A New Planning Stage

Methodology to Evaluate the Potential of Integration and Development Hubs for Production Integration

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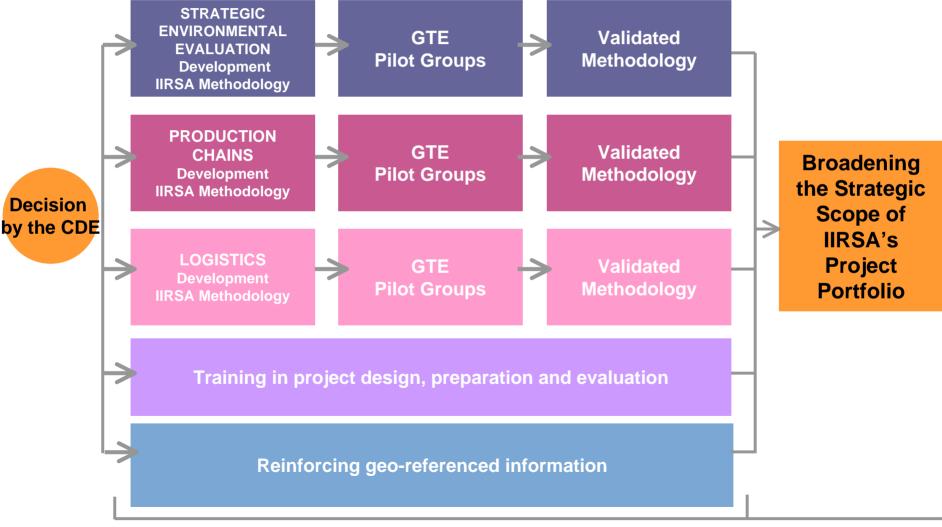
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A New Planning Stage

- Broaden the strategic scope of IIRSA's Project Portfolio
 - gaining insight into the following dimensions: logistics, competitiveness, and social and environmental sustainability of the territories in each project group.
 - reinforcing geographically-based information.
 - improving analytical methods.
 - evaluating and improving the design of project groups.
 - identifying complementary economic, social, environmental and institutional actions.
- Create opportunities for sustainable development through physical integration
 - ensuring an adequate balance of economic, social and environmental impacts.
 - improving the effectiveness of the logistics system.
 - increasing the competitiveness of production chains.
 - fostering social progress.

Broadening the Strategic Scope of IIRSA's Project Portfolio



Production Integration – Objectives

- The methodology to be applied is expected to identify the potential of Integration and Development Hubs (EIDs) for production integration, their link with IIRSA's infrastructure projects, as well as their impact on local and regional economic development. In addition, complementary actions and/or projects fostering production integration in EIDs will be identified.
- The methodology will be tested on two pilot project groups.
- A guide will be drafted to support the application of the methodology to IIRSA's project groups.

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Production Integration – Its Concept

- A process that focuses on creating a larger preferential market in the region that should reap the benefits of:
 - Diversifying exports to the intraregional market and the global economy as a whole, and
 - A greater number of economies of scale and greater specialization, resulting from changes in business strategies, in search of new markets or new international trade opportunities.

This process promotes:

- the integration of production chains;
- more value added to products;
- stronger forward and backward production linkages, and
- a diversified production network or the development of new sectors.

Production Integration and Infrastructure

- Infrastructure brings different economic areas closer and enlarges market size, as it removes trade barriers => reduction of transport and communication costs, transaction costs and time savings.
- Effects of infrastructure: larger markets, greater specialization, larger scales, efficiency gains and better use of resources.



Methodology Stages

- Analysis of Project Groups
- Specific Evaluation Methodologies
 - Approach to Production Chains
 - Analysis of Networks
 - Analysis of Clusters
- Interviews
- Drafting a Methodology Implementation Guide



Analysis of Project Groups

- Make a diagnosis of the regional economy the Project Group's direct area of influence.
 - supplement the information specified in the Business Visions
 - guide the following work stages
- Identify major economic activities and their production potential vis-à-vis IIRSA's investment.
- Define the method and work procedures:
 - collect secondary information, and
 - hold interviews with analysts, experts and private and public sector representatives.



Analysis of Project Groups

First Part:

- basic physical characteristics
- demographic aspects
- main production activities
- insertion in trade flows
- growth dynamics of regional production sectors

Second Part:

- dynamic activities with a potential for production integration
- production integration feasibility
- possible general strategies for production integration

Specific Evaluation Methodologies

- Well-rooted research methodologies aimed at evaluating the potential for production integration:
 - production chains
 - analysis of networks
 - analysis of clusters
- Method and work procedures:
 - Review available studies on chains, sectors and the institutional context.
 - Collect secondary data from statistics-related agencies.
 - Visit the locations where previously identified production chains are.
 - Hold interviews with analysts, experts and private and public sector representatives.



Production Chains

- A method to describe the production chain structure, linking raw material production, processing and manufacturing with consumer centers or ports for end products:
 - Measure the project group's impact on leading value chains.
 - Identify the profitability of each stakeholder and of the whole chain, before and after infrastructure investments are made.
 - Assess cost economies after infrastructure investments are made.
 - Estimate improved competitiveness after infrastructure investments are made.
 - Identify any complementary project/work for investments to gain impact and efficiency.
 - Identify any complementary exchange or tax policies to maximize project impact.
 - Analyze any impact of infrastructure-related investments beyond the project group's area of influence.



Approach to Networks

- An effective method to identify complementary chains and projects as well as their horizontal links –a guide or checklist describing infrastructure features and the production activity organization:
 - Players
 - Technological background
 - Coordination and governance
 - Insertion in national and international markets
 - Pre- and post-project dynamics
 - Other investments
 - Institutional, legal and regulatory aspects involving production activities



Analysis of Clusters

- A method to identify complementary investments as well as public and private actions for the strengthening of clusters
 - <u>Describe clusters/archetypes</u>: their degree of maturity (missing components) and any complementary investment.
 - <u>Identify its components</u>: firms, forward and backward production linkages, horizontal linkages (marketing, related services or technologies), institutions (training, technologies, information, capital and infrastructure), regulatory agencies and bodies.
 - <u>Characterize firms and activities</u>: mapping subsectors functions (vertical levels); main players, types of firms, distribution and coordination channels; environment – regulation; labor; implemented policies (utility rates); clash of interests (value added, investment, market, technology); competitiveness and vertical relations among firms.



Methodologies combined

- Approach to chains: Characterize the anchor activity capable of promoting backward and forward production linkages in the chain; identify any bottleneck in existing infrastructure as well as its possible solutions (complementary projects identified in fieldwork interviews).
- <u>Approach to networks</u>: Complete the information collected in the approach to chains; checklist any complementary investment and action; bring the economic network in line with infrastructure.
- Approach to clusters: Determine how mature local/regional development is and how important infrastructure investment can be for the dynamics of economic activities.



Interviews

Interviews with private and public sector representatives in a position to make strategic decisions.

Interviews held to validate studies and outcomes from other stages, identify new investments and business opportunities as well as public and private strategies.



Selection of Project Groups

- <u>Basic criterion</u>: representative of all the EIDs and a wide range of diverse situations (degree of maturity, economic diversity and complexity)
- More complex situations: evaluate the potential of more diversified economies for production integration (assumption: strong impact on many activities, with less relative impact on each single activity)
- Less mature situations: evaluate the impact on less diversified regional economies, i.e. less mature and economically developed (assumption: great impact on fewer activities, with a more significant relative impact on each single activity)
- <u>Additional criterion</u>: establish a schedule with a specified time frame to apply the methodology to the pilot groups and to draft the Methodology Implementation Guide



Selected Project Groups

- MERCOSUR/Chile Hub Project Group 3 Valparaíso–Buenos Aires Project Group/complex, densely populated EID, accounting for a large GDP share in each domestic economy. Diversified economic activities: agro-industrial (food, beverages, juices, wine, glucose, etc.), industrial (metallurgical, chemical, textile, food, automobile, etc.), commodities (cereals, fruits and meat) and production support services. Investments with a high regional impact (Transandean Railway and Improvement of Highway No. 7)
- Capricornio Axis Project Group 3 Asunción Paranaguá Project Group/less diversified EID, with a high impact economic potential. Main economic activities: agricultural (soya, cotton, corn, wheat, etc.) and poultry breeding; its production chains have a great potential for integration and adding value. Given the difficulties to take products out of their production centers, planned investments will be of significance (transportation costs will be reduced, time saved and agricultural and agroindustrial sectors diversified).



Expected Results

- Develop a methodology
- Draft an Implementation Guide practical guidelines to apply the methodology
- Apply the methodology to two pilot cases assess investment impact on the potential for production integration
- Enhance the quality of IIRSA's economic and territorial planning process