Analysis of the Productive Integration Potential and Development of Value Added Logistics Services in the IIRSA Projects (IPrLg)

A Guide for the Drafting of the Final Report

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INICIATIVA PARA LA INTEGRACION DE LA INFRAESTRUCTURA REGIONAL SURAMERICANA

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i. Objective

The purpose of this document is to serve as a guideline for the drafting of the final report on the analysis of the Potential for Production Integration and Development of Value-Added Logistics Services of IIRSA's Project Groups. National teams are expected to follow this document as far as structure, contents and presentation are concerned in order to facilitate analysis, comparison, exchange of information and final publication.

The specificities of each project group and even the expertise and profile of each national team may account for the need to add contents not originally included in this guide, alter the order of some parts, or even exclude a particular section. However, considering that the structure proposed for the report is a direct result of the methodology developed for the analysis, it is recommended that drafters adapt their reports as much as possible to the model presented herein. These recommendations also include issues related to page format, fonts, margins, paragraph alignment, etc., as detailed in 0.

It should be noted that, although the methodology proposes an orderly sequence of steps, phases and tasks, the final report is the result of an iterative exercise, which starts with an approach, a series of ideas, and working hypotheses based on secondary information and on the user's own expertise; then, after completing the interviews, such approach and hypotheses will be reviewed and modified, if appropriate. Again, upon the conclusion of the work, when the relationships between the potential for production integration (IPr) and development of value-added logistics services (SLVAs), on the one hand, and the infrastructure projects, trade barriers and business opportunities, among other factors, on the other hand, are analyzed, the need for adjustments or partial modifications may be identified.

ii. Contents

This document proposes the wording and the order for the main headings, a description of the contents to be included, and examples of tables, figures and maps to present the information. The latter have not been especially designed or created for this guide but have been drawn from existing reports for illustration purposes.

When deemed relevant, direct reference is made to such parts of the documents that present the methodology. Their reading may help the user with his/her task.

The final report should be similar in structure and format to the present document, except for this two-item introduction identified with Roman numerals.

Table of Contents

Introduction

A brief description of the work done and of its main conclusions may be included at the national team's discretion. The inclusion of a map of the Hub and its Project Group is suggested as well.

Figure 1 – Central Interoceanic Hub Project Groups
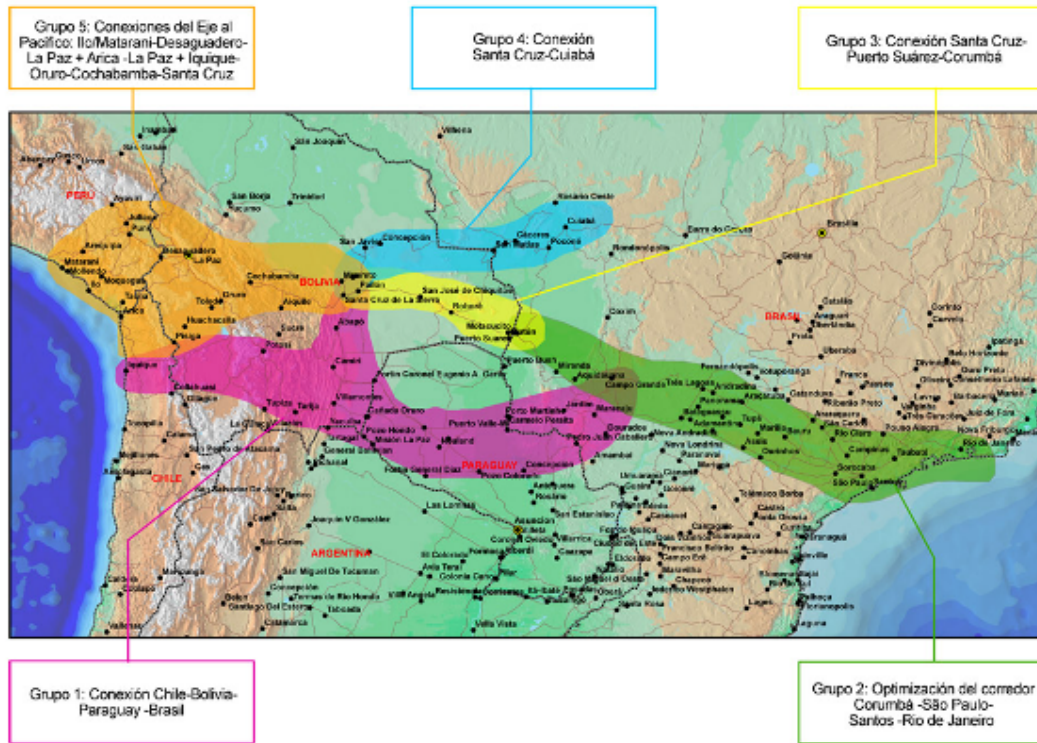
Figure 2 – Central Interoceanic Hub Project Group 5 (GP-5)

Complete the tables below with the latest update of each project fact sheet (available at http://www.iirsa.org/proyectos/index.aspx).

Table 1 – Project Status

Stage	Projects	Amount (USD)
Concluded		
Execution		
Pre-execution		
Profiling		
No data		
Total		

Table 2 – Current Status of the Project Group

Code	Project Name	Amount (USD)	Stage	Financing	Last update
			Pre-execution	Not initiated	
			Execution	Execution	
			Completed	Completed	

When deemed relevant, describe any necessary complementarity among the projects as well as the environmental circumstances that may impact or affect project execution; for example, other projects that have to be implemented first.

PART 1. DEFINITION AND CHARACTERIZATION OF THE GP'S AREA OF INFLUENCE[1]

1. Definition of the Area of Influence (AI)[2]

1.1 Criteria Used to Delimit the Area of Influence

Describe the criteria used to define the area of influence, which will result from applying various criteria that serve to define certain limits and zones. The overlapping of such limits and zones will define a geographical area in which the potential for production integration and for the development of value-added logistics activities will be analyzed.

The criteria used may be the network of cities and production centers, administrative boundaries (municipalities, provinces, etc.), geographical limits or the level of aggregation of the information available, among others. For example:

- A 100-km radius around the projects and the road network connecting them;
- Cities or industrial poles that obtain supplies or distribute a significant portion of their products through the infrastructure included in the Project Group;
- Geographical accidents that constitute a physical barrier to trade flows (rivers, mountains, etc.);
- Aggregation level of the information available. The approach to the area of influence taking into account projects, cities and industrial poles in terms of the distance involved among them results in the area being defined by groups of departments, regions, provinces or municipalities, according to each country's administrative division.

Different parts of an area of influence may be defined according to different criteria. For example, an area may extend beyond all the municipalities concerned with the Project Group up to an industrial pole with important links to the economic life of the area so defined.

This first approach to the area of influence will be revised and modified, if appropriate, after establishing the location of the production sectors that will be subject to the analysis of the potential for production integration, as described in item 2.3 "Selection of the Economic Sectors for the Analysis."

1.2 The Area of Influence

Prepare maps as the ones below, showing the area of influence and its surroundings. Mark inside or outside the area some landmarks (such as cities, routes, ports, rivers, etc.). The purpose is to offer a general view of the area. Further on, other maps providing more details about the area of influence will be included.

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[1] Step I of the methodology.
[2] Phase I.1 of the methodology.

Figure 3 – Central Interoceanic Hub - Area of Influence of Project Group 5
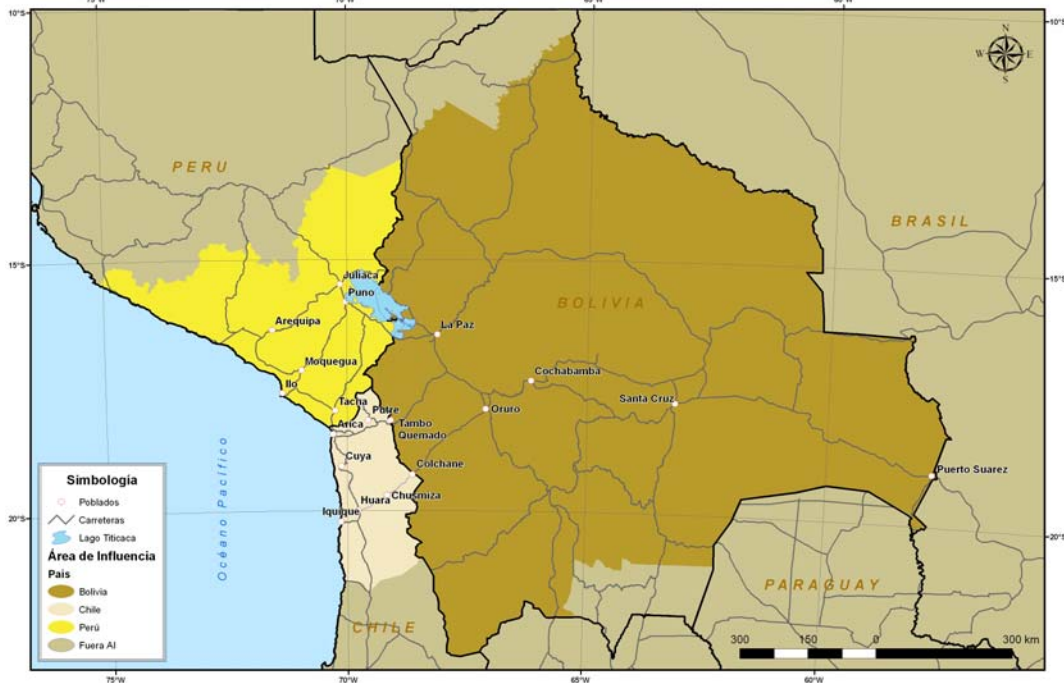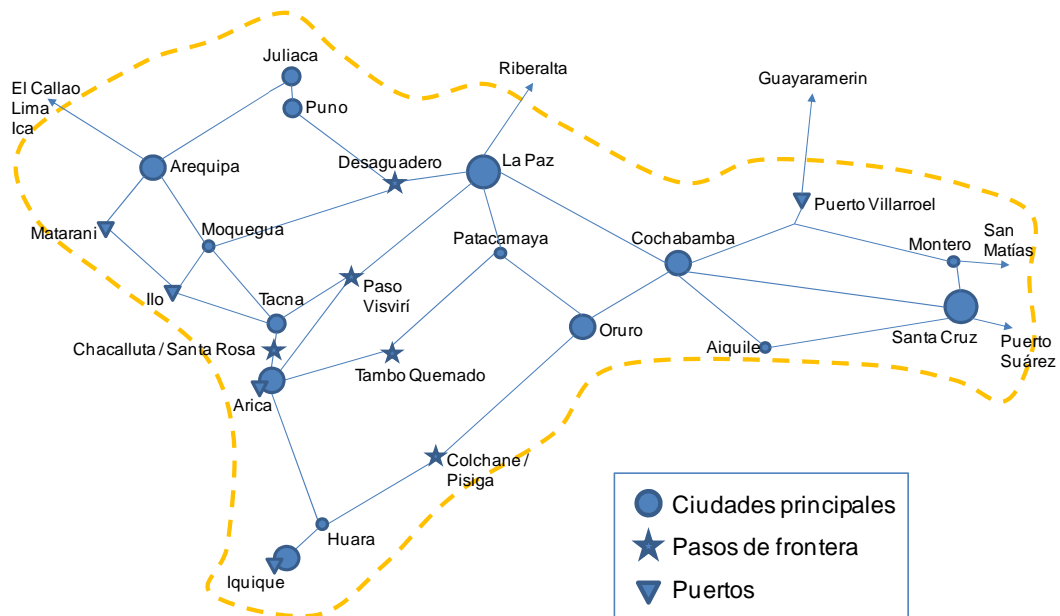

Figure 4 – Network of Cities in the Area of Influence

Include a general description of the Area of Influence in terms of its geographical, climatic, economic, socio-demographic and other aspects. If deemed necessary, a section may be added to describe the portion of the area of influence in each country.

1.2.1   General Characteristics of the Area of Influence in Country 1

1.2.2   General Characteristics of the Area of Influence in Country 2

1.2.3   General Characteristics of the Area of Influence in Country 3

2.   General Characterization of the Area of Influence[3]

2.1   Socio-demographic Aspects

Complete the tables below.

Table 3 – Population, Area, GDP and Development of the Area of Influence

Region	Population (inhabitants)	Area (km^2)	Density (inhab./km^2)	GDP (million USD)	HDI	Urban population	Poverty
AI Country 1							
Province A							
Province B							
Province C							
AI Country 2							
Department A							
Department B							
AI Country 3							
Zone A							
Zone B							
Total							

Indicate source and year of reference

Include the most relevant economic sectors in the different countries and zones comprised within the area of influence. In particular, the service sector may show a different level of aggregation or detail depending on the country.

Table 4 – GDP per Economic Sector in the Area of Influence (million USD)

Region	Agriculture	Mining	Manufacture	Services	Sector X
AI Country 1					
Province A					
Province B					
Province C					
AI Country 2					
Department A					
Department B					
AI Country 3					
Zone A					
Zone B					
Total					

Indicate source and year of reference

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[3] Phase I.2 of the methodology.

Prepare maps as the ones that follow.

Figure 5 – Human Development Index in the Area of Influence
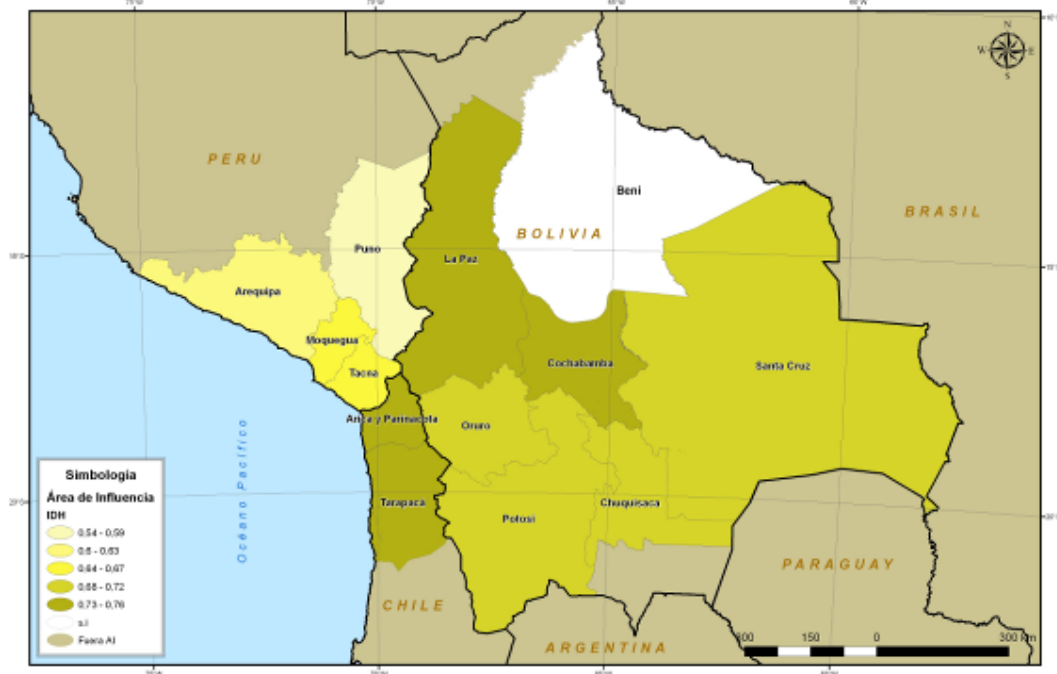
Figure 6 – Poverty Rate in the Area of Influence
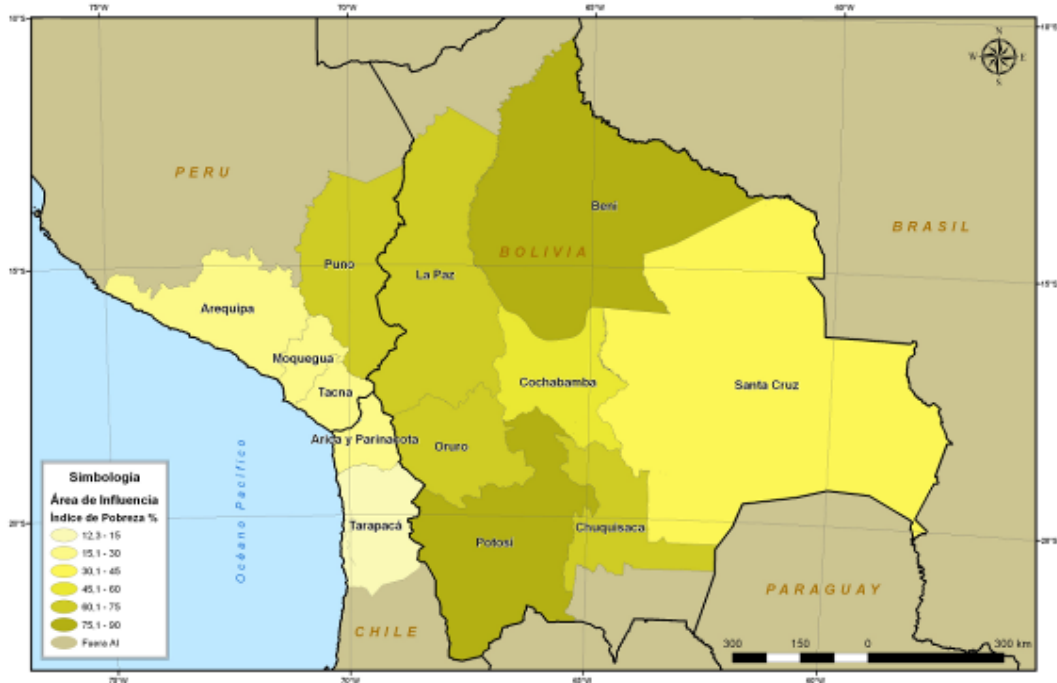
Figure 7 – Population Density in the Area of Influence
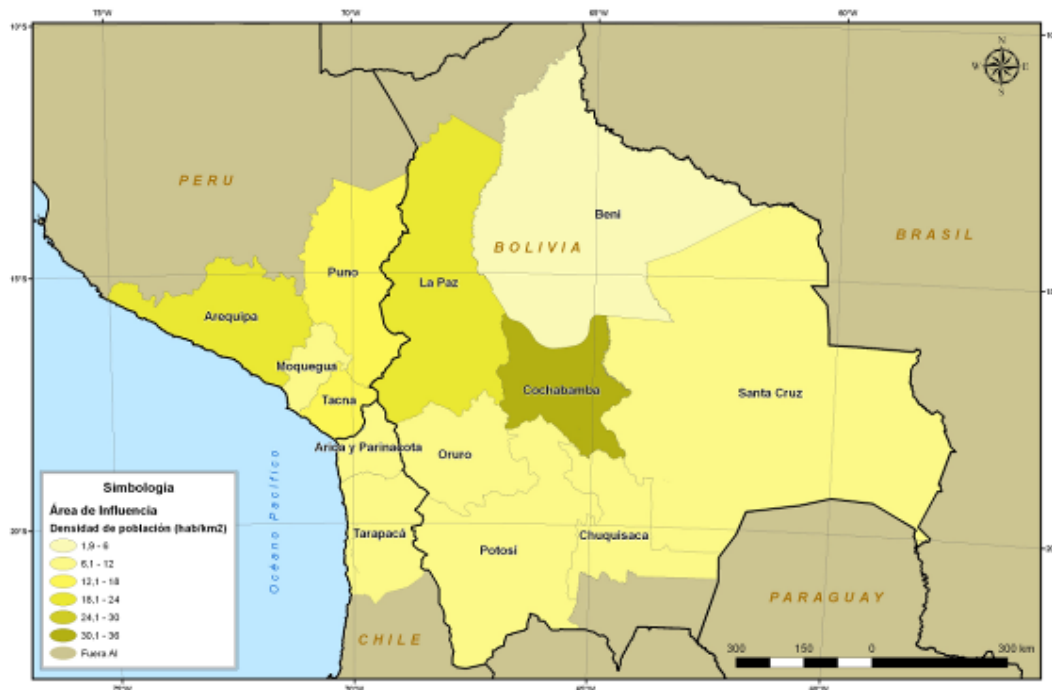
If deemed necessary, other socio-demographic data specific to a country's area of influence may be added, such as employment rate, population growth and migration, education level, etc.

2.1.1   Socio-demographic Data of Country 1

2.1.2   Socio-demographic Data of Country 2

2.1.3   Socio-demographic Data of Country 3

2.2   Existing Infrastructure in the Area of Influence

Draw up maps or schemes such as the ones shown below and complete the tables. Include, where appropriate, comments about the infrastructure available, e.g. the conditions in which the infrastructure is operating, any new or enlargement project, bidding/concession processes, quality of service, etc.

Figure 8 – Road, Railway, Port and Airport Infrastructure in the Area of Influence
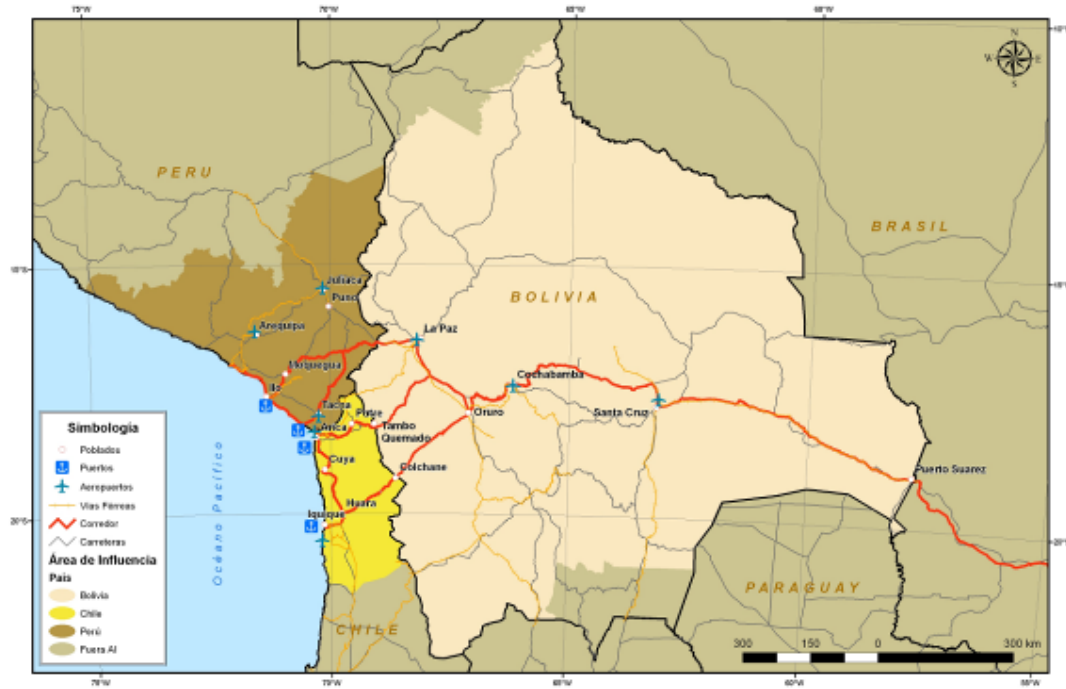
Figure 9 – Status of the Road Network in the Area of Influence

2.2.1 Road Network

Table 5 – Network by Road Type

Type of Network	Paved	Gravel	Dirt	Total
National and International				
Provincial				
Tertiary network				
Total				

Add a description or comment, where appropriate.

2.2.2 Railways

Include maps, describe conditions, cargo capacity, machines available, etc.

2.2.3 Sea Ports

Table 6 – Sea Ports in the Area of Influence

	Port 1	Port 2	Port 3	Port 4
General cargo (Tons/year)				
Solid bulk (Tons/year)				
Liquid bulk (Tons/year)				
Containers (TEU/year)				
Mooring length (m)				
Maximum draft (m)				
Roofed area (m^2)				
Unroofed area (m^2)				
Traveling cranes				
Material handling equipment				

Indicate source and year of reference.

Table 7 – Imports, Exports and Transit in the Area of Influence's Ports (Tons)

	Imports	Exports	Transit and Transshipment
Port 1			
Port 2			
Port 3			
Port 4			
Total			

Indicate source and year of reference

Describe each of the ports, types of goods handled, frequency, main routes and connections, the hinterland served, the related logistics platforms, etc.

2.2.4 Airports

Table 8 – Airports in the Area of Influence

Airport	Passengers	Cargo capacity (kg)	Flights per week	
			National	International
Airport 1				
Airport 2				
Total				

Describe the airports, available infrastructure, length of runway, cargo terminals, main connections, etc.

2.2.5 Waterways

Draw a map and describe signaling conditions, draft, dredging deficiencies, seasonal navigability, ports, transported tonnage, main products, etc.

2.2.6 Other Types of Infrastructure

If deemed relevant, add a description of the logistics platforms, free trade zones, energy power plants and networks, optical fiber, etc.

2.3 Structure and Dynamics of the Existing Production Network in the Area of Influence[4]

This section should be organized by country, i.e. describing the main economic activities in the part of each country included in the area of influence.

For each sector, indicate the following:
- main inputs and their origin (local, regional, international);
- major markets (local, regional, international);
- approximate number of businesses;
- employed labor force;
- aggregate turnover or GDP;
- business associations, trade unions, regulatory agencies, research centers, etc.

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[4] A preliminary version of this section of the report should be drafted as indicated in Phase I.3 of the methodology; however, in order to draft the final version, it will be necessary to complete Phase II.5, after the interviews.

Maps such as the one below may be included:
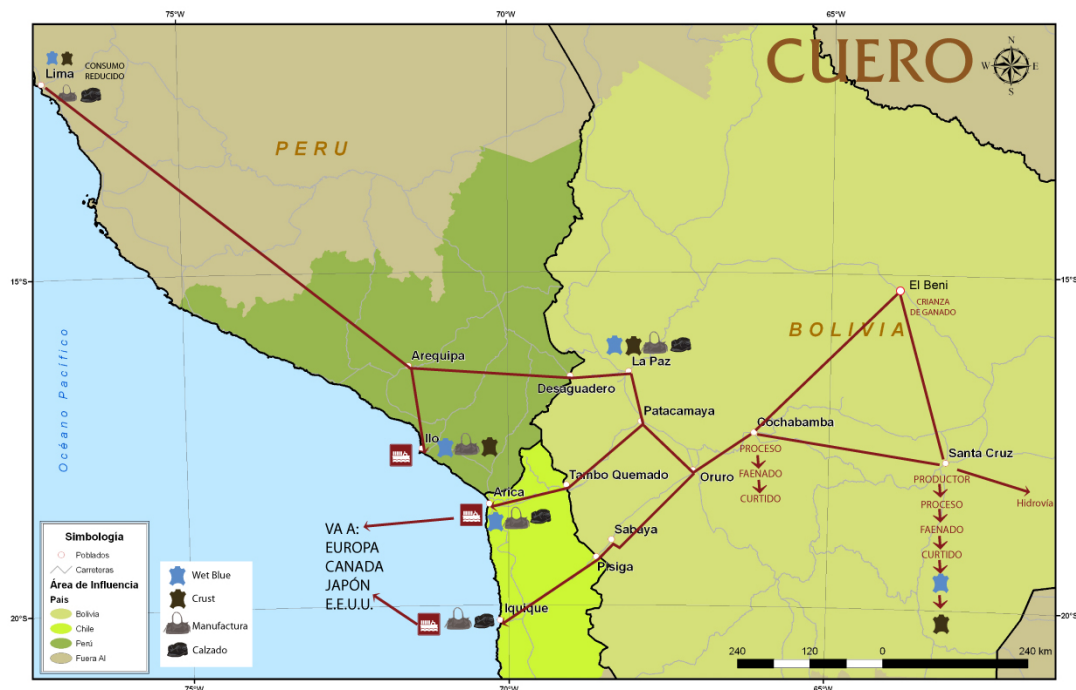
2.3.1 Manufacturing Industry

Main sectors and products: agrifood, dairy, meat, metalworking, autoparts, textiles, clothing, leather, footwear, chemistry, ceramics, cellulose, wood and furniture, etc.

2.3.2 Agriculture and Fisheries

Cultivated area, types of crops, cattle and sheep production, intensive or extensive production, farm products, forestation, etc.

2.3.3 Mining

Minerals extracted, area used and geographical location, main markets, etc.

2.3.4 Services

Describe only the services that might be relevant for the purposes of the methodology, such as transport, ports, airports, logistics platforms, free trade zones, etc. Nevertheless, the activity of these sectors will be described in item 2.2 "Existing Infrastructure in the Area of Influence."

Tourism, financial services or even other types of services may be an important part of the area of influence's economic activity. If so, it is advisable to make reference to them and specify the relative importance of the sector, though details need not be provided.

2.3.5 Foreign Trade

Complete the following tables and include any comments deemed relevant.

Table 9 – Ten Leading Products Exported by the Area of Influence in Country 1 to All Destinations

Summary Description	Exports in Year X (FOB USD)	% of Total Exports
Product 1		
Product 2		
Total 10		
Total Region		

Indicate source and year of reference

Table 10 – Ten Leading Destinations of Exports from the Area of Influence in Country 1

Country	Exports in Year X (USD FOB)	% of the Regional Total
Country 1		
Country 2		
Total 10		
Total Region		

Indicate source and year of reference

Table 11 – Ten Leading Products Exported to Country 2 by the Area of Influence in Country 1

Summary Description	Exports in Year X (FOB USD)	% of Total Exports
Total 10		
Total Region exported to Country 2		

Indicate source and year of reference

Table 12 - Ten Leading Products Exported to Country 3 by the Area of Influence in Country 1

Summary Description	Exports in Year X (FOB USD)	% of Total Exports
Total 10		
Total Region exported to Country 3		

Indicate source and year of reference

Table 13 - Ten Leading Products Imported by the Area of Influence in Country 1 from all Origins

Summary Description	Imports in Year X (FOB USD)	% of Total Imports
Product 1		
Product 2		
Total 10		
Total Region		

Indicate source and year of reference

Table 14 – Ten Leading Origins of the Products Imported by Area of Influence in Country 1

Country	Imports in Year X (FOB USD)	% of the Regional Total
Total 10		
Total Region		

Indicate source and year of reference

Table 15 – Ten Leading Products Imported from Country 2 by the Area of Influence in Country 1

Summary Description	Imports in Year X (FOB USD)	% of Total Imports
Total 10		
Total Region		

Indicate source and year of reference

Table 16 - Ten Leading Products Imported from Country 3 by the Area of Influence in Country 1

Summary Description	Imports in Year X (FOB USD)	% of Total Imports
Total 10		
Total Region		

Indicate source and year of reference

2.4   Breakdown of Production Sectors in the Area of Influence

Identify in the area of influence the economic sectors selected —the production areas that are more consistent as to main product type, origin of inputs, destination of the products sold, logistics organization and structure, etc.

Draw up a map showing the main production areas within the area of influence, as shown below.

Figure 10 – Selected Production Sectors
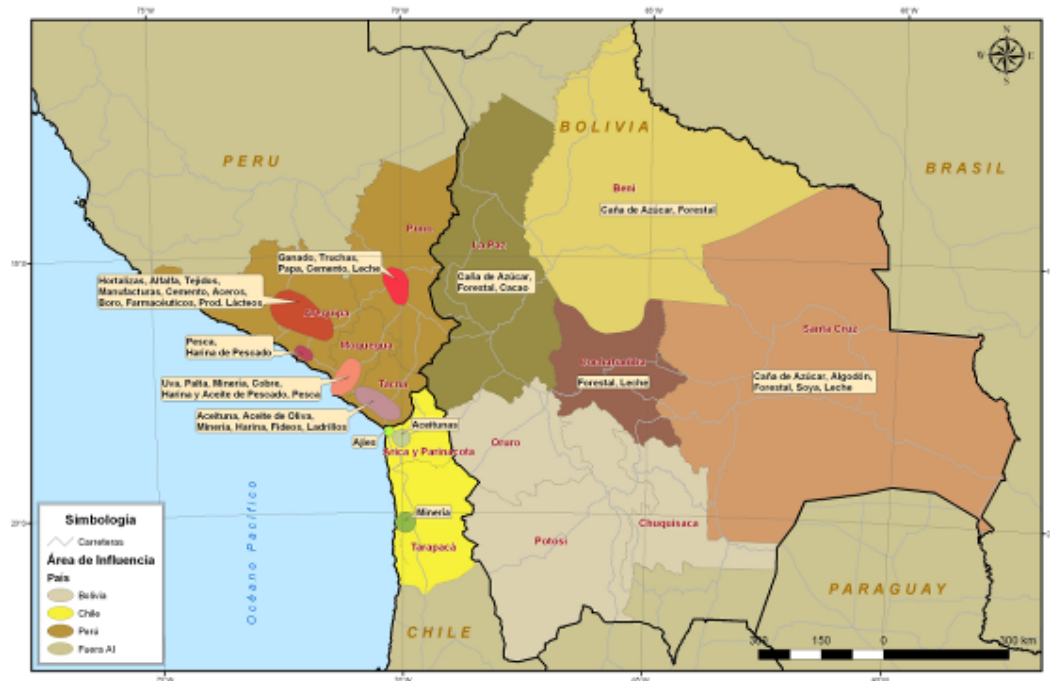
3. Analysis of the Production Network and its Breakdown into Production and Logistics Chains

3.1 Selection of Economic Sectors for the Analysis[5]

Describe the selection criteria: Why are the sectors selected considered to have potential for regional integration?

The selection should be based on three fundamental criteria:

1. First, the chain or sector should actually or potentially benefit from the Project Group.
2. Second, the chain or sector should be actually or potentially relevant for the development of the area of influence in the different countries.
3. Third, the chain or sector should be actually or potentially important for the economic integration of the countries involved in the Project Group.

Chains or sectors should meet the three criteria listed for selection purposes.

Explain what degree of regional integration may be attained in the economic sector selected. Consider different scenarios: expansion of scale, rise in productivity, integration across the chain, geographical concentration.

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[5] As mentioned in Section 2.3, in order to select the economic sectors and describe the production chains, it is necessary to analyze the information and opinions supplied by the actors involved, as provided for in Phases II.3, II.4 and II.5 of the methodology. However, before the interviews, a preliminary selection should be made on the basis of secondary information, as indicated in Phase I.3.

3.2 Production Chains

For each economic sector, describe the economic activities and actors involved. Design the chains and identify their main components. Identify the most developed, organized, and strongest links as well as the least developed, organized and weakest links.

Draw a figure as follows:

Figure 11 – The Scrap-Wire Production Chain
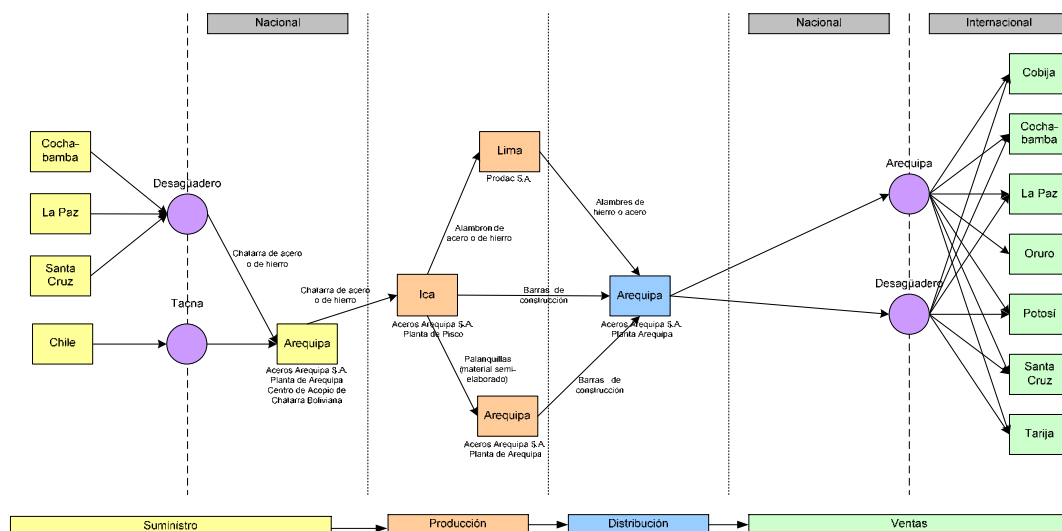
3.3 Breakdown of the Flow of Goods Traded in the Area of Influence by Logistics Sector

Identify common patterns as well as consistent logistics sectors for **all** the goods transported in the Area of Influence. Describe their characteristics, such as the products that form part of the logistic group, main origins of inputs, main destination of the products sold, the most usual logistics practices, cargo density, etc.

This analysis requires combining different sources of information, such as foreign trade data, production data from the different geographical areas, surveys conducted by the Ministry of Transportation about cargo transportation modes or data supplied by the sector's trade unions.

Start analyzing the import and export flows, in which it is easier to identify volumes by point of entry and exit. It is more complex to identify the origin of exports or the final consumption or processing place of imports.

Interviews conducted with freight carriers, logistics operators and shippers will enable the identification of the logistic groups that are more relevant for the logistics activity created, the most common ones being the following:

- Mass consumption products
- Cold chain products
- Household and electronic appliances
- Spare parts
- Textiles
- Agricultural products not requiring cold chain
- Construction materials
- Industrial inputs
- Mining
- Machinery and equipment

For each group identified, draw up schemes and maps as the examples below.

Figure 12 – Value Density Matrix
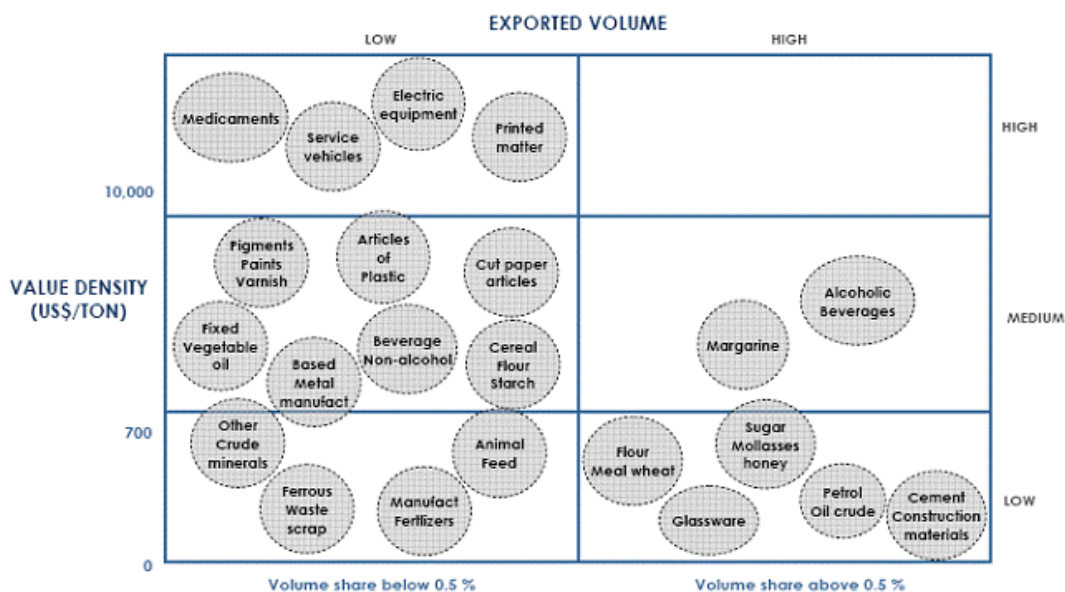
Source: ALG

Figure 13 – Flow of Mass Consumption Products
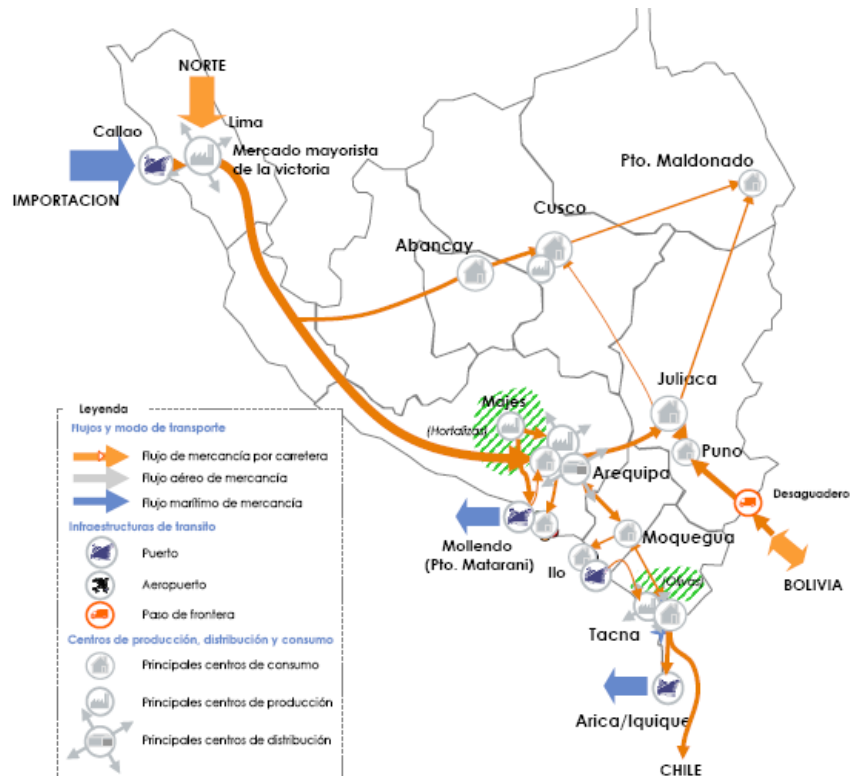
Figure 14 – Flow of Textile Exports

Source: ALG

PART 2. POSSIBLE CHANGES IN THE PRODUCTION NETWORK DYNAMICS AND IN THE LOGISTICS SYSTEM[6]
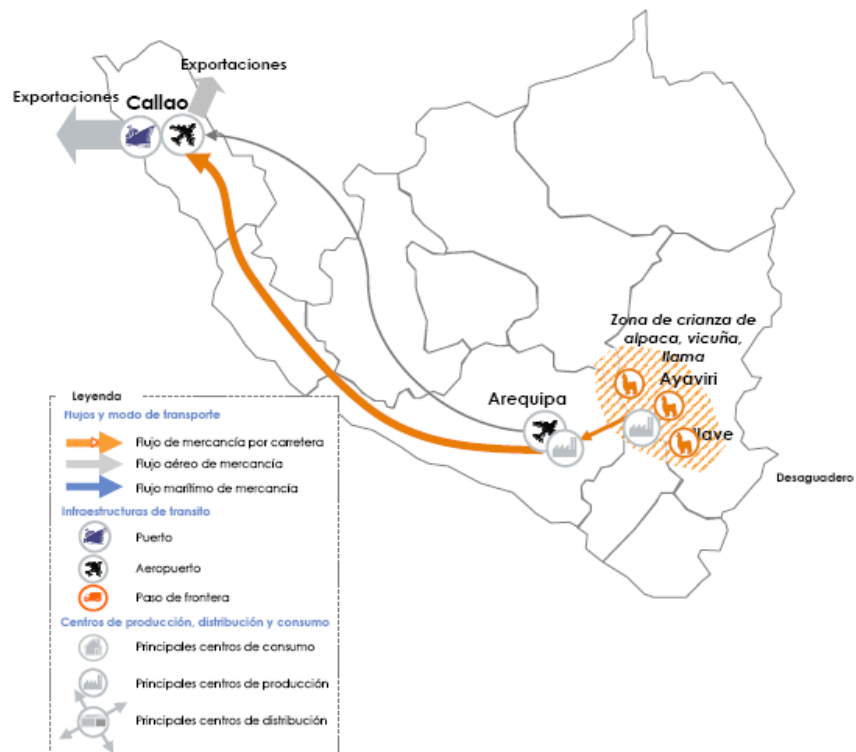
1. Production Chain Structure[7]

Describe the potential or future structure of the production chains, either completely or partially located in the area of influence, after the changes resulting from the implementation of projects within the Project Group as well as from the actions and projects proposed.

Include illustrations of the new design of the production chains, with the changes duly identified.

Figure 15 – Flow of the Scrap-Wire Chain

2. Structure of the Logistics Chains[8]

Identify any potential changes in the structure of the logistics chains as a result of the implementation of projects or the overcoming of existing obstacles.

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[6] Step II of the methodology. Take into account that Phases II.1, II.2 and II.3 consist in preparing and carrying out the field work, but do not necessarily result in outputs to be included in the main body of the final report. The questionnaires or interview guides as well as a summary of them may be incorporated into the report as annexes. In addition, the information gathered and analyzed based on Phases II.3, II.4 and II.5 will be incorporated into item 3, Part 1, of the final report.
[7] Phases II.4 and II.5 of the methodology.
[8] Phases II.4 and II.5 of the methodology.

For example, logistic complementarity and possible centralization:

Figure 16 – Centralization of Stock
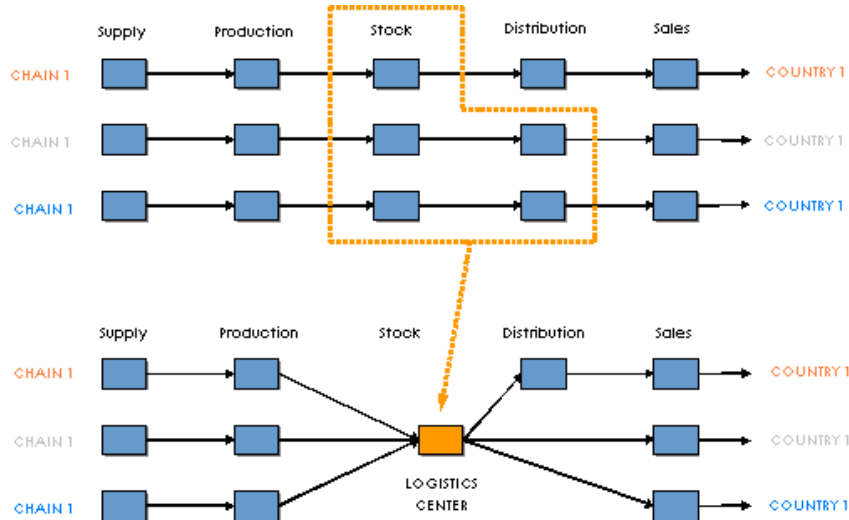
3. Hypotheses Regarding the Changes Likely to Take Place in the Production and Logistics Dynamics

Include a summary of the hypotheses formulated. Describe the ones accepted as well as the ones rejected, and provide relevant explanations. Analyze the changes likely to take place in the production dynamics, as pointed out by the interviewees.

PART 3. PROJECTS AND ACTIONS PROPOSED AND ASSESSMENT OF THEIR IMPACT ON THE DEVELOPMENT OF THE AREA OF INFLUENCE[9]

1. Compilation and Classification of the Projects and Actions Proposed

Taking into account the proposals and ideas put forward and the comments made by the interviewees, the user should systematically organize the information, identifying classification criteria and grouping ideas and proposals that, though put forth in different manners, are intended to solve the same problem or find an identical solution. This is the time when the user will also include his/her own proposals.

Explain the classification criteria used not only to group the proposals and actions but also to establish a relationship between them.

Table 17 – A Summary of Projects and Actions

Description		Term	Initiative	Impact		Relation	Remarks
				IPr	SLVAs		
Infrastructure							
1	Project A	Short	Public		Low	3, 5	
2	Project B	Medium	Private		Medium	-	
3	Project C	Long			High	1	
Logistics Services							
4	Proposal 1					6, 9, 10	
5	Proposal 2					1	
Trade Facilitation							
6	Idea 1					4, 9, 10	
7	Idea 2						
Other Proposals							
8	Action A						
9	Action B					4, 6, 10	
10	Action C					4, 6, 9	
11	Action D						

2. Combination of Actions, Complementary Projects and Business Opportunities

This is a key factor in this work, and perhaps the most complicated one. As explained in the methodology, this involves identifying interdependencies between the potential for Ipr and development of SLVAs, on the one hand, and infrastructure projects, solutions to overcome obstacles to trade and the flow of goods, and business opportunities. Such interdependencies define a set of projects, actions and business opportunities evidencing an economic reasoning that gives sense and priority to the action plan to be proposed.

A set of projects, actions and business opportunities identified for the grain-poultry complex in the Capricorn Hub, Project Group 3 has been transcribed below for illustration purposes.

"When analyzing the destination of Paraná imports and the origin of Paraná exports of the products in the links of the production chains selected, an important percentage of the trade

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[9] Step III of the methodology.

flow is concentrated in the Western portion of the area of influence (Cascavel/Francisco Beltrão/Pato Branco region).

If, with the implementation of infrastructure projects integration production is encouraged, these findings have to be seriously taken into account in order to establish priorities and desirable timeframes to execute the GP-3 projects (those within IIRSA's portfolio or complementary to it). These findings indicate that, from the territorial point of view, it is advisable to focus on the Western area of the state of Paraná and on the Eastern region of Paraguay, and that, from the production point of view, attention should be focused especially on the grain and poultry chain. It is in these territories of the area of influence and in these production chains where the best conditions are found to strengthen production integration between Paraguay and Paraná in the short or medium term.

Reinforcing this conclusion, we may add that it is necessary to consider other circumstances that contribute to the consistency and cohesion of the set of projects, obstacles and business opportunities that will be outlined further on. These circumstances are:

1. *Whatever the economic future envisioned for Paraguay, it will undoubtedly include the following: development of agricultural production in the Eastern side of the country, development of agroindustry associated with agricultural production, equal and/or improved levels of competitiveness to ensure an increase in agricultural exports, constant improvement of accessibility and mobility conditions in the Paraguay-Paraná waterway, enlargement and improvement of ports related to the waterway and of transportation and logistics services for agricultural and agroindustrial products and inputs.*

2. *Realistic perspectives for the implementation of plans designed to enlarge and recondition the railway transport system in Paraná are as follows: the Cascavel-Guaíra section is likely to be more rapidly implemented than the Cascavel-Foz do Iguaçu section, and the construction of the railway bridge over the Paraná river is at the preliminary study stage. However, strong disagreements between Ferroeste and ALL preclude us from making any reasonable prediction about the investments in railway infrastructure that are required to improve the Cascavel-Paranaguá connection. For this reason, provided transportation costs in the Paraguay-Paraná waterway are kept below land transport costs (either by road or by railway) to get to Paranaguá, the waterway will continue to be the main pathway for agricultural exports.*

3. *The exportation of seeds, fertilizers, hatching eggs and capital goods to Paraguay as well as the importation of grains from Paraguay have become a very significant business for companies and cooperatives in the Western area of Paraná. The grain and poultry production growth in Paraguay may considerably increase the scale of Paraná activities related to the grain-poultry production chain. This means that there are powerful economic interests that support the strengthening of the production integration process.*

4. *Constrained by the conflict between the geographical concentration of animal protein production and the environmental and sanitary rules in force, among other factors, poultry production in the Western area of the state of Paraná will find it difficult to expand in the near future. For this reason, there is already some interest in investing in poultry production in Paraguay. With its soybean, corn and wheat production and with its skilled farmers who make use of technology for production, Paraguay may become a target for Brazilian investments in the sector. Cooperatives in the Western region of Paraná have the necessary technology and capital to make such investments, but face the problem, as already stated, of not being allowed to operate in Paraguay as co-ops.*

Against the backdrop of these facts, we may propose a set of infrastructure projects (within IIRSA's portfolio or complementary to it), obstacles, difficulties and business opportunities that should include the following elements: expansion of poultry production in Paraguay; an asphalt plant in the Western region of Paraná; the duplication of route BR 277 between Cascavel and Foz do Iguaçu; beltways in Cascavel and Foz do Iguaçu; a second road bridge; the paving of rural roads in Paraguay; energy transmission lines for rural electrification purposes; improved sanitary status for the Paraguayan poultry production; poultry production in Alto Paraná and Itapúa departments; poultry exports through the Paraná river; cold chain development/improvement to support an increase in poultry exports through the river; increased movement in the Paraguay-Paraná waterway; improvements in the waterway (dredging, signaling); business expansion at ports; expansion of port operating capacity; introduction of trucks with greater load capacity in Paraguay; production of barges in Paraguay or Brazil.

With these proposals in mind, we may build a realistic and plausible scenario to be implemented in the mid-term (approximately five years). If only some of these proposals are considered, the following picture can be depicted: an increase in poultry production (as a result of investments by the Brazilian private sector or co-ops) will demand improvements in the basic infrastructure of Paraguay (rural roads, port access roads and rural electrification); the increase in poultry exports through the Paraná river will press for physical improvements to be introduced to the river, ports and cold chain; the increase in exports will also demand a greater number of barges; increased exports will justify investments in the enlargement and improvement of services offered by the ports and river transportation companies; increased poultry production will contribute to an increase in grain production and, therefore, in the movement of seeds, fertilizers, machinery and equipment from Brazil to Paraguay, which in turn will account for the improvements in transport infrastructure connecting the Western area of Paraná to Paraguay.

The economic reasoning behind this scenario is that the new demands create new business opportunities. If these opportunities are supported by timely investments of an adequate amount, the efficiency of the set of components increases, on the one hand, and new realistic business opportunities are created, on the other. For example, when production in the area grows, a greater demand for transportation services in the waterway is created, thus opening new business opportunities for the private sector. If these business opportunities are not properly tapped and, hence, neither the scope nor the quality of the services related to the waterway improve, railways and/or roads will become again the best alternatives. In turn, an increase in the demand for railway services may give rise to a virtuous circle of demand for and investment in land transportation, similar to the successive events already described for the waterway.

Creating a set as the one we have just proposed is useful to show that infrastructure is an element that has to be associated with other elements (or other obstacles), which in turn must be identified, analyzed and decided as a whole so that infrastructure should actually work and produce the desired results, which for IIRSA means supporting production integration.

We may try to sort by priority the elements that form part of the set, for which purpose it is advisable to reassemble the previously described set, by dividing it into four subsets.

The first one would be composed of the actions and projects related to the need to improve the flow of goods between the Western side of Paraná and the Eastern side of Paraguay. This subset would include, for example, the Cascavel and Foz do Iguaçu beltways, an intermodal terminal in Cascavel or Foz do Iguaçu, an Intermediate Customs Station in

Cascavel, a second road bridge over the Paraná river, the border center and the Cascavel-Foz do Iguaçu railway.

The second subset would include the elements related to the goal of improving the supply of infrastructure and services that support the agricultural production in the departments of the area of influence located south of Ciudad del Este (Itapúa and Alto Paraná). In this subset, secondary roads and the circulation of multi-trailer trucks may be included, for example.

The third subset would comprise the actions and projects associated with the improvement of the transportation conditions in the waterway. It would include, for example, dredging and signaling of rivers, access roads to ports, improvement of services rendered by ports and development of the cold chain.

The fourth subset would include projects and actions with more general effects, such as actions designed to improve the sanitary status of poultry produced in Paraguay as well as actions aimed at enhancing labor qualifications.

If the strategy, as proposed, is to attract investments to poultry production in the Itapúa and Alto Paraná departments and export such production through the waterway, it is necessary to adequately match projects and actions in each subset by combining those deemed more urgent and necessary for supporting the strategy designed to attract investments to poultry production, on the one hand, and for ensuring the availability of infrastructure and other conditions so that the production and exportation pursued with such investments can take place in adequate circumstances, on the other. In this regard, the most urgent actions would be those designed to increase the availability of infrastructure and services to support production (for example, the improvement or paving of rural roads, and rural electrification), combined with other actions related to the improvement of navigability in the waterway (for example, dredging and signaling). The least urgent actions would be those included in the first subset.

3. Assessment of the Impacts of the Set of Projects and Actions on IPr SLVAs Development

3.1 Evaluation of the Potential for Production Integration

Based on the description included in the section above, the hypotheses put to test in the interviews, and the arrangement of the production chains proposed in Section 3.2, specify the impact that the implementation of the project group, the complementary infrastructure and the actions proposed might have on the regional production integration and the development of the area of influence.

3.2 Assessment of the Potential for SLVAs Development

Same as above, but for the case of value-added logistics services.

4. Recommendations for an Action Plan

Organize the projects and actions based on their priority. Prepare a work agenda, identifying the agencies or institutions responsible for their implementation.

ANNEX I. Page Configuration and Formats

To facilitate the editing of the final reports, Microsoft Word "Styles" function is recommended.

Normal style for the standard text of the report:
- Font: Arial; font size: 11pt
- Text align: left
- Text indent: 0%
- Spacing before or after: 0 pt. Manually insert a blank line before each new paragraph.
- Single-spaced lines

For headings, apply the "Numbering scheme" in order to keep the sequence automatically and create a table of contents.

Heading 1 Style**:**
- Font style: Arial; font size: 12pt; bold
- Text align: left
- Hanging indent: 0.76 cm
- Spacing: before 12pt; after 6 pt
- Single-spaced lines
- Level 1 of the numbering scheme, type **1.**
- Insert a tab after the number

Heading 2 Style**:**
- Font style: Arial; font size: 11pt; bold
- Text align: left
- Hanging indent: 1.02 cm
- Spacing: before 12pt; after 3pt
- Single-spaced lines
- Level 1 of the numbering scheme, type **1.1**
- Insert a tab after the number

Heading 3 Style**:**
- Font style: Arial; font size: 11pt; italic
- Text align: left
- Hanging indent: 1.27 cm
- Spacing: before 12pt; after 3pt
- Single-spaced lines
- Level 1 of the numbering scheme, type *1.1.1*
- Insert a tab after the number

A4-page size; left and right margins: 3 cm; top margin: 3.3 cm; bottom margin: 2.5 cm.
Headers and footers: 1.25 cm.