## 論文の内容の要旨

Proposal of a comparative framework for multilateral development banks involvement in regional infrastructures

(地域インフラプロジェクトに対する開発銀行の関与に関する比較フレームワークの提案)

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This research looks at the development process of regional infrastructures and the role that development banks can play on it. The final objective is to propose a methodology or framework for the identification of relevant actions from existing cases, so to derive valuable policy implications. These would support development banks for better utilizing and sharing the experience from existing case studies by a better selection of those projects to refer.

Regional infrastructures are those whose impact and development goes beyond national borders. These can bring important benefits to all the participating countries like a more sustainable use of natural resources, economies of scale in investment, better insertion in globalization and a reduction of political tensions. Indeed, international organizations like the G-20 have highlighted their relevance in the development agenda and they are even explicitly mentioned as one of the targets of the Sustainable Development Goals (SDG-9).

Although the benefits are widely accepted, there are also several political, institutional, economic and financial challenges. Among them, the lack of political will is commonly mentioned as the main barrier. There are several reasons to explain why countries can be unwilling to cooperate. A World Bank report written by Schiff and Winter (2002) mentions (i) national pride, political tensions, lack of trust, high coordination costs among a large number of countries, or the asymmetric distribution of costs and benefits; (ii) incentives to behave strategically in one-off negotiations; and as mentioned before (iii) given the absence of courts or higher authorities to which to appeal, the enforcement of property rights is ambiguous and weak at the international level.

Against this background, development banks can play an important function in fostering consensus between the parties in what has been commonly known as "honest brokers" role. Tan (2014) referred to this function as "lending its institutional support that encourages dialogue, provides the fora and extends assistance when needed".

Therefore, the participation of development banks in regional infrastructures has been catching attention. Several researchers have been focusing on the identification of what type of actions development banks can realize to improve the development of regional infrastructures. Case studies are being conducted for several projects which either have proven to be successful or are

facing difficulties. The outputs of these case studies could provide important lessons for the development of other regional infrastructures in different sectors or/and regions. In order to realize that, there is a need to understand the influence that context has on these type of projects in general. There is no systematic approach to this issue. Researchers on comparative regionalism have pointed out the difficulties that bring the lack of comparative dimension on regionalism studies (which covers also other areas of functional cooperation). Other intermediate approaches have been looking at either a particular sector in several regions or at one region and comparing different sectors. Nevertheless, these have also faced difficulties for providing supportive evidence on the process of transferring lessons between cases. In summary, existing methodologies have been found to either being strong in the identification of actions and lessons, or strong in the comparative analysis of the process; but no combining both aspects.

This research aims to develop a methodology to overcome such limitations. This is achieved through the proposal of a method for the identification of relevant actions from existing cases. It is expected that this would help development banks to improve their involvement in regional infrastructures programs. Globally, the research includes three objectives: (i) identification of the main contextual variables influencing regional infrastructures development process, (ii) evaluation of the contextual dependency of the actions realized, and (iii) proposal of a comparative framework to serve to development banks for the identification of relevant actions from existing cases.

This research is divided into five parts. The first serves as the choice of cases to study. This is based on two criteria: the level of integration achieved; and the possible combination of sectors and regions, to allow cross-regional and cross-sectorial comparison. Due to the absence of a suitable model, a process divided into five stages has been proposed for the evaluation of the level of integration achieved. The regional infrastructures development process proposed is based on previous studies on regional integration in general and on infrastructures and economic integration. The regional infrastructures development process is therefore considered to include five stages: (i) national stakeholders' agreement, (ii) high-level political agreement and commitment, (iii) physical construction, (iv) institutional construction, and (v) harmonization. These are not necessarily represented chronologically, although projects have commonly started with (i) and be completed with (iv) and (v), being (ii) and (iii) in between those. This five stages development process have been proven to be useful for the classification of forty existing cases. Three cases were found to combine the criteria established, the Greater Mekong Subregion (GMS) programs on Economic Corridors and Power Cooperation and the SIEPAC project for regional power sector integration in Central America.

The second part includes the analysis of the three cases. Causality analyses of each of the stages are conducted. For that, information was gathered from various sources, including existing literature, official documents, media reports, and interview surveys with experts, MDBs, and stakeholders involved. These analyses serve for the identification of the factors, actions, and outputs relevant for each case. In particular, the identified factors provide an understanding of how the particular context of each project influences the process. The relative impact of these factors is also evaluated based on the casual analysis and the interview surveys conducted.

The third part combine and compare the factors identified from the three case studies. All the factors are classified into nine categories: (i) power imbalances, (ii) rivalry between countries, (iii) national security concerns, (iv) overall stability of the countries, (v) publicness, (vi) national institutional structure, (vii) institutional integration, (viii) existing cooperation, and (xix) shared value of regional economies of scale. All these categories were found to correspond to relations between stakeholders, namely (i) government to government (Gov.  $\leftrightarrow$  Gov.), technical body to technical body (T.B.  $\leftrightarrow$  T.B), government to technical body (Gov.  $\leftrightarrow$  T.B), and national actors to technical body (Gov.  $\leftrightarrow$  N.A.).

The fourth part "builds" the comparative framework. For that, there is an initial evaluation of the relative weight of each of the contextual variables during the process in order to identify possible patterns. The result of this analysis shows that (i) for each case, the dominant variables change throughout the stages of the development process, (ii) for each sector or region, regional or sectorial variables are not necessarily dominant, and (iii) a similar pattern has been found for each of the stages. Those contextual variables for the stage 1 (national stakeholders' agreement) are "T.B.  $\leftrightarrow$  T.B." and "Gov.  $\leftrightarrow$  T.B."; for stage 2 (high level political agreement and commitment), "Gov.  $\leftrightarrow$  Gov." and Gov.  $\leftrightarrow$  T.B."; stage 3 (physical construction), "Gov.  $\leftrightarrow$  Gov." and "T.B.  $\leftrightarrow$  T.B."; stage 4 (institutional construction), "Gov.  $\leftrightarrow$  Gov." and Gov.  $\leftrightarrow$  T.B."; and stage 5, "Gov.  $\leftrightarrow$  N.A.". Based on those findings, the comparative framework objective of this research is proposed. This facilitates the classification, and therefore the identification as well, of the selected cases through the evaluation of the contextual variables identified for each stage.

The last fifth part includes a practical case to show the utilization method as well as the potential policy implications that can be derived. Therefore, it applied to the stage 4 of the GMS Power Cooperation program, which has been facing struggles. The framework shows contextual similarities with the SIEPAC project on that stage. After a careful analysis, three actions are proposed in order to improve the institutional construction of the GMS Power Sector based on the lessons from SIEPAC: (a) establish RPCC as a permanent institution with representatives from national TSOs, (b) develop a prototypal agreement for utilization of third country grid, (c) actively promote interconnections with ASEAN countries (like Singapore) as well as look for connections with South Asia (Bangladesh, India) and rest of China, and (d) secure the independence of RPCC to be able to mediate in disputes.

The tentative results were presented to real practitioners from the ADB during the interview survey. The positive feedback received about the necessity of a methodology such the one proposed, as well as the novelty of its design and the appropriateness of the variables and process division are detailed in the last chapter. There some recommendations for future research are also presented.