# Chapter 11

# Build-Operate-Transfer for Infrastructure Development: Lessons from the Philippine Experience

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# Chapter 11: Build-Operate-Transfer for Infrastructure Development: Lessons from the Philippine Experience

*Gilberto M. Llanto*

## 1. INTRODUCTION

### 1.1. Economic growth, economic integration and infrastructure

The globalization of production and distribution has required countries to have efficient infrastructure in order to be able to have substantial participation in global trading and production networks. Inefficient infrastructure creates a bottleneck and impediment to trade and growth and thus, there is a drive to meet the infrastructure gap or to make more efficient existing infrastructure in many countries in East Asia. Studies have shown the important link between infrastructure and economic growth. Canning and Pedroni (2004) investigated the long run consequences of infrastructure provision on per capita income in a panel of countries over the period 1950-1992. Their results provide clear evidence that in the vast majority of cases infrastructure does induce long run growth effects although there is a great deal of variation in the results across individual countries. Summarizing the results of various estimates[1], Gramlich (1994) and Sturm and De Haan (1995) found output elasticities with respect to public capital of around 0.3. Wang (2002)'s estimates for seven East Asian countries for the period 1979-1998 indicated an average elasticity of 0.2% of private production to a 1% increase in public capital. On the other hand, there are still debates "about whether infrastructure provision actually fosters economic development or whether it is provided as a product of the economic development process (Button, 1998)[2].

Notwithstanding the lively debate among different researchers on the link between

[1] Other economists criticized that the estimated output elasticities were implausibly high. Sturm, Jacobs and Groote (1999) mentioned the criticisms made on Aaron (1990), Hulten and Schwab (1991) and Munnell (1992).

[2] Button (2002) notes the inconclusiveness of empirical evidence on this matter, citing problems with data and techniques that are used to provide empirical estimation on the relationship between infrastructure and economic growth.

infrastructure and growth, the preponderance of empirical evidence shows that inadequate supply of infrastructure or unreliability of infrastructure services may constrain investments of productive capital and lead to a restriction or reduction of output There are too many pieces of evidence supporting the significant impacts of infrastructure on productivity and growth that are difficult to ignore (Rodriguez, 2006).

In a recent empirical paper on whether or not infrastructure acts as a binding constraint to growth, Llanto (2008) pointed out the importance of infrastructure as a major driver for growth and poverty reduction. The lack of adequate transportation, water and energy facilities, for instance, can adversely affect the development of existing industries and may likewise preclude new entrants from coming in. An efficient transportation and communication infrastructure provides overall mobility for goods and people alike, contributes to a reduction of input and transactions costs and enhances the efficiency of markets. Local infrastructure which may have significant spillover effects spurs local economic activities while the network characteristics of infrastructure enhances connectivity of regions and promotes domestic integration. The key role of infrastructure in economic growth can not be ignored. It is well-known that East Asian countries with good infrastructure have good records of growth and poverty reduction.

Efficient infrastructure is important for economic integration in the ASEAN and East Asia and for narrowing development gaps. The new economic geography considers two forces that work on economic integration among countries as well as domestic regions within a country: (a) agglomeration forces and (b) dispersion forces. While agglomeration forces widen disparities among countries and within country, countervailing dispersion forces motivate the relocation of economic activities, e.g., manufacturing to lagging countries or regions as congestion in the more developed countries or regions within country starts to constrain further growth.

The Interim Report of ERIA on "Developing a Roadmap toward East Asian Economic Integration" draws attention to a sign of congestion in economic agglomeration in East

Asia, and the dispersion forces start working so as to influence industrial location[3]. Congestion and increases in production costs, e.g., high wages, difficulty in securing land, suggest that dispersion forces come in to address these constraints. The Report notes that firms have to find labor from far distance, and some of them eventually set up a new factory in a middle-size city or in a rural area. The Report cites fragmentation theory to explain that differences in location advantages such as factor prices motivate fragmentation of production processes. Differences in wage levels between ASEAN forerunner countries and Cambodia, Laos, Myanmar and Vietnam (CLMV) are still substantial, and thus, CLMV may rather have strengths, particularly for labor-intensive or natural-resource-intensive production processes. The development of economic infrastructure including logistics is crucially important for economic development through effectively utilizing globalizing forces. Economic infrastructure is vital to the efficient formation of agglomeration as well as the extension of production networks. Proper project design and prioritization are extremely important. Effective use of regional resources for infrastructure development, including public-private partnership, is also required.

In this regard, among the many important issues facing Cambodia, Laos, Myanmar and Vietnam is the need to reduce network-set-up cost and service link cost. Their geographical proximity to growth centers in forerunner ASEAN countries would be a strong point and thus, efforts for deeper integration such as the appropriate infrastructure policies are essential toward economic integration.

Public-private partnership can play a significant role in infrastructure development. Several countries have successfully used the Build-Operate-Transfer (BOT) approach, a particular form of public sector-private sector partnership to address the infrastructure needs of the economy. It is seen as an option to outsource public projects to the private sector, which takes charge of design, financing, construction and operation of the facility under a concession agreement. During the concession period, the private party

[3] ERIA Interim Report, July 19, 2007

operates and maintains the facility. At the end of a fixed cooperation period, the ownership, free of any encumbrances or liens, is transferred to the government at no cost.

The development of Suez Canal was done through the BOT approach (Levy (1996). The first official private facility development under the name "Build-Operate-Transfer" was used in Turkey in 1984 to develop infrastructure. Private financing was used to develop railways and roads in the western world in the second half of the nineteenth century (Menheere and Pollalis, 1996).
The Philippines was reported as the first country in Southeast Asia to enact a BOT law and the Ramos administration successfully used it to solve the critical power problem of the nineties.

Thus, in the Philippines, donors, the government and the private sector have all pinned high hopes in using BOT schemes to solve the infrastructure lack, which investors have identified as a principal barrier to investments. However, the role of the BOT approach in addressing the infrastructure lack in Asian developing countries, which have used it seems to have diminished following the aftermath of the Asian financial crisis as private investors focus their attention elsewhere.

### 1.2. Objectives of the paper

This paper attempts to provide a brief review of the experience of the Philippines with the utilization of the BOT approach for infrastructure development in order to draw lessons for policy makers on how to improve the use of this strategic instrument for infrastructure provision. The paper is organized into four sections. After a brief introduction, section 2 explains the Build-Operate-Transfer (BOT) approach for providing infrastructure and how it is used by developing countries such as the Philippines to provide much-needed infrastructure. Section 3 provides two case studies of BOT projects in the Philippines, which are used to draw lessons for policy makers that will be reported in the final section. Admittedly, two case studies do not provide enough information for making generalizations and conclusions about the BOT

experience in the Philippines. Nevertheless, the paper used them to indicate in broad strokes the areas where PSP and BOT implementation could be improved. A more extensive and in-depth study of BOT projects, which can overcome the limitations of drawing lessons from two simple case studies, should be done in the near future.

## 2.THE BUILD-OPERATE-TRANSFER APPROACH FOR INFRASTRUCTURE PROVISION

Governments have traditionally been in charge of providing infrastructure, including its financing based on the conviction that infrastructure partakes the nature of a public good that the public sector is obligated to provide. In fact, many countries in East Asia report that it is still government or the public sector that provides most of the infrastructure in the region[4]. However, pure public sector provision has yielded to private participation in infrastructure as a mode for making available infrastructure. Several factors have driven many countries to use private participation as an important instrument to provide infrastructure. Malhotra (1997) summarizes the reasons for private participation in infrastructure:

- Investment requirements exceed the capacities of national utilities and governments;
- The performance of the infrastructure sector has, in general, not met international standards;
- The managerial and technical resources available to the government are inadequate;
- Innovations in technology (for example, small but economic combined-cycle power plants fueled by gas) permit the unbundling—vertical and horizontal—of the power sector);
- Demonstration effects arising from the success of privatization and unbundling efforts, for example, in the United Kingdom) and the possibility of using

[4] Country representative comments made during the Workshop of Economic Research Institute of Asia (ERIA) infrastructure project (final meeting), JETRO-IDE Research Center, Bangkok, Thailand, January 20-21, 2008. The countries represented in the workshop are the following: People's Republic of China, Indonesia, Myanmar, Thailand, Cambodia, Malaysia, Philippines, Singapore, Lao PDR, Vietnam, Japan and India.

regulation to protect the public interest (for example, the incentive regulation and yardstick regulation used in Spain) are making new approaches to upgrading infrastructure viable);

- The limited coverage and quality of some countries' infrastructures are hindering their efforts to achieve international competitiveness.

The Build-Operate-Transfer (BOT) approach is part of a range of ways with which the private sector participates in infrastructure provision. It has been widely viewed as a pragmatic approach in infrastructure provision in countries where severe budgetary constraints limit government's capacity to provide it.

### 2.1. Economics of BOT projects[5]

One of the recurring arguments supporting government provision of infrastructure projects relies on a case of market failure. For a variety of reasons, even if people value a service from a given infrastructure project, say, from a road or a bridge, they will hesitate to reveal the price that they are willing to pay for the service. If users can free ride, they will.

At times, it may not be possible technologically and at reasonable cost to exclude potential users from non-users of the service. Once the service is provided to one, it must be provided to all. Again, people will not reveal the price they are willing to pay for the service since everybody else can benefit. No market will emerge. In other words, it's a public good. The usual example is national defense, a pure public good.

Pricing of the service is not possible and so if one were to rely on markets guided by a price system, the project will never be built. As a result, a need is not met and in the overall, society's welfare suffers. And so the government steps in to provide the service through a tax-and-subsidy scheme.

[5] This was prepared by Prof. Dante Canlas as part of a technical memorandum on a review of the (Philippine) BOT law conducted by Dante Canlas and Gilberto Llanto on May 14, 2006, unpublished paper.

But in some cases—such as, toll roads and bridges-- pricing is possible. The services from these infrastructure projects can be extended only to those willing to pay the charges. Unlike some pure public goods wherein markets fail, it is possible to exclude non-payers in a relatively inexpensive way. User charges can be imposed, allowing project investors to recover operating costs plus normal profits. In this setting, a BOT scheme may be invoked.

The delegation of a government infrastructure project to a concessionaire is especially helpful in time of tight budgetary constraints, when discretionary spending of the national government budget is either being cut or just maintained in current peso terms. In this context, the private sector can be tapped to invest in the infrastructure program of the government. Evidently, however, this is contingent on the project being able to provide a reasonable rate of return to private investment.

To be able to realize a mutually agreed-upon rate of return to investment, the concessionaire relies mainly on a user charge that is regulated. People who pay the administered fee can avail of the service provided by the project. Those not willing to pay are excluded. And so since pricing is possible, users, instead of taxpayers, pay for the operating cost and normal profit due the concessionaire. It seems unfair to use revenues from general taxation to finance or provide subsidy or support to a BOT project, which is availed of by particular segments of the population, that is, the users.

For the concessionaire, the likelihood of achieving the rate of return to its investment rests on several factors, including, the allocation of risk bearing between itself and the government granting authority. A contract is written, spelling out the rights, obligations, and contingent claims of the concessionaire in case a particular state of nature occurs.

The contract is a comprehensive document that spells out private property rights, decision rights, risk-sharing arrangements, and third-party intervention if contractual disputes arise. In view, however, of imperfect information and limited ability of the parties to anticipate all possible states of nature at the time of contract writing, all contracts are incomplete. They thus provide for contract renegotiation when some

unanticipated states of nature occur.

Ambiguity of language is bound to occur in a written contract, which can give rise to a contractual dispute. A court case may ensue unless the parties agree to third-party arbitration. Third-party arbitration may involve lower transaction cost than court arbitration. Hence, both parties choose to provide explicitly for such arbitration in the contract as a mode of dispute settlement.

The realization of a specified rate of return hinges on a strong partnership between the concessionaire and the government granting authority throughout the period of cooperation. For one, the durability of the partnership depends to a great extent on the presence of technical, legal, and financial expertise at the level of the granting authority; such expertise, if present, enables the latter to engage the concessionaire in meaningful discussions on a wide range of relevant issues at project-entry level and during project implementation.

On pricing, user fee at entry level and its predicted time path during the cooperation period are vital to achieving the desired financial stability and profitability of the project. A highly regulated fee structure may prove to be a deal breaker for the government granting authority and the concessionaire. One reason is that bank financing may not be forthcoming if projected operating revenues are vulnerable to regulatory risk; banks may view a fee-setting procedure that is tightly regulated as putting loan servicing excessively at risk. Evidently, it is important to pay close attention to creditors' preference; otherwise, a BOT contract may not be written.

Moreover, administering the user fee rests on a number of factors. One factor to consider is the sensitivity of demand for the service to pricing. If the regulator sets the user fee at a very high level, there is a risk that many potential users will be discouraged from availing of the service. If target revenues are not realized, the project may lose, and eventually fail. In this regard, the two parties negotiate at the start possible monetary and non-monetary incentives to the project, which are then built into the contract.

It seems clear that the degree of success of a project delegated by the government to the private sector rests on several factors. These factors are indicated in various stages of development of a BOT project; they affect project quality at entry level, during contract writing and implementation, and in the course of regulating user fees.

### 2.2. Description of a typical BOT project[6]

The understanding of the whole BOT approach starts on how well the interplay of various actors in the project structure, timing of the BOT process, the goals and incentives each participant/actor in the process aspire for, the risks they face in attaining those goals and the ways they mitigate those risks through various contractual arrangements.

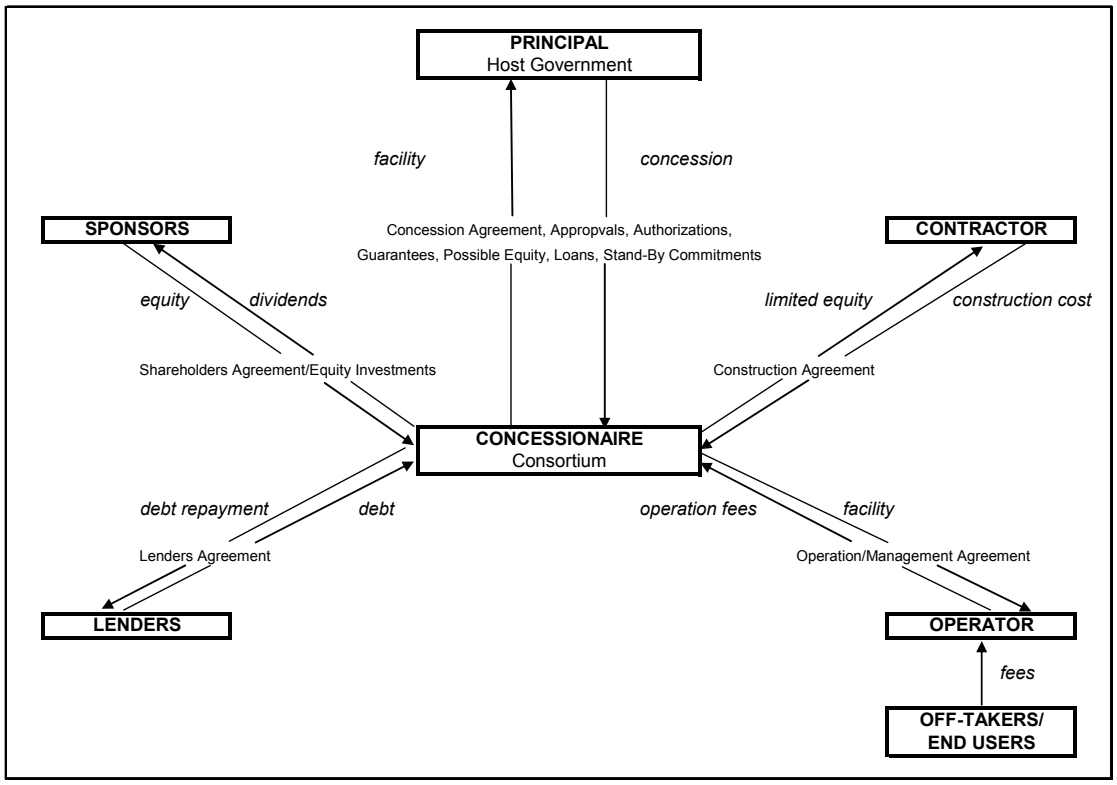
Although BOT may be a popular alternative, it is a complex approach because of the presence of different actors with particular goals, objective functions and interests, the need to reconcile or harmonize these varying objectives to meet a particular infrastructure goal, the presence of many risks affecting BOT projects and the need for the different actors to agree on risk sharing allocation and the use of risk management techniques to minimize those risks. Figure 1 shows the complex relationship among different actors in a BOT project.

BOT is an approach where:

> "…a private party or concessionaire retains a concession for a fixed period from a public party, called principal (client), for the development and operation of a public facility. The development consists of the financing, design and construction of the facility, managing and maintaining the facility adequately and making it sufficiently profitable. The concessionaire secures return of

[6] The description on BOT approach in this section draws heavily from two major references: Menheere and Pollais ( 1996) and Augenblick, M. and B. Custer, Jr. (1990). I am indebted to Karl Jandoc, research associate, Philippine Institute for Development Studies for summarizing the work of these authors.

investment by operating the facility and, during the concession period, the concessionaire acts as owner. At the end of the concession period, the concessionaire transfers the ownership of the facility free of liens to the principal at no cost". [Verhoeven (1995) as cited in Menheere and Polais (1996)]




## 2.3. Major participants in the BOT process

There are several variations of the BOT approach, depending on project specifications that attempt to address particular infrastructure problems. There remains, however, a generic structure for these projects. The principal (usually the government) will grant the concession to the concessionaire, which is typically a consortium of companies. The role of the concessionaire is on the financing and development of the project and they source their funds from both sponsors and lenders. Finally, the contractor builds the facility which is subsequently managed by the operator.

*2.3.1. Principal*

Host governments may draw up lists of infrastructure investments in accordance to their overall economic and development plans. If it is constrained to fully financially support the investments, the government then solicits proposals from private companies to implement these plans. The usual mode is via a competitive tender of infrastructure projects. However, depending on the BOT law of a country private participants may submit unsolicited proposals to undertake a specific infrastructure project. The host government either approves or disapproves the unsolicited project proposal. Upon approval of a solicited or unsolicited project, the host government typically grants the private company a concession that may last anywhere from ten to fifty years (or more). The principal (that is, the government) takes ownership of the facility and the assets after the concession period. It is well known that developing country governments rarely adopt a laissez-faire approach to these projects. Sometimes they provide a portion of the required financing or provide guarantees, subsidies or similar support to make the project more attractive and viable to private investors.

*2.3.2. Concessionaire*

Once all the relevant review and approval processes are followed, the concession is granted to the concessionaire, which is usually a group of companies interested in undertaking the design, finance, construction and operation and maintenance of the infrastructure project or facility. The property rights of the facility (or the assets) rest with the concessionaire during the specified concession period wherein the private investors/owners try to recover their investments and earn profits.

*2.3.3. Investors (Shareholders and Lenders)*

An integral part of the undertaking of the BOT project is the presence of credible and capable investors to provide the financing needed. These investors include shareholders and lenders. Shareholders infuse money in exchange for equity and

lenders provide credit financing to the consortium which negotiates with the principal for certain guarantees or credit enhancements to the make the project attractive to the lenders. There are two broad categories of equity providers: (i) those that have a direct interest in the operation of the project such as contractors, operators or the host government itself and; (ii) those that are solely involved as equity investors such as public shareholders and other institutional investors. Lenders are oftentimes commercial banks, insurance companies, multilateral lending institutions, and the like.

*2.3.4. Contractor*

BOT projects involve large-scale building and construction of a facility. In practice, the concessionaire taps the services of a contractor to construct the facility under the project. In some instances, the contractor is part of the consortium for reasons which will be discussed later. The contractor also hires subcontractors, suppliers and consultants.

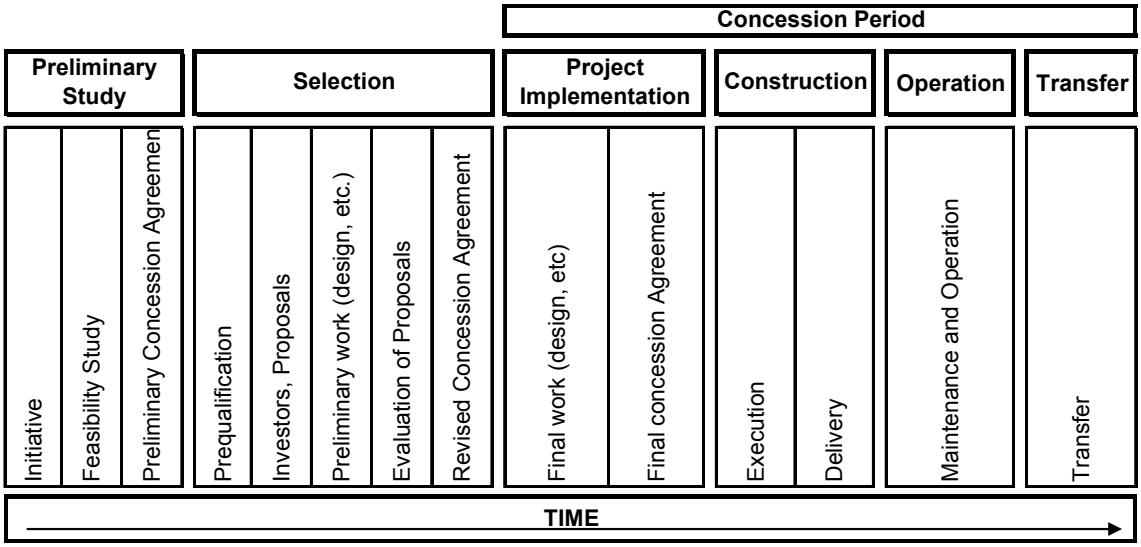
*2.3.5. Operator*

After completing the construction of the infrastructure facility, the concessionaire then secures the services of the operator to manage and operate the facility. The operator is oftentimes one of the entities in the consortium which has an intimate knowledge of the business and the local environment.

**2.4. Stages in the BOT process**

Most of the BOT projects undergo six identified stages. Figure 2 below shows these six stages and the principal activities contained in each of them. It can be roughly divided into two parts covering those happening before and during the concession period. In the first part of the process a feasibility study is done and then a consortium is awarded the concession to build and operate the facility. In the second part the concessionaire starts to implement the project by obtaining the necessary requirements, designing the facility and constructing it. The facility is then used to generate revenues for the concessionaire and, after a specified period, transfers the ownership of

the facility and its assets to the host government.




*2.4.1. Preliminary Study*

Usually the government identifies the infrastructure priorities and the facilities that have to be built. In the case of the Philippines, the government prepares a Medium Term Public Investment Program that lists the priority infrastructure projects that the public sector and the private sector are expected to design, finance and construct. Some of those projects are identified as projects that may be implemented through the BOT approach. The government may then contract independent parties to conduct feasibility studies to determine the potential viability and desirability of the project. Projections of profit streams are done here to determine the viability of private sector participation. In the Philippine experience, some enterprising private sector proponents directly submit to the government unsolicited project proposals that they think could address some infrastructure lack. Thus, while the Philippine government takes the initiative with respect to solicited projects on the one hand, private sector proponents may take the first step with unsolicited projects, on the other hand.

*2.4.2. Selection Process*

As stated above, there are two basic avenues for the BOT approach: solicited and unsolicited project proposals. The former refers to the general *public selection* or

*public bidding process*. Here, the government disseminates request for submission of expression of interest to provide a particular infrastructure facility and upon receiving applications it requests some pre-qualified consortia to submit their proposals. The proposals are then subject to evaluation. The Philippine government uses the "two-envelope system" to evaluate the proposal. Under the two-envelope system, the evaluation based on technical merits is followed by financial evaluation that considers the financial viability and economic benefits of the project. The concession is then awarded to the proponent, which has successfully passed the technical and financial evaluation. Under the unsolicited mode a private proponent submits a proposal directly to the government. In contrast to the solicited mode where government takes the initiative in asking private parties to submit a project proposal, the private party makes the first move under the unsolicited mode. If deemed acceptable, the proposal is opened up to some form of competition (e.g. Swiss challenge) to determine who will undertake the project. After the necessary evaluation process, the project is granted to a concessionaire.

*2.4.3. Project Implementation*

After the concession has been granted, the consortium will then develop a specific work program, including drawing up project designs and detailed engineering, obtaining necessary legal permits to facilitate the project, etc. It is during this phase that potentially conflicting or competing interests of all stakeholders (e.g. communities affected, environmental issues) are balanced to ensure support or acceptance to the project and its speedy completion.

*2.4.4. Construction*

After satisfying the necessary legal, environmental and social requirements, the construction of the infrastructure facility begins. This is usually undertaken by the contractor who has also hired the construction crew, suppliers and technical and project management consultants.

*2.4.5. Operation*

After the facility is built, the concessionaire designates an operator to operate and maintain the facility. The operation lasts until the termination of the concession period.

*2.4.6. Transfer*

Upon completion of the cooperation or concession period, the ownership of facility and all its assets is then transferred to the host government. Transfer can also be done prior to the expiration of the concession period but the concessionaire has to be compensated properly for the investments made in the project. The government may then operate the facility itself or decide to hire an independent operator.

**2.5. Goals and typical contractual agreements of the major participants**

The presence of several actors and the different stages of a BOT project result to a complex relationship, which make imperative close cooperation and collaboration to ensure that the project will push through to completion and efficient operation with a minimum of problems. The participants in the BOT project may have different objectives and goals, which sometimes may conflict directly with each other. For instance, the host government may want to provide the widest access possible to the use of the infrastructure facility and this may involve controlling fees or regulating fee increases in order to make the facility affordable to members of the community. On the other hand, the concessionaire and the investors who want to make profits or have a high return on their investments may consider charging higher user fees for the facility. Lenders aim to make their long-term loans safe and profitable. Equity investors want to have a high return on investment in proportion to the risks they face. The contractor wants to increase the price of their contract for the construction of the facility. The users aim to use the facility at the least cost to them. In certain cases, there could even be expectations that the government should provide the facility for free. Therefore, there must be some mechanism that will provide the incentives to balance these diverse and

oftentimes conflicting goals. The *contract* is the principal means by which parties align their individual goals to make the project operational. There will naturally be a great number of contracts among all the involved parties in the BOT project. The following are the main contracts that are inherently present in all these projects:

*2.5.1. Concession Agreement*

This is the agreement between the host government and the concessionaire. It is the main contract in a BOT project. Under the concession agreement the following are specified:

- The concession period—the starting date and the terminal date
- The structure of the concessionaire
- The financial scheme
- The construction duration and process
- Tariff structure with tariff revision provisions
- Rights and obligations of both parties, that is, the government and private party
- Guarantees (financial and material)

*2.5.2. Loan Agreement*

The loan agreement is made between the lenders and the concessionaire and specifies the amount to be lent with the specific repayment period and mode, the different guarantees and the agreed terms of the. The limited recourse nature of BOT projects may prompt lenders to demand adequate security. This contract may include the provision that project revenues be stored in one or more special debt reserve escrow account to ensure payment of senior debt before any distributions can be made to equity investors (Augenblick and Custer, 1998). Other guarantees may include the right for the lenders to take over the operation of the facility in the event that the concessionaire is not able to meet financial obligations. In other instances, the concessionaire negotiates with the host government for guarantee of the loans made with creditors.

*2.5.3. Shareholder Agreement*

The shareholder agreement is between equity investors and the concessionaire. Equity financing is oftentimes raised by the consortium's own capital funds although other external equity investors may infuse funds. The contract specifies the detailed agreement on the mode of payment and the distribution of revenues and dividends to the investor and the prescribed debt to equity ratio.

*2.5.4. Construction Contract*

The contract between the construction contractor and the concessionaire is usually a fixed price turnkey contract. There also may be a single overall contract which encompasses both design and construction. The fixed price turnkey contract may be the most efficient contract to reduce the risks related to project time, quantity and costs. The penalties for late delivery of the contractor are stipulated in this contract.

*2.5.5. Operation and Maintenance Contract*

This contract plays a very vital role since this has serious implications on the revenue generating capability of the project and the longevity of the asset. Specifics may include the level of rates or user charges for the facility, the formula or procedure for rate adjustment, details of the use of the facility, reimbursement for maintenance costs and others.

To be successful, a BOT project should be able to harmonize and reconcile all these contracts to meet a common end: an efficient infrastructure that provides good service to the public and satisfactory rates of return to investors, shareholders, the operator and lenders. Harmonization is not an easy task. It should be borne in mind that these contracts reflect the risk-bearing ability of the parties concerned and the tendency for any party is always to minimize the risks it faces and transfer these as much as possible to parties most able to bear them. This requires a very good understanding of the nature of the risks faced by all actors, e.g., the likely events that would trigger the occurrence of the risk and the appropriate risk mitigation instrument. Transparency in

contracting which specifies who is responsible in bearing a particular risk will help to ensure that opportunistic behavior and confusion will be minimized. The next section presents some of the most common risks that a typical BOT project will face and of the risk management and mitigation responses that can be incorporated in the contract.

## 2.6. Risks faced by major participants

One of the means for a BOT project to succeed is to mitigate the risk that can be identified. Risks are often within the control of one or more of the participants but some are out of the participants' hands. A basic principle is that the party who is in the best position to manage the risk should bear that particular risk and should be duly compensated for it. Moreover, exposure to risks is oftentimes greater in the earlier stages of the project and so monitoring must be more intense during the early stages. The most common risks in a typical BOT project are listed below.

### *2.6.1. Completion Risk*

In any typical BOT project, there is a risk that the construction may not be completed on time and in the agreed price. The solution to this risk is for the concessionaire to offer a fixed price, firm date, turnkey construction contract with concomitant penalties stipulated by liquidated damages. This clause states the monetary damages payable by the contractor for each unit of time delay in the completion of the project or the completed project's inability to meet specifications. Thus, cost overruns, hidden defects, and other related problems become the responsibility of the construction contractor. The price of the turnkey contract then reflects the risk that the construction contractors have to bear. Another way to obviate completion risk is for the consortium to include the construction contractor as a partner or participant in the consortium. In this way, the information asymmetry between the concessionaire and the construction contractor, which may give rise to moral hazard problem, will eliminated.

### *2.6.2. Performance and Operating Risk*

There is also a risk that a project will not perform according to what is expected from it.

These failures may include technical failures, interruption and management or labor incompetence. This may be mitigated by warranties from the construction contractors and equipment suppliers and also by performance guarantees in the operating and maintenance contract.

*2.6.3. Cash Flow Risks*

Disruptions of cash flow may jeopardize the repayment of debt to the project's lenders. These disruptions are usually precipitated by a change in market demand conditions: for instance, sudden disruption of tariff revenue brought about by a downturn in purchasing power of the consumers. The usual response is to specify in the contract the opening of an escrow account as what was discussed earlier. Another is for the host government to guarantee a portion of the revenues generated by the facility, for instance, a minimum off-take agreement.

*2.6.4. Inflation and Foreign Exchange Risks*

Rapid inflation and exchange rate spikes may alter the returns to both lenders and equity investors. These risks are deemed to be beyond the control of lenders and equity investors but may be addressed by government policy action. This is the reason why host governments are almost always asked to provide cover for these risks. For instance, indexation of user-fees and revenues from off-take contracts are used to cover for the risk of inflation. Governments are also asked to provide sufficient foreign currency in case of supply disruptions or index the tariff rates to the rate of inflation to preserve the real value of profits.

*2.6.5. Insurable Risks*

Insurable risks, e.g., manpower casualty, can be sufficiently covered by various form of insurance. The insurance may come from commercial sources or from government guarantees.

*2.6.6. Force Majeure*

These risks are sometimes uninsurable or can be insured at a very prohibitive cost. The government may be asked to cover or seek cover for force majeure risks that are uninsurable. Force majeure risks are often insured by entities such as the Overseas Private Investment Corporation (OPIC) and the Multilateral Investment Guarantee Agency (MIGA).

*2.6.7. Political Risks*

These risks may, in general, include any deviation by the host government from any specific undertakings or agreement provided in the project. It also includes risks such as those precipitated by political violence—war, insurrections, or sabotage that may disrupt the operation of a BOT facility. This also includes problems of law and order, the threat of expropriation or nationalization by the host government or even a change in political leadership, which questions the legality or appropriateness of a BOT project approved by the predecessor government. Foreign commercial lenders and equity investors want to seek political risk insurance from sources such as the government itself (through sovereign guarantees), export credit agencies or other multilateral agencies.

*2.6.8. Regulatory Risks*

The regulatory regime also posts some risk with regard to tariff rates, volume or quality of services. Rules may be hazy or easily subjected to political intervention, which put at risk the viability of the BOT project, e.g., fixing or controlling charges/fees, unclear formulas for rate or fee adjustment, and others. The creation of credible and independent regulatory agencies is seen as the first step to mitigate such regulatory risks.

**2.7. Risk mitigation instruments**

There may be some risks that cannot be or are too prohibitively costly to insure. To encourage private investors, the government usually intervenes by providing guarantees,

subsidies and similar support. It seems that BOT projects in developing countries are in reality rarely a 100 percent private undertaking with no commitment from the host governments. There are several factors such as underdeveloped capital markets, political instability, regulatory uncertainty and others that may deter private investments in infrastructure and thus, the government steps in to eliminate or minimize such risks to the project. The following are the some of the common support given by governments for the development and implementation of BOT projects:

*2.7.1. Political and Bureaucratic Support*

Strong political support by the highest leadership of the country is an effective way to facilitate the acceptance of any project. A president, prime minister or key legislators championing the cause of private participation in infrastructure can thwart bureaucratic resistance from entrenched public sector entities, which could have an interest to build and operate the facility itself instead of the private sector. The political leadership can as well convince the doubting citizenry about the importance of the BOT facility through effective communication of its advantages to the community and transparent procedures for review and approval of the project, among others.

*2.7.2. Assured Supplies*

Government may provide some logistical support such as land, right-of-way, raw materials or steady supply of energy required during the life of the BOT project.

*2.7.3. Assured Revenues*

In instances when the government is a major purchaser of a BOT output, it commits to a steady revenue stream to make the project viable, thereby attracting both lenders and equity investors to provide funding to the project. For instance, the government could pledge a "minimum off-take" or "take or pay" guarantee for the power generated from BOT-built power plants or guarantee ridership in a rail project in order for the concessionaire to be able to pay off both debts to lenders and dividends to equity

investors.

*2.7.4. Loans/Equity Contributions*

In some instances, government may provide loans or infuse capital to BOT projects. This helps the concessionaire to be more independent from lenders and sponsors and gives it more bargaining power to negotiate for construction contracts and equipment supplies. Transparency is also the reason why governments provide loans and equity. The government can demand transparency of the project's financial structure in return for the support.

*2.7.5. Earning Assets*

Government can also allow public sector assets to be used by the concessionaire to pay capital costs, debt service and operating expense. Examples are public toll roads, which are made available to the concessionaire after award of the operation and maintenance of the toll road.

*2.7.6. Regulatory, Fiscal and Other Support*

There may be legislation needed to help the private company push through with the project. Enabling laws can be passed by legislators to make the legal and regulatory environment conducive to long- term private investments. Some form of tax incentives such as tax holidays, exemption from stamp and customs taxes may also be given to BOT concessionaires. Salaries of foreign expatriates may also be exempt from local taxes.

*2.7.7. Project Risk Support*

In case of project failure or interruption in the cash flow of the facility, government can intervene to provide loans on a standby basis over a fixed period of time to provide for debt service.

*2.7.8. Inflation and Foreign Exchange Cover*

These covers may come in the form of price escalation clauses initiated by the government. Indexation of user fees or tariffs to inflation is the most common form of support although the form and timing may be politically costly and time consuming to develop or organize. In the case of rapid foreign exchange fluctuation, the government must be able to assure foreign investors of the convertibility of local currency earnings into foreign currency and that it will provide sufficient foreign currency to meet the demand of these investors.

*2.7.9. Sovereign Guarantees*

Sovereign guarantees are called upon in the event that the concessionaire defaults in the payment of a loan to its lenders.

*2.7.10. Protection from Competition*

Government can influence the environment to make the BOT project more viable. For instance, it can stop the development of parallel non-toll routes to make the toll routes more profitable during the concession period.

## 3. TWO BUILD-OPERATE-TRANSFER CASE STUDIES

The Medium-Term Philippine Development Plan (MTPDP) 2004-2010 recognizes private sector participation as key to infrastructure development in the country. In a recent workshop organized by the Philippine Development Forum, it was claimed that "public-private partnership (PPP) would be only a viable option for key infrastructure development in the short-term, given the fiscal conditions of the Philippine Government"[7].

[7] Report of the Philippine Infrastructure Workshop (page 4), "Philippines Infrastructure and Business Climate Workshop," Makati Shangri-la Hotel, Makati City, March 1, 2006

The Philippine BOT Center[8] reports that as of June 2006, there are a total of 90 private sector participation projects (PSP) with an aggregate estimated cost of US$ 23 billion, which are either completed/terminated, operational, awarded or under construction, or in the pre-award stage. Seventy four out of the 90 PSP projects amounting to about US$ 20 billion represent those which are already completed, in operation, awarded and under construction. From this list of BOT projects, the author has selected two BOT projects, which will be used to exemplify the Philippine experience that will help to indicate key lessons for policy makers and various stakeholders.

### 3.1. BOT Legal Framework

The energy crisis in the late 1980s and the weak fiscal position of the government created the motivation for government to seek private sector support in carrying out priority infrastructure projects. The Philippine Congress enacted in December 1990 the Build-Operate-and-Transfer (BOT) law, otherwise known as Republic Act No. 6957, "An Act Authorizing the Financing, Construction, Operation and Maintenance of Infrastructure Projects by the Private Sector and for other purposes." Said law was subsequently amended by R.A. No. 7718 in April 1994 to strengthen the motivation for private investment in the infrastructure sector. The amended BOT Law listed the different modes of public-private participation in infrastructure and introduced the unsolicited proposal process as a valid implementation mode. The amended BOT law provides that "unsolicited proposals for projects may be accepted by any government agency or local government unit on a negotiated basis: Provided, That, all the following conditions are met: (1) such projects involve a new concept or technology and/or are not part of the list of priority projects, (2) no direct government guarantee, subsidy or equity is required, and (3) the government agency or local government unit has invited by

[8] Pursuant to Section 12 of RA 7718 the Coordinating Council of the Philippine Assistance Program (CCPAP) was identified as the agency responsible for the coordination and monitoring of projects implemented under the BOT Law. CCPAP was later reorganized and converted into the Coordinating Council for Private Sector Participation (CCPSP), by virtue of AO No. 67, series of 1999, as amended by AO No. 103, series of 2000. EO 144 dated November 2002 provided for the conversion of the CCPSP to the current BOT Center and transferred as an attached unit from the Office of the President (OP) to the Department of Trade and Industry (DTI). The BOT Center is mandated to provide project development assistance and monitoring functions in addition to promotion and marketing of the BOT/PSP program to prospective investors/developers and government agencies.

publication, for three (3) consecutive weeks, in a newspaper of general circulation, comparative or competitive proposals and no other proposal is received for a period of sixty (60) working days: Provided, further, That in the event another proponent submits a lower price proposal, the original proponent shall have the right to match that price within thirty (30) working days".

The first wave of BOT projects involved the execution of power purchase agreements (PPA) between the National Power Corporation (NPC) and independent power producers (IPPs) to address the energy crisis faced by the country. These were followed by water, road and transport projects.

### 3.2. Case Study No. 1: Ninoy Aquino International Airport (NAIA) Terminal III[9]

Terminal III is a 189,000 square meter facility, which started construction in 1997 and was intended to start operations in 2002. The modern US$640 million facility was designed by Skidmore, Owings and Merrill (SOM) to have a capacity of 13 million passengers per year or 33,000 passengers daily at peak or 6,000 passengers per hour. Based on design, it has the following features: a 4-level shopping mall connecting the terminal and parking buildings; a parking building with 2,000-car capacity and outdoor parking which can accommodate 1,200 cars; 34 air bridges and 20 contact gates with the ability to service 28 planes at any given time; 70 flight information terminals; 314 display monitors, with 300 kilometers of fiber optic I.T. cabling; 29 restroom blocks; five entrances in the departure area equipped with X-ray machines; and 7 large baggage

[9] References for Terminal III Issues:
(a) Rimando, Lala, "Government Wins One of its Biggest International Arbitration Cases" NewsBreak (online), Public Trust Media Group, Inc. Friday, 17 August 2007.
(b) Santos, Rafael S. "Businessmen remind government to keep policy on course" Manila Times, Thursday, September 14, 2006.
(c) Supreme Court Jurisprudence, En Banc Decision, Agan Jr. vs. Piatco, G.R. No. 155001, 155547 and 155661, May 5, 2003.
(d) Landingin, Roel, "A commercial compromise: a less than perfect solution may be the only way to open NAIA-3," Newsbreak, Sunday, February 11, 2007 http://www.newsbreak.com.ph/index.php?option=com_content&task (date accessed January 14, 2008)
(e) http://en.wikipedia.org/wiki/Ninoy_Aquino_International_Airport

carousels, each with individual flight display monitors.

The original proposal for the construction of a third terminal in Metro Manila was submitted by Asia's Emerging Dragon Corporation (AEDP). The unsolicited proposal was subjected to a challenge by other interested parties. The AEDP lost the bid to PairCargo and its partner, Fraport AG of Germany. Fraport AG and PairCargo then contracted the Philippine Air Terminals Corporation (PIATCO) to undertake the construction and subsequent operation of the terminal. PIATCO is wholly owned by Fraport AG (the operator of Frankfurt airport in Germany), Security Bank and Trust Company, Equitable Banking Corporation, Chuah Huh Holdings Company and the Philippine Airport Ground Services. Construction of Terminal III was begun under the administration of former president Joseph Estrada.

The BOT Contract includes the (a) Concession Agreement signed on July 12, 1997, (b) the Amended and Restated Concession Agreement dated November 26, 1999, (c) the First Supplement to the Amended and Restated Concession Agreement dated August 27, 1999, (d) the Second Supplement to the Amended and Restated Concession Agreement dated September 4, 2000, and (e) the Third Supplement to the Amended and Restated Concession Agreement dated June 22, 2001.

The original agreement was one in which PairCargo and Fraport AG would operate the airport for several years after its construction and then after 25 years of operation, hand it over to the Philippine Government. However, the government offered to buy out Fraport AG for $400 million, to which Fraport agreed. Before the terminal could be fully completed, current president Gloria Macapagal-Arroyo formed a committee to evaluate the agreement to buy out Fraport AG. The Arroyo administration eventually abrogated PIATCO's BOT Contract for allegedly having been anomalous in certain important respects. In a subsequent decision, the Philippine Supreme Court upheld the Philippine Government's position on the matter and declared the BOT contract "null and void" for, among other things, having violated certain provisions of the BOT law. In particular, the decision was based on (1) the absence of the requisite financial capacity of the PairCargo Consortium (predecessor of PIATCO), which is required under the

BOT Law, (2) material and substantial amendments to the 1997 Concession Agreement, which deviated from the original contract bid upon, which is contrary to public policy, (3) the amendments in the 1997 Concession Agreement provided for a direct government guarantee which is expressly prohibited by the BOT Law and its Implementing Rules and Regulations.

The Supreme Court found that the original contract was revised to allow for a Philippine Government guarantee of PIATCO's obligations to its creditors, contractors and suppliers. The BOT law disallows the granting of such sovereign guarantees. The project in question is an unsolicited project and thus, it does not qualify to receive government guarantees. PIATCO maintains that the provisions cited by the Supreme Court do not amount to a prohibited sovereign guarantee by the Philippine Government.

On December 2004, the terminal project was expropriated by the Philippine Government through an order of the Pasay City Regional Trial Court subject to the payment of an initial amount of three billion pesos (US$66 million at Pesos 45:US$1) TO PIATCO. The Philippine Government paid PIATCO the said amount on the second week of September 2006. PIATCO and Fraport AG also filed compensation claims before international parties, particularly, (a) the Singapore-based International Chamber of Commerce Court of Arbitration for PIATCO's US$564 million claim against the Philippine Government and (b) the World Bank's International Center for the Settlement of Investment Disputes (ICSID) in Washington, D.C., United States of America for Fraport AG's counterpart claim amounting to US$425 million. In August 2007, ICSID dismissed Fraport AG's claim for NAIA Terminal III saying that it had no jurisdiction over the matter. On the other hand, PIATCO has indicated that it remains open to reaching an amicable settlement with the Philippine Government.

According to the Philippine Government, NAIA- Terminal III is 98% complete and will require at least an additional US$6 million to complete. The government is in the process of negotiating a contract with the builder of the terminal, Takenaka of Japan. Another factor that continues to delay the terminal's opening is the ongoing investigation of the collapse of a 100 square meter area of the terminal's ceiling. Proposed test runs for NAIA-Terminal III have been postponed indefinitely pending the

results of the investigation and the inspection of the airport terminal.

### 3.3. Case Study No. 2: Manila North Tollways-North Luzon Expressway[10]

The North Luzon Expressway (NLE or NLEx), also called North Diversion Road, is a limited-access toll expressway that connects Metro Manila to the provinces of the Central Luzon region in the Philippines. It is one of the two branches of the Road-8 major radial road of Metro Manila (Quirino Highway is the other).

The expressway begins in Quezon City at a cloverleaf interchange with Epifanio de los Santos Avenue (EDSA): a logical continuation of Andres Bonifacio Avenue. It then passes through Quezon City, Caloocan City, and Valenzuela City in Metro Manila. Meycauayan, Marilao, Bocaue, Balagtas, Guiguinto, Plaridel, and Pulilan in Bulacan. San Simon, San Fernando City, Mexico and Angeles City in Pampanga. The expressway currently ends at Mabalacat and merges with the MacArthur Highway, which continues northward into the rest of Central and Northern Luzon.

A planned spur route from the San Simon interchange connecting to the existing Subic-Tipo Highway has been temporarily postponed, because of the on-going construction of an interconnection between the North Luzon Expressway and the Subic-Clark Expressway, the latter serving as a direct link between Subic and Clark. The interconnection is located at least 3 kilometers north of Sta. Ines Exit.

The expressway, including Andres Bonifacio Avenue, has a total length of 88 kilometers. The expressway segment has a length of 84 kilometres. It is currently being extended by another 44 kilometers, starting from its current end in Mabalacat, Pampanga up to Tarlac City in Tarlac. Its extension is part of the Subic-Clark-Tarlac Expressway Project. It may be extended up to Laoag City in Ilocos Norte and there are plans to have a spur route going to Baguio City to provide motorists going to the summer capital a fast and safe journey. In the future, the extension will pass through the rest of Tarlac City, Gerona, Paniqui, and Camiling in Tarlac, Bayambang, Basista,

[10] Source: http://en.wikipedia.org/wiki/North_Luzon_Expressway (date accessed January 14, 2008)

Malasiqui, Villasis, Urdaneta City, Binalonan, Pozzorubio, and Sison in Pangasinan, Rosario in La Union, and Tuba, and Baguio City in Benguet.

Originally under the control of the Philippine National Construction Corporation or PNCC, the operation and maintenance of the NLEx was transferred in 2005 to the Manila North Tollways Corporation, a subsidiary of the Lopez Group of Companies. A major upgrade and rehabilitation has been completed in February 2005 and the road has now similar qualities as a modern French tollway. The main contractor of the upgrade and rehabilitation work was Leighton Contractors Pty. Ltd (Australia) with Egis Projects, a company belonging to the French Groupe Egis as the main subcontractor for the toll, telecommunication and traffic management systems. To help maintain the safety and quality of the expressway, various rules are in effect, such as restricting the left lane to passing vehicles only and banning overloaded trucks.

The tollway has two sections: an open section and a closed section. The open section (within Metro Manila) charges a flat toll based on vehicle class and is employed to reduce the number of toll barriers (and associated bottlenecks) within the metropolis. The closed section is distance-based, charging based on the class of vehicle and distance traveled. Class 1 vehicles can use an electronic toll collection system (called EC Tag) to reduce wait times and congestion at toll barriers. A prepaid magnetic card (the NLE Badge) is provided as an alternative payment for class 2 and 3 vehicles. Both systems connect to accounts that can be replenished in various ways. Travelers not using EC Tag or the NLE Badge on the closed system will instead be issued tickets describing tolls for the various exits. In order to save costs concerning toll barriers at exits, many exits on the NLEx have exit and entrance ramps running alongside each other so that both may be serviced with a single toll barrier.

The Lopez Group took on the challenge of providing an efficient transport facility north of Manila and ventured into road infrastructure to improve and upgrade the NLEX on its own accord without seeking for any special privileges from the Philippine Government. Through First Philippine Infrastructure Development Corporation (FPIDC), the Group partnered with the Philippine National Construction Corporation (PNCC), a government-owned and controlled corporation. PNCC's franchise allows it to enter into

joint venture schemes and to choose its partners, without the need for public bidding but of course with the public welfare in mind. The resulting joint venture created the Manila North Tollways Corporation (MNTC) which was organized to provide financing, rehabilitate, operate and maintain the NLEX until 2030. MNTC then invited Egis Projects S.A. of France, Leighton Asia Limited of Australia, and PNCC to partner with it through equity funding and construction of the expressway facility[11].

The rehabilitation of the North Luzon Expressway is a joint venture between the government and the private sector, for which the Manila North Tollways Corporation was granted the concession to finance, redesign, rehabilitate, expand, operate and maintain the NLEX under a Supplemental Toll Operation Agreement (STOA). The STOA was signed in April 1998 by the MNTC, the Philippine National Construction Corporation (PNCC) and the Republic of the Philippines acting through the Toll Regulatory Board (TRB). It was subsequently approved by former President Fidel V. Ramos in June 1998.

Under the STOA, all usufructuary rights, interests and privileges of PNCC were transferred to MNTC. This gives MNTC the right to collect toll fees during the concession period of 30 years so that it may continue to maintain the expressway, recover its investment, and settle the long-term loans used to finance the project. The new NLEX uses a reasonable and internationally-accepted direct road-user fee principle for revenue collection. Unlike government infrastructure projects that are subsidized by taxes (which, in effect, makes non-users of the infrastructure pay for its services through the taxes they pay), the toll fees will only be paid by those who directly use the NLEX. Investments for the NLEX project may only be recovered through toll fees, and not through tax revenues. This ensures that people who do not use the NLEX will not be burdened with the cost of the project. After the concession period, the project roads - plus all developments - will revert to the government at no cost to it[12].

[11] This paragraph and subsequent paragraphs are from http://www.mntc.com/nlex/overview2.htm (date accessed January 14, 2008)

[12] Ibid

Those who do not want to use NLEX have the option of using the parallel (non-toll) road called the MacArthur Highway to reach destinations north of Manila.

Because of the benefits reaped by the country through the rehabilitation of the NLEX, other developing countries are actually using the project as a model for government and private sector partnership. Private sector investment in infrastructure development projects is essential since it enables the government to use its limited resources for other vital services like education, housing, agriculture, and health. The project financing for the project, acknowledged by Project Finance magazine in its February 2003 issue as a "considerable benchmark for transport financing in Asia," was obtained despite the country's low credit rating. The project was named the "Asia Pacific Transport Deal of the Year" in 2001 by the same publication[13].

## 4. SOME LESSONS FROM THE PHILIPPINE EXPERIENCE[14]

This paper uses two case studies of BOT projects in the Philippines, one a successful project (NLEX), the other an unsuccessful project (NAIA Terminal III), to derive certain policy recommendations that may help improve both the legal and regulatory framework and future implementation of such projects. The experience of two BOT projects indicates the need to address various issues, starting from the legal framework to the level of responsibilities of the government institutions that are involved in the project cycle, i.e., from entry level to implementation and completion. Improvements may be done at the level of both the legal and institutional frameworks, with the latter referring to the role of the oversight agencies project review and approval and contract monitoring and the implementing agencies and private proponents in the actual construction and subsequent operation of the project.

[13] Ibid.

[13] This section draws from Canlas, Dante, Gilberto M. Llanto, Rhean Botha and Domingo Pallarca (2006) and Llanto (2007).

The two case studies illustrate the importance of several factors in BOT projects. At the minimum, an effective implementation of BOT projects hinges on the following: (i) a legal and economic environment that is conducive to a mutually beneficial partnership between the government and private participants; (ii) clarity in articulating the duties and responsibilities of the parties to the contract; (iii) certainty of recovering investments and availability of mechanisms for dealing with risks and unforeseen events and for arbitration in case of dispute between the contracting parties; (iv) transparency and credibility of the government's processes for review and approval of proposed BOT projects and (v) the need of private investors for certainty and stability of contracts made between themselves and the host government.

### 4.1. Legal framework

On the whole, the BOT Law is a good basic law but it can stand some improvement together with its implementing rules and regulations (IRR). An indispensable condition for the successful implementation of the BOT Law is a legal environment where property rights and contractual agreements are protected and enforced. The present BOT Law's framework for private sector investment in infrastructure has to be clarified by a clear allocation of roles, functions, and duties across the spectrum of participants to the BOT project.

A primary consideration is to be able to distinguish between the roles of the enabling legal framework (the BOT Law itself) and the IRR. The BOT law should provide the enabling framework and clearly allocate roles, functions, powers, duties, and rights among government agencies, namely, the oversight agencies and the implementing agencies involved in the project cycle. It is, after all, a primary statute that establishes government policy and the institutional framework for implementing that policy.

On the other hand, the IRR are normally technical or operational in nature. Thus, they should never be a verbatim copy of the enabling law. What we have now, however, is a BOT law that contains both the enabling policy framework and too many details that are technical or operational in nature. Ideally, the details should be in the IRR so that the

government may have the flexibility to change any of them in view of rapid changes in technology, financial markets, and other factors that impact a BOT project. Because it is hard to anticipate such future changes, having a detailed BOT law may therefore not work in favor of the country inasmuch as the task of amending the law to respond to changes and innovations could be a complicated and time-consuming process.

Hence, it will be much more efficient to have a primary statute that clearly specifies state policy and assigns roles and functions to government institutions and an administrative procedure based on the IRR that may be amended from time to time as the need arises.

At the same time, the past experience with BOT implementation indicates the need to provide a clear legal and regulatory framework not only for BOT projects but also for public-private partnerships (PPP) in general in government infrastructure projects. Such framework must give enough flexibility to the implementing agencies and the oversight body to adjust the rules and regulations governing PPPs as may be required by the passage of time and specific circumstances.

It would thus be useful to revisit the BOT IRR from time to time to take into account financial innovations and advances in technology and engineering, among others, which may change the investment and implementation environment. Contract renegotiation may also be called for and should be provided for in the IRR. The IRR can usually be amended more easily by way of an administrative procedure, thereby avoiding delays that may arise from a usually lengthy and ponderous legislative process.

### 4.2. Institutional framework

There must be a transparent institutional framework for project identification, review and approval. The Philippine experience shows the importance of having oversight agencies that have the responsibility for project review and approval while line departments or ministries (agencies) are responsible for identifying and preparing terms of reference and scope of work for BOT projects to be tendered. Line ministries

should not be involved in project review and approval because this will conflict with their role in identifying projects that may be financed and constructed under the BOT approach.

An effective implementation of the BOT approach and, in general, public-private partnership requires more accountability on the part of the implementing agencies. Their officials should be accountable for the procurement contract as well as monitoring of the BOT project. Monitoring requires vigilance over delivery by the private proponent of its contractual obligations. The implementing agencies and the oversight agencies should observe transparency, from project identification to procurement to contract implementation. A copy of the signed contract should be available to the implementing agencies and the oversight agencies. As well, BOT contracts are imbued with public interest and should likewise be accessible to the public.

The government should also allow the private proponent to levy user charges that provide a return commensurate to the opportunity cost of its invested funds and that ensure appropriate maintenance of the infrastructure facility. This will ensure project viability. The proper allocation of cost- and risk-sharing is likewise vital. Some risks are uninsurable. In this case, the partnership must allow for some form of co-insurance that provides for sharing of the identified risks.

### 4.3. Project quality at entry

Government agencies have found it difficult to move BOT projects from the identification to approval stage because of weak technical capacity, and insufficient legal and financial expertise. There are cases when a government agency cannot even put together a credible request for proposals, the first necessary step for competitive bidding, because of weak capacity for project identification and the preparation of project proposals for tendering. This creates the incentive for private proponents to submit unsolicited proposals, which under the Philippine BOT law could be done only under certain conditions as described in Section III of this paper. The government line agency, which is not capable of identifying and preparing projects for competitive

bidding, may also be ill-suited to review unsolicited proposals. The government agency's inability to prepare proposals for tender on the one hand, and to effectively evaluate unsolicited proposals on the other, is a source of frustration on the part of legitimate investors who could help address the inadequacy of Philippine infrastructure. However, the situation of government ineptness provides a venue for non-transparent, back room negotiation over ill-prepared but politically vested projects submitted to the agency for approval.

The lack of project identification and preparation capacity has resulted to the inconsistent application of Section 4 (Priority Projects) in the BOT law and has opened up opportunities to crowd out projects in the priority list. This has created the incentive for the submission of unsolicited proposals- the exceptional case under the BOT law since there is policy preference for solicited proposals, which will be tendered for competition.

The National Economic and Development Authority has proposed the creation of a project preparation facility since the late 1990s. Although the budget department has been supportive, severe budgetary constraints have hampered the allocation of such funds to the implementing agencies. It is timely to consider the provision of specific funding for a project development facility from budgetary resources or grant assistance from donor-partners to jumpstart the process. With a dedicated and well-funded project development facility, the implementing (line) agencies will have the funds to develop in-house capacity or outsource the necessary technical, legal and financial expertise to help them structure a good project proposal for tendering.

### 4.4. Contracts and regulation

Another difficult area is the writing of a contract governing the BOT project and getting the contracting parties, that is, the government represented by an implementing agency and the private party to agree on the terms and conditions of the contract. The implementing agencies must have a good understanding of the obligations of each party in a project; the financial terms and conditions for the financing provided by external

creditors, including guarantees, subsidies, or equity to be provided if the project is eligible; and contractual provisions on risk allocation, including assisting the project secure financing and ensuring its financial viability and sustainability, among others. Implementing agencies do not necessarily have the skills for contract writing and review in contrast to their private sector counterparts who normally would have access to top level financial and legal expertise.

The result is that during negotiations, the implementing agencies may not adequately understand the implications of the contractual provisions that would form as the legal basis for the financial, construction and operation of the BOT project under consideration. This results in a weak negotiating or bargaining position vis-à-vis the private sector, which may impair the ability of the implementing agency to maximize gains for public interest. Obviously, the implementing agencies must develop capacity not only for contract writing but also for negotiation and monitoring of contract implementation.

An example of a complex area is the provision on *Contract Termination*, a standard provision in contracts. The language for the said provision should be thoroughly understood by the government agency concerned, reviewed and tailored to ensure that public interest is protected in the event of a termination of the contract. The private investor interest will almost surely be protected given their access to the best legal advice that money can buy. Creditors normally demand certain provisions on contract termination as a protection. They do not lend to projects unless such provisions are categorically expressed and are enforceable.

**4.5. Unsolicited proposals**

There is a need to review whether or not it is really useful to have a provision in the law on unsolicited proposals. These have been the source of controversy in many discussions because their inclusion leads to a situation where the element of competition is not adequately considered or observed, notwithstanding the so-called Swiss challenge that has been devised by legislators as a "cure" to the lack of competition. Building

capacities in the implementing agencies for identifying projects for competitive bidding will minimize, if not eliminate, the need for a provision on unsolicited proposals.

On the other hand, there is merit in allowing private proponents to submit unsolicited proposals because of their access and familiarity to cutting edge technology and innovations that could inform BOT projects. The country may benefit from having efficient, cost-effective and innovative infrastructure facilities that may be provided by those unsolicited projects. In this regard it would be useful to improve the mechanism for allowing challenges to the unsolicited project. The selection process could be made contestable by giving potential challengers sufficient time to match the unsolicited project with their own proposals. Transparency and integrity of the selection process would be indispensable.

### 4.6. Third party evaluation of projects

It will also be good to introduce as a norm the evaluation of projects during actual implementation and also after a period of time following their implementation. The idea is to assess whether or not actual project implementation delivers the development outputs envisaged during the proposal and approval stages. The evaluation should be done by independent organizations such as reputable research and academic institutions. Implementing ministries or agencies and the private proponent/operator of the BOT project should make available to third party evaluators such data as may be necessary for proper evaluation

### 4.7. Conclusion and policy recommendations

Recent experience with the implementation of the build-operate-transfer (BOT) Law indicates the need to address various issues, starting from the legal framework to the level of responsibilities of the government institutions that are involved in the project cycle, i.e., from project entry level to implementation and completion. Improvements should be introduced at the policy, legal and institutional frameworks in order to improve the usefulness of this approach to infrastructure development. Because of the complexity of the BOT process for infrastructure development it will be useful to

consider the following policy recommendations arising from lessons culled from the Philippine experience with the implementation of this approach. In conclusion, the main strategic approaches to strengthen PPP and the use of BOT are as follows:

1. It is recommended that the government should provide an enabling framework for private participation in infrastructure provision, that clearly allocate roles, functions, powers, duties, and rights of the government and the private sector. A specific instrument for private participation in infrastructure provision is the Build-Operate-Transfer approach.

2. It is recommended that a clear policy framework on the BOT approach should be stated in a law or official policy pronouncement, e.g., Executive Order, Memorandum Circular, Administrative Order or any such official instrument to announce policy. Such a law or official policy statement should have a clear and unambiguous statement of the role, responsibilities, functions and various contractual obligations and provisions such as risk sharing, recovery of investments, contract variation, dispute settlement, arbitration and others of the parties involved in the BOT contract.

3. It is recommended that the BOT law should be considered the primary statute that establishes government policy and the institutional framework for implementing BOT. There should be accompanying implementing rules and regulations (IRR) of the BOT law that specify the administrative procedure for implementation. The IRR may be amended from time to time as the need arises. This will provide the government both the legal basis for the BOT approach (that is, a primary statute) as well as the flexibility (through the IRR) to respond to changing needs and circumstances of the economy, the financial markets, private investors and other stakeholders, that may impact on the efficient implementation of the BOT approach.

4. It is recommended that competitive bidding procedures remain the central tenet of government procurement policy. Competitive bidding provides the best prospects for efficient provision and implementation of the infrastructure project at the least possible cost to the economy. The BOT law should thus forthrightly express the government's

preference for competitive bidding and affirm that direct negotiation and unsolicited proposals remain the exception.

5. It is recommended to have a clear institutional framework for review and approval of BOT projects and contracts.

6. It is recommended that the BOT law should affirm the government's binding commitment to honor and defend contractual rights and obligations. This includes providing for greater transparency with regard to the content of contracts.

7. It is recommended that the government should build capacity for project design, technical analysis, contract review, monitoring the implementation of BOT infrastructure projects. It is also important to specify which government agency will be responsible for monitoring BOT projects at different stages of development, that is, from project entry, construction to implementation.

8. It is recommended that the government with assistance possibly from donors should establish a project preparation or development facility that could be tapped by government agencies for BOT project identification and the development of BOT proposals for tender or competitive bidding.

9. It is recommended that independent evaluation of the BOT project be made a regular activity of the government in order to assess whether or not it is delivering the envisaged development outputs.

10. It is recommended that the BOT law or official policy pronouncement should allow the private proponent to levy user charges that provide a return commensurate to the opportunity cost of its invested funds. This will ensure project viability and will reduce or minimize the amount of subsidy that government provides.

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