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## A Review of Key Factors for Implementing Sustainable Public Private Partnership in the Brazilian Road Sector

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### Abstract

Brazil is predominantly a roads country. This reality requires a sustainable road network, consistent with the country's social and economic development goals.

In this scenario, the increased use of public-private partnerships (PPP) in the roads sector appears to be the most adequate approach to promote innovation and sustainability in the sector.

As shown in the paper, the description and discussion of critical concepts and steps in the process serve as general guidance for international and local investors interested in participating in competitive selections of road concessionaires in Brazil.

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### 1. Introduction

The efficient delivery of public services affects the productivity and competitiveness of the economy, contributing to the improvement of social welfare. In this sense, the existence of a sustainable transport infrastructure is an essential condition to raise the performance of the economy and promote dynamic effects in other sectors, attracting new investment and opening up opportunities for foreign investors.

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Today, the Brazilian road transportation infrastructure is not consistent with the requirements of the country's economic dimension. About 75% of the road network presents some form of deficiency, which translates into increased costs, harming production and, consequently, the consumer.

Furthermore, only 6% of the country's road network is paved, in contrast with usually more than 90% observed in developed countries. This indicates the formidable dimensions of public resources required to improve the road sector in Brazil, which will be added to other demands posed by society.

Building roads is not enough; they also have to be kept in good and safe condition. The poor quality of the Brazilian roads contributes to the country's poor safety records: every year there are about 400,000 injured victims and 34,000 deaths from road crashes.

In this scenario, the state turned to the productive sector, creating mechanisms to attract private sponsors to invest in sectors traditionally under the responsibility of the state. Such mechanisms made possible broader application of the instrument of Public-Private Partnerships (PPP) in the country.

This paper describes how PPP projects can be developed in Brazil, including the main steps (e.g., technical, legal, fiscal) in a way to serve as a guide to potential partners and other actors interested in the process. The description and discussion of critical concepts and steps in the process serve as general guidance for international and local investors interested in participating in competitive selections of road concessionaires in Brazil.

## **2. The Brazilian Transport Sector**

The Brazilian National Agency for Land Transport (Agência Nacional de Transportes Terrestres – ANTT) is responsible, *inter alia*, for the part of the Federal Highway Concession Program that remains under the Ministry of Transport.

The Brazilian Ministry of Transport [1] has developed an indicative plan, titled "National Logistics and Transport Plan" (PNLT), whose goal is to provide support for planning public and private interventions in transport infrastructure and organization, so that the sector can contribute to the country's economic, social and environmental development, which include a sustainable road infrastructure.

The plan provides for developing "Strategic Environmental Assessment" (AAE) in order to introduce environmental aspects in sector planning and transport strategies to ensure that the PNLT contribute fully to sustainable development. AAE will assess the long-term costs and benefits (both environmental and social) of policies, plans or programs. This is expected to expedite the environmental licensing processes.

In view of the scarcity of public resources, PNLT indicates that the private sector, through PPP, is the best option to raise investment for long-term road maintenance and rehabilitation, as well as for new construction. The PNLT guidelines and the solid Brazilian legal framework are indicative of greater opportunities for international private investors to bid for road infrastructure concessions in Brazil.

As a general guidance for international and local investors interested in participating in competitive selections of road concessions in Brazil, next section presents the Brazilian legal framework for PPP, including a description and discussion of related critical concepts and steps.

## **3. Sponsored and Administrative Concessions**

The PPP Law defines PPP as a concession contract that may take one of two forms: (a) "sponsored" concession; or (b) "administrative" concession. In a sponsored concession, the private partner revenues come from (a) fees charged to the users, and (b) financial subsidies paid by the contracting public entity as the services are delivered.

In the case of administrative concessions, the contracting state entity pays fully for the services provided; there are no user fees. This might occur, for example, when the state decides not to charge any kind of toll, taking charge of all expenses, on a road intended to promote the development of a deprived region.

If a project is shown to be financially viable without any public funding, instead of falling under the PPP Law, it should be managed as a “common” concession, to be bid and implemented under the country’s concession laws and other related norms.

#### **4. Basic PPP Concepts under the Brazilian PPP Law**

The Brazilian PPP law provides several useful definitions, such as:

(a) The Public Partner - may include government agencies, special funds, municipalities, public foundations, public companies, joint stock companies and other entities controlled directly or indirectly by the Union.

(b) The Private Partner – should be a Special Purpose Company (or SPE, using the Brazilian acronym), to be established by the successful bidder. The SPE is usually a consortium of entrepreneurs and investors who will fund and manage the PPP project.

(c) Types of PPP – may include typical public services, such as roads and other transport infrastructure, transportation services, sanitation, health, and education. Services to be provided to the public administration can also be contracted as a PPP.

The PPP law, however, states that PPPs cannot be used with the single objective of supplying labor, the supply and installation of equipment, or to carry out public works. It also specifies that no PPP contract can be worth less than R\$20 million (about US\$10 million) or last less than five years. The financing of PPP projects by state enterprises is limited to 70 percent of the total resources required, a limit that can increase to 80 percent if the project is located in areas with low human development index (HDI) in the North, Northeast or Midwest regions of the country. A specific legislative authorization is required for a sponsored concession to receive public support above 70 percent of its total cost. The ability to generate revenues is a key factor in the choice of the form of concession. Common concessions apply to self-sustaining projects, while PPP projects (i.e., sponsored or administrative concessions) are those that require public financial support.

#### **5. PPP Institutional Arrangements**

In Brazil, at the federal level, several agencies are responsible for different aspects of the PPP program, as discussed below.

The Ministry of Planning, Budget and Management assesses models and monitors potential PPP projects, which have been identified as priorities by the Partnership Steering Committee (CGP).

The Ministry of Finance is responsible for appraising any proposed PPP project and making sure that the program is within the maximum allowable allocation for PPP projects. Such limit is set as 3 percent of the net current revenues, as defined in Articles 195 and 239 of the Constitution. The limit applies to all levels of government. The National Treasury Secretariat (STN), after receiving information about the project, verifies that the proposed spending is within the spending limits established by the Fiscal Responsibility Law.

The PPP Steering Committee (CGP), established by presidential decree (Decree No. 5385/05, modified by Decree No. Decree 6.037/07), works under the coordination of the Ministry of Planning and Budget, and is also composed of representatives from the Ministry of Finance and the Presidency. Its responsibilities include to:

- Approve the Projects and PPP contracts.
- Authorize the opening of the bidding process.
- Define the priority services to be provided under PPP arrangements.
- Define the criteria for analyzing the appropriateness and timing of the contract.
- Set up the procedures for contract award.
- Authorize the launching of the bidding and approve the bidding documents.

- Approve the PPP plan, and monitor and evaluate its implementation.
- Review the contract monitoring reports.
- Develop standard bidding documents and sample PPP contracts.
- Authorize the use of the resources of the PPP Guarantee Fund (FGP) to guarantee the government financial obligations.

The Technical Committee of Public-Private Partnerships (CTP) is coordinated by the Chief Economic Advisor of the Ministry of Planning, Budget and Management, and also includes members from the Ministry of Finance and the Presidency of the Republic. CTP can request studies, surveys or investigations to support a proposed PPP project, which has already been established as a priority.

The Special Purpose Company (SPE), to be established by the successful bidder, will be exclusively responsible to implement and manage the object of the partnership (e.g., a motorway or an airport). This feature facilitates the control and supervision by the Government, as the SPE cannot have any other responsibility. The SPE may be incorporated in the form of a publicly traded corporation, with the majority of its voting capital in the private sector. The PPP law forbids the government to be its majority partner. In any case, the government participation in the SPE requires legislative authorization.

The PPP Guarantee Fund (FGP) was established by the government to provide guarantees for the financial obligations assumed by the government under the PPP program. The FGP is managed by the Bank of Brazil.

## **6. The PPP Bidding Process**

The Brazilian PPP law provides for two distinct phases in the bidding process: (a) internal phase (or planning); and (b) external phase (or bidding).

### *6.1. The Internal or Planning Phase*

Initially, a Preliminary Proposal (PP) should be prepared by a public entity, such as an agency of the federal government, special funds, municipalities, public foundations, public companies, or joint stock companies. Such entity is referred to as the Concerned Public Entity (or OIP, using the Brazilian acronym).

The PP is then submitted to CGP by the ministry or regulatory agency (such as ANTT) responsible for the sector. The PP should indicate the type of PPP to be adopted and basic information, such as project description, expected demand and economic and social benefits, as well as the projected cash flow during construction and operation of the project.

The CGP first checks whether the project has been included in the Multiyear Plan (PPA), which summarizes the government's strategy for the economic and social development of the country. Next, it reviews the impact of the proposed project implementation for government and society in general, as well as the availability of public resources to implement the project. In setting priorities, the CGP takes into account that projects with lower requirements for public financial support will allow a higher number of projects to be implemented.

The CGP then includes the projects deemed as priorities in the PPP Federal Plan (PLP) and authorizes the responsible entity to carry out detailed studies for the project. Decree No. 5977 of December 1, 2006, regulates the presentation of project studies and design.

The public entity responsible for the proposed project, usually with the assistance of private consultants, will carry out more detailed studies, including:

- (a) Technical studies: detailed project identification, preliminary design and feasibility studies to support the implementation of the project as a PPP.
- (b) Fiscal studies: the impact on the budget and financial provisions, including compliance with the law on fiscal responsibility.

(c) Legal studies: preparation of draft bidding documents and PPP contract, particularly describing the services to be provided, the required quality or performance parameters, applicable technologies, contractual terms (not less than 5 years, not more than 35 years), and the share of risks between the partners.

The Technical, Fiscal and Legal studies to be carried out are summarized in Fig. 1. Once the studies have been completed, the entity responsible for the proposed project submits a Technical Proposal to the CGP, requesting authorization to launch the bidding process.

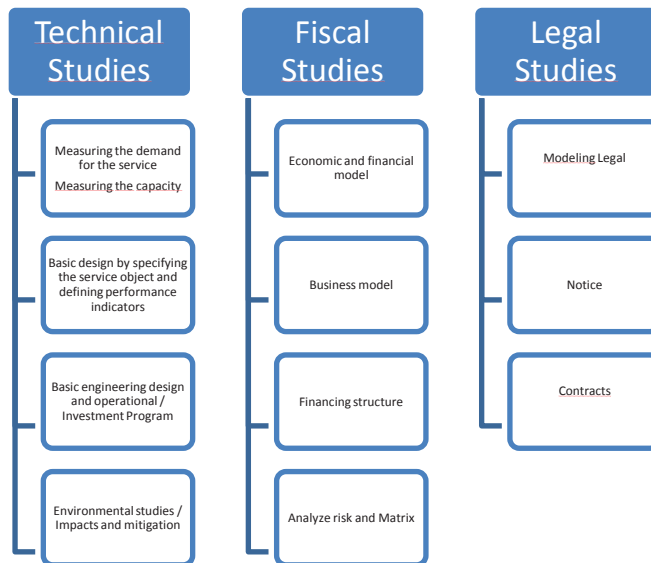


Fig. 1. Summary of Technical, Fiscal and Legal Studies for a PPP Project  
(Adapted from Ribeiro and Prado, 2007 p. 52 [2])

## 6.2. The External Phase or Bidding

The external phase includes public consultation, the invitation to bid, the receipt of tenders, and the contract:

(a) Public consultation: a notice containing general project information (e.g., description, the term of the contract and its estimated value) is published in the official press, major newspapers, and electronic media inviting comments to be submitted by a specified deadline. Public hearings may also be conducted.

(b) Invitation to bid: taking into account the results of the public consultation, the bidding documents are reviewed and finalized, and a formal invitation to bid is published.

(c) Receipt of tenders: tenders are received in a public session and the successful bidder is selected according to the criteria in the bidding documents.

(d) Contract: the winning bidder establishes a SPE and the PPP contract is signed between the responsible entity and the SPE.

A summary of the steps in both the internal and external phases is given in Fig. 2.

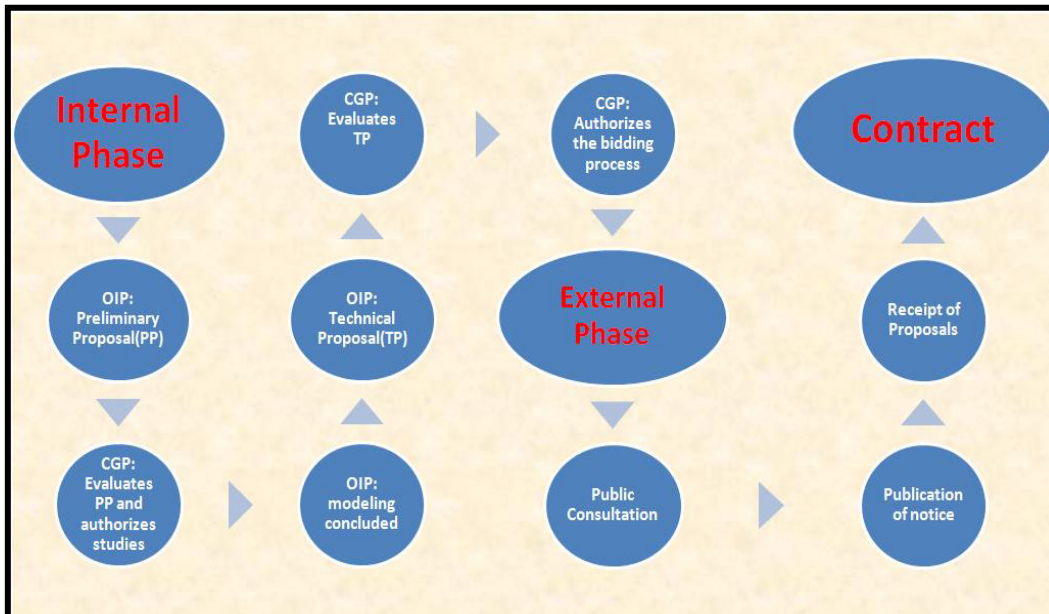


Fig. 2. The Process of Planning and Contracting PPP in Brazil  
(Source: Authors)

## 7. Guarantees

Irrespective of how good the project preparation and how appropriate the PPP model adopted, guarantees may still be needed by the investors should any default of public sector financial obligation occur. The guarantees available in Brazil provide increased comfort to the private partner, as they are designed to be promptly implemented, without the intervention of the Judiciary.

The PPP Guarantee Fund (FGP) was established by the government to guarantee the payment of financial public obligations under PPP projects awarded by federal agencies. It has its own assets, consisting of fixed and variable income securities and variable. The FGP capital is entirely public, subscribed by eligible shareholders (i.e., The Union and public companies and foundations). The legal limit for the FGP capital is R\$6 billion (about US\$3 billion), which is also the overall limit for the provision of guarantees by the Union. The CGP is managed by the Bank of Brazil.

In order to reduce the cost of raising finance, the FGP can also provide counter-guarantees to insurance companies, financial institutions and international organizations, which ultimately will assure payment of the public sector obligations to the private partner.

According to the PPP law, the public entity may only assume financial obligations with the private partner for payments related to services delivered. Consequently, until the beginning of project operations, all funding for the project (e.g., for construction) has to be provided by the private partner. It is interesting to note that the legal framework of several other countries does not have such restriction.

## **8. Innovation: Expedite Financial Assessment of PPP Projects**

Investors interested in participating in competitive selections of road concessions in Brazil, or elsewhere, can carry out expedite financial assessments of the proposed PPP projects using the graphical or the numerical financial model of the "Toolkit for PPP in Roads and Highways" [3].

The above financial models are fundamental for assessing several road concession issues, such as the main factors defining the minimum toll rate, or the minimum availability payment required for a PPP project to attract private investors. The Toolkit, as well as several examples of applying the Toolkit's financial models, is available at <http://go.worldbank.org/P2XMGNYLD0>.

## **9. Good Governance in PPP Contracts**

Road concession contracts in Brazil, as in many other countries, include required standards for construction, operation, maintenance, and toll collection. For monitoring the quality of the facility during the life of the concession, several performance indicators of condition are used, including roughness, skid resistance, luminescence of pavement markings, and the presence and condition of signs, lighting, and other safety features. Performance on these indicators that falls outside the boundaries of acceptability may lead to penalties for the concessionaire. Enforcing such standards helps the government and the users to reap maximum benefits of road concessions, as stated by Queiroz and Kerali [4].

Full disclosure of concession agreements, an indication of good governance, helps ensure that the users know what to expect from the facility under concession, thus increasing transparency in the role of the regulator. Nevertheless, not all concession contracts are open to public scrutiny. A typical excuse is a claimed need for confidentiality. While not currently included in the Brazilian PPP Law, it appears appropriate that in future revisions a clause be added on the full disclosure of contract documents, which would increase accountability of both the concessionaire and the regulator.

It appears that full disclosure of concession agreements is foreseen by Brazilian Law 12.527, of November 18, 2011, which regulates the citizens' constitutional right of access to public information. Such law aims at greater popular participation and social control of government actions, which can contribute to improvements of the public administration, as indicated by the Brazilian Ministry of Transport [5].

Any future revision of the PPP Law should also establish clear mechanisms for renegotiation and amendments (as a way to minimize potential contract distress and cancellation). The renegotiation of projects is not an unusual occurrence [6]. In fact, about half of all concessions become subject to re-negotiation, often due to unrealistic cost and revenue assumptions [7]. While not all renegotiation is undesirable, opportunistic renegotiation should be discouraged in both existing and future concessions. The appropriate behavior for governments is to uphold the contractual obligations resulting from the competitive bidding process, and not to concede for opportunistic requests to renegotiate. Improving concession design and establishing credible regulations can lower the incidence of renegotiations, as pointed out by Guasch [8].

## **10. Conclusions**

This paper reviewed how a PPP project can be prepared and implemented in Brazil, pointing out the main responsibilities of the public and private actors in the process. This is expected to serve as a general guidance for domestic and international investors interested in participating in competitive selection of concessionaires in Brazil.

A description was given of what is called PPP in Brazil, including the main phases and studies required for government approval and the bidding process to be carried out.

In order to make PPP projects more attractive to private investors, the Brazilian PPP law provides the Contracting Entity with several options to extend guarantees to the private partner, including those given by the PPP Guarantee Fund, guarantees linked to revenues, and guarantees provided by international financial institutions.

In summary, the Brazilian PPP framework provides for a balanced partnership that is advantageous to both contracting parties. While the government has an opportunity to accelerate the completion of new investments required to promote the country's economic and social development, the private partners, domestic or international, have an opportunity to generate long lasting cash flows with relatively low risks in view of the financial support and guarantees from the public partner.

While the Brazilian PPP law can be generally considered highly satisfactory, it seems that it could be improved regarding two particular aspects, namely public disclosure and mechanisms for renegotiation.

As a conclusion, the Brazilian road sector offers great opportunities for foreign investors interested in the design, construction, operation and maintenance of roads under the country's PPP program.

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