Fernanda Cravidão
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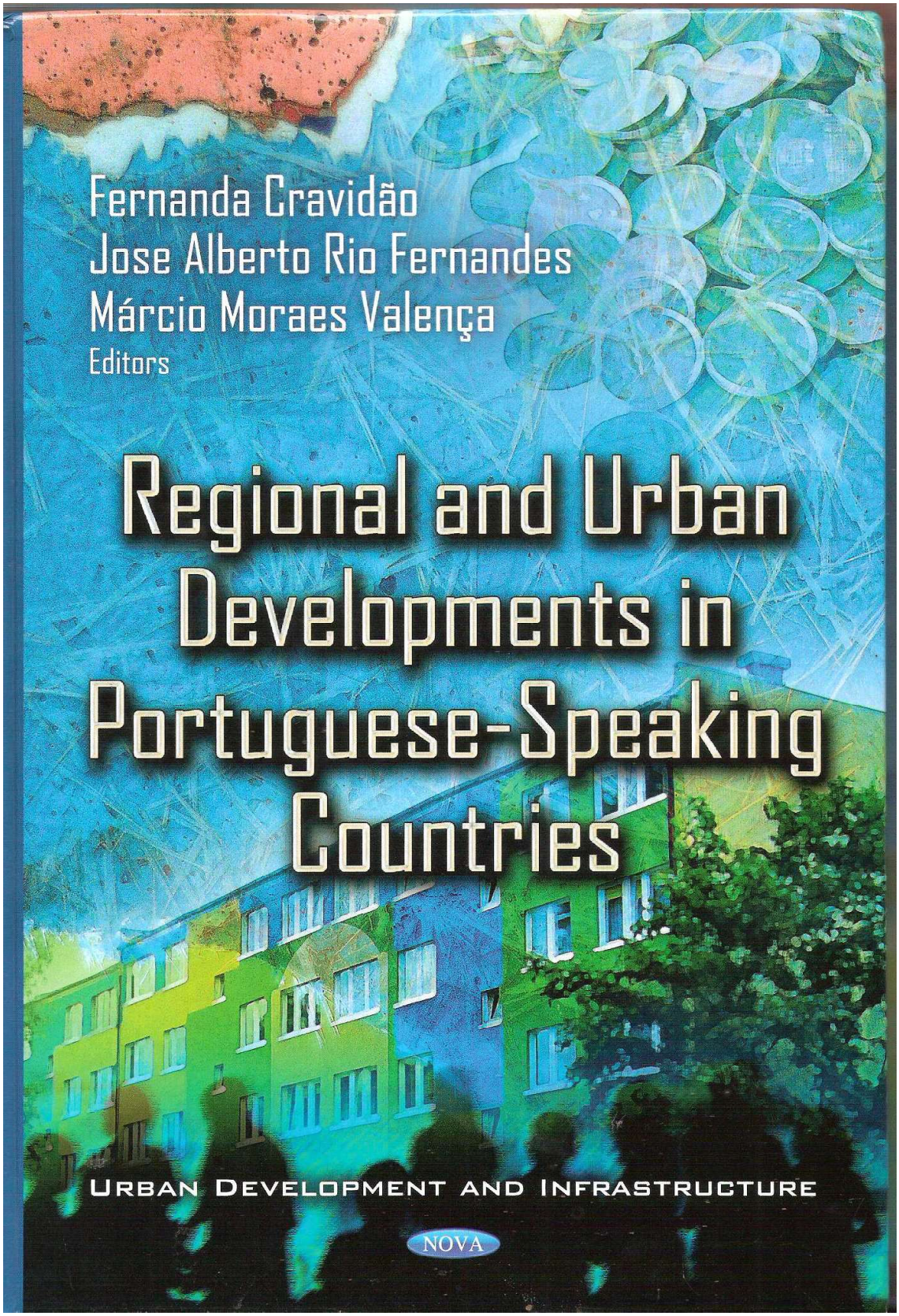
Editors

Regional and Urban Developments in Portuguese-Speaking Countries



URBAN DEVELOPMENT AND INFRASTRUCTURE

NOVA

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URBAN DEVELOPMENT AND INFRASTRUCTURE

REGIONAL AND URBAN DEVELOPMENTS IN PORTUGUESE-SPEAKING COUNTRIES

FERNANDA CRAVIDÃO
JOSÉ ALBERTO RIO FERNANDES
AND
MÁRCIO MORAES VALENÇA
EDITORS

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Chapter 4

THE SPATIAL INTEGRATION OF THE REGIONAL INFRASTRUCTURE IN SOUTH AMERICA

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ABSTRACT

The objective of the article is to analyze the geopolitics of natural resources, its relation with infrastructure projects and the latest "Initiative for the Integration of Regional Infrastructure in South America" (IIRSA) that has been advancing in a silent and slow pace as such a vector that complementarily produces a bigger interdependence among countries and between the Mercosur and the Andean Community sub-regional blocks with the construction of sectorial networks of transportation, energy and telecommunications. Throughout this discussion, based on the study of the speech in official documents and on critical debates to the IIRSA plan, the article supplies assistance for a better comprehension of the physical integration in the continent and the hubs that cross South America in order to demonstrate the main motivations, controversies and limitations and their reflectivities in the international relations of the region.

Keywords: Amazon, Brazil, IIRSA, infrastructure, Pacific, regional integration, South America

INTRODUCTION

"The development and the integration of the countries of the New World demand work in order to offer to South America networks to the Atlantic and the Pacific Oceans, with infrastructure of fluvial and terrestrial transportation, communications and energy".

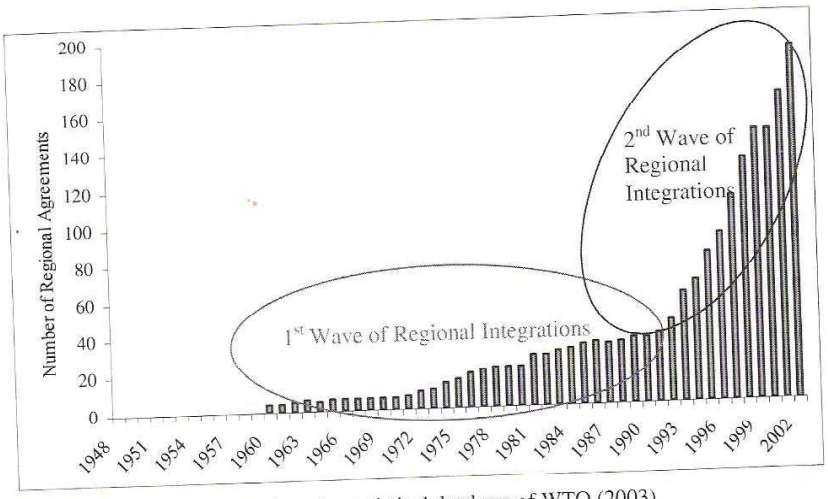
José Alencar Gomes da Silva
Vice-President of Brazil

Countless and deep changes in the international system have revealed new constructions and old geostrategic rearrangements that stand out due to the creation of regional agreements with geoeconomical and geopolitical dynamics in the international relations.

The regional integration trends have been turning latent and acquiring prominence in the international system, respectively, with the creation of transnational blocks aimed to form competitive and development areas and with the formation of influence areas focused on the opening of spaces for the hegemony duty.

The international opening process of the national borders, naturalized in the proliferation of regional integrations, has been interpreted as an intermediate scale between the national scale and the global scale that was born in a complemental evolution to the multilateral scale (Senhoras, 2006).

The regional agreements of integration in the contemporary world have been spaces of state conglomeration that entered definitively in the agenda of the international system in the post-Cold War period through two waves of regionalization, in the decades from the 1950s to the 80s and from the 1990s to the current days.



Source: Authors' elaboration. Based on the statistical database of WTO (2003).

Graph 1. Historical Evolution of the Regional Integration Agreements.

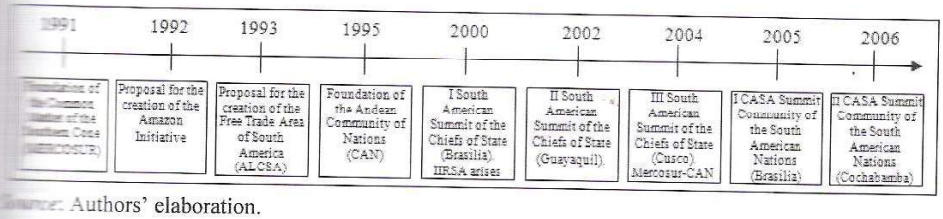
The regional integration agreements have been one of the largest movements in the international relations considering that practically all the countries in the globe are members of a block and many of these countries belong to more than just one block, demonstrating that almost two thirds of the world trade takes place through those regional agreements (Hilaire and Yang, 2003).

The integration of the States in *transnational regions* makes reference to a new representation of the space with specific effects over the spatial practices of construction, once the borders of the States have turned out to be considered much more as continuities instead of limits and on the other hand the foreign policies have increasingly been thought in terms of a complex interdependence that creates sensibilities and vulnerabilities.

Inside the broad expansion structure of the regional integration processes in the world a profound study of the South American regionalism through physical integration of a shared transnational infrastructure is the subject of this paper due to its centrality for a better understanding of the main foundations, motivations, controversies and limitations of the Initiative for the Integration of Regional Infrastructure in South America (IIRSA) that has been developed in the continent.

The renewed effort for the integration by means of IIRSA has been settled in an agenda of commercial integration that pulses associated with historical and geographical tendencies to approach the countries of South America through different regional integration agreements (Witte, 2006).

In the Latin-American contemporary history the regional projection of a genuine South American speech of integration began in the year of 1992 with the Amazonian Initiative proposing a free trade agreement among the eight countries of the Amazonian transnational area, and progressively started maturing in 1993 with a wider proposal to start the Free Trade Area of South America (ALCSA), that was not executed but advanced in 2000 with the signature of the Initiative for the Integration of Regional Infrastructure in South America (IIRSA), and finally the formation of the Community of the South American Nations (CASA) in 2004, recently renamed as South American Union (UNASUR).



Source: Authors' elaboration.

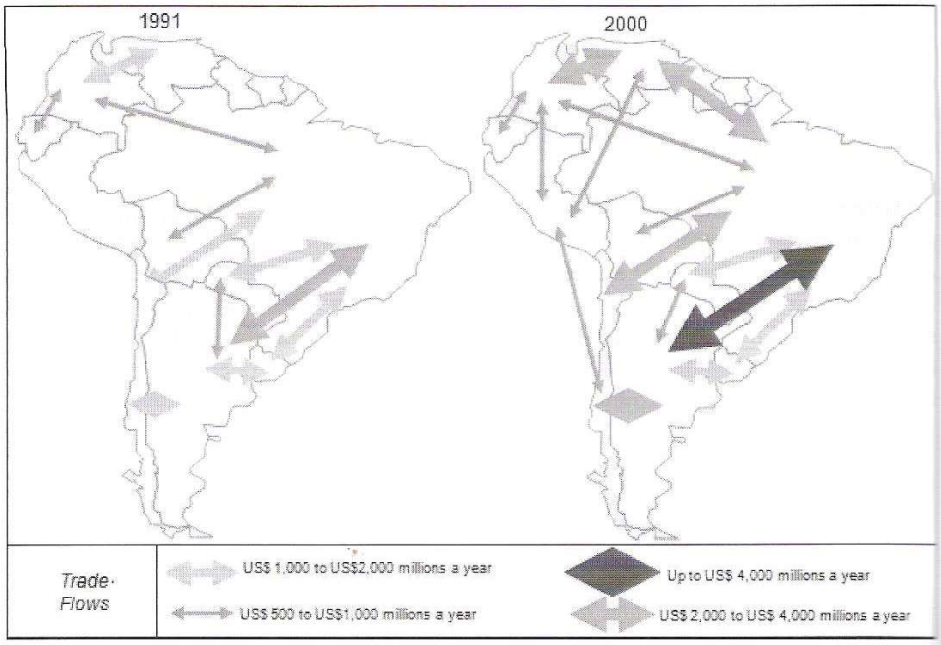
Box 1. Chronology of the New South American Regionalism.

Despite the historical past settled in Latin American integration ideals, the proposition that the geoeconomical and the geopolitical unit of South America could be an effective platform for the development of the countries in this region reveals a series of recent speeches to form an integrated South American space that have been soaked by a conjugation of geostrategic changes impelled in the internal conditions of each country and in the own evolution of the international events.

The centrality of South America in the geopolitical speeches have been part of a regional strategy in the subcontinent since it was initially put in practice by the Brazilian leadership in 1992 with the release of the Amazonian Initiative when the geographical sphere of the regional policies was delimited with the exclusion of the Central American and the Caribbean countries.

> "It has been sought not only the consolidation of Mercosur but also the constitution of a 'second concentric circle' by the celebration of free trade agreements between Mercosur and other South American countries. The signaling has a double sense. It indicates that Mercosur does not become exhausted in itself, constituting the nucleus of a larger process of integration. On the other hand it recognizes that the reality to Brazil is not Latin America, but South America indeed" (Batista Jr., 2005: XII).

The maturation of the South American speech has grown through the ambitious proposal to create Free Trade Areas for South America (ALCSA), but it was only effective through the evolution of the intra-regional trade and the consolidation of the subcontinental integrational agreements of the Mercosur and the Andean Community.



Source: Authors' elaboration. Based on the statistical database of ECLAC..

Map 1. Evolution of the intra-regional trade in South America.

The evolution of the discussions about the integration of South America has turned the Summits of the Chiefs of State in a forum of effective institutional centrality, on one hand, deepening the integration in the continent through the release of a regional initiative for the integration of the physical infrastructure (IIRSA), and on the other hand, converging the Andean Community and the Mercosur blocks in a single South American voice with the appearance of a free trade area of inter-block trade and with the creation of the South American Community of Nations.

The reality engendered in the four South American Summits of the Chiefs and Presidents of State created the South American Community of Nations (CASA), later renamed as South American Union (UNASUR) as a demonstration that the discussions about the physical integration of the subcontinent through IIRSA has seduced both the most neoliberal or leftist governments although the divergent arguments.

Despite the convergence on the infrastructure themes, the Summits of 2000, 2002 and 2006 failed to progress over the obstacles of IIRSA, postponing to the Summit of 2004 the responsibility to define 31 consent projects with an execution calendar between 2005 and 2010.

The true positive agenda of Mercosur and the Andean Community in that constructivist process full of progresses and frictions displayed that the transnational integration of the infrastructures, in spite of the fiscal and environmental constrictions, deals with a theme that seems to become permanent in the evolution of the regional integration.

GEOPOLITICS OF NATURAL RESOURCES IN SOUTH AMERICA

Over the centuries, the geopolitical pattern of exploitation of the natural resources in South America has been a common feature structured in the long term of capitalism as an intensifying profound force through technical progress and infrastructure innovations that reflect in the fluidity of dynamic processes of territorialization and reterritorilization.

This historical geopolitics of natural resources appears to be a profound force in the South America development in the long-term by the cyclical dynamics of opening and closing processes in the territories.

According to Becker (2004) there is a possibility frontier for the exploration of South America caulked on the biodiversity of natural resources that has always been susceptible to the international relations of asymmetrical power in all historical periods of the territorial formation.

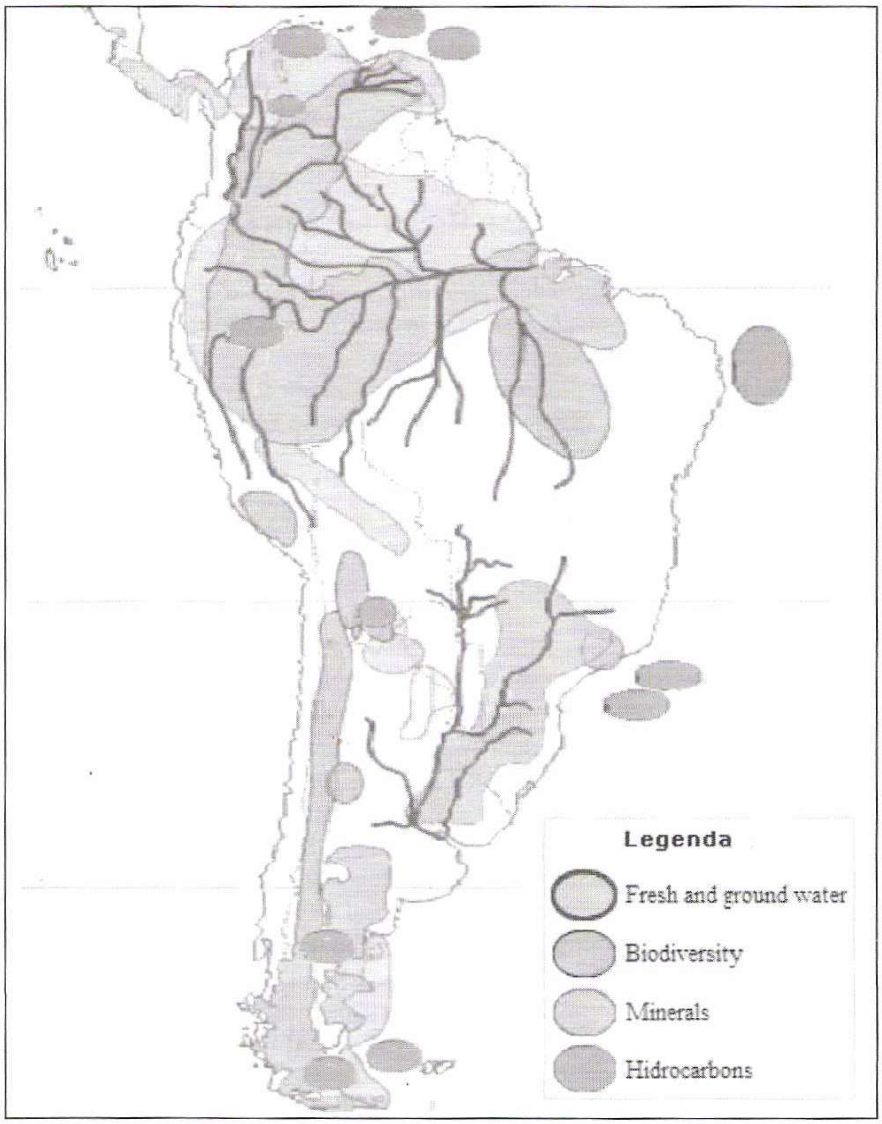
The historical framework of territorial formation of South America over five centuries explains the apparent paradox in the existing trade and financial flows between the neighboring countries of the sub-continent that have always been very low in comparison to the extra-continental relations established as such a cyclical pattern by outward demands for the exploitation of natural resources oriented from the international division of labor of the world economy.

Throughout the historical territorial formation of South America, large biodiverse ecosystems have consistently incurred by various exogenous models of exploitation based on predatory extraction of natural resources during cyclical waves that are always initially linked to the momentary valuation of commodities in both the domestic and international markets with subsequent periods of stagnation.

Despite the fragility of several South American ecosystems requiring a careful and well planned occupation in order to the rich biodiversity, natural resources exploitation of these territories has historically been marked by violent processes of occupation and environmental degradation oriented by the continuous extroversion of the *frontier economies* (Becker, 2001).

As a strategic long-term region in the international geopolitics of natural resources exploitation South America maintains its centrality in contemporary times due to the wars of the fourth generation that stage on extensive territories of tropical biodiversity, hydrocarbons, and fresh and groundwater.

First, South America presents the biggest world complex of rivers and underground water and river consisted by shared territories between several countries, especially in the northern region where the Amazon River Basin crosses eight countries and in southern region where the Guarani Aquifer represents a transregional underground reservoir located in the Mercosur territories of Brazil, Paraguay, Uruguay and Argentina.



Source: Latin American Center of Geopolitics (2009). Authors' adaptations.

Figure 1. South American Geopolitics of Natural Resources.

According to a geopolitics conception based on Mackinder, a new geographical pivot of world history could be identified in South America in the *heartlands* of fresh and ground water in the rich territories of Pan-Amazon and the Guarani Aquifer.

Second, South America is rediscovered by technoscience as a megadiverse bank of genetic, chemical and economic information supplied by different tropical biomes that represent a new promising source for the international economic exploitation of biotechnology industries according to a new thought pattern that seeks the protection of natural sustainability and not its spoliation.

At the heart of the commodification of nature, a significant international dispute between rich biodiversity countries in South America and rich technology countries demonstrates how serious geopolitical conflicts turn out to be due to distinct approaches in the use of nature. On one hand, the biodiversity regions in the Pan-Amazon and in the low lands of the Chaco and Pantanal maintain traditional practices of exploitation in order to sustain their populations. On the other hand, technology based countries seek natural resources and traditional knowledge of the South American localities in order to be appropriated by the industrial capital.

Third, South America is a strategic region in the world geopolitics of energy resources based on the gas reserves of Bolivia and Venezuela and the oil reserves of Venezuela, Colombia, Argentina, Ecuador and Brazil.

South American and North American reserves of oil and gas represent the largest pool of hydrocarbons in the western world and the second largest energy complex on the planet following behind petroleum countries of the Middle East and East Asia as such Russia, Kazakhstan and Uzbekistan (Ceceña, 2003).

According to Senhoras and Vitte (2007) it is not pure coincidence the location of the most strategic natural resources in South America and the location of military bases and infrastructure hubs due.

One reason for the construction of transregional infrastructure hubs between South American countries is the integration of the most suitable routes for the transport of goods, particularly between the Atlantic Ocean and the Pacific Ocean, on the other hand, IIRSA infrastructure hubs coincide with the most important areas in terms of non-renewable resources - minerals, oil and gas - and biodiversity - plants, animals and microorganisms,. thereby establishing a functional economic system with military safeguard institutions for the exploitation of natural resources through subnational and transnational dynamics.

THE PHYSICAL INTEGRATION IN SOUTH AMERICA

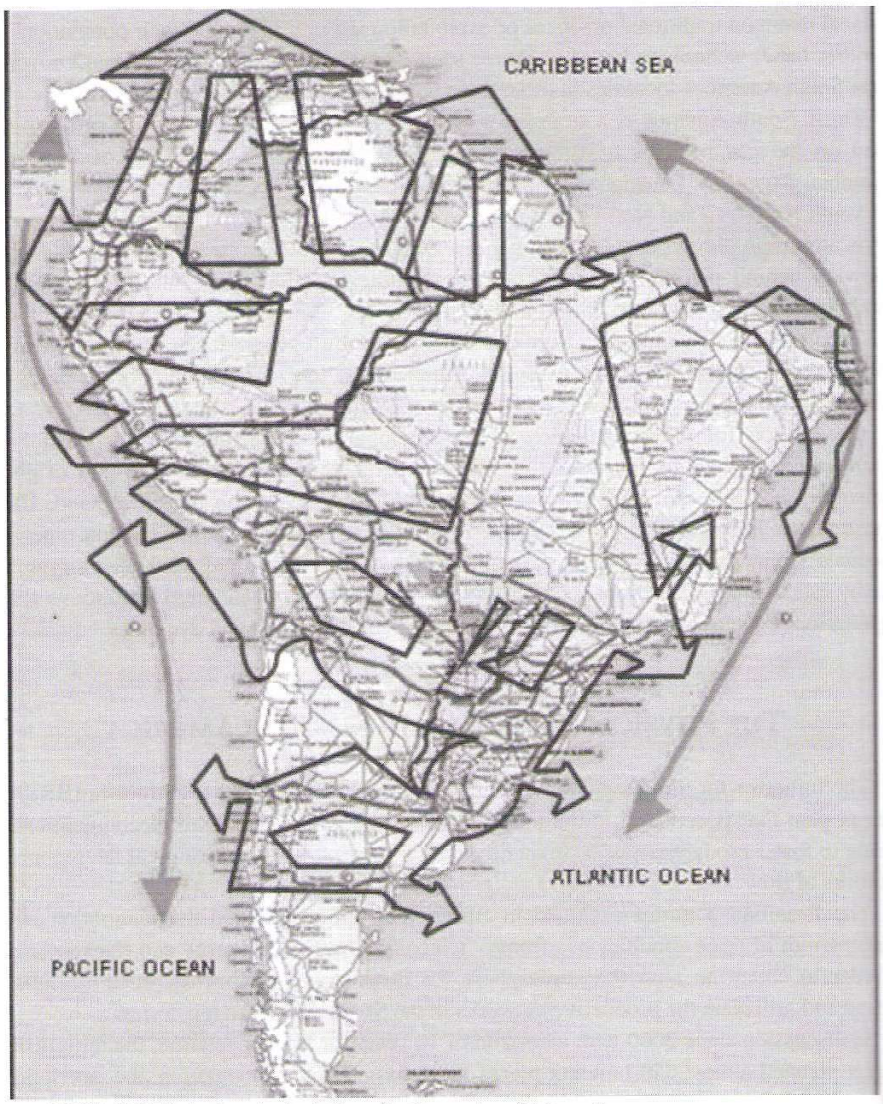
The Initiative for the Integration of Regional Infrastructure in South America (IIRSA) is a mega plan that is centered in the areas of transportation, energy and telecommunications aiming to foster productivity and competitiveness through the creation of great interconnected networks of flow.

The Brazilian proposal executed in IIRSA planning influenced the integration of the infrastructure in three simultaneous fronts - telecommunications, energy and transportation - in order to create an attractive atmosphere for productive investments, opening doors to expand and articulate the productive networks in the South American territories.

In discussion since 2000 with a horizon of 10 years for implementation, the initial IIRSA project planned almost 350 building pieces in 12 basic hubs of integration and development that included the construction of highways, bridges, hydroelectric, gas pipelines and other structures at a cost of 50 billion dollars along the decade. Therefore, since the beginning IIRSA contemplated a series of guiding principles and a portfolio of projects to enlarge the level of qualitative change of the international relations of the subcontinent through the physical-regional integration.

The initial IIRSA projects were planned to materialize the bases of the Free Trade Area of South America (ALCSA) through twelve corridors or integration and development hubs

where the main mega projects would form a physical platform of networks articulated to foster supposedly in theory the free trade routes and the development of the local populations of each country (Senhoras and Vitte, 2007).



Source: IIRSA (2004). Authors' adaptations for the routes of integration.

Figure 2. IIRSA Initial Hubs and Routes of Integration in South America.

Besides the twelve hubs of integration and development of the initial IIRSA proposal, six multisectorial integration processes were designed to deal with issues common to the hubs, particularly technical harmonization and institutional and regulatory coordination among countries.

Table 1. Initial Development Hubs and Sectorial Processes

Development Hubs		Sectorial Processes
Mercosur-Chile	Andean	Facilitating border crossings
Interoceanic	Amazon Multimodal	Air transport operating systems
Orinoco-Amazon-River Plate Multimodal	Venezuela-Brazil-Guyana-Suriname	Multimodal transport operating systems
Atlantic Maritime	Pacific Maritime	Harmonization of Internet technical and regulatory policies
Neuquen-Concepción	Peru-Brazil	Instrumens for financing regional physical integration projects
Bolivia-Paraguay-Brazil	Porto Alegre-Jujuy-Antofagasta	Normative frameworks for regional energy markets

Source: IIRSA (2006).

According to the official speeches IIRSA was consolidated with an accumulated experience of more than five years as an instance of international negotiations where the South American countries have built a common agenda of actions and projects for the physical integration of the subcontinent.

IIRSA has already elaborated a portfolio with the 348 most important projects of the region and a consensus agenda for investments consisting of 31 priority projects for execution from 2005 to 2010 in the framework of seven integration and development hubs.

The South American countries have already completed the design and the planning stage of the twelve great integration and development hubs. The execution stage of the anchor projects was initiated recently, including the sectorial processes for the creation of special norms, the empowerment of regional institutions and the incentive to private initiatives in the influence areas of the integration and development hubs.

The Initiative for the Regional of Infrastructure in South America (IIRSA) promises to be the masterpiece of the initial efforts to the construction of the South American Union (UNASUR) because it also includes several themes beyond physical integration as such instruments of commercial cooperation and financial mechanisms that foster the public and private investment.

Despite the progress in the transnational negotiations and the important role performed by the technocracy and the construction contractors lobby there are several financial impediments and a diversity of environmental and social conflicts that tend to restrain the expansion of the physical mesh in South America. That diagnosis is in a great deal shared not only by the most critical movements to IIRSA, but also shared by the official staff, as it is observed in the pronouncement of the current President of the Inter-American Development Bank (IADB), Dr. Luís Brunet Alberto:

> "The Initiative for the Integration of Regional Infrastructure in South America (IIRSA), that should have been one of the pillars of the regional integration, moved modestly forward. It lacks autonomy in the decision-making, to create more appropriate financial engineerings and to negotiate them quickly. Those were the main obstacles to the accomplishment of the projects" (Brunet, 2006: 01).

Table 2. IIRSA Overview: Priority Projects of the Consensus Agenda (2005-2010)

Stage	Hub	Project	Estimated Costs US$ millions	Countries
	Mercosur-Chile	2 Road Transportation Projects + 1 Energy Project	1.382	Argentina, Bolivia, Brazil, Uruguay
		1 Road Transportation Project	251	Argentina, Chile
		3 Road Transportation Projects	1263	Argentina, Brazil, Chile, Uruguay
	Capricorn	2 Road Transportation Projects	65	Argentina, Bolivia, Brasil, Paraguay
	Central Interoceanic	3 Road Transportation Projects	331	Brazil, Bolivia, Chile, Paraguay
		1 Road Transportation Project	60	Bolivia, Paraguay
		3 Road Transportation Projects	530	Brazil, Bolivia, Chile
	Andean	2 Border Projects	9	Bolivia, Colombia, Peru, Venezuela
		1 Fluvial Transportation Project	108	Colombia, Venezuela
	Amazon	1 Road Transportation Project + 1 Fluvial Transportation Project	288	Colombia, Equador
		1 Multimodal Project of Logistics	589	Brazil, Peru
		1 Multimodal Project of Logistics	338	Brazil, Peru

Stage	Hub	Project	Estimated Costs US$ millions	Countries
	Peru-Brazil-Bolivia	1 Multimodal Project of Logistics	1.055	Brazil, Peru
		Road Transportation Project: "Construction of bridge over the Acre River"	12	Brazil, Peru
	Guianese Shield	3 Road Transportation Projects	109	Brazil, Guiana, Suriname, Venezuela
		1 Road Transportation Projects	10	Brazil, Guiana
	Sectorial Investiments	1 Air Transportation Project + 1 Sectorial Project in Telecommunications	2	All South American countries

Legend: *In Preparation* Concession/Bid Execution Completed

Source: Author's elaboration. Tabulation based on the database of the IADB (2006).

With the adoption of a consensus agenda for the implementation of the physical infrastructure between 2005 and 2010 the rhythm of construction of the 31 priority projects reveals that in the beginning of 2007 IIRSA was just in an initial phase, with seventeen constructions still in preparation, five in concession, seven projects in execution and just two concluded, what makes public a serious misstep between planning and implementation due to the shortage of financial resources from the multilateral banks and the public-private partnerships (PPPs) that capitalize the constructions and due to the serious environmental problems of judicial embargo.

FROM THE JUNGLE TO THE CORDILLERA

Controversies about the Physical Integration in South America

In the year 2000 the First Presidential South American Meeting in history occurred in the city of Brasília in conformity with the larger degree of institutional maturity of the subregional systems of integration (Andean Community and Mercosur), generating the necessary conditions for the appearance of qualitative changes in the regional physical integration through the release of the IIRSA planning.

"The integration of South America has been analyzed in an instance of technical dialogue and exchange of information and considered as one of the essential objectives of the region for its sustainable development. [...] This basic principle positioned immediately the physical integration as strategical once there is no enlargement of the economical integration without the empowerment of services of transportation, communications and energy" (Espinosa, 2006).

According to the official speeches the Initiative for the Integration of Regional Infrastructure in South America (IIRSA) has as a basic objective to increase capabilities and material capillarities for the competitive insertion of companies and countries in the global economy through physical integration and development hubs.

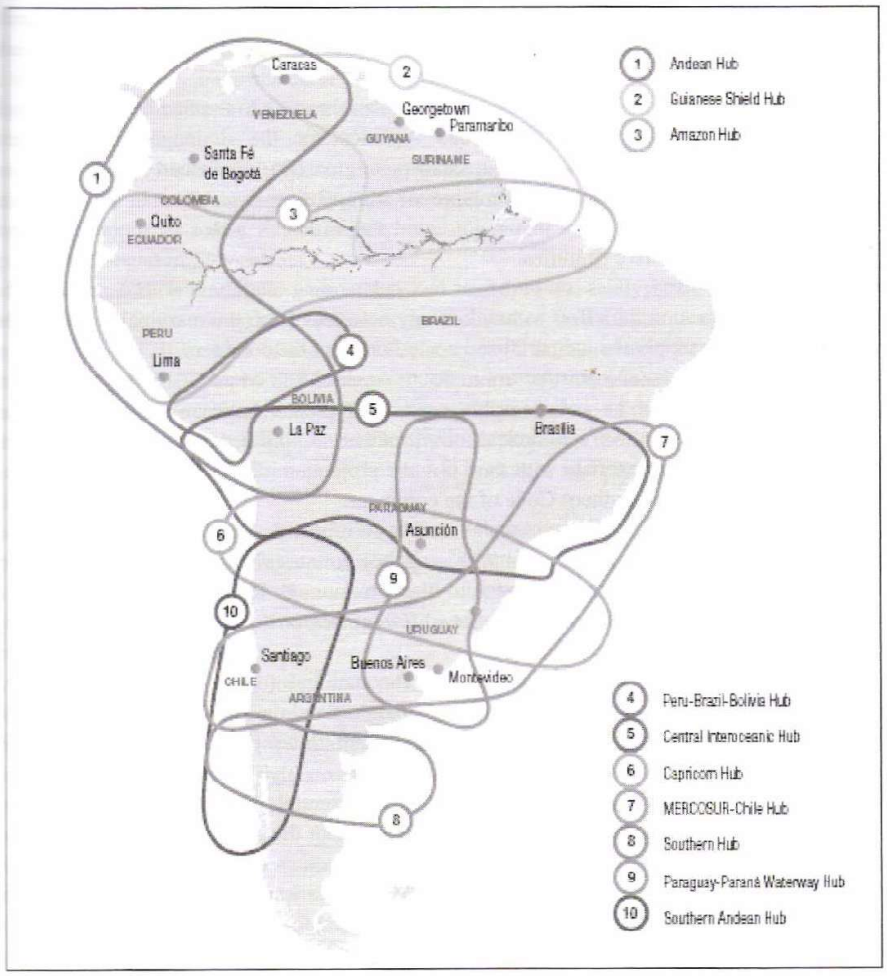
For instance, the official speeches about the hubs that cross and integrate the territories between the Amazon and the Pacific emphasize IIRSA as a strategic format to rethink the cooperative bases to defend the national interests of South America, through the physical interconnections of interior zones that reinforce the national development strategies and conjugate to the multilateral initiatives of trade that are based on the open regionalism theories.

In this context of physical integration, the *integral States* gives place up to a *catalytic States* that would be constantly sharing spatial arrangements of power, conforming new dynamics of national and international governance through the multilateralist and the regionalist agendas. Therefore the IIRSA development in the South American region would respond to the demands of modernization of the territories through the circulation enlargement that is central to the value creation processes in the current capitalist stage (Senhoras and Vitte, 2007).

The reason why the Brazilian government and the governments of most South American countries destined important sums of their budgets for the IIRSA projects was based on those propositions. Besides the significant resources allocated by the Brazilian government through the National Bank of Economic e Social Development (BNDES) and the resources allocated by other governments, the IIRSA projects depend mainly on the resources of the Andean

Development Corporation (CAF), the Financial Fund for the Development of the Silver Basin (FONPLATA) connected to Mercosur, the Inter-American Bank of Development (IADB) and the World Bank.

While creating a critical mass of interests shared in the physical infrastructure due to the mutual benefits and the solution of energy and logistic problems that can rationalize the development space, the IIRSA hubs in South America would have the objective to improve the interdependence between the Amazonian-Andean countries and the *Platino* countries, especially Brazil that borders almost all of the countries of the South American region and does not have access to the Pacific or the Caribbean oceans.



Source: IIRSA (2006).

Figure 3. Integration and Development Hubs in South America.

Four IIRSA hubs cross the Amazon, three of them expand to the Pacific and just one of the hubs heads to the Caribbean, bringing into evidence that the continental integration of South America has been led by Brazil with very specific geoestrategical objectives of insertion in the international economy through the convergence of the Andean Community and the Mercosur into a single physical integration of South America.

In the Guyana shield hub the economical objective of the projects becomes separated into the drainage of products originated from the Free Trade Zone of Manaus with destiny to the European and the North American consuming markets through the Caribbean Sea, and the exploitation of natural resources and the utilization of hydroelectric potential.

The trade projection through the rich biodiversity areas of the Amazon, the Pantanal-Chaco and the Pacific are prospected by three integration and development hubs - Amazon, Peru-Brazil-Bolivia and Andean - with two very clear geoeconomical objectives for the South American projection in the international economy.

On one hand, there is the expansion of the continent heading to the Pacific ocean through inter-state cooperation in fluvial and road logistics for the drainage of agricultural commodities and minerals to the Pacific-Asian panregion (East Asia and North American Pacific), that has been the main locomotive of competitive dynamism in the world in substitution to the Atlantic zone that represented the capitalist motor of the international economy during the last five centuries.

On the other hand, it is observed as an outstanding economical objective of the infrastructure integration the effort to build energy networks from the marginal region of the Amazon, aiming to supply the industrialized central areas of the continent.

The shared networks of infrastructure in South America can be understood by the official speeches as the spine of an indispensable regional approach between Mercosur and the Andean Community for the economical development, in order to face the multilateral challenges and to better negotiate with the USA the projection of the Free Trade Area of the Americas (FTAA) in the Southern Cone of the continent.

The IIRSA projects of the consensual agenda of implementation are located in great majority in the frontier areas of Brazil with neighbor countries what confers them with an international characteristic complemental to the Pluriannual Plans of investment in the national infra-structural integration of the different regions of the Brazilian territory (Allegretti, 2006; Wanderley et al., 2007).

That complemental characteristic between the national regional integration and the transnational integration corroborates positively to understand the strategic importance of the physical integration projects for the increase of wealth flows produced and consumed in South America, and negatively due to the potential risks, mainly inherent to the rich zones in biodiversity and in pre-Columbus history with the potential increase of social conflicts brought by the boost of migration and land conflicts along the transportation networks and also brought by the enlargement of the environmental conflicts due to the potential atrophic pressure over the Units of Conservation and the Indigenous Lands or by the acceleration of the direct deforestation and the expansion of the agricultural frontiers.

The Brazilian internal integration policy agenda has included infrastructure projects in the PluriAnnual Plans (PPAs) and while complemented with the foreign policy agenda of the Initiative for the Integration of Regional Infrastructure in South America (IIRSA) demonstrates the functionality of the physical networks interconnected internally and externally for the construction of a Brazilian project of geoeconomical expansion that begins

by the national regional scales and is projected to the Pacific and to the Caribbean through a transnational regional scale.

The contributions of the PPAs and the IIRSA projects rest on the capacity to reintroduce a State agenda of intervention in the territories through internal and foreign policies and new institutional instruments for financing regional physical integration projects called Public-Private Partnerships (PPPs).

Although the benefits brought by the PPAs and the IIRSA programs there has been identified, on one hand, a series of deficits in the *strategic conception of the infra-structural planning* that restricts the development space of those project networks to an economicist notion that doesn't necessarily take into account the real socio-economic relational development or the historical-cultural and environmental conservation of the localities where the logistic and energy networks cross; on the other hand, there has been a limited *strategic conception of the environmental management* that neglects the supervision of the environmental impacts or the control of processes of degradation, erosion, deforestation and pollution.

The South American physical integration projects aim to insert the subcontinent, especially the Amazonian region, into the international division of labor in accordance to the naive presupposition that the attraction of companies would naturally bring economical growth and social improvements.

The integration strategies were elaborated based on the analysis of the location of the main natural South American resources in the Andes and in the Amazon, and on the opportunities of utilization of these resources through infrastructure, considering: the more evident opportunities of physical integration, the consolidation of the competitive productive networks and the reduction of costs. The integration conception of this infrastructure initiative supported by international multilateral institutions proposes the increase of fluidity of the territories to facilitate the drainage of the natural resources and products from the countries in the region.

In that sense the geographical forms of the regional integration of infrastructure in South America appear as a powerful instrument of the capital in the international relations, just like a new " Horse of Troy " that allows functional interventions to the expansion of the capitalist mode of production in a dissembling way while announced as a result of the common interests of the countries.

Those great technical objects financed by the society have been covered with promises of development, job generation and competitiveness, but in practice, they usually implant the disorder in the local scale and alienation in the national scale while serving to a reduced fraction of the national and the international capital (Santos, 1979, 1996).

It is a recurrent statement among the critics that the IIRSA projects are part of a bureaucratic policy to implant the physical infrastructure of the Free Trade Area of the Americas (FTAA). While the attentions were focused in the problematic political negotiations about the FTAA integration, the fundamental technical objects to its existence have been imposed without opposition through the transformation of the *geographical forms*.

The IIRSA construction projects have undercovered therefore a conception of "production of the territory" that moves forward in a silent way that is functional to the formation demands of the FTAA with other initiatives in the American Continent as such the territorial processes of physical integration in the United States (Pátio Trasero) and between Mexico and Central America (Plan Puebla Panamá).

Taking as granted the critical geography perspective, the creation of the IIRSA projects is argued to be based on the diffusion of technical objects in accordance to objective needs of the transnational capitalist companies, in the economic scale, and to the imperialist governments, in the political scale, because these networks of infrastructure "accelerates the world velocity" as a clock of despotic synchronization (Santos, 1994).

The peculiarities of the current historical moment contributed decisively to the geographic forms to assume a prominence paper in the business and the government strategies, once the capitalism in its imperialistic phase leads to a socialization of the production in varied aspects (Lenin, 1979).

Table 3. Territorial Processes of Physical Integration in the American Continent

United States Territories **Patio Trasero**	The implantation of complex physical infrastructure networks of regional multimodals crosses the United States of America from the Mississipi to the Atlantic Coast through the Pátio Trasero.
Mexican and Central American Territoriesl **Plan Puebla Panamá (PPP)**	The USA has proposed the environmentally controverted project of the Plan Puebla Panamá (PPP) for Mexico and Central America in the scope of a possible Free Trade Area of the Americas (FTAA).
South AmericanTerritories **IIRSA**	In South America the IIRSA projects have been in a slow progress due to the lack of resources for investments in spite of the technocratic organization and the absence of social consultation.

Source: Authors' elaboration. Based on Vitte (2005).

What a surprise it is to notice that the capitalist socialization has crossed the mere socialization of the production and reached projects that demand an elevated volume of fixed capital as such highways, railways, hidroways and energy plants.

Due to the immobilization of enormous portions of capital those engineering systems involve great risks that are undertaken by the public sector or by just a few private companies in extremely advantageous conditions created by the government interventions through the financial system. The problem is that most of the great engineering systems have been conceived in accordance to the demands of the national and the international capital independent to the interests of the local communities where the projects are settled due to the objectives to create or interconnect economic spaces.

According to Amayo Zevallos (1993), the infrastructure projects for the space integration between the Atlantic and the Pacific oceans have strategic characteristics for the South American countries, although the implementation strategies have not been adequate or adapted to the social and environmental conditions of the local communities where the systems of engineering are located.

Several electric power and road transportation projects cross rich territories in biodiversity and indigenous reservations in the Amazon or in concentrated archeological spaces of pre-Columbus civilizations in the Andeans. Nevertheless those projects have not always been the most appropriate for the localities, a strong lobby of national private groups and multinationals of the building construction, automobile and energy sectors have impacted

against the local sustainable development with regard to the necessities of the capital reproduction (Smeraldi, 2006).

Very close to that position is the argument of the new imperialism that explains the functionalist reemergence of the interest in South America through the IIRSA projects as a new imperialist phase based on the international primitive accumulation of the capital and marked by a dispossession accumulation due to the privatization of the natural resources and the public services (Harvey, 2004).

On the other hand with an also imperial theory, Portillo (2004) argues that the IIRSA progresses are influenced strongly by the United States through diplomatic negotiations and multilateral financial institutions such as the Inter-American Development Bank and the World Bank, supporting the construction of integrational hubs of infrastructure in the most important areas in terms of non renewable resources (minerals, gas, petroleum) and biodiversity (plants, animals, microorganisms) in South America.

Reinforcing the imperial arguments under an exogenous point of view to the South American region, the centrifuge expansion of the IIRSA networks turns out to be visualized as the repetition of older territorial configurations found in Latin America and Africa due to the intense colonialist processes, with great part of the labor or the natural resources following in the interior-coast direction and prioritizing the international economy instead of an integration centered at the internal market.

The exogenous configuration of the IIRSA hubs reinforces the territorial division of labor from the world scale through the "geographical transfer of value" in accordance to the rhythm of transmission of part of the value produced from one place to other central areas inside and outside South America (Soja, 1993).

CONCLUSION

Several researches about the physical integration of South America have revealed that the infrastructure hubs are political and technical, explaining why they are so polemic once their impacts are never neutral due to the negotiation processes of asymmetrical hegemonic and non-hegemonic actors.

On one hand, the IIRSA projects are justified by a series of functionalist speeches from the national governments, multinationals and multilateral financial institutions that minimize the present environmental impacts of the constructions or their prospective effects in the localities theoretically brought by the overflow of the regional growth.

On the other hand, the warnings that have been brought by environmental movements about the development of the physical integration projects in the Amazon, the Pantanal-Chaco and the Andeans show the *potential* risks of the possible socio-cultural and environmental impacts created throughout the time in the South American region due to the new economic forms of appropriation of the territory that are under cyclic influences of expansion and crisis of the capital.

Besides the socio-cultural and environmental problems existent in the space crossed by the infrastructure networks of logistics and energy there is also a functional potential problem in the articulation of the territories to the capitalist dynamics due to the subordination of the

localities as corridors of flows without direct connection with the appropriation centers of wealth.

Inside the infrastructure physical integration framework a preliminary glance on the speeches and theories of the actors involved in the consolidation of the IIRSA projects reveals that both the official speeches and the critical statements converge at some points, considering that the creation of the infrastructure is a basic apparatus able to create conditions for the increase of the trade circulation among the country-members through the establishment of interconnected hubs that converge in a great deal for a logistical centralization in Brazil.

The construction of infrastructural projects for the interconnection of the Amazon and the Pacific would be therefore a manifestation of the countries, mainly Brazil, to solve their accumulation limitations in the course of a centrifugal movement that amplifies the reproduction of the capital through a dynamic space expansion in empty spaces, representing an "imperialistic and colonial solution for internal contradictions of a civil society founded in the accumulation of the capital " (Harvey, 1990: 417).

The regional resources of South America appropriated by the national and the international hegemonic centers aim to assist simultaneously to the production and the reproduction of general conditions of accumulation of the central territories, consolidating an asymmetrical form that perpetuates the existent spatial inequalities.

The corridor territories tend to become once again in *limited* and *vulnerable spaces* to the historical cycles that mark the processes of national and world accumulation, reproducing spatial dynamics that become dependent on the flows and reflows of the trade dynamism and susceptible to the expansions and crises.

Being elaborated on behalf of the integration and implanted with the statements of expansion of the economical development and warranty of the national security, the infrastructure hubs that cross the South American territories present a closed policy-making structure for decisions, implantation, incentives and also a controversial analysis about the socio-economical, cultural and environmental impacts to the regions.

The potential risks and inherent problems to the Amazon, the Pantanal and the Andeans are not exclusive of their specific regional environmental and historical-cultural dynamics, once they are manifestations of a modernization rationality that has been spread since the XVIII century, vertically recreating spaces and flows in a systemic movement of interdependence and interaction that without isolating the localities tries to impose everywhere a single rationality (Santos, 1996).

The mega projects of physical integration in South America have been introduced as essential landmarks to the development of the countries due to the strategic logistic role for the trade dynamization of the flows and due to the energy channels brought by gas pipelines and hydroelectrics, but indeed they have a limited representation of the local territories once the infrastructure constructions have a reductionist notion of the development concept with a planning based on economical data that does not take into account social and environmental aspects and just aims the economic growth.

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