ACHIEVING SUSTAINABLE IMPLEMENTATION OF PUBLIC-PRIVATE PARTNERSHIP PROGRAMS: A COMPARATIVE STUDY ON THE ROAD INFRASTRUCTURE DEVELOPMENT IN THE PHILIPPINES AND SOUTH KOREA BASED ON THE INFRASCOPE FRAMEWORK

By

FLORES, Mary Grace Robles

THESIS

Submitted to

KDI School of Public Policy and Management

in partial fulfillment of the requirements

for the degree of

MASTER OF DEVELOPMENT POLICY

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Professor Lee, Yong S. Supervisor

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ABSTRACT

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By

Mary Grace Robles Flores

In the hope of achieving sustainable implementation of Public-Private Partnership (PPP) programs in the Philippines, this paper makes a comparative study on the road infrastructure development in the Philippines and South Korea by comparing the Daang Hari-South Luzon Expressway Link Road project with the successfully built, operated and transferred Incheon Bridge (also known as the Incheon Songdo Highway project), using the Asia Infrascope Framework. This paper submits that if a PPP project satisfies the Asia Infrascope criteria, the more likely it is to become more sustainable. Hypothetically, the infrastructure project outcomes should be positive in terms of public satisfaction, quality, financial returns, and regulatory/audit evaluations.

Dedicated to Fred and Beth Flores

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I. Introduction

The significance of infrastructure for developing countries cannot be underestimated since it is regarded as the most important catalyst for economic growth, development and poverty reduction. The insufficiency in roads/bridges, public transportation, energy and water services, for example, can negatively impinge on the advancement of subsisting businesses and may similarly prevent the advent of new competitors. An effective and well-organized communication and transportation infrastructure offers a complete mobility for people and commodities alike, plays a critical role in the decrease of input and transaction costs and boosts market competence. Regional infrastructure which may have considerable overrun results drives regional fiscal movements while the system characteristics of infrastructure increases the connectivity of regions and encourages domestic integration.

However, an infrastructure development project is a complex undertaking. It is large in scale; it requires a huge amount of financial resources; it demands a multi-faceted portfolio of technologies and skilled human resources; and it is prone to market failure since the return on investment takes a long time and is very uncertain.

Despite these challenges and the ambiguity that currently exists in the Philippines' public-private partnership (PPP) approach to efficient and transparent implementation of the necessary legal and administrative framework of PPP agreements, the Philippine Government still chose to focus on a PPP model for infrastructure creation for the country's much needed public policy innovation. The reason for this decision is the fact that the PPP approach has been in trend for over a decade in the country and a large body of literature subsists on what comprises PPP in terms of ownership of assets, responsibility, operation, and maintenance.

For a variety of reasons, not all PPP projects are considered successful. The most common for these projects' failures stem from the problems of principal-agent relation, and it

is therefore credible to say that a PPP project's success depends on how the principal (the Government) manages the endless contingencies, expected and unexpected, extant in the life of a PPP.

In order to help nations plan and manage prospective and existing PPP projects successfully, the Economist Intelligence Unit (EIU), commissioned by the Asian Development Bank (ADB), has advanced an evaluation framework for PPP projects with a critical list of success criteria. The Asia Infrascope is a benchmark index and learning tool that assesses countries' readiness and capacity for sustainable, long-term PPP projects.

Recently, the current Philippine Administration has embarked on a PPP project to build a four-kilometer (km.) highway which is projected to be in operation by middle of 2014, while the South Korean Government has completed in 2009 its longest bridge (21.38 km.) that was recorded in history as a world-class PPP project.

In this study, my objective is to compare the Daang Hari-South Luzon Expressway (SLEx) Link Road project, which is an ongoing Philippine PPP project, with the Incheon Bridge project (also known as the Incheon Songdo Highway project) of South Korea in light of the Infrascope framework.

My hypothesis in this research is if a PPP project satisfies the Infrascope criteria, the more likely it is to become more sustainable than a PPP project that does not satisfy the framework. And if this hypothesis is true, then the infrastructure project outcomes should be positive in terms of public satisfaction, quality, financial returns, and regulatory/audit evaluations.

The subsequent sections of this paper shall review the structure and general framework of PPP infrastructure projects and shall also focus on the experiences of both the Philippines and South Korea with the PPP approach for road infrastructure development, highlighting the cases of the Daang Hari-SLEx Link Road and Incheon Bridge projects. The

following sections shall provide an overview of the Infrascope framework for evaluating PPP projects; a comparative analysis; key discussions; and the summary and conclusion.

II. The Structure of PPP Projects

According to ADB (PPP Handbook, 2008), the term public-private partnership describes a range of possible relationships among public and private entities in the context of infrastructure and other services. PPPs present a framework that—while engaging the private sector—acknowledge and structure the role for government in ensuring that social obligations are met and successful sector reforms and public investments are achieved. A strong PPP allocates the tasks, obligations, and risks among the public and private partners in an optimal way. The public partners in a PPP are government entities, including ministries, departments, municipalities, or state-owned enterprises. The private partners can be local or international and may include businesses or investors with technical or financial expertise relevant to the project. Increasingly, PPPs may also include non-government organizations and/or community-based organizations that represent stakeholders directly affected by the project.

Effective PPPs recognize that the public and the private sectors each have certain advantages, relative to the other, in performing specific tasks. The Government's contribution to a PPP may take the form of capital for investment (available through tax revenue), a transfer of assets, or other commitments or in-kind contributions that support the partnership. The Government also provides social responsibility, environmental awareness, local knowledge, and an ability to mobilize political support. The private sector's role in the partnership is to make use of its expertise in commerce, management, operations, and

innovation to run the business efficiently. The private partner may also contribute investment capital depending on the form of contract.

Normally, PPPs are structured to distribute risks between the associates who are most capable to handle those risks and thus reduce costs while enhancing performance.

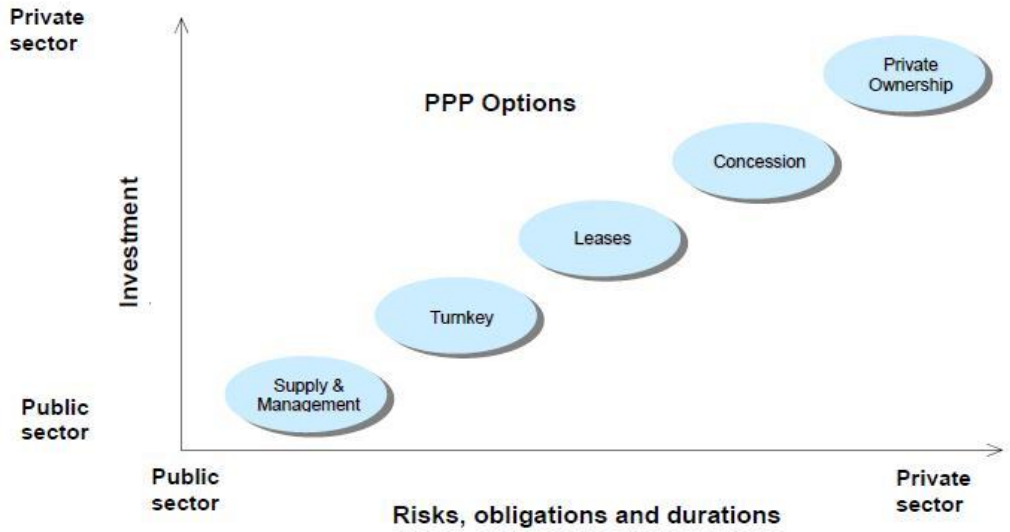
PPP can play a significant role in infrastructure provision and development. Several countries have successfully used the Built-Operate-Transfer (BOT) approach, a particular form of PPP to address the infrastructure needs of the economy, (UNIDO 1996). With BOT, the private sector takes care of the design, financing, construction, operation and management of the infrastructural facility and after a specified concession period, the Government assumes ownership of the facility; the private sector takes on long-term risks of financing and managing an infrastructural facility in exchange for commercial returns to the investment under the user-pays principle (Menheere and Pollalis, 1986; Handley 1997, among others).

II-1. A General Framework for PPP on Infrastructure Projects

An extensive variety of PPP models has surfaced. These models differ mainly by ownership of capital assets, responsibility for investment, assumption of risks, and duration of contract. The United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP) classified the PPP models into five wide categories in order of amplified participation and assumption of risks by the private sector. These are: (1) supply and management contracts, (2) turnkey contracts, (3) leases, (4) concessions, and (5) private finance initiative and private ownership.

The basic features of these five categories of PPP models are shown in Figure 1.

Figure 1. Basic features of PPP models



Source: UNESCAP, 2002, p. 5

Every one of these five categories has numerous variations. A classification of the PPP models alongside their core qualities is shown in Table 1.

While the scale of models shown in the table is potential as individual options, groupings are also possible such as, a lease or (partial) privatization contract for existing facilities which incorporates provisions for expansion through BOT. As a matter of fact, many PPP schemes in the past five years are of combination type.

Every type has its own advantages and disadvantages and would be appropriate for attaining the main purpose of PPP to a different level. In choosing the appropriateness of a specific model of PPP, special characteristics of some sectors and their technological development, legal and regulatory regimes, and public and political perception about the services in a sector may also be key aspects.

** Build-Lease-Transfer is a variant.*

Table 1. Classification of PPP models

Broad category	Main variants	Ownership of capital assets	Responsibility of investment	Assumption of risk	Duration of contract (years)
Supply and management contract	Outsourcing	Public	Public	Public	1-3
	Maintenance management	Public	Public/Private	Private/Public	3-5
	Operational management	Public	Public	Public	3-5
Turnkey		Public	Public	Private/Public	1-3
Affermage/Lease	Affermage	Public	Public	Private/Public	5-20
	Lease*	Public	Public	Private/Public	5-20
Concessions	Franchise	Public/Private	Private/Public	Private/Public	3-10
	BOT**	Public/Public	Private/Public	Private/Public	15-30
Private ownership of assets and PFI type	BOO/DBFO	Private	Private	Private	Indefinite
	PFI***	Private/Public	Private	Private/Public	10-20
	Divestiture	Private	Private	Private	Indefinite

*** BOT has many other variants such as Build-Transfer-Operate (BTO), Build-Own-Operate-Transfer (BOOT) and Build-Rehabilitate-Operate-Transfer (BROT).*

**** The Private Finance Initiative (PFI) model has many other names. In some cases, asset ownership may be transferred to, or retained by the public sector.*

There is no particular PPP scheme that can comply with all the requirements relating to a project's location and its technical and financial features. Selection of the most appropriate type should consider the country's political, legal and socio-cultural

circumstances, maturity of the country's PPP market, and the financial and technical features of the projects and sectors concerned.

As an illustration, for a new venture, a PFI or BOO type of models may be more suitable in a developing/untested market; while a BOT type of model may be more appropriate in a matured PPP market.

III. PPP in the Philippines

To provide the legal framework governing financing, construction, and operation of an infrastructure project by a private entity (concessionaire), the Philippines enacted Republic Act (R.A.) No. 6957, which was later amended by R.A. No. 7718 in 1994. This made the Philippines the first country in Southeast Asia to enact a BOT law. The contract with the Government specifies a period of time during which the Government delegates to the concessionaire the authority to finance, build and operate a facility and to impose charges or fees on users of the facility for a profit cooperation period. This is called the cooperation period. At the end of the cooperation period, the private investor turns over or transfers the facility to the Government.

The Philippine BOT Law has been studied and used as a model for other BOT laws in neighboring countries because the BOT and its variant schemes has been widely used to apply private sector management and technical expertise and financing on infrastructure provision that would have otherwise not been provided because of the country's capital shortage and inability to finance the much-needed infrastructure, and the notorious inefficiency of operation of infrastructure by the Government. The Philippine Government

entered into BOT contracts with the private sector in water supply, urban rail transit, international airport terminal services and toll roads.

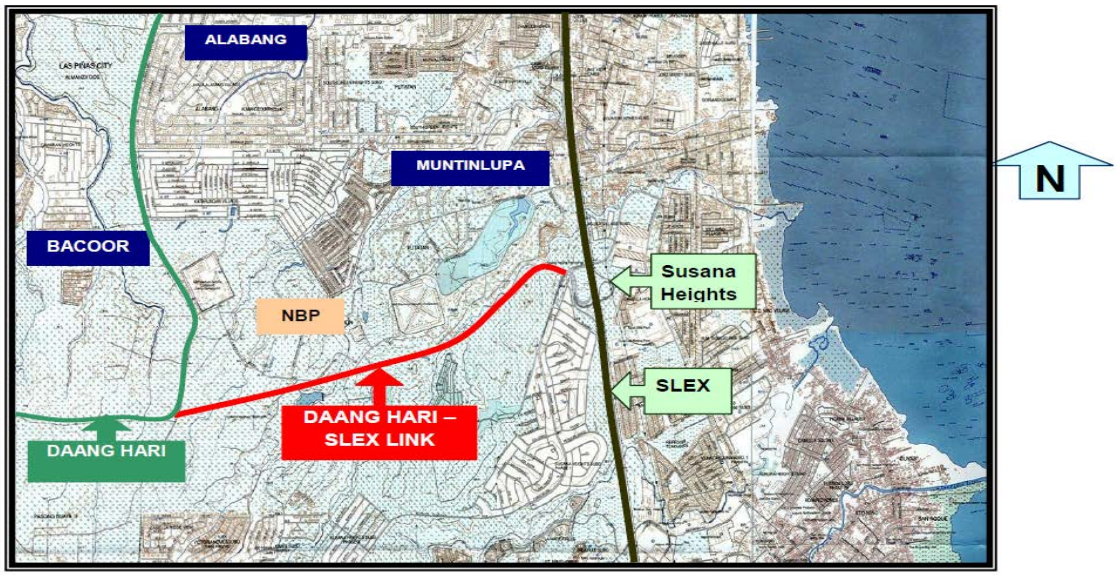
III-1. The Case of Daang Hari-SLEx Link Road Project

The Daang Hari-SLEx Link Road project is one of the Philippine Government's priority PPP under its PPP Program launched by President Benigno Simeon Aquino III in November 2010.

The road project, which is a strategic component of the Metro Manila Expressway System, is located in one of the fastest developing parts in Metro Manila where increase in population, together with commercial and industrial progress, has caused severe traffic jam in the vicinity. The said undertaking is proposed to deliver a high-standard expressway that would aid in a well-organized course of present and future traffic to and from Bacoor, Cavite and SLEx.

The construction of a new four-km., four-lane toll road started in February 2012 from the junction of Daang Reyna and Daang Hari in Las Piñas, Metro Manila and Bacoor, Cavite to SLEx through the Susana Heights Interchange in Muntinlupa, passing through the New Bilibid Prison (NBP) Reservation. The projected link-road will utilize the Susana Heights Interchange as exit and entry from north and south of SLEx and will incorporate the building of a new bridge/expansion of the existing bridge traversing SLEx, as well as the broadening of the Susana Heights toll plaza (see Figure 2 below).

Figure 2. Daang Hari-SLEx Link Road Project Map



The Daang Hari-SLEx Link Road will also improve the master plan for restoration of the present NBP compound. A proposal to restore the NBP and to transfer the location of the prison is in progress and the current setting is designed to be upgraded into a diverse business, institution and suburban estate. With the construction of the thoroughfare, access to that part of the Metro will greatly improve, not to mention the economic benefit from savings in time and fuel.

The PPP Center of the Philippines estimated the construction cost based on the following factors: (1) unit price of similar Philippine Government and BOT projects implemented or tendered from 2010-2011; and (2) procedures and composition for the derivation of base construction cost, in similar projects were used.

Figure 3. Layout of the Daang Hari-SLEx Link Road

Actual Construction Site

The total project cost is approximately PhP1.956 billion (US$47.413 million) inclusive of right of way (ROW) acquisition cost estimated at PhP177 million (US$4.290 million).

IV. PPP in South Korea

The Republic of Korea, with its 15-year experience in PPP program, is believed to have instituted an organizational background and a well-developed market. The Korean Government instigates different forms of strategies that may aid infrastructure financing through PPP schemes. Complete and explicit description of the PPP procurement steps—to protect or improve value for money—in the special law and regulations has been an important factor to advance efficiency and consistency and to lessen ambiguity in realizing PPP ventures in the country.

Since 1999, South Korea has had umbrella PPP legislation via the Private Participation in Infrastructure Act, which was restructured in 2005 to allow the Built-Transfer-Lease (BTL) models, as well as schemes in a more extensive range. The entire PPP method is supervised by the Ministry of Strategy and Finance (MOSF), with the Private Infrastructure Investment Management Centre (PIMAC) supporting in an advisory and guideline-drawing capacity. PIMAC has set up steadily followed procedures for value for money (VFM) testing, proposal-preparation, tender-evaluation, and standard concession

agreements. Potential projects costing over KRW50 billion (US$48 million) is put through an initial review, with either PIMAC (in the case of voluntary assignments) or the appropriate bureau (for requested works, later reviewed by PIMAC) performing VFM tests.

IV-1. Incheon Bridge (Incheon Songdo Highway Project) in South Korea

The Incheon Bridge, which connects the Incheon International Airport (based on Yeongjong Island) and the international business district of New Songdo City (second bridge crossing), began construction in June 2005.

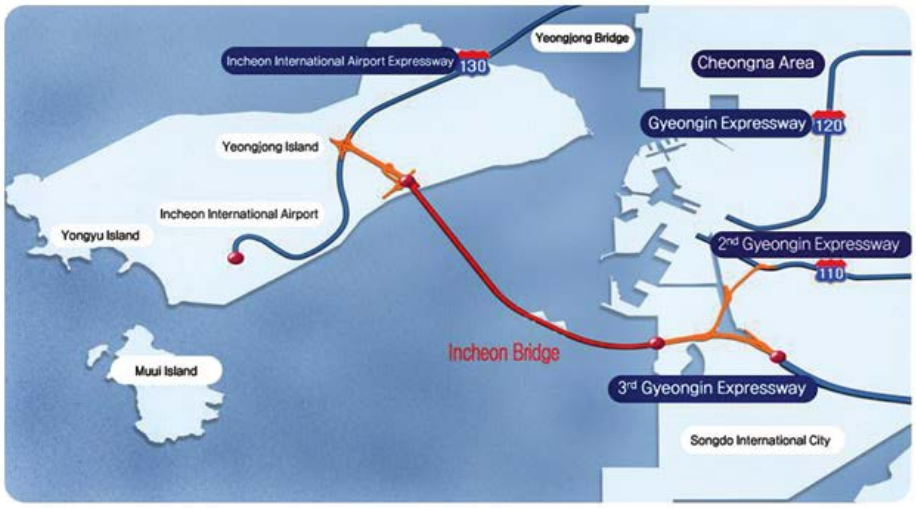
The bridge was finished and opened for public use in October 2009. It is one of the seven longest bridges of its class in the world and was recorded in history as a world-renowned bridge that gave various lessons on world-class financing technique, advanced project management, and comprehensive state-of-the-art bridge technologies. The Incheon Bridge project became the first Private Participation in Infrastructure (PPI) project led by a foreign company. It is a fine example of a successful venture that was carried out by deriving consensus from local societies.

Figure 4. Overall View of Incheon Bridge

Figure 5. Layout of Incheon Bridge

The bridge (see Figure 6 below) is an 18.43 km. toll bridge that links the Seoul-Incheon expressway with the Seohaean expressway, to cut down travel time from Incheon airport to the metropolitan districts of Seoul by 40 minutes. The bridge was constructed at an approximation of more than KRW2.450 billion (US$1.4 billion).

Figure 6. Incheon Bridge Project Map



KODA Development is a joint venture between UK-based AMEC and the City of Incheon. It is in charge of the financing and managing of the PPP project; while Samsung

Joint Venture, a group of seven domestic builders, were responsible for the design and actual construction of the bridge.

KODA Development will run the bridge for 30 years and will later turn it over to the South Korean Government. AMEC is the first foreign investor to head a major PPP scheme in South Korea. It has a preliminary contract for seven years to operate and maintain the bridge in addition to a return on its investment. AMEC's equity investment totals US$38 million (£21 million), representing a 23% interest in KODA Development.

AMEC's original input has subsidized the primary blueprint and initial construction efforts on the project. The residual debt and equity was given by an association of South Korean banks headed by Kookmin Bank and Industrial Bank of Korea, along with the Incheon Bridge Investment Company, which is owned by the Macquarie Bank of Australia (AU$86 million) and will hold 41% interest in KODA and debt of AU$354 million.

V. A Framework for Evaluating PPP Projects

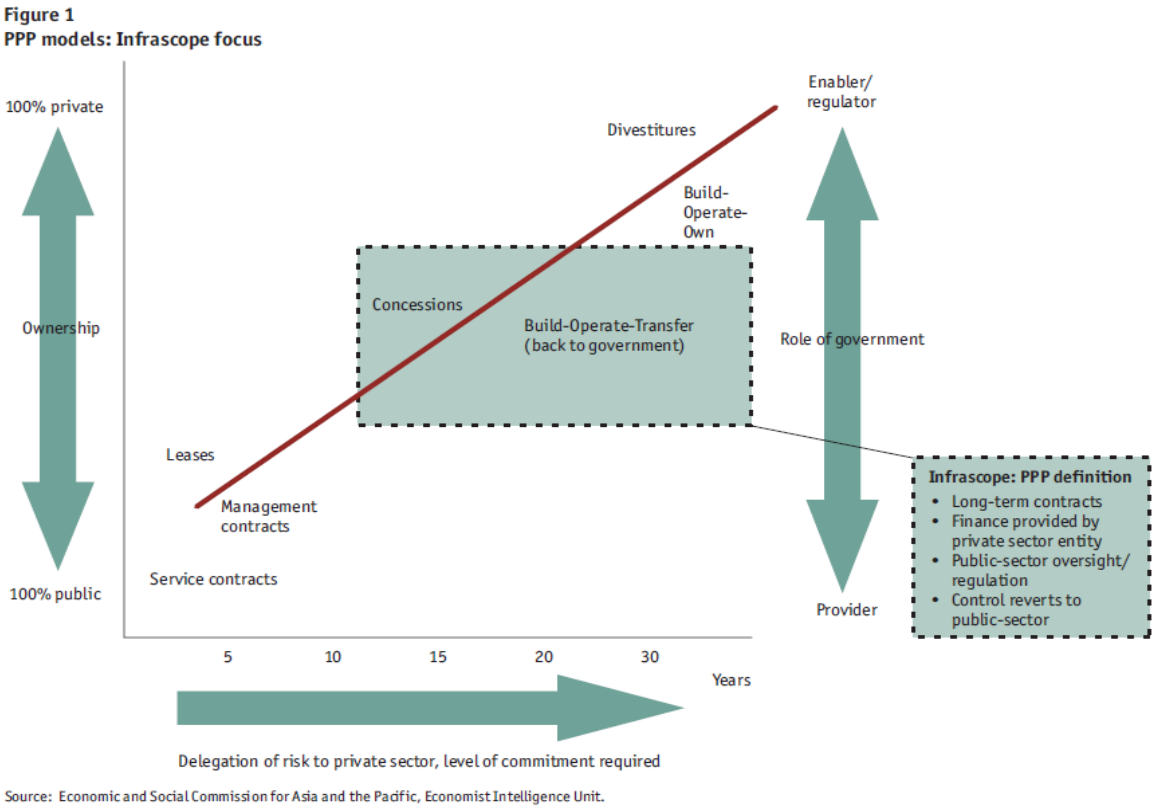
According to the ADB and The Economist's EIU, the Asia Infrascope scores aspects of the regulatory and institutional frameworks, project experience and successes, the investment climate and the financial facilities in 11 developing countries in the Asia-Pacific, four benchmark countries (Australia, Japan, South Korea and United Kingdom) and one state (Gujarat, India). The research also involves in-depth industry analysis, interviews with country and regional field experts and secondary investigation.

This thesis shall, however, focus only on the Infrascope results of the Philippines and South Korea.

In the Asia Infrascope, the categories that make up the overall index isolate critical aspect of the PPP value chain, starting at project conception and spanning contract-design, bidding, enforcement, supervision, termination and financing. The index specifically evaluates readiness and capacity by dividing the PPP project life-cycle into five components: (1) a country's legal and regulatory framework for concession projects; (2) the design and responsibilities of institutions that prepare, award and oversee projects (institutional framework); (3) the government's ability to uphold laws and regulations for concessions, as well as the number and success rate of past projects (operational maturity); (4) the business, political, and social environment for investment (investment climate); and (5) the financial facilities for funding infrastructure. In addition, to recognize the significance of activity occurring at the regional level, a stand-alone sixth category and indicator for sub-national PPPs was added in 2010 (sub-national adjustment factor). Several of the indicators that compose the index are based on quantitative data, which have been drawn from international statistical sources. The others are qualitative in nature and have been produced by EIU. Many of these focus on legal and regulatory factors and are informed by publicly available information and interviews with sector and country experts. In the absence of data, the Infrascope employs qualitative measures that obtain some elements of these important factors.

The Infrascope index consists of 19 indicators, of which 15 are qualitative and four quantitative. Figures for the "quantitative indicators" are derived from the World Bank (WB) and the PPI Advisory Facility database and from the EIU's Risk Briefing service. Disparities in the quantitative data have been plugged in by estimates.

Figure 7. PPP Models: Infrascope Focus



The grading of qualitative indicators was enlightened by an array of key origins (government websites, legal texts, interviews and press reports), secondary information and statistical records were modified by the EIU. The core bases applied in the index are the Transparency International, EIU and WB.

VI. Analysis

An overview based on significant components of the Daang Hari-SLEx Link Road and Incheon Bridge (see Table 2 below) is presented in this section to facilitate comparison of the two infrastructures.

Moreover, the overall results of the Asia Infrascope as of June 2011 shall also be provided to further substantiate my claim regarding the performances of the Philippines and South Korea in terms of their PPP approaches.

And finally, I will provide a comparison using six of the Infrascope's critical criteria, for brevity, between the two subject infrastructures.

VI-1. A Comparison between the Daang Hari-SLEx Link Road Project in the Philippines and the Incheon Bridge in South Korea

Table 2

Components		Incheon Bridge, South Korea	Daang Hari-SLEx Link Road, Philippines
1.	History/Time Frame/Indicative Timetable	a. Private-Invested Incheon Bridge Activity • Mutual Understanding between Canadian and Korean Presidents • Establishment of KODA Development Co. (former name of Incheon Bridge Co. Ltd. (IBC) • Submission of Private-Invested Project Proposal • Completion of the deliberation for the project proposal • Designation of preferred negotiation partner (AMEC) • Designation of concessionaire and signing of the Concession Agreement • Selection of design and	2011 • Pre-qualification conference • Publication of invitation to participate and bid • Submission of qualification documents • Notice of pre-qualification • Release of draft Concession Agreement to Pre-qualified Bidders • Pre-bid conference • Submission of technical and financial proposals 2012 • Issuance of Notice of Award • Signing of the Toll Concession Agreement • Approval of the detailed engineering design • Delivery of ROW • Start of construction

		construction contractor (Samsung JV) • Signing of the Amended and Restated Concession Agreement • The ground-breaking ceremony (Ministry of Land, Transport and Maritime (MLTM) Affairs and Korea Expressway Corporation (KEC) • Completion of the project b. Government-Invested Connecting Road Project • Order of the construction project (MLTM → KEC) • Bidding for construction • Contract and the ground-breaking ceremony Completion of the project			2013 • Construction 2014 • Completion of the project • Start of operations		
2.	Construction Period	Total: June 2005 to October 2009 (52 months or four years and four months)			Targeted: June 2011 to June 2014 (36 months or three years)		
3.	Length (Total)	21.38 km. (including embankment highway)			Four km.		
4.	Construction Cost	Total: KRW2.450 billion (US$1.4 billion)			Estimated: Php1.956 billion (US$47.413 million)		
5.	Project System	Build-Transfer-Operate (BTO) Turnkey Base			BTO		
6.	Project Implementing Agencies	IBC (Concessionaire) and KEC (Representative of the Government)			Ayala Corporation (Concessionaire) and the Department of Public Works and Highways (DPWH) (Representative of the Government)		
7.	Operation Period by the Private Investor/ Concession Period	30 years after the opening of the bridge			25 years after opening of the road		
8.	Toll Rates/Fees	**Vehicle Class**	**Per km.**	**Total**	**Vehicle Class**	**Per km.**	**Total**

	(subject to applicable toll fee exemptions and discounts)	Sub-compact	KRW128.62 (US$0.12)	KRW2,750 (US$2.52)	Not Applicable (NA)	NA	NA
		Compact	KRW257.25 (US$0.24)	KRW5,500 (US$5.04)	Class 1 (Private Cars)	Php3.02 (US$0.07)	Php12.08 (US$0.29)
		Mid-sized	KRW439.66 (US$0.40)	KRW9,400 (US$8.61)	Class 2 (Light Trucks)	Php6.04 (US$0.15)	Php24.16 (US$0.59)
		Large	KRW565.95 (US$0.52)	KRW12,100 (US$11.09)	Class 3 (Heavy Trucks)	Php9.10 (US$0.22)	Php36.40 (US$0.88)
9.	Quality (physical condition)	Of excellent condition/well-maintained/world-class (based on my own observation and assessment when I visited the bridge in August, 2012)			As of my last visit to the site in August, 2013, the road project is about 30% complete and is in good condition. (Please see pictures of the road project in its construction stage in the Appendix)		

VI-2. Overall Infrascope Scores of the Philippines and South Korea

A. The Philippines

Using the Asia Infrascope as scoring guide, below is the evaluation for the Philippines:

The Philippines has a long history with PPP projects and benefits from a good legal framework. However, there is some institutional weakness and limitations on dispute-resolution and financing.

Table 3

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	47.1	43.8	41.7	44.8	46.3	61.1	50.0
Rank	8	7	=8	10	13	8	=6

The Asia Infrascope findings state that the overall legal framework is good, but there are no specific provisions for compensation. Compensation is currently dealt with by the Government on a case-by-case basis. Projects are selected first via the procuring government

unit, which develops an implementation plan that is then evaluated and, if approved, incorporated into a relevant development plan by the National Economic and Development Authority (NEDA). NEDA's Investment Coordination Committee is responsible for evaluation and final approval of projects and now presides over the old BOT Center (renamed the PPP Center). The PPP Center does have expert staff, but high turnover has detracted from its effectiveness.

Moreover, the bidding process is well structured; in each case, the procuring agency must create a Prequalification, Bids and Awards Committee composed of relevant experts, to invite, evaluate, and recommend bids. Dispute-resolution, however, is a weak point, with loopholes in rules leading to ambiguity; disputes are usually left to parties to solve between themselves, although arbitration and the courts are occasionally used. The courts themselves are not truly independent, although the situation is improving.

And finally, the current administration is also keen to attract foreign PPP partners, offering use of guarantees in some circumstances; however, political opposition to this policy does exist. Generally, the Government's ability to support projects is limited, owing to its poor fiscal position. The bond market is also underdeveloped, reducing the possibility of finding adequate funding.

B. South Korea

South Korea is among Asia-Pacific's most highly-developed countries in terms of PPP. The system is just and transparent, and the PPP body has highly-competent human resources. Rotation among the government, however, is a concern.

Table 4

	Overall index	Regulatory framework	Institutional framework	Operational maturity	Investment climate	Financial facilities	Sub-national adjustment
Score	71.3	78.1	75.0	68.8	54.2	88.9	50.0
Rank	3	3	3	4	5	3	=6

The Asia Infrascope findings on South Korea's PPP maintain that the bidding process is considered fair, and there are no single-bid contracts, as invitations are issued again if only one bidder emerges. Currently, there are no PPP-specific dispute-resolution mechanisms, but private mediation firms, as well as the Office of the Ombudsman may offer mediation. The MOSF has submitted a revision to the PPP Act to create a Dispute-Mediation Committee.

Furthermore, the score affirms that the PIMAC staff comprises trained engineers, accountants, lawyers, and project finance experts. Unfortunately, however, MOSF staff are frequently rotated, and politicized hiring/firing is a problem; this may lead to a lack of consistency and knowledge. Regarding risk-sharing, the standard concession agreement sets out how this will be divided, with case-by-case variations. In the early days of the country's PPP experience, the state was arguably too generous with minimum-revenue guarantees (MRG); the Incheon Airport Highway (1999) drew less than half the projected revenue, but the MRG meant that the government bore almost all the losses. Since 2005, however, MRGs have been phased out. Financial markets are relatively conducive to PPP financing, and politically, both main parties support PPPs.

And lastly, it asserts that at a local level, there is some concern that smaller regional authorities lack the capacity to handle PPPs.

VI-3. Comparison Based on Infrascope Framework

Based on the Infrascope Framework, the legal framework of South Korea is comprehensive and consistent across sectors and layers of government. It addresses risk allocation and compensation issues in accordance with strict economic principles and enables sophisticated and consistent oversight of project implementation.

The Philippines, on the other hand, has a legal framework that is generally good and coherent, addressing risk-allocation issues, although it leaves some ambiguity with regard to compensation schemes and project implementation.

South Korea's project selection and decision-making, is a consistent result a various efficiency, cost-benefit and social evaluation considerations required by law and accompanied by rigorous accounting practices.

In the Philippines, decision-making is both defined and used for PPP project decisions, although accounting for liabilities needs improvement for more consistent decisions.

Fair and transparent bidding procedures are established by regulations in South Korea, limits to renegotiations and adjustments are set, and independent oversight of post-award procedures is required.

Although project bidding is fair and transparent in the Philippines, renegotiations and expansions are regulated poorly.

In terms of quality of institutional design, in South Korea, (1) the necessary agencies operate and generally fulfill all necessary roles for sector oversight, although their structure and roles could be improved; (2) the judiciary consistently and effectively upholds contracts and allows for appeals to regulator rulings, ensures fair compensation for early termination and transfer of contracts, although delays occur and can generate hold-up risk.

In the Philippines, (1) some agencies operate, but oversight is not comprehensive and agencies are highly prone to political distortion; (2) the judiciary occasionally upholds PPP operator and investor rights and arbitration rulings, but in an inefficient manner.

In terms of operational maturity, agencies in South Korea generally have the necessary comprehensive project planning, design, and financing expertise and experience, exhibiting moderate service-quality oversight capacity; while in the Philippines, agencies have very limited project expertise and experience.

In the sub-national adjustment factor, an important and diverse concession program has been developed at a municipal or regional level in South Korea, and it benefits from a homogeneous framework, good local implementation-capacity, and institutional design. A few successful examples of regional or municipal concessions exist in the Philippines, but capacity and projects at this level across the country are generally weak.

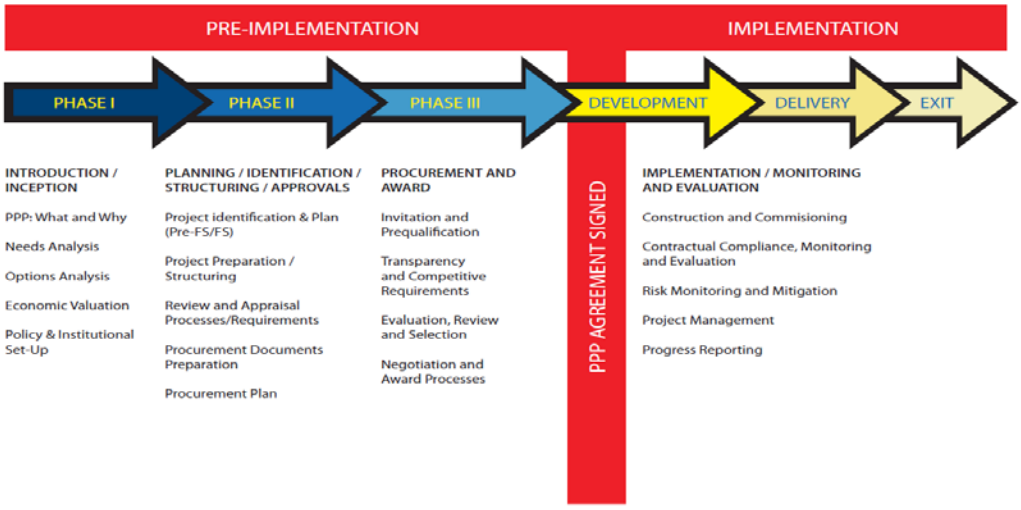
VII. Discussion

The Daang Hari-SLEx Link Road project is the first infrastructure development plan that the Aquino Administration has awarded under its flagship PPP scheme and is scheduled for completion by mid-2014. The link road plan is projected to ease heavy traffic by 20 minutes during off peak and by 60 minutes during peak hours per vehicle between Cavite and the Southern part of Luzon, which is considered to be among the fastest emerging section within Metro Manila where increase in the population, together with commercial and industrial advancement, has caused critical traffic blocking in the district. Said reduction in travel time would mean savings on average fuel consumption by two km. per liter per vehicle.

Moreover, said link road project will also generate 2,672 jobs through direct employment and will promote wider inter-regional trade among regions using the facility.

As part of President Benigno S. Aquino III's social contract with the Filipino people, the PPP Center of the Philippines was established. One of the most significant strategies of the PPP Center is its PPP Capacity Building Program, which is a comprehensive training service made available to National Government agencies and local government units aimed at building, enhancing and sustaining their institutional capabilities in all aspects of PPP project development and implementation throughout the whole PPP project cycle: inception, planning and identification, project structuring, review and appraisal, approvals and procurement, project implementation and management, and monitoring and evaluation.

Figure 8. PPP Capacity Building Program in the Philippines



This study firmly believes in the present Government's vision of a Philippines that is able to achieve inclusive growth and is characterized by rapid, sustained, and broad-based economic growth that is focused on creating more jobs and new opportunities to achieve full employment, and on significantly reducing poverty.

The question arises, however, as to why I compared a relatively small road project to an upscale, world-class infrastructure project like the Incheon Bridge of South Korea. And why choose PPP and not an old system of infrastructure development?

The primary reason for choosing PPP over the old system of infrastructure development is because an infrastructure project involves a huge amount of money and resources, which may not be readily available. Using PPP for infrastructure projects is much like buying an expensive appliance on installment. You make a small down payment and immediately acquire the appliance which you would have otherwise taken a long time to save for considering your limited budget.

I chose South Korea's Incheon Bridge as a PPP benchmark project, because of the following reasons, among other things: (1) the Infrascope Framework also listed South Korea as a benchmark country in terms of readiness and capacity; (2) it was designed by reputable agencies such as the ADB, and the EIU; (3) South Korea has a 15-year progressive PPP experience; (4) like the Philippines, South Korea uses BOT projects for ports, roads and bridges; and (5) South Korea is one of the top-performing Asia Pacific countries in terms of readiness and capacity to achieve sustainable, long-term PPP projects.

In order to determine the status of the Daang Hari-SLEx Link Road project, I interviewed officials and staff of the PPP Center of the Philippines, and the DPWH. According to them, as of 25 August 2013, the overall accomplishment of the Project is 30.205% complete, which is ahead of schedule by 2.242%.

VIII. Summary and Conclusion

The success of the world-class Incheon Bridge project in South Korea has influenced my decision to come up with this paper in the hope of seeing this realized in my country in achieving sustainable implementation of PPP programs based on the Asian Infrascope Framework.

I realize that an infrastructure development project is a complex undertaking because it is large in scale; it requires a huge amount of financial resources; it demands a multi-faceted portfolio of technologies and skilled human resources; and it is prone to market failure since the return on investment is very uncertain.

Having this in mind, I compared the Philippines' ongoing PPP project, which is the Daang Hari-SLEx Link Road with South Korea's well-accomplished PPP project, which is the Incheon Bridge in light of the Asia Infrascope Framework.

The Asia Infrascope developed by the ADB and EIU is a benchmark index and learning tool that assesses countries' readiness and capacity for sustainable long-term PPP projects.

The result of the comparison made showed, among other things, that in overall Infrascope scores, South Korea had an overall index score of 71.3 and ranked third, while the Philippines attained a score of 47.1 and ranked eighth.

I believe that if a PPP project satisfies the Infrascope criteria, the more likely it is to become more sustainable than a PPP project that does not satisfy the framework. A PPP project, like the Daang Hari-SLEx Link Road project has the potential to become a successful PPP project based on the analysis, observations and interviews conducted. The link road project is then expected to yield positive outcomes in terms of public satisfaction, quality, financial returns, and regulatory/audit evaluations.

Furthermore, this study highly recommends that the Infrascope Framework be utilized as early as the planning stages of an infrastructure development project under PPP. The said framework can also be considered as an effective monitoring tool for existing infrastructures.

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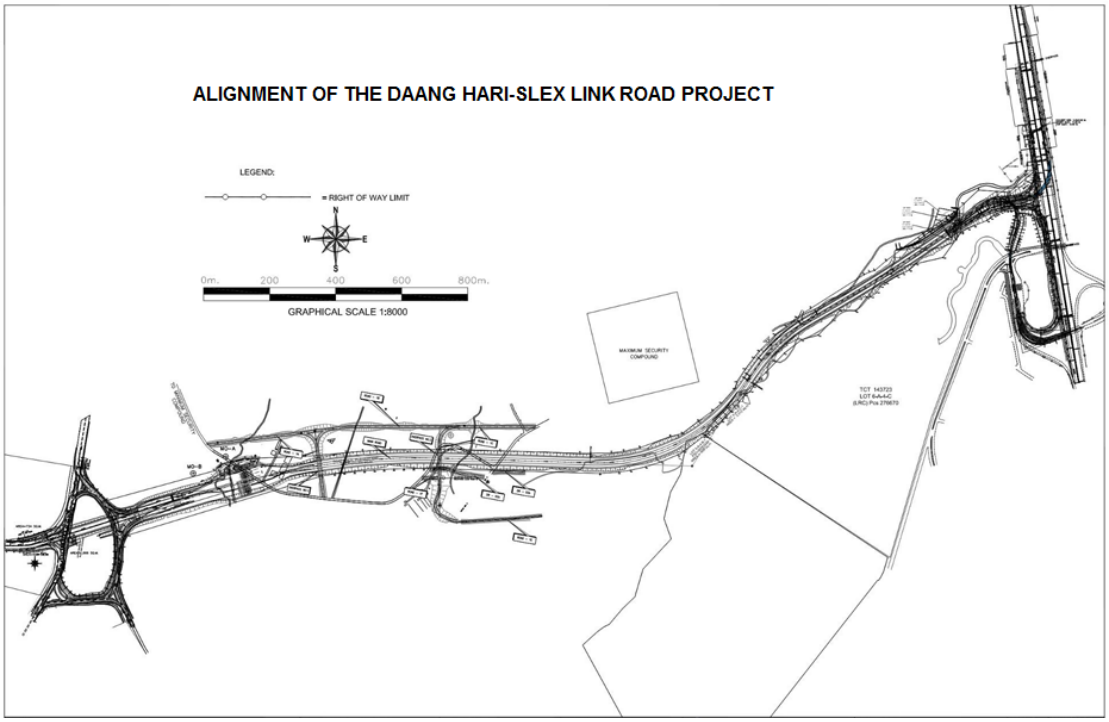
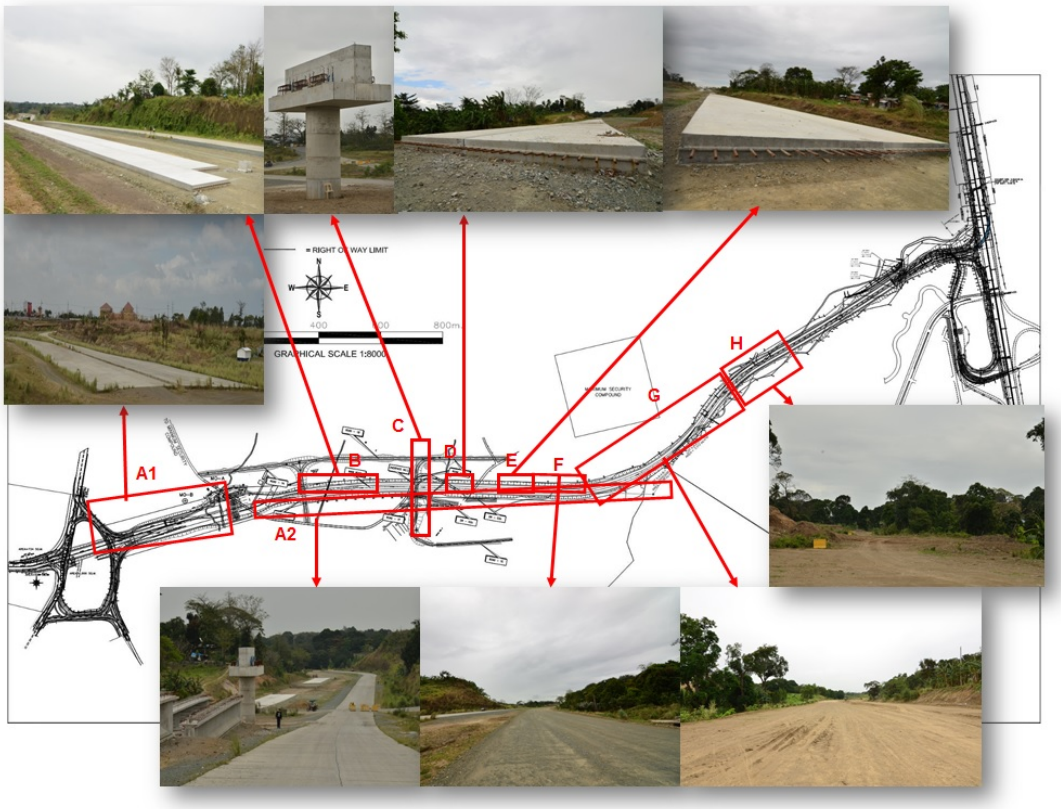
Appendices

[1] Alignment of the Daang Hari-SLEx Link Road Project



[2] Daang Hari SLEx Link Road Project Construction Site



[3] PPP Center of the Philippines

[4] The Incheon Bridge Project

[5] Asia Infrascope Scoring Criteria

The categories and their associated indicators are as follows:

1. Legal and regulatory framework (weighted 25%)

1.1 Consistency and quality of PPP regulations
1.2 Effective PPP selection and decision-making
1.3 Fairness/openness of bids, contract changes
1.4 Dispute-resolution mechanisms

2. Institutional framework (weighted 20%)

2.1 Quality of institutional design
2.2 PPP contract, hold-up and expropriation risk

3. Operational maturity (weighted 15%)

3.1 Public capacity to plan and oversee PPPs
3.2 Methods and criteria for awarding projects
3.3 Regulators' risk-allocation record
3.4 Experience in electricity, transport and water concessions
3.5 Quality of electricity, transport and water concessions

4. Investment climate (weighted 15%)

4.1 Political distortion
4.2 Business environment
4.3 Political will

5. Financial facilities (weighted 15%)

5.1 Government payment risk
5.2 Capital market: private infrastructure finance
5.3 Marketable debt
5.4 Government support for low-income users

6. Sub-national adjustment factor (weighted 10%)

6.1 Sub-national adjustment

[6] Detailed Explanation of the Infrascope's Scoring Criteria

A. Calculating the Index

Indicator scores are normalised and then aggregated across categories to enable a comparison of broader concepts across countries. Normalisation rebases the raw indicator data to a common unit so that it can be aggregated.

The indicators of quantitative data where a higher value indicates greater experience with projects, a better business climate or better political environment have been normalised on the basis of:

$$x = (x - \text{Min}(x)) / (\text{Max}(x) - \text{Min}(x))$$

where Min(x) and Max(x) are, respectively, the lowest and highest values across the countries/index for any given indicator. The normalised value is then transformed from a 0-1 value to a 0-100 score to make it directly comparable with other indicators. This effectively means that the country with the highest raw data value will score 100, while the lowest will score 0.

Modelling and weighting the indicators and categories in the index results in scores of 0-100 for each country, where 100 represents the highest quality and performance, and 0 the lowest. The countries assessed can then be ranked according to these indices.

B. Qualitative Data

All qualitative indicators have been scored on an integer scale. This scale ranges are 0-4 or 0-3; scores are assigned by the Economist Intelligence Unit's research team according to the scoring criteria. The integer scores are then transformed to a 0-100 score to make them comparable with the quantitative indicators in the index.

C. Weighting the index

At the conclusion of the concession readiness research exercise, we selected a series of default weightings deemed appropriate for the overall index calculation. These weightings are not meant to represent a final judgment on relative indicator importance. These may be changed by users at will.

D. Indicator descriptions

Legal and regulatory framework

1.1) Consistency and quality of PPP regulations: Do PPP policy frameworks and laws establish an effective and efficient process for PPP project-creation across sectors? Do regulations establish clear requirements and oversight mechanisms (for example, which government institutions are responsible for project-implementation, project-preparation, bidding, contract awards, construction and operation)? Does the policy framework provide guidelines for proper risk allocation across parties? Is there a clear system for compensating the private sector for acts of authority that change sector-specific economic conditions not foreseen during bidding? Also considers if regulations avoid open-ended compensation rights for private participants, so that the state only assumes explicitly written commercial contractual contingent liabilities.

Scoring

0= The legal framework is so cumbersome or restrictive that in practice national-level PPPs are extremely difficult to implement;

1= The legal framework allows national-level PPPs, but it is ill-defined and risk-allocation and compensation are unclear and inefficient;

2= The legal framework allows national-level concessions and also establishes general, open-ended oversight, risk-allocation and compensation rules;

3= The legal framework is generally good and coherent, addressing risk-allocation issues, while leaving some ambiguity with regard to compensation schemes and project-implementation;

4= The legal framework is comprehensive and consistent across sectors and layers of government, addresses risk-allocation and compensation issues according to strict economic principles and enables sophisticated and consistent oversight of project-implementation.

1.2) Effective PPP selection and decision-making: "Do regulations establish efficient planning frameworks so that evaluations and decisions regarding PPP project-creation and planning are systematic? Do they establish proper accounting of contingent liabilities, so that there is a clear process for deciding on the type and extent of government financial support? Do regulators regularly apply appropriate project-evaluation and cost-benefit analysis techniques to ensure that a PPP is the optimal project-financing and service-provision option? Does the Budget Office systematically measure contingent contractual liabilities and account for delayed investment payments in a way consistent with public investment accounting?" In this indicator, we also look at past experiences and frameworks to handle unsolicited private-sector bids.

Scoring

0= Decision-making processes are not defined–they are erratic and subject to change, without accounting for liabilities;

1= Decision-making processes are defined, but are only occasionally followed, and accounting for liabilities is not well established;

2= Decision-making processes are defined and upheld, but accounting practices are not adequate;

3= Proper decision-making is both defined and used for PPP project decisions, although accounting for liabilities should be improved for more consistent decisions;

4= PPP project-selection is a consistent result of various efficiency, cost-benefit and social-evaluation considerations required by law and accompanied by rigorous accounting practices.

Note on unsolicited bids:

The rationale behind unsolicited bids is to let the private sector innovate and come up with ideas for PPPs. The bidder who innovates could get an additional 5% to 10% in the bidding process. However, allowing the private sector to replace brainstorm/planning efforts usually made by the government for project preparation can add additional costs and bias. Nor do private-sector initiatives resolve the problem of a lack of human capital in government, as the government still has to review the projects. When evaluating the processes and quality of unsolicited bidding, it is necessary to make sure these types of bids are purely to help provide new project ideas, without replacing the role of government investment and planning.

1.3) Fairness/openness of bids, contract changes: "Do regulations unfairly favour certain project bidders and operators? Do regulations require and establish competitive bidding, that is, the, use of objective criteria and transparency during the selection process, requiring review of the impartiality of costs and the publishing of necessary bidding documents, and a clear, consistent process for contract and contract-adjustment negotiations? (The need for transparency, cost-review and a consistent process applies to single bids.) Do regulations require bidding for any significant, additional work necessary? Is a system established for independent oversight of such renegotiation procedures and conditions (in the event that separate bids are not required)?"

Scoring

0= Regulations unfairly favour certain bidders over others, transparency requirements are not in place and contracts are changed in a discretionary manner;

1= Regulations introduce some bias towards particular parties, and bidding, transparency and renegotiation schemes are poor;

2= Project-bidding is fair and transparent, but renegotiations and expansions are regulated poorly;

3= Regulations generally define a fair playing field, with considerations for contract-expansion, renegotiation and adjustments;

4= Regulations establish fair and transparent bidding procedures, set limits to renegotiations and adjustments and require independent oversight of post-award procedures.

Note on single-source bidding:

Single-source bidding, although at a superficial level inherently less competitive than multiple-source bidding, is sometimes the most realistic process in countries with capacity limitations, where it may be difficult to find many bidders who are qualified.

The appropriateness, transparency and fairness of single-bidding processes have been evaluated, with the assumption that the results and rationale behind its use are the most important criteria for scoring.

1.4) Dispute-resolution mechanisms: "Are there fair and transparent dispute-resolution mechanisms for quickly resolving controversies between the state and the operator, and at low cost? Are there options for technically adequate and efficient conciliation schemes, to address complex project-design and planning issues (for example, engineering, architectural quality, land acquisition, procurement disputes, environmental impact issues), without lengthy appeals?"

Scoring

0= Dispute-resolution systems for PPPs are undefined and insufficient;

1= Dispute-resolution mechanisms operate, but these are not transparent or efficient;

2= Adequate dispute-resolution mechanisms operate, but arbitration and appeals are lengthy and complex;

3= Comprehensive, effective dispute-resolution mechanisms operate, incorporating necessary technical considerations;

4= Effective and efficient dispute-resolution mechanisms establish independent arbitration according to law and contracts, without lengthy appeals and with accompanying viable prejudicial reconciliation options.

Institutional framework

2.1) Quality of institutional design: This indicator evaluates the existence and role of various agencies necessary for PPP oversight and planning, such as a PPP board at ministerial level, a State Contracting Agency, a PPP Advisory Agency and a Regulatory Agency for enforcement of project standards. It also considers involvement of government budget and planning offices.

Scoring

0= PPP-specific agencies do not operate and relevant institutions lack accountability and independence from rent seekers;

1= Some agencies operate, but oversight is not comprehensive and agencies are highly prone to political distortion;

2= Agencies operate and are fairly technical in nature, but do not play all necessary roles;

3= The necessary agencies operate and generally fulfil all necessary roles for sector oversight, although their structure and roles could be improved;

4= The institutional design ensures satisfactory oversight and planning agencies, incorporating checks and balances for effective planning, regulation and accountability.

2.2) PPP contract and hold-up risk: "Does the judiciary enforce property rights and arbitration rulings? Does the judiciary uphold contracts related to cost-recovery? Can investors appeal against rulings by regulators, expedite contract transfer for project exit and obtain fair compensation for early termination?" Also considers whether the state has an expedite mechanism for replacing failed operators, to protect creditors' rights.

Scoring

0= The judiciary poorly enforces PPP operator and investor rights and arbitration rulings, and there is no effective appeals process;

1= The judiciary occasionally upholds PPP operator and investor rights and arbitration rulings, but in an inefficient manner;

2= The judiciary usually upholds contracts, PPP operator and investor rights and arbitration rulings, but hold-ups are common;

3= The judiciary consistently and effectively upholds contracts and allows for appeals to regulator rulings, ensures fair compensation for early termination and transfer of contracts, although delays occur and can generate hold-up risk;

4= The judiciary effectively enforces PPP operator and investor rights and arbitration rulings, allowing for expedited contract transfers and ensuring that early termination occurs only in exceptional public-interest circumstances, with fair compensation to the operator and protection to creditors.

Operational maturity

3.1) Public capacity to plan and oversee PPPs: "Are public capabilities for planning, design/ engineering, environmental assessment, and oversight of project service standards robust? And do government officials have technical expertise in project-financing, risk-evaluation and contract design? Do financial authorities employ proper accounting practices when considering fiscal and contingent liabilities? Do they have a reputation for designing contracts that reduce post-bid opportunism?"

Scoring: It is seen as positive if consultants and training are used, but not as a crutch or substitute for a lack of public-sector capacity.

0= Agencies do not have any of the necessary expertise or experience;

1= Agencies have very limited project expertise and experience;

2= Agencies have some project planning, design and financing expertise or experience and oversee service quality to a limited extent;

3= Agencies generally have the necessary comprehensive project planning, design and financing expertise and experience, exhibiting moderate service-quality oversight capacity;

4= Agencies have the necessary expertise and experience and effectively regulate the sector on a consistent basis.

3.2) Methods and criteria for awarding projects: "What is the track record of PPP agencies for using competitive bidding and objective economic factors as the primary consideration in final project-selection and contract awards (for example, qualitative assessments regarding quality and soundness of the project and quantitative tools, such as VFM and public comparators)? Are incentive-efficient schemes used for allocating projects (for example, in toll-road projects, using net present value of revenue with contract periods of variable length)?"

Scoring

0= The granting agency awards projects based on subjective considerations and does not systematically use objective, economic variables;

1= The granting agency has a poor track record, but does consider economic factors with some limits to discretion;

2= The regulator considers economic criteria to award projects, although these are not always the most efficient and appropriate ones, and subjective factors still play an important role;

3= The regulator has a good track record that could be improved (that is, it uses economic variables, but does not give these priority over other factors);

4= The regulator has an excellent track record and systematically uses economic criteria in an effective, transparent and consistent manner.

3.3) Regulators' risk-allocation record: "Has the allocation of risk between the state and private sector been successful in recent years, so as to ensure VFM, reduce excessive contract-renegotiations and reduce the likelihood of project defaults or bail-outs? How effective has the use of guarantees and performance bonds for project risk-diversification been?"

Scoring

0= Risk-allocation is often handled inappropriately, and excessive, unnecessary renegotiations are common or likely;

1= Risk has been allocated properly only occasionally, as evidenced by a high incidence of contract-renegotiation, and hedging and insurance instruments have been used only minimally;

2= Risk is usually distributed fairly between the state and the operator, but renegotiations are still common and financial instruments, such as insurance, guarantees and performance bonds, are occasionally used;

3= Risk has been fairly distributed, renegotiations have been moderate and parties employ some financial risk-hedging practices;

4= Risk has been consistently allocated correctly between the state and the private sector to minimise unnecessary renegotiations, with extensive and effective use of financial instruments.

3.4) Experience in electricity, transport and water projects: This indicator shows the number of transport, water and electricity concession projects in the past ten years (2000-09) in each country, as recorded by the World Bank's Private Participation in Infrastructure (PPI) database. Scoring is conducted on the basis of raw data, where a higher number of projects is better.

Note on scoring:
This score is created directly by raw data; more projects indicate more experience. Projects are counted in the World Bank PPI database if: investment commitments exceed US$1m; private sponsors/consortia own at least 25% of the PPI contract; the project reached financial closure between 2000 and 2009; and projects provide a significant share of services (at least 20% of sales or installed capacity) to the public, directly or indirectly.

Serving the public directly involves projects with a retail component, such as electricity or water-distribution. Qualifying transport facilities are those open for public use, such as airports, railways, roads, or seaports. Indirect services include stand-alone bulk facilities (excluding. power or water-treatment plants) that sell their output to a third party for distribution to the general public; transmission facilities that provide transport services between bulk and retail facilities; or railways and seaports that provide services to companies. Figures do not include projects serving a small number of clients on an exclusive basis (definition cited directly from PPI database website).

3.5) Quality of electricity, transport and water projects: This indicator shows the distress/failure rate of power, transport and water concessions and greenfield projects over the past ten years (2000-09). Please note that countries with fewer than five projects in the transport and water sectors are scored more critically than those with five or more (see scoring guide below for details).

Scoring
0= For countries with five or more projects in the PPI database, this indicates a project failure/distress rate above 20%. For countries with fewer than five projects, this indicates a failure/distress rate of 25% or above;

1= For countries with five or more projects in the PPI database, this indicates a project failure/distress rate between 14% and 20%. For countries with fewer than five water and transport projects, this indicates a 0% failure/distress rate;

2= Failure/distress rate between 8% and 14%;

3= Failure/distress rate between 3% and 8%;

4= Failure/distress rate between 0% and 3%.

Investment climate

4.1) Political distortion: Evaluates the level of political distortion affecting the country's private sector. Each country's score is a weighted average of the Economist Intelligence Unit's political stability and government policy effectiveness risk scores, and the Transparency International Corruption Perceptions index. Possible scores range from 0 to 100, where 0=worst and 100=best.

4.2) Business environment: Evaluates the quality of the general business environment for infrastructure projects. Each country's score is a weighted average of the Economist Intelligence Unit's market opportunities and macroeconomic risk scores, and the goods and market efficiency ranking of the World Economic Forum Global Competitiveness Index. Possible scores range from 0 to 100, where 0=worst and 100=best.

4.3) Political will: This indicator evaluates the level of political consensus, or will, to engage private parties in concessions (PPPs) and to provide favourable implementation frameworks across the water/ sanitation, electricity and transport sectors.

Scoring

0= The government has consistently expressed a lack of interest or inconsistent intentions in engaging private participation through concessions or improving frameworks. Conditions for private investment are hostile;

1= The government has shown some reluctance to engage private participation through concessions (PPPs) and provide favourable frameworks, either because of disagreement among or explicit opposition from significant political groupings;

2= There is political consensus surrounding the need to engage private participation through concessions (PPPs) and provide favourable frameworks, although implementation is slow; 3= There is political consensus to maintain favourable frameworks and to be pro-active with concession projects, where appropriate, and the likelihood of major political delays is low.

Financial facilities

5.1) Government payment risk: "Does the government regularly fulfil obligations for PPP contracts or use liquidity-guarantee schemes to reduce non-payment risk?" Also considers the Economist Intelligence Unit's sovereign debt risk ratings and whether countries have had active partnerships with the World Bank's Multilateral Investment Guarantee agency during the past five years to insure electricity, transport or water projects.

Scoring

0= The government struggles to fulfil obligations to concessionaires;

1= The government occasionally fulfils obligations;

2= The government usually fulfils obligations;

3= The government usually fulfils obligations, and provides some minimal guarantees to investors;

4=The government has an excellent track record of fulfilling obligations, and provides strong guarantees to investors.

Please note: In certain cases where project- or sector-specific information was not obtainable, scoring considers Economist Intelligence Unit sovereign credit risk ratings. For these instances, scoring employs the following guidelines: 0 = rating of CCC and below; 1= B rating; 2= BB rating; 3 = BBB and A rating; and 4 = AA or AAA rating.

5.2) Capital market for private infrastructure finance: "How readily available and reliable are long-term debt instruments for infrastructure financing? Is there a developed insurance and pension market with useful products for infrastructure risk-reduction? Are interest-rate, exchange-rate hedging instruments available?"

Scoring

0= The markets for finance and risk instruments are underdeveloped or non-existent, and only foreign sources provide project-funding;

1= The market for local finance is slowly developing, although most finance comes from international sources and risk-hedging instruments that are not robust;

2= Some finance and risk instruments exist, although financing still mainly comes from foreign and multilateral organisations;

3=The domestic market presents a large, reliable financing market, but risk instruments are still developing in size and complexity;

4= There is a deep, liquid finance market locally, as well as a reliable and large local market for hedging instruments.

5.3) Marketable debt: "Is there a liquid, deep local-currency-denominated, fixed-rate, medium-term (five yrs +) bond market in marketable debt (that is, debt that is traded freely)?"

Scoring

0= There is no securities market for fixed-rate financing of over one year;

1= There is a government securities market in place, but for short maturities only;

2= The government is fostering a medium-term market and it should be in place soon;

3= There is a medium-term (five yrs +) debt market, but only for public-sector (government bond) issuers;

4= There is a medium-term (five yrs +) debt market for both public- and private-sector issuers.

5.4) Government support and affordability for low-income users: "Does the government provide subsidies that allow low-income users better access to electricity, water and transport services?"

Scoring: Please note that, currently, the index considers a targeted, direct subsidy to be the preferable form of government support for low-income users. Cross-subsidy is second best.

0= The government does not subsidise the electricity, water or transport sectors, or has done so in an extremely distorting manner;

1= The government does not subsidise the electricity, water or transport sectors, or has done so in a moderately distorting manner;

2= The government occasionally provides subsidies for improved access for the poor in electricity, water or transport, but these are infrequent or applied only in certain cases;

3= The government usually provides satisfactory subsidies for low-income users, but this can vary by sector and project;

4= Subsidies are common, reliable and effectively target low-income users.

Sub-national adjustment

6.1) Sub-national adjustment factor: This indicator evaluates whether infrastructure concessions can be carried out at a regional, state or municipal level, and the relative success and consistency of these frameworks.

Scoring

0= The legal framework does not allow regional or municipal entities to concession public works, or in practice the requirements are extremely cumbersome;

1= The legal framework allows regional and municipal entities to concession public works, but technical capacity or political will is lacking;

2= A few successful examples of regional or municipal concessions exist, but capacity and projects at this level across the country are generally weak;

3= A significant concessions programme has been developed at a municipal or regional level, with good implementation-capacity and institutional design;

4= An important and diverse (in terms of sectors and locations) concession programme has been developed at the municipal or regional level, and it benefits from a homogeneous framework, good local implementation-capacity and institutional design.