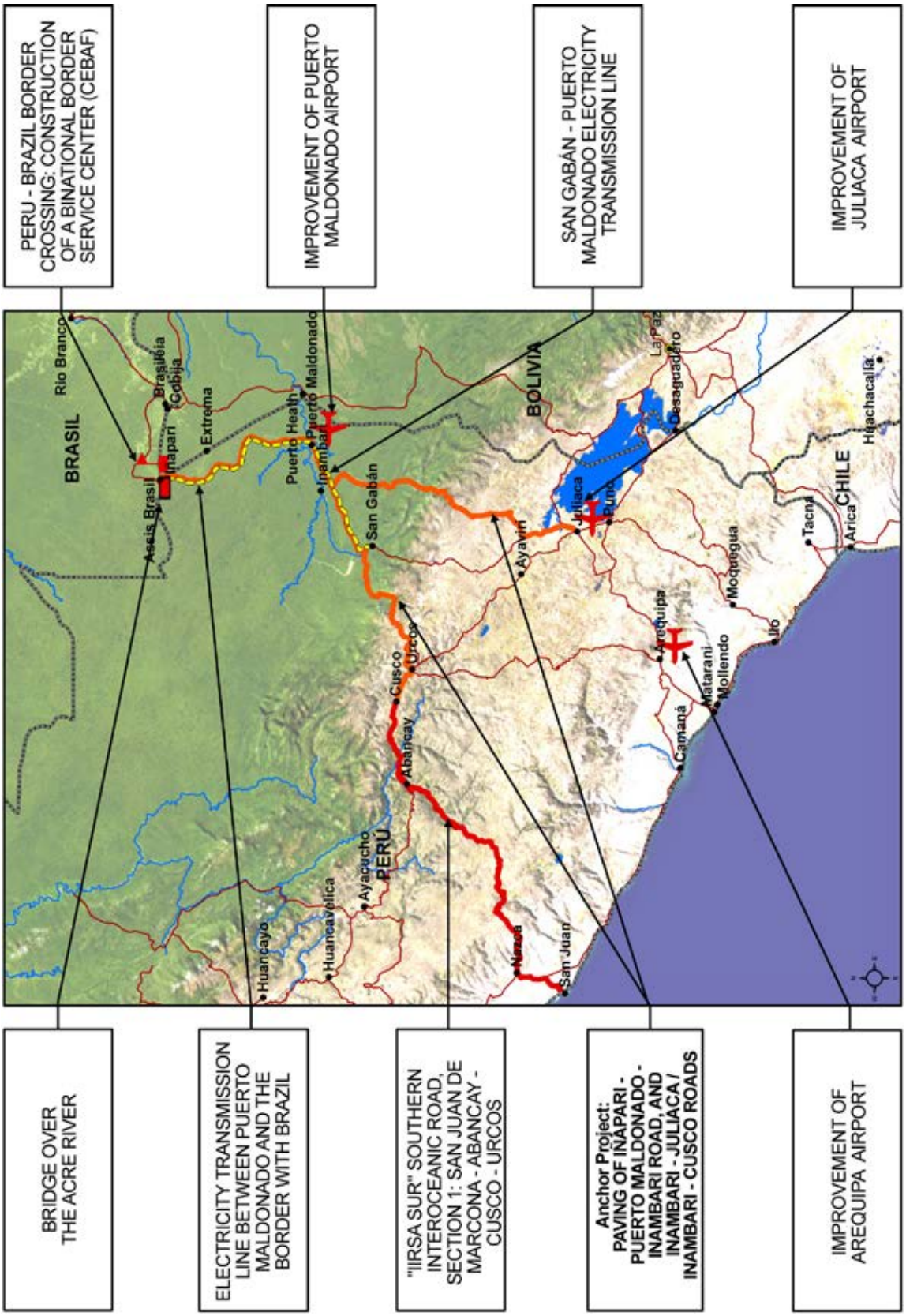
INVESTMENT

Percentage by stage

PROFILING PRE-EXECUTION EXECUTION CONCLUDED

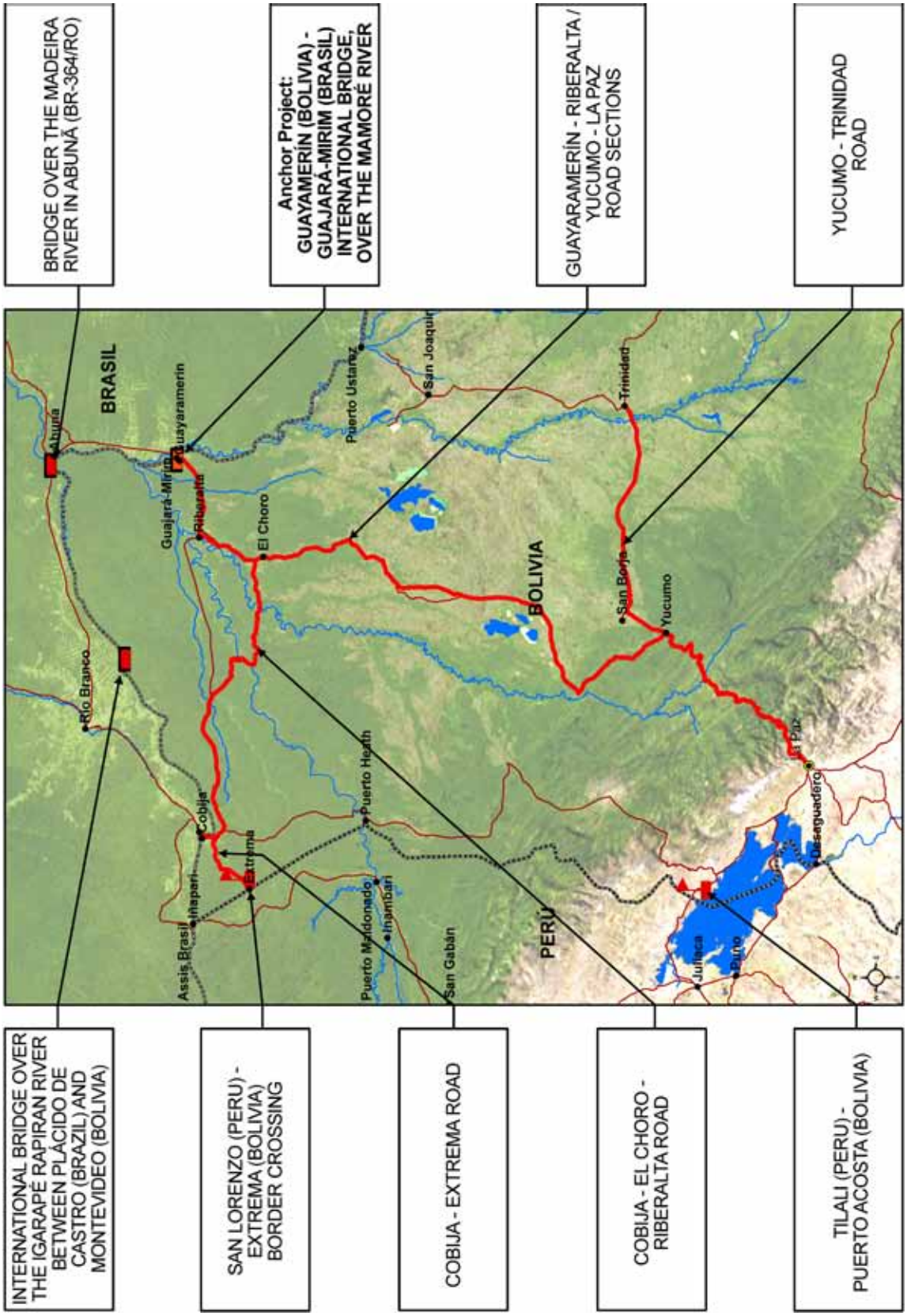

BRASIL
BOLIVIA
PERÚ
CHILE
Vilhena
San Matías
San José de Chiquitos
Roboré
Concepción
San Javier
Porto Velho
Puerto Ustarez
San Joaquin
Trinidad
Montero
Pailón
Santa Cruz de La Sierra
Abuna
Riberalta
El Chorro
Cochabamba
Aiquile
Boca do Acre
San Borja
Yucumo
Oruro
Toledo
Rio Branco
Puerto Heath
Desaguadero
La Paz
Cobija
Brasiléia
Extrema
Assis Brasil
Inapari
Iñapari
San Gabán
Juliaca
Puno
Tacna
Arica
Ayaviri
Moquegua
Arequipa
Ilo
Cruzeiro do Sul
Urcos
Cusco
Matarani
Mollendo
Camaná
Abancay
Pucallpa
Ayacucho
Huancavelica
Nazca
San Juan
Huancayo
Tarma
La Oroya
Nuevo Tocache
Tingo Maria
Huanuco
Chincha Alta
Ica
Pisco
Unish
Cerro Azul
Juanjui
Yanga
Chancay
Callao
Lima


Group 3: MADEIRA - MADRE DE DIOS - BENI RIVER CORRIDOR
Group 2: RIO BRANCO - COBIJA - RIBERALTA - YUCUMO - LA PAZ CORRIDOR
Group 1: CORRIDOR PORTO VELHO - RIO BRANCO - ASSIS - PUERTO MALDONADO - CUSCO / JULIACA - PORTS IN THE PACIFIC
BRASIL
BOLIVIA
PERÚ
CHILE
Vilhena
San Matías
Concepción
San José de Chiquitos
Roboré
Porto Velho
Puerto Ustarez
San Joaquín
Trinidad
San Javier
Montero
Pailón
Santa Cruz de La Sierra
Cochabamba
Alquile
Abuna
Ribeirão
El Chorro
San Borja
Yucumo
Boca do Acre
Río Branco
Puerto Heath
Bruno
Toledo
Desaguadero
La Paz
Cobija
Brasiléia
Extrema
Inambari
Assis Brasil
San Gabán
Juliaca
Puno
Tacna
Arica
Ayaviri
Cruzeiro do Sul
Urcos
Cusco
Abancay
Arequipa
Mejillones
Ilo
Camaná
Mollendo
Matarani
Pucallpa
Ayacucho
Huancavelica
Huancayo
Nazca
San Juan
Tingo María
Huánuco
Cerro De Pasco
Tarma
La Oroya
Cerro Azul
Chincha Alta
Pisco
Ica
Juanjuí
Nuevo Tocache
Ancon
Callao
Lima


PERU - BRAZIL BORDER CROSSING: CONSTRUCTION OF A BINATIONAL BORDER SERVICE CENTER (CEBAF)
IMPROVEMENT OF PUERTO MALDONADO AIRPORT
SAN GABÁN - PUERTO MALDONADO ELECTRICITY TRANSMISSION LINE
IMPROVEMENT OF JULIACA AIRPORT
BRIDGE OVER THE ACRE RIVER
ELECTRICITY TRANSMISSION LINE BETWEEN PUERTO MALDONADO AND THE BORDER WITH BRAZIL
"IIRSA SUR" SOUTHERN INTEROCEANIC ROAD, SECTION 1: SAN JUAN DE MARCONA - ABANCAY - CUSCO - URCOS
Anchor Project: PAVING OF IÑAPARI - PUERTO MALDONADO - INAMBARI ROAD, AND INAMBARI - JULIACA / INAMBARI - CUSCO ROADS
IMPROVEMENT OF AREQUIPA AIRPORT
BRASIL
BOLIVIA
PERÚ
CHILE
Rio Branco
Brasiléia
Cobija
Extrema
Iñapari
Assis Brasil
Puerto Heath
Puerto Maldonado
Inambari
San Gabán
Ayavirí
Juliaca
Puno
La Paz
Desaguadero
Huachacalla
Tacna
Arica
Moquegua
Ilo
Arequipa
Matarani
Mollendo
Camaná
Cusco
Urcos
Abancay
Ayacucho
Huancavelica
Huancayo
Nazca
San Juan

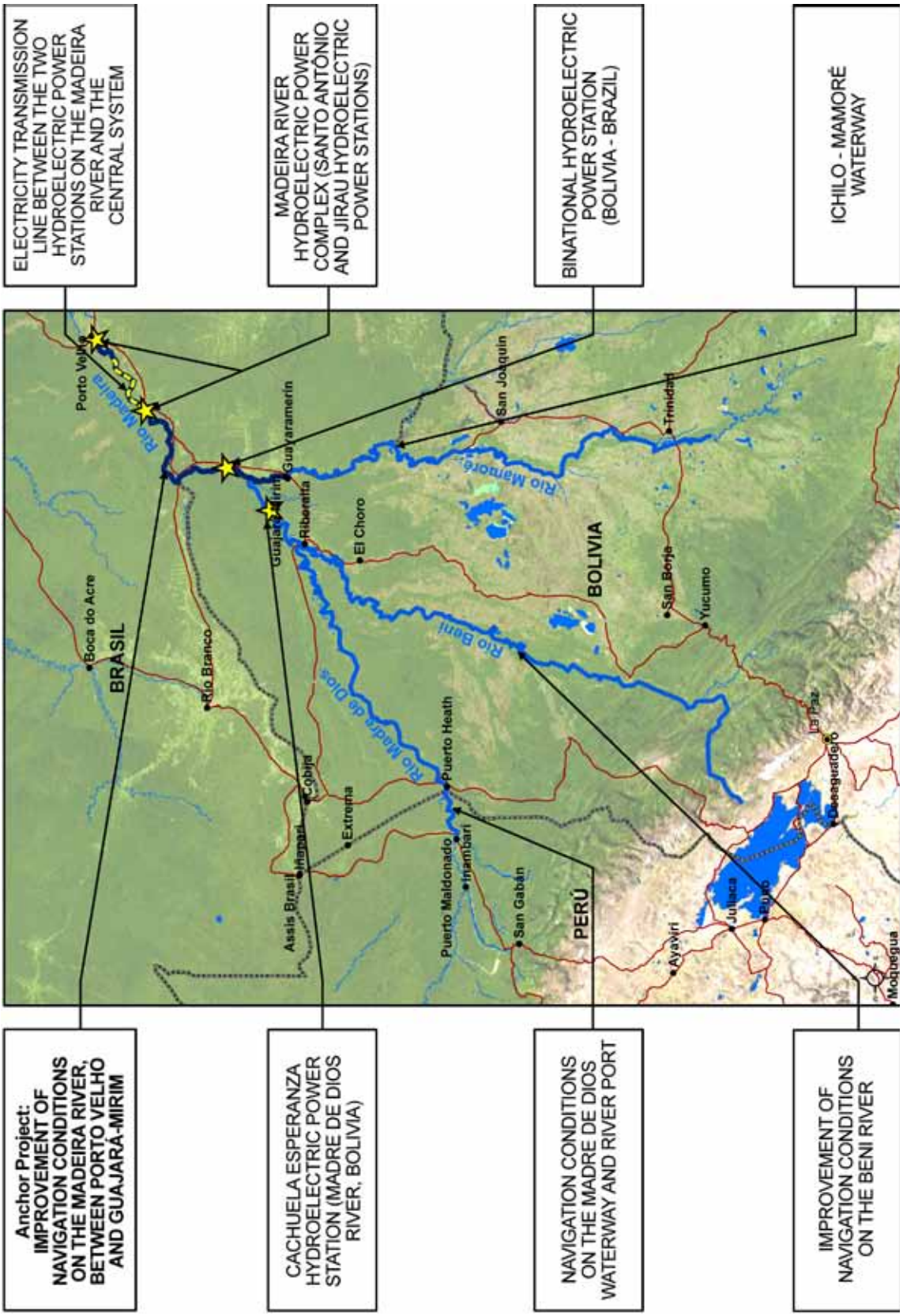
- Open up new possibilities for the socioeconomic development of the macro-region in the south of Peru and the states of Acre and Rondônia, in Brazil, through their joint linkage; and facilitate access of these Brazilian states as well as of the Peruvian sierras and Amazonia to international markets, particularly of the Pacific Basin, thus promoting the regional integration process.

Code	Stage	Peru-Brazil-Bolivia Hub: Group 1	Estimated Investment (US$ million)
PBB01		Paving of Iñapari - Puerto Maldonado - Inambari Road, and Inambari - Juliaca / Inambari - Cusco (PE)	1,884.4
PBB02		Peru - Brazil Border Crossing: Construction of a Binational Border Service Center (CEBAF) (BR - PE)	25.3
PBB03		Bridge over the Acre River (BR - PE)	12.0
PBB04		Improvement of Puerto Maldonado Airport (PE)	42.4
PBB58		Electricity Transmission Line between Puerto Maldonado and the Border with Brazil (PE)	14.0
PBB59		San Gabán - Puerto Maldonado Electricity Transmission Line (PE)	23.6
PBB61		Improvement of Juliaca Airport (PE)	44.2
PBB62		Improvement of Arequipa Airport (PE)	51.2
PBB63		"IIRSA Sur" Southern Interoceanic Road, Section 1: San Juan de Marcona - Abancay - Cusco - Urcos (PE)	135.9
		TOTAL	2,233.0


BRIDGE OVER THE MADEIRA RIVER IN ABUNÃ (BR-364/RO)
Anchor Project: GUAYAMERÍN (BOLIVIA) - GUAJARÁ-MIRIM (BRASIL) INTERNATIONAL BRIDGE, OVER THE MAMORÉ RIVER
GUAYARAMERÍN - RIBERALTA / YUCUMO - LA PAZ ROAD SECTIONS
YUCUMO - TRINIDAD ROAD
BRASIL
BOLIVIA
PERÚ
Abuna
Guajará-Mirim
Guayaramerin
Riberalta
El Choro
Puerto Ustariz
San Joaquin
Trinidad
San Borja
Yucumo
La Paz
Desaguadero
Juliaca
Puno
Rio Branco
Cobija
Extrema
Inapari
Assis Brasil
Puerto Heath
Puerto Maldonado
Inambari
San Gabán
INTERNATIONAL BRIDGE OVER THE IGARAPÉ RAPIRAN RIVER BETWEEN PLÁCIDO DE CASTRO (BRAZIL) AND MONTEVIDEO (BOLIVIA)
SAN LORENZO (PERU) - EXTREMA (BOLIVIA) BORDER CROSSING
COBIJA - EXTREMA ROAD
COBIJA - EL CHORO - RIBERALTA ROAD
TILALI (PERU) - PUERTO ACOSTA (BOLIVIA)

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

Code	Stage	Peru-Brazil-Bolivia Hub: Group 2	Estimated Investment (US$ million)
PBB05	🟢	Guayaramerín - Riberalta / Yucumo - La Paz Road Sections (BO)	594.0
PBB06	🟢	Cobija - El Choro - Riberalta Road (BO)	56.0
PBB07	🟡	Yucumo - Trinidad Road (BO)	5.5
PBB08	🟢	Cobija - Extrema Road (BO)	29.0
PBB09	🔴	San Lorenzo (Peru) - Extrema (Bolivia) Border Crossing (BO - PE)	40.0
PBB60	🟡	Guayaramerín (Bolivia) - Guajará-Mirim (Brazil) International Bridge, over the Mamoré River (BO - BR)	75.0
PBB64	🟡	Bridge over the Madeira River in Abunã (BR-364/RO) (BR)	85.3
PBB65	🔴	International Bridge over the Igarapé Rapiran River between Plácido de Castro (Brazil) and Montevideo (Bolivia) (BO - BR)	0.0
PBB66	🔴	Tilali (Peru) - Puerto Acosta (Bolivia) (BO - PE)	40.0
		TOTAL	924.8


ELECTRICITY TRANSMISSION LINE BETWEEN THE TWO HYDROELECTRIC POWER STATIONS ON THE MADEIRA RIVER AND THE CENTRAL SYSTEM
MADEIRA RIVER HYDROELECTRIC POWER COMPLEX (SANTO ANTÔNIO AND JIRAU HYDROELECTRIC POWER STATIONS)
BINATIONAL HYDROELECTRIC POWER STATION (BOLIVIA - BRAZIL)
ICHILO - MAMORÉ WATERWAY
Anchor Project: IMPROVEMENT OF NAVIGATION CONDITIONS ON THE MADEIRA RIVER, BETWEEN PORTO VELHO AND GUAJARÁ-MIRIM
CACHUELA ESPERANZA HYDROELECTRIC POWER STATION (MADRE DE DIOS RIVER, BOLIVIA)
NAVIGATION CONDITIONS ON THE MADRE DE DIOS WATERWAY AND RIVER PORT
IMPROVEMENT OF NAVIGATION CONDITIONS ON THE BENI RIVER
BRASIL
BOLIVIA
PERÚ
Porto Velho
Río Madeira
Guajará-Mirim
Guayaramerín
Riberalta
El Choro
San Joaquin
Trinidad
Río Mamoré
Río Beni
San Borja
Yucumo
Boca do Acre
Río Branco
Río Madre de Dios
Puerto Heath
Cobija
Extrema
Assis Brasil
Iñapari
Puerto Maldonado
Iñambari
San Gabán
La Paz
Desaguadero
Puno
Juliaca
Ayaviri
Mollebaya

- 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.

Code	Stage	Peru-Brazil-Bolivia Hub: Group 3	Estimated Investment (US$ million)
PBB11	🔴	Improvement of Navigation Conditions on the Madeira River, between Porto Velho and Guajará-Mirim (BR)	700.0
PBB12	🟡	Cachuela Esperanza Hydroelectric Power Station (Río Madre de Dios - Bolivia) (BO)	1,200.0
PBB13	🟡	Ichilo - Mamoré Waterway (BO)	0.0
PBB14	🔴	Improvement of Navigation Conditions on the Beni River (BO)	0.0
PBB15	🔴	Navigation Conditions on the Madre de Dios Waterway and River Port (BO)	0.0
PBB16	🟢	Madeira River Hydroelectric Power Complex (Santo Antônio and Jirau Hydroelectric Power Stations) (BR)	18,209.0
PBB17	🔴	Binational Hydroelectric Power Station (Bolivia - Brazil) (BO - BR)	2,000.0
PBB18	🟢	Electricity Transmission Line between the two Hydroelectric Power Stations on the Madeira River and the Central System (BR)	3,823.0
		TOTAL	25,932.0

I. GENERAL ASPECTS

The countries have agreed to include twenty-six projects in the Peru-Brazil-Bolivia Hub, accounting for an estimated investment of US$29,089.8 million, as summarized below:

Table L.1 • **General Indicators of the Perú-Brasil-Bolivia hub**

Group	Name	Number of Projects	Estimated Investment (US$ million)
Group 1	Corridor Porto Velho - Rio Branco - Assis - Puerto Maldonado - Cusco / Juliaca - Ports in the Pacific	9	2,233.0
Group 2	Rio Branco - Cobija - Riberalta - Yucumo - La Paz Corridor	9	924.8
Group 3	Madeira - Madre de Dios - Beni River Corridor	8	25,932.0
	TOTAL	26	29,089.8

II. SOURCE OF FINANCING

Table L.2 • **Source of financing of the Perú-Brasil-Bolivia Hub projects**

Source of financing	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Public	18	69.3	2,899.7	10.0
Private	5	19.2	2,158.1	7.4
Public/Private	3	11.5	24,032.0	82.6
TOTAL	26	100.0	29,089.8	100.0

III. API PROJECTS

Table L.3 • **API Projects - Perú-Brasil-Bolivia Hub**

Code	Project Name	Estimated Investment (US$ million)
31	**Porto Velho - Peruvian Coast Connection (BR - PE)**	**85.4**
PBB64	Bridge over the Madeira River in Abunã (BR-364/RO) (BR)	85.4
	TOTAL	**85.4**

IV. SECTOR/SUBSECTOR-BASED BREAKDOWN AND TYPE OF WORKS INVOLVED

Table L.4 • **Sector-based breakdown of the Perú-Brasil-Bolivia Hub**

	Transport				Energy			
Subsector	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment
Air	3	15.0	137.8	3.6				
Road	10	50.0	2,877.1	75.3				
Railway	4	20.0	700.0	18.3				
Border Crossing	3	15.0	105.3	2.8				
Power Generation					3	50.0	21,409.0	84.7
Power Interconnection					3	50.0	3,860.6	15.3
TOTAL	20	100.0	3,820.2	100.0	6	100.0	25,269.6	100.0

Table L.5 • **Air Transport**

Type of Work	**Number of Projects**	**Estimated Investment** (US$ million)
Extension of airports	3	137.8
TOTAL	3	137.8

Table L.6 • **Road Transport**

Type of Work	**Number of Projects**	**Estimated Investment** (US$ million)
Extension of the road capacity	1	1,884.4
Refitting of road and structures	1	135.9
Paving (new work)	4	684.5
Bridges (new ones and refitting)	4	172.3
TOTAL	10	2,877.1

Table L.7 • **River Transport**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Improvement of river navigability	4	700.0
TOTAL	4	700.0

Table L.8 • **Border Crossings**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Infrastructure for the setting up of border control centers	3	105.3
TOTAL	3	105.3

Table L.9 • **Power Generation**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Hydroelectric plants (new ones and refitting) - microcentrals	3	21,409.0
TOTAL	3	21,409.0

Table L.10 • **Power Interconnection**

Type of Work	Number of Projects	Estimated Investment (US$ million)
Building of new power interconnections	3	3,860.6
TOTAL	3	3,860.6

V. PROGRESS IN THE PERÚ-BRASIL-BOLIVIA HUB PROJECTS

Table L.11 • **Projects by Progress Attained**

Stage	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Profiling	8	30.8	2,794.0	9.6
Pre-Execution	6	23.1	1,391.1	4.8
Execution	10	38.4	23,008.3	79.1
Concluded	2	7.7	1,896.4	6.5
TOTAL	26	100.0	29,089.8	100.0

Table L.12 • **Concluded Projects**

Code	Project Name	Estimated Investment (US$ million)
PBB01	Paving of Iñapari - Puerto Maldonado - Inambari Road, and Inambari - Juliaca / Inambari - Cusco (PE)	1,884.4
PBB03	Bridge over the Acre River (BR - PE)	12.0
	TOTAL	1,896.4

VI. ANCHOR PROJECTS

The countries identified three anchor projects in the Peru-Brazil-Bolivia Hub, totaling an estimated investment of US$2,659.4 million, according to the following detail:

Table L.13 • **Anchor Projects**

Group	Code	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Project Stage
1	PBB01	Paving of Iñapari - Puerto Maldonado - Inambari Road, and Inambari - Juliaca / Inambari - Cusco (PE)	1,884.4	Private	National	Concluded
2	PBB60	Guayaramerín (Bolivia) - Guajará-Mirim (Brazil) International Bridge, over the Mamoré River (BO - BR)	75.0	Public	Binational	Pre-Execution
3	PBB11	Improvement of Navigation Conditions on the Madeira River, between Porto Velho and Guajará-Mirim (BR)	700.0	Public	National	Profiling
		TOTAL	2,659.4			

SOUTHERN HUB

COUNTRY MEMBERS

TOTAL NUMBER OF PROJECTS

28

INVESTMENT

(US$ million)

2,762.0

TOTAL NUMBER OF PROJECTS

Percentage by stage

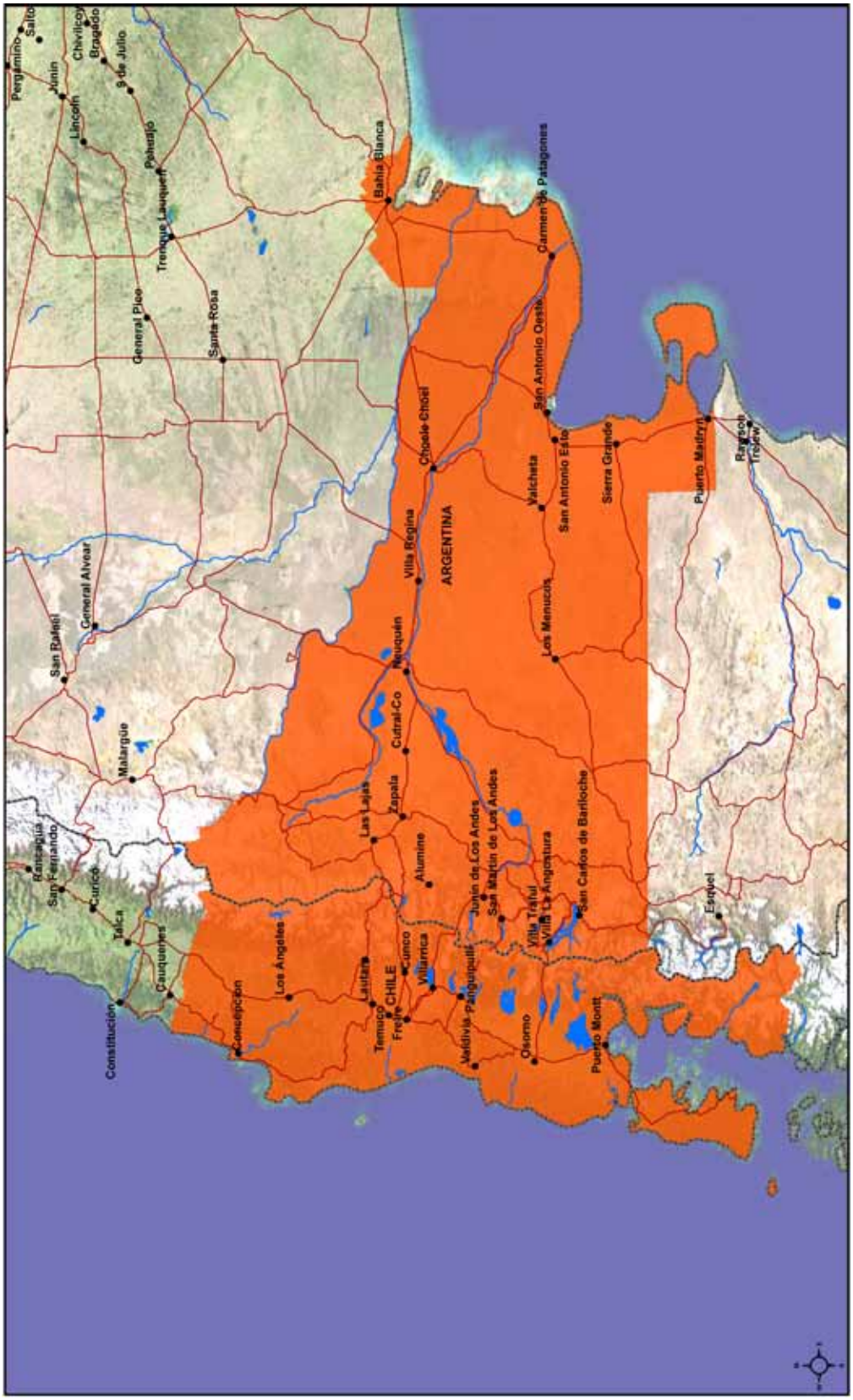
21.4%	PROFILING
25.0%	PRE-EXECUTION
32.2%	EXECUTION
21.4%	CONCLUDED

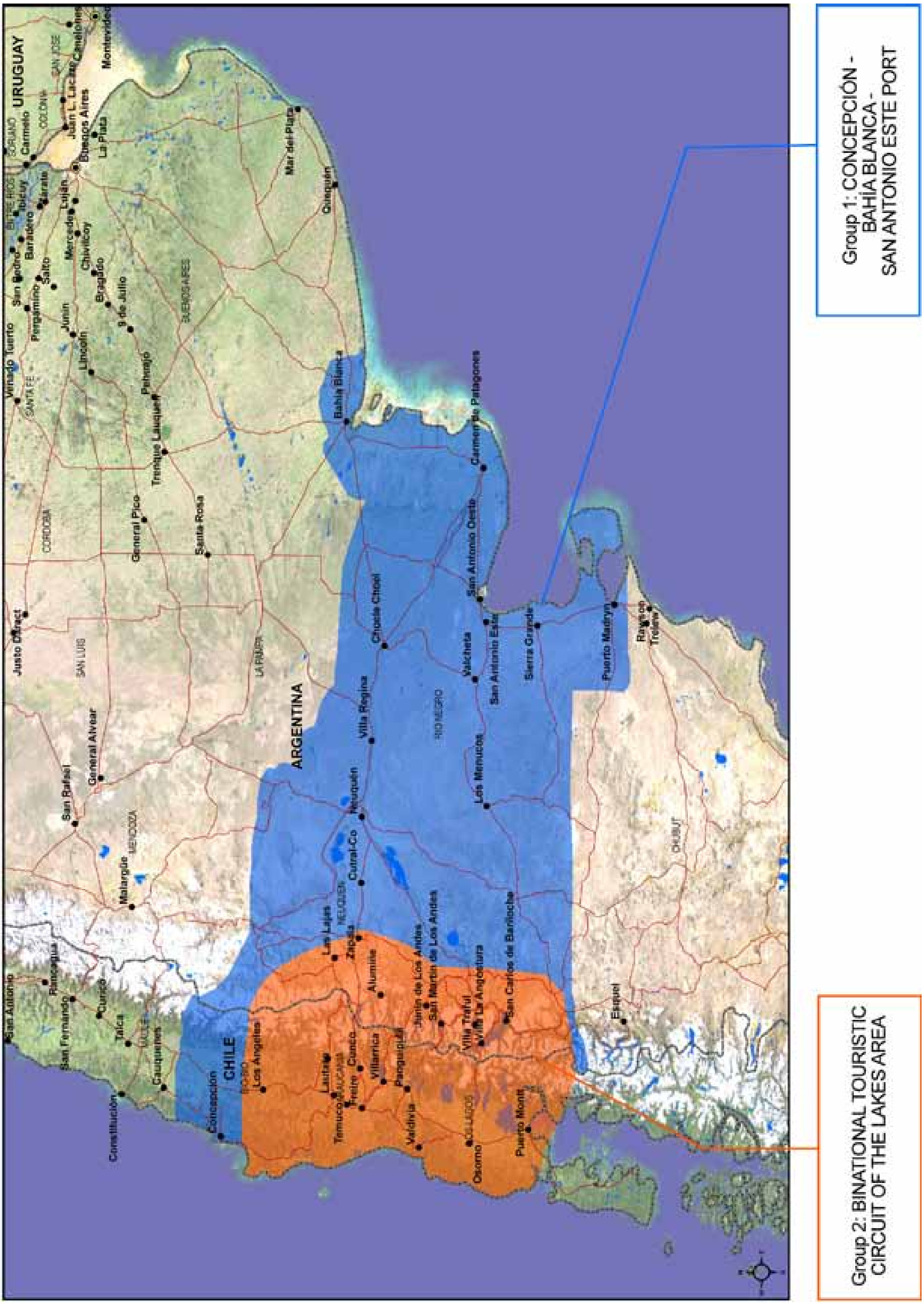
INVESTMENT

Percentage by stage

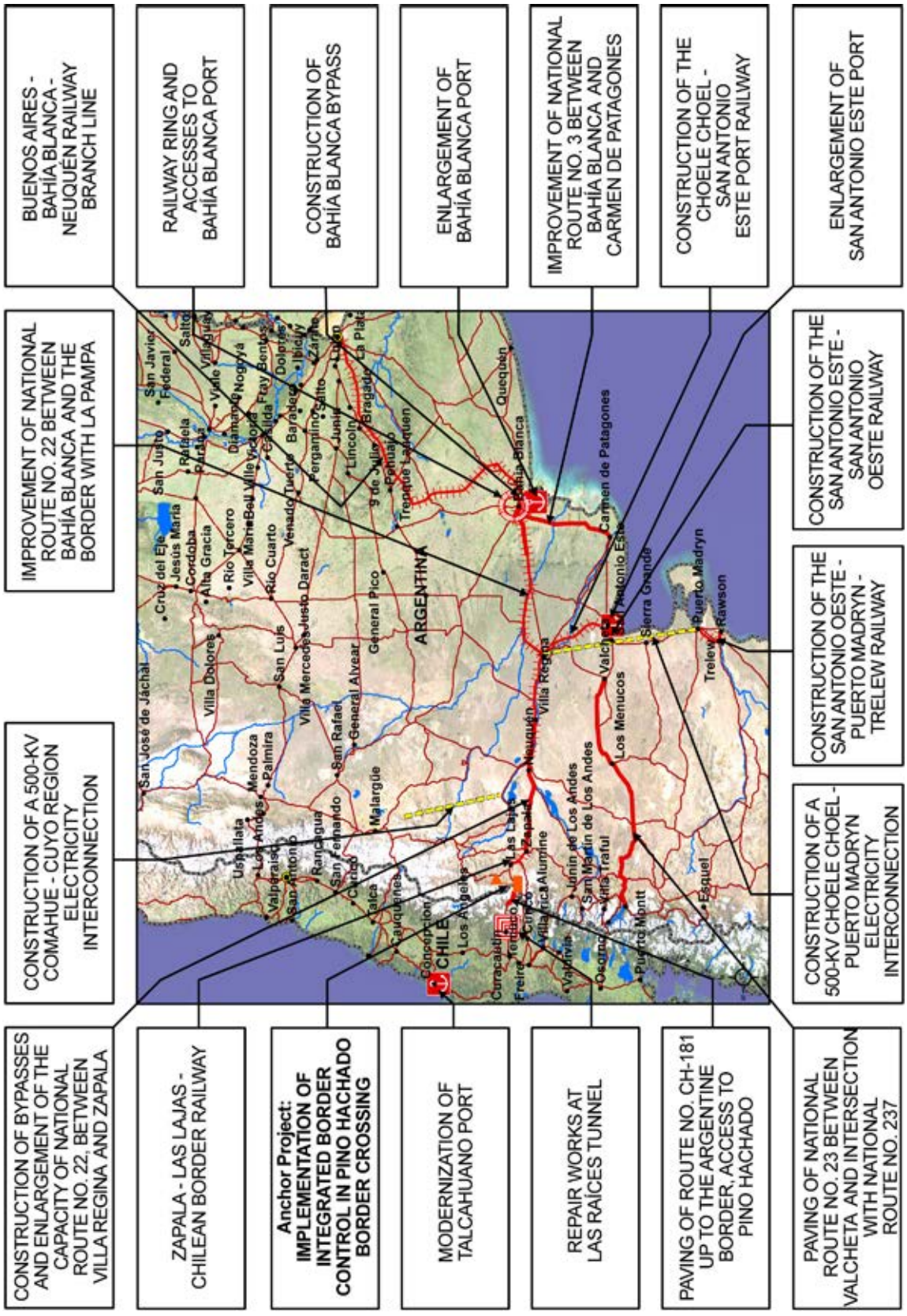
PROFILING	25.6%
PRE-EXECUTION	24.0%
EXECUTION	34.3%
CONCLUDED	16.1%

PROFILING · PRE-EXECUTION · EXECUTION · CONCLUDED


Pergamino
Salto
Junin
Chivilcoy
Bragado
9 de Julio
Lincoln
Pehuajo
Trenque Lauquen
General Pico
Santa Rosa
Bahia Blanca
Carmen de Patagones
San Antonio Oeste
Choele Choel
Villa Regina
ARGENTINA
Valcheta
San Antonio Este
Sierra Grande
Puerto Madryn
Rawson
Trelew
General Alvear
San Rafael
Neuquén
Los Menucos
Cutral-Co
Malargüe
Las Lajas
Zapala
Alumine
Junin de Los Andes
San Martin de Los Andes
San Carlos de Bariloche
Villa Traful
Villa La Angostura
Esquel
Rancagua
San Fernando
Curicó
Talca
Cauquenes
Los Angeles
Laja
Temuco
CHILE
Freire
Cunco
Villarrica
Panguipulli
Valdivia
Osorno
Puerto Montt
Concepcion
Constitucion

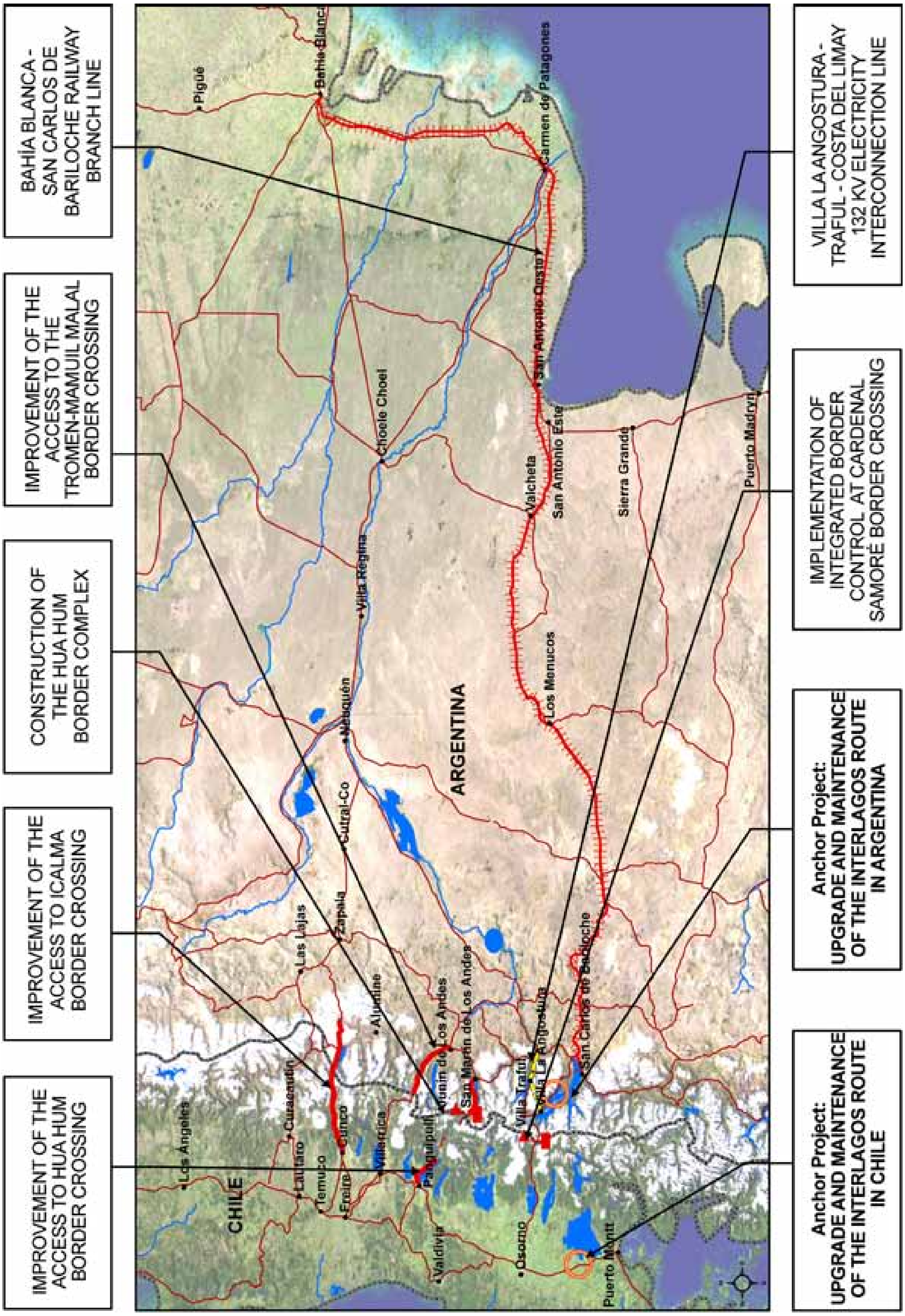

Group 1: CONCEPCIÓN - BAHÍA BLANCA - SAN ANTONIO ESTE PORT
Group 2: BINATIONAL TOURISTIC CIRCUIT OF THE LAKES AREA
URUGUAY
ARGENTINA
CHILE

SOUTHERN HUB - Group 1:
Concepción - Bahía Blanca - San Antonio Este port



- Reduce transportation costs and thus enhance trade and economic complementariness between the countries.
- Create economic and social development opportunities.

Code	Stage	Southern Hub: Group 1	Estimated Investment (US$ million)
DES01	●	Implementation of Integrated Border Control in Pino Hachado Border Crossing (AR - CH)	8.0
DES02	●	Enlargment of San Antonio Este Port (AR)	0.0
DES03	●	Construction of Bypasses and Enlargment of the Capacity of National Route No. 22, between Villa Regina and Zapala (AR)	100.0
DES04	●	Construction of Bahía Blanca Bypass (AR)	8.0
DES05	●	Construction of the Choele Choel - San Antonio Este Port Railway (AR)	40.0
DES06	●	Construction of a 500-KV Comahue - Cuyo Region Electricity Interconnection (AR)	350.0
DES07	●	Construction of a 500-KV Choele Choel - Puerto Madryn Electricity Interconnection (AR)	70.0
DES08	●	Improvement of National Route No. 22, between Bahía Blanca and the border with La Pampa (AR)	30.0
DES09	●	Improvement of National Route No. 3, between Bahía Blanca and Carmen de Patagones (AR)	68.0
DES10	●	Paving of National Route No. 23 between Valcheta and Intersection with National Route No. 237 (AR)	250.0
DES11	●	Paving of Route No. CH-181 up to the Argentine Border, Access to Pino Hachado (CH)	5.0
DES12	●	Modernization o Talcahuano Port (CH)	53.0
DES13	●	Repair Works at Las Raíces Tunnel (CH)	10.5
DES14	●	Construction of the San Antonio Oeste - Puerto Madryn - Trelew Railway (AR)	48.0
DES15	●	Construction of the San Antonio Este - San Antonio Oeste Railway (AR)	8.5
DES22	●	Railway Ring and Accesses to Bahía Blanca Port (AR)	250.0
DES23	●	Buenos Aires - Bahía Blanca - Neuquén Railway Branch Line (AR)	180.0
DES24	●	Zapala - Las Lajas - Chilean Border Railway (AR)	70.0
DES25	●	Enlargment of Bahía Blanca Port (AR)	290.0
		TOTAL	1,839.0


BAHÍA BLANCA - SAN CARLOS DE BARILOCHE RAILWAY BRANCH LINE
IMPROVEMENT OF THE ACCESS TO THE TROMEN-MAMUIL MALAL BORDER CROSSING
CONSTRUCTION OF THE HUA HUM BORDER COMPLEX
IMPROVEMENT OF THE ACCESS TO ICALMA BORDER CROSSING
IMPROVEMENT OF THE ACCESS TO HUA HUM BORDER CROSSING
VILLA LA ANGOSTURA - TRAFUL - COSTA DEL LIMAY 132 KV ELECTRICITY INTERCONNECTION LINE
IMPLEMENTATION OF INTEGRATED BORDER CONTROL AT CARDENAL SAMORÉ BORDER CROSSING
Anchor Project: UPGRADE AND MAINTENANCE OF THE INTERLAGOS ROUTE IN ARGENTINA
Anchor Project: UPGRADE AND MAINTENANCE OF THE INTERLAGOS ROUTE IN CHILE
ARGENTINA
CHILE
Pigüé
Bahía Blanca
Carmen de Patagones
San Antonio Oeste
San Antonio Este
Sierra Grande
Puerto Madryn
Valcheta
Choele Choel
Villa Regina
Neuquén
Cutral-Co
Zapala
Las Lajas
Aluminé
Los Menucos
Junín de Los Andes
San Martín de Los Andes
Villa Traful
Villa La Angostura
San Carlos de Bariloche
Los Ángeles
Curacautín
Lautaro
Temuco
Cunco
Freire
Villarrica
Pangulpulli
Valdivia
Osorno
Puerto Montt

- Reinforce the binational tourism system in the lake area.
- Create economic and social development opportunities.
- Favor conservation of the area's environmental resources.

Code	Stage	Southern Hub: Group 2	Estimated Investment (US$ million)
DES16	●	Upgrade and Maintenance of Interlagos Route in Chile (CH)	175.0
DES17	●	Implementation of Integrated Border Control at Cardenal Samoré Border Crossing (AR - CH)	2.0
DES18	●	Upgrade and Maintenance of Interlagos Route in Argentina (AR)	200.0
DES19	●	Improvement to the Access to Icalma Border Crossing (AR - CH)	44.0
DES20	●	Improvement to the Access to the Tromen - Mamuil Malal Border Crossing (AR - CH)	30.0
DES21	●	Improvement to the Access to the Hua Hum Border Crossing (AR - CH)	42.0
DES26	●	Bahía Blanca - San Carlos de Bariloche Railway Branch Line (AR)	400.0
DES27	●	Villa La Angostura - Traful - Costa del Limay 132-KV Electricity Interconnection Line (AR)	30.0
DES28	●	Construction of the Hua Hum Border Complex (CH)	0.0
		TOTAL	923.0

I. GENERAL ASPECTS

The countries have agreed to include twenty projects in the Amazon Hub, accounting for an estimated investment of US$ 2,762 million, as summarized below:

Table M.1 • **General Indicators of the Southern Hub**

Group	Name	Number of projects	Estimated Investment (US$ million)
Group 1	Concepción - Bahía Blanca - San Antonio Este Port	19	1,839.0
Group 2	Binational Tourist Circuit of the Lakes Area	9	923.0
	TOTAL	28	2,762.0

II. SOURCE OF FINANCING

Table M.2 • **Source of financing of the Southern Hub projects**

Source of Financing	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Public	25	89.3	2,609.0	94.5
Private	1	3.6	53.0	1.9
Public/Private	2	7.1	100.0	3.6
TOTAL	28	100.0	2,762.0	100.0

III. SECTOR/SUBSECTOR-BASED BREAKDOWN AND TYPE OF WORKS INVOLVED

Table M.3 • **Sector-based breakdown of the Southern Hub**

	Transport				Energy			
Subsector	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment	N° Projects	% Projects	Estimated Investment (US$ millons)	% Investment
Road	12	48.0	962.5	41.7				
Railway	7	28.0	996.5	43.1				
Sea	3	12.0	343.0	14.8				
Border Crossing	3	12.0	10.0	0.4				
Power Interconnection					3	100.0	450.0	100.0
TOTAL	25	100.0	2,312.0	100.0	3	100.0	450.0	100.0

Table M.4 • **Road Transport**

Type of work	Number of Projects	Estimated Investment (US$ million)
Extension of the road capacity	1	100.0
Refitting of road and structures	7	777.5
Paving (new work)	3	77.0
Road by-pass and access to cities	1	8.0
TOTAL	12	962.5

Table M.5 • **Railway Transport**

Type of work	Number of Projects	Estimated Investment (US$ million)
Building of railways	4	166.5
Refitting of railways	2	580.0
Railway by-pass	1	250.0
TOTAL	7	996.5

Table M.6 • **Maritime Transport**

Type of work	Number of Projects	Estimated Investment (US$ million)
Extension of the road infrastructure of the maritime ports	2	290.0
Refitting of sea ports	1	53.0
TOTAL	3	343.0

Table M.7 • **Border Crossings**

Type of work	Number of Projects	Estimated Investment (US$ million)
Infrastructure for the setting up of border control centers	3	10.0
TOTAL	3	10.0

Table M.8 • **Power Interconnection**

Type of work	Number of Projects	Estimated Investment (US$ million)
Building of new power interconnections	3	450.0
TOTAL	3	450.0

IV. PROGRESS IN THE SOUTHERN HUB PROJECTS

Table M.9 • **Projects by Progress Attained**

Stage	Number of Projects	% Projects	Estimated Investment (US$ million)	% Investment
Profiling	6	21.4	706.5	25.6
Pre-Execution	7	25.0	664.0	24.0
Execution	9	32.2	946.0	34.3
Concluded	6	21.4	445.5	16.1
TOTAL	28	100.0	2,762.0	100.0

Table M.10 · **Concluded Projects**

Code	Project Name	Estimated Investment (US$ million)
DES01	Implementation of Integrated Border Control in Pino Hachado Border Crossing (AR - CH)	8.0
DES06	Construction of a 500-KV Comahue - Cuyo Region Electricity Interconnection (AR)	350.0
DES07	Construction of a 500-KV Choele Choel - Puerto Madryn Electricity Interconnection (AR)	70.0
DES11	Paving of Route No. CH-181 up to the Argentine Border, Access to Pino Hachado (CH)	5.0
DES13	Repair Works at Las Raíces Tunnel (CH)	10.5
DES17	Implementation of Integrated Border Control at Cardenal Samoré Border Crossing (AR - CH)	2.0
	TOTAL	445.5

V. ANCHOR PROJECTS

The countries identified three anchor projects in the Amazon Hub, totaling an estimated investment of US$383 million, according to the following detail:

Table M.11 · **Anchor Projects**

Group	Code	Anchor Projects	Estimated Investment (US$ million)	Financing Source	Scope	Project Stage
1	DES01	Implementation of Integrated Border Control in Pino Hachado Border Crossing (AR - CH)	8.0	Public	Binational	Concluded
2	DES16	Upgrade and Maintenance of Interlagos Route in Chile (CH)	175.0	Public	National	Execution
2	DES18	Upgrade and Maintenance of Interlagos Route in Argentina (AR)	200.0	Public	National	Execution
		TOTAL	383.0			

SIGLAS Y ABREVIATURAS

AMA:	Amazon Hub
AND:	Andean Hub
API:	Integration Priority Project Agenda
AR:	Argentina
BID:	Inter-American Development Bank
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
CO:	Colombia
COSIPLAN:	South American Infrastructure and Planning Council
EC:	Ecuador
EID:	Integration and Development Hubs
FONPLATA:	Financial Fund for the Development of the Plata Basin
GU:	Guyana
GUY:	Guianese Shield Hub
GTE:	Executive Technical Groups
HPP:	Paraguay-Paraná Waterway Hub
IIRSA:	Initiative for the Integration of Regional Infrastructure in South America
IOC:	Central Interoceanic Hub
MCC:	MERCOSUR-Chile Hub
PAE:	Strategic Action Plan 2012-2022 (PAE)
PBB:	Peru-Brazil-Bolivia Hub
PE:	Peru
PTIs:	Integration Territorial Programs
PY:	Paraguay
RN:	National Route
SMP:	Continuous Monitoring System
SU:	Suriname
UNASUR:	Union of South American Nations
UY:	Uruguay
VE:	Venezuela

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