THE STUDY ON INSTITUTIONAL IMPROVEMENT FOR PPP IN THE PHILIPPINES

FINAL REPORT

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JAPAN INTERNATIONAL COOPERATION AGENCY

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ABBREVIATIONS

AAB	Authorized Agent Banks
ADB	Asia Development Bank
AEC	ASEAN Economic Community
AEDC	Asia's Emerging Dragon Corporation
AMORE	Alliance For Mindanao Off-Grid Renewable Energy
ARCA	Amended and Restated Concession Agreement
ASEAN	Association of Southeast Asian Nations
ATIS	Aerodrome Terminal Information System
ATO	Auto Train Operation
ATO	Air Transportation Office
BASECON	Bases Conversion Development Authority
BATMAN	Natural Gas Pipeline from Batangas to Manila
BC	Bureau of Customs
BCDA	Bases Conversion Development Authority
BCS	Business Case Study
BDO	Banco de Oro
BGTOM	Build-Gradual Transfer-Operate-Maintain
BI	Bureau of Immigration
BIR	Bureau of Internal Revenue
BLT	Build-Lease-Transfer
BOT	Build-Operate-Transfer
BPI	Bank of The Philippine Islands
BSP	Bangko Sentral ng Pilipinas
BPS	Bureau of Product Standards
BTO	Build-Transfer-Operate
CA	Concession Agreement
CAA	Civil Aeronautics Administration
CAAP	Civil Aviation Authority of the Philippines
CAB	Civil Aeronautics Board
CALAX	Cavite-Laguna Expressway
CAOT	Contract-Add-Operate-Transfer
CASB	Civil Aviation Security Bureau
CATC	Civil Aviation Training Center
CAVITEx	Manila-Cavite Coastal Expressway
CCPAP	Coordinating Council of the Philippine Assistance Program
CDA	Cooperate Development Authority
CDC	Clark Development Corporation
CDCP	Construction and Development Corporation of the Philippines
CIAC	Construction Industry Arbitration Commission
CIADC	Caticlan International Airport Development Corporation
CIDA	Canadian International Development Agency
CIIP	Comprehensive Integrated Infrastructure Program
CLLEx	Central Luzon Link Expressway
CO	Corporate Office
COA	Commission on Audit
CPCN	Certificates of Public Convenience and Necessity
CPI	Consumer Price Index

DBCC	Development Budget Coordination Committee
DBL	Design-Build-Lease
DBM	Department of Budget and Management
DBP	Development Bank of the Philippines
DC	Department Circular
DCRA	Debt And Capital Restructuring Agreement
DE	Detailed Engineering
DENR	Department of Environment And Natural Resources
DepED	Department of Education
DILG	Department of the Interior and Local Government
DMIA	Diosdado Macapagal (Clark) International Airport
DOE	Department of Energy
DOF	Department of Finance
DOH	Department of Health
DOJ	Department of Justice
DOTC	Department of Transportation and Communications
DPL	Development Policy Loan
DPWH	Department of Public Works and Highways
DSCR	Debt Service Coverage Ratio
DTI	Department of Trade and Industry
E&M	Electrical & Mechanical
EC's	Electric Cooperatives
ECA	Export Credit Agency
ECC	Environmental Compliance Certificate
EDSA	Epifanio de los Santos Avenue
EFCDU	Expanded Foreign Currency Deposit Unit
EIS	Environmental Impact Statement
EO	Executive Order
EPC	Engineering Procurement Construction
EPIRA	Electric Power Industry Reform Act
ERC	Energy Regulatory Commission
F/S	Feasibility Study
FACP	Foreign Air Carrier's Permit
FCDU	Foreign Currency Deposit Unit
FDI	Foreign Direct Investments
FIA	Foreign Investment Act
FIRR	Financial Internal Rate of Return
FIT	Feed-In-Tariff
FNPV	Financial Net Present Value
GAA	General Appropriations Act
GCMCC	Government Corporate Monitoring and Coordinating Committee
GFI	Government Financial Institution
GFS	Government's Financial Support
GOCCs	Government-Owned and Controlled Corporations
GoP	Government of Philippines
GPPB	Government Procurement Policy Board
GPRA	Government Procurement Reform Act
GSIS	Government Service Insurance System

IA	Implementing Agency
IAC	Inter-Agency Committee
ICAO	International Civil Aviation Organization
ICC	Investment Coordination Committees
IDFC	India Development Financing Company
IFC	International Finance Corporation
IH	Investment House
IIFC	Indonesia Infrastructure Finance Company
IIFCL	India Infrastructure Financial Company Ltd
IIGF	Indonesia Infrastructure Guarantee Fund
ILS	Instrument Landing System
INFRACOM	NEDA Committee on Infrastructure
IPO	Initial Public Offering
IPPs	Independent Power Producers
IRR	Implementing Rules and Regulations
ISP	Institutional Strengthening of the Civil Aviation Sector Project
JBIC	Japan Bank for International Cooperation
JETRO	Japan External Trade Organization
JEXIM	Export Import Bank of Japan
JICA	Japan International Cooperation Agency
JV	Joint Venture
KPIs	Key Performance Indicators
LBP	Land Bank of the Philippines
LCC	Low Cost Career
LGU	Local Government Unit
LLCR	Loan Life Coverage Ratio
LPVR	Least Present Value of Revenue
LRT	Light Rail Transit
LRTA	Light Rail Transit Authority
LTFRB	Land Transportation and Franchising Board
LWUA	Local Water Utilities Administration
MCDP	Metro Cebu Development Plan
MCIA	Mactan-Cebu International Airport
MCIAA	Mactan-Cebu International Airport Authority
MERALCO	Manila Electric Company
MFIs	Microfinance Institutions
MHI	Mitsubishi Heavy Industries
MIAA	Manila International Airport Authority
MMDA	Metro Manila Development Authority
MPIC	Metro Pacific Investment Corporation
MRT	Mass Rapid Transit
MRT	Metro Rail Transit
MRTC	Metro Rail Transit Corporation
MTPDP	Medium-term Philippine Development Plan
MTPIP	Mid-Term Public Investment Plan
MWCI	Manila Water Company Inc.
NDC	National Development Company
NWRB	National Water Resources Board

MWSI	Maynilad Water Services Inc.
MWSS	Metropolitan Waterworks and Sewerage System
NAIA	Ninoy Aquino International Airport
NAIAx	Ninoy Aquino International Airport Expressway
NCSO	National Census and Statistics Office
NDC	National Development Company
NEDA	National Economic and Development Authority
NERBAC	National Economic Research and Business Assistance Center
NESDP	National Economic and Social Development
NEXI	Nippon Export and Investment Insurance
NGO	Non-governmental Organization
NGVPPT	Natural Gas Vehicle Program for Public Transport
NIA	National Irrigation Administration
NIS	National Irrigation System
NLEx	North Luzon Expressway
NPC	National Power Corporation
NPL	Non-Performing Loans
NRW	Non Revenue Water
NWRB	National Water Resources Board
O&M	Operation and Maintenance
OADR	Office for Alternative Dispute Resolution
OBUs	Off shore Banking Unit
ODA	Official Development Assistance
OECD	Organisation for Economic Co-operation and Development
OGCC	Office of Government Corporate Counsel
OSG	Office of the Solicitor-General
OTS	Office of Transportation Security
P.Q	Prequalification
PADC	Philippine Aerospace Development Corporation
PBAC	Pre-qualification, Bids and Awards Committee
PCA	Philippine Construction Association
PCAS	Police Centers for Aviation Security
PD	Presidential Decree
PDMF	Project Development and Monitoring Fund
PDP	Philippines Development Plan
PEMC	Philippine Electricity Market Corporation
PER	Project Evaluation Report
PFI	Private Finance Initiative
PhilEXIM	Philippine Export-Import Credit Agency
PIATCO	Philippine International Air Terminals Co.
PIDF	Philippine Infrastructure Development Fund
PIDS	Philippine Institute of Development Studies
PIFF	Philippine Infrastructure Financing Facility
PMO	Project Management Office
PNCC	Philippine National Construction Corporation
PNOC	Philippine National Oil Corporation
PNR	Philippine National Railways
POS	Point of Sale
PPA	Power Purchase Agreement

PPP	Public Private Partnership
PPP F/S	Public Private Partnership Feasibility Study
PR	Presidential Regulation
PRA	Philippine Retirement Authority
PSALM	Power Sector Assets and Liability Management
PSIF	Private Sector Investment Finance
PSIL	Private Sector Investment and Loan
RA	Republic Act
RE	Renewable Energy
RO	Regulatory Office
ROE	Return on Equity
ROW	Right of Way
SCE	Singapore Cooperation Enterprise
SCTEx	Subic-Clark-Tarlac Expressway
SLEx	South Luzon Expressway
SMEs	Small and Medium-sized Entities
SONA	State of the Nation Address
SPC	Special Purpose Company
SPV	Special Purpose Vehicle
SSS	Social Security System
STAR	Southern Tagalog Arterial Road
STOA	Supplemental Toll Operation Agreement
SUCs	State Universities and Colleges
TA	Technical Assistance
TADHC	Trans-Aire Development Holdings Corporation
TCA	Toll Concession Agreement
TIDCORP	Trade and Investment Development Corporation of the Philippines
TOC	Toll Operation Certificate
TOR	Terms of Reference
TOT	Training of Trainers
TPLEx	Tarlac-Pangasinan-La Union Expressway
TransCo	National Transmission Corporation
TRB	Toll Regulatory Board
TSL	Two Step Loan
TTF	Treasury Task Force
TWG	Technical Working Group
VAT	Value-Added Tax
VGF	Viability Gap Fund
VMF	Value for Money
WD	Water District
WESM	Wholesale Electricity Spot Market

INTRODUCTION

1. Objectives of the Study

The technical assistance from the Japan International Cooperation Agency (JICA) entitled "The Study on Institutional Improvement for PPP in the Philippines" (the Study) started on March 2011 was supposed to be terminated in November 2011. However as the TOR of the Study was revised two times upon request of National Economic Development Agency (NEDA) and the concerned entities, the term was extended to February, 2012. The objectives of the Study are to assist in the establishment of the Public-Private Partnership (PPP) framework, and find appropriate ways of JICA's contribution in terms of financing, using official development assistance (ODA) and private sector investment fund (PSIF), and technical assistance for capacity building of concerned public entities.

2. Framework of the Study

The Study was conducted under the guidance of the NEDA as counterpart agency together with its subsidiary, the PPP Center and the Department of Finance (DOF). The Study was made in close collaboration with the line agencies such as the Department of Public Works and Highways (DPWH), Department of Transportation and Communication (DOTC), Metropolitan Waterworks and Sewerage System (MWSS) and Department of Energy (DOE) (sector analysis).

The course of the Study is largely divided into three phases. The first phase from March 28 to June, 2011 was intended to clarify initial findings of PPP with respect to PPP legislation, PPP institution, PPP finance and the five sectors (toll road, urban railway, airport, water supply and energy).

The Study Team then made further study and analysis during the second phase from July to November, 2011. Because of the change of legal structure and expected functions of the Philippine Infrastructure Financing Facility (PIFF) as a long-term lending institution, the Study also changed its scope from advisory services to ADB to output-based work, i.e., to propose finance scheme for PPP projects promotion. Importance of PPP feasibility study (F/S) was also emphasized by the Study Team so that a case study of two projects out of 2011 rolled-out projects with proposed finance scheme was added to the scope of works of the Study. As a result, the Study changed its scope of works twice due to the reasons stated above during the second phase.

The third phase (early December 2011) corresponds to finalization of the Study including preparation of a case study.

The last field survey was made in the beginning of early February, 2012 in order to explain the final report, particularly the proposal made by the Study Team and discuss further technical assistance.

3. PPP Cooperation Workshop[1] and Mini-Workshops

In the course of the Study, the PPP Cooperation Workshops were held three times in close collaboration with the NEDA and the PPP Center. The 1st PPP Cooperation Workshop was conducted

[1] See Appendix A1, 2, 3 for workshop programs.

on April 15, aiming to promote PPP in the Philippines. The Study Team presented the following: 1) Government roles in PPP framework and 2) Risk management in five sectors, followed by open discussions.

The 2nd PPP Cooperation Workshop was held on August 26, 2011 with the agenda consisting of the general session focusing on PPP institutional issues and PPP finance schemes, and the breakout session where principal issues of four sectors (toll road, urban railway, airport and water supply) were intensively discussed among the participants.

At the 3rd PPP Cooperation Workshop (Round Table), held on December 6, 2011, the proposed financial institutions of viability gap fund (VGF) and Philippines infrastructure public finance facility (PIPFF) were mainly discussed together with PPP project selection and road map. The current issues of PPP projects in three sectors (metro transportation, airport and toll road) were also discussed.

The mini-workshops were also held several times primarily with DOTC and MWSS with discussions focusing on risk identification and preparation of risk matrixes including identification of mitigation measures[2].

4. Changes in Scope of Works during Study Period

The terms of reference (TOR) for the Study consist of the following four components:

1) Advisory on design and operation of project development and monitoring fund (PDMF) and PIFF being studied under technical assistance from ADB,
2) Capacity development of line agencies for risk analysis,
3) Advisory on legal framework of PPP, and
4) Advisory on efficient and speedier processing of PPP projects.

During the Study period, NEDA requested the Study Team to make tentative proposal on PPP project selection and road map for institutional improvement of PPP. Consequently, the scope of work of the Study Team has been changed in consultation with JICA. Regarding lending institutions, PIFF was supposed to be established as an "investment house" as recommended by KPMG (ADB's consultant) but this idea was rejected by ADB. Instead, ADB (Private Operation Department) has decided to promote private equity fund as PIFF which would not be the appropriate lending institution for PPP project, because it is a pure private entity.

Reflecting the circumstances, the Study Team was obliged: 1) to propose the establishment of two public financial institutions, i.e. VGF and PIPFF, and 2) to present appropriate PPP project selection procedure including criteria and road map for institutional improvement as shown in Table 1 below.

This final report (FR) basically covers the above scope of works including the case study under the recommended financial framework (VGF and PIPFF). A case study presents financial impact of VGF and PIPFF on two PPP projects (urban railway and airport sectors).

[2] See Appendix A-4 for mini workshop handout.

Table 1 Comparison between Original and Modified Scope of Works

	Original Scope of Works	1st Change in Scope of Works	2nd Change in Scope of Works
1. PPP finance	Advice on PDMF and PIFF from risk point	Advice on operations and structuring of PIFF and on JICA'S possible contribution using ODA and PSIF	Proposal for establishment of the two public financial institutions, VGF and PIPFF
2. Capacity development	Advice to line agencies and PPP Center with emphasis on risk analysis	Advice to line agencies and PPP Center on their capacity building	
3. Legal framework	Advice on improvement of the existing PPP related laws and regulations		
4. PPP process	Advice on effective processing	Advice on PPP projects selection including criteria	Preparation of project selection procedure including criteria
5. Road map	Not required	Advice on preparation of a road map for institutional improvement of PPP	Preparation of a road map for institutional improvement of PPP
6. Case study under the recommended financial framework	Not required		A case study (PPP F/S) of two projects out of 2011 rolled-out projects with recommended financial framework
7. Tariff design and regulatory framework	Not required		Evaluation of the present situation and future recommendations in each sector

Source: JICA Study Team

5. Components of Reports

The reports of the Study are comprised of the main report (Volume 1) and a case study (Volume 2). The components of the main report consist of the three parts, namely, i) current state of PPP framework, ii) sector study for PPP projects improvement, and iii) recommendations. The main report includes appendixes supporting the three components. A case study is separately compiled as Volume 2. A case study summarizes financial impact of the two funds (VGF and PIPFF) on two projects (airport and LRT) based on PPP options (BOT and hybrid system).

Part I.

Current State of PPP Framework

CHAPTER 1 POLICY FOR PPP PROMOTION

Studies of government, official donor organizations, and scholars have pointed to the poor state of Philippine infrastructure as a key binding constraint to growth. Fiscal problems since the late 1990s to 2005 that re-emerged in the past couple of years (mainly, inadequate tax effort) have limited the government's ability to allot funds, much less sustain spending in basic infrastructure. Investment surveys, meanwhile, showed that perceived difficulties in managing risks associated with capital-intensive long-gestating projects in the Philippines (particularly uncertainties on the regulatory side) have discouraged private investments.

Acknowledging fiscal constraints, the new government elected in 2010 focused its attention on attracting private monies into Philippine infrastructure through public-private partnerships. The President in his first state-of-the-nation address before congress highlighted his administration's strategy to focus on this mode of scaling up infrastructure investments. In line with this, the government held its "Infrastructure Philippines 2010" conference in November 2010, where it became clear that the government will be actively promoting solicited projects and to this end, stated their readiness to cover regulatory risks, among others.

The Medium-term Philippine Development Plan (MTPDP) 2011-16 unveiled in mid-2011 likewise stated that the "government shall rely on the public-private partnership (PPP) scheme to implement the bulk of its infrastructure programs."

In various pronouncements, authorities have underlined that the new direction for PPP is toward more strategic, competitive, transparent and proactive partnerships, and away from ad hoc, supplier-driven unsolicited and opaque processes that have characterized projects in the past.

Among the weaknesses identified by the government and analysts that need to be addressed in order to move to this new model for PPP are the following:

a) lack of pipeline of feasibility studies for projects that can be bidded out;

b) Inadequate technical, financial and legal institutional capability of line and oversight agencies to prepare, evaluate, negotiate, and contract out PPP projects;

c) Lack of clear sector plans, and unclear legal and regulatory framework for some sectors;

d) Unclear policies and lack of institutional mechanisms for providing subsidies and VGF for projects that are economically desirable but not commercially viable;

e) Delays in providing and delivering right of way by government;

f) Inappropriate tariff levels and adjustment mechanisms;

g) Inability to deliver/enforce contract obligations of government, including lack of credible mechanisms for guaranteeing risks;

h) Politicized decision making;

The government's overall framework for PPP to address these constraints remains a work in progress,

including the fundamental policies on project selection for PPP vs. alternative modes of financing. For instance, the PPP Center's priority project list includes two projects in the social sector (public school buildings and supply of vaccines) that do not fall in the traditional definition of projects that are ideal for PPP, i.e., with revenue streams to help cover part of the cost, but are nonetheless being pursued as PPP projects. Substantial amounts of technical assistance are being provided by JICA, ADB, Australian Agency for International Development (AusAID) and other donors to help develop government's institutional set-up and capacities, especially of the PPP Center, the central point of coordination and promotion for this program.

As quoted from an ADB technical assistance paper, "the government's institutional set-up and capacity are insufficient to effectively promote and implement PPP projects in the Philippines. The PPP Center lacks the necessary technical capacity and authority to optimally perform its role as government's central PPP unit. There seems to be lack of clarity in delineation of responsibilities between the PPP Center and the build-operate-transfer (BOT) group of NEDA. and government agencies, both at the central and local levels. In the Philippines, systems and capacity are insufficient to prepare bankable PPP projects. Government agencies have insufficient project preparation capacity to address the wide range of complex economic, financial, technological, institutional, social, environmental, legal and risk sharing issues associated with large scale infrastructure projects. Many government agencies lack sufficient resources to attract quality expert advice to help prepare bankable PPP projects. "

Even as this institutional capability building is being done, government is attempting to learn by doing, striving to bid out PPP projects as early as possible, when they are ready and where the line agencies have bought in on the PPP modality, and where there are available monies in implementing agencies' budgets to cover needed expenses, including VGF, to bring the projects to market. At present, the most advanced projects are in Department of Public Works and Highways (DPWH), Department of Education (DepEd) and Department of Health (DOH). This approach will hopefully give rise to workable models of how the public sector can more effectively promote PPP projects. Given the lead time needed to bring complicated infrastructure projects to market as well as the new administration's emphasis on transparency and quality at entry, government to date has yet to put a project up for bid (with only a four-lane, four-kilometer toll road, i.e., Daang Hari, ready to go).

More recently, the new leadership in the Department of Transportation and Communication (DOTC) announced a "hybrid model" of carrying out PPP projects that broadly involves tapping official development assistance (ODA) to finance the fixed component of an infrastructure system (e.g., for railway, the tracks) while bidding out the variable component (e.g., rolling stock, operation and maintenance, etc.) to interested private sector proponents. This is seen as a way for government to deliver necessary infrastructure services at least cost to users. Some quarters also view the preference for this model as reflecting the current government's hesitation to provide upfront cash as VGF that may be perceived as subsidy to the proponents rather than support to the project. Nevertheless, there are to date no specific guidelines on how this model will be implemented, considering there are a number of approaches for this, and whether this is general policy for all sectors. Moreover, the private sector has raised concerns about potential delays associated with introducing the ODA leg which adds another layer of complexity in reconciling policies and procedural requirements of government, official funders, and private investors. For this track to advance, there is a need for the government and development partners to develop detailed policies and procedures that will make this work.

CHAPTER 2 LEGAL ISSUES

2.1 Overview of PPP-related Laws and Regulations

2.1.1 Background on the Introduction of PPP-related Laws and Regulations and Legal Status

(1) Brief History of Pre-PPP Era in the Philippines

In 1977, pursuant to Presidential Decree No. 1113, the Philippine National Construction Corporation (PNCC, originally named as the "Construction and Development Corporation of the Philippines (CDCP)") was granted a 30-year franchise to operate, construct and maintain the North and South Expressways and the Metro Manila Expressway. PNCC constructed the North Luzon Expressway (NLEx) and South Luzon Expressway (SLEx) in the 1970s and 1980s, respectively (This is the befinning of franchise mode).

In early 1990s, since original franchise holders like PNCC did not have enough financial capacity to undertake capital intensive infrastructure projects, the government accepted the private proponents' unsolicited proposal to finance and jointly undertake these new projects with the original franchisers utilizing the latter's franchises. This was the start of utilizing the JV approach for undertaking PPP infrastructure projects. At the same time, the approach based on the BOT Law has been introduced in various sectors such as toll road, urban railway, airport, water, and power in order to utilize private funds effectively for non-JV infrastructure projects. The purpose of JV and the BOT Law approach is the same, which is to utilize private funds to promote infrastructure developments; however, the legal bases for the JV and BOT Law approaches in undertaking an infrastructure project are different (JICA PS, 2010)[1].

(2) Background on the Introduction of the BOT Law

The Philippine BOT Law was enacted against the background of power crisis and financial pressure of the then administration. In the Philippines, the serious power shortage had continued since the latter half of the 1980s and the power supply was often cut off for many hours a day. One of the major issues for Corazon Aquino's administration was how to increase power supply despite government's budget shortage. She enacted Executive Order (EO) No. 215 in 1987 which allowed the private sector to build and operate energy generation facilities. It was during the end of her term in 1990 that the Philippine BOT Law (Republic Act No. 6957), which encouraged and provided incentives for the private sector to finance, construct and operate and maintain infrastructure and development facilities normally financed and undertaken by the government, was passed by the Philippine congress. On the basis of the Electric Power Crisis Act of 1993 (Republic Act No. 7648) passed during the Ramos Administration which gave the President of the Philippines authority to enter into negotiated contracts for the construction, repair, rehabilitation, improvement or maintenance of power plants, projects and

[1] JICA PS: Japan International Cooperation Agency, "Preparatory Survey for Public-Private Partnership (PPP) Infrastructure Development Projects in the Republic of the Philippines", 2011.

facilities, and the BOT Law, and its amendment in 1994 by Republic Act No. 7718, independent power producer projects were actively pursued and undertaken, and the power supply condition of the Philippines was improved to a great extent.

(3) Background on the Introduction of the JV Guidelines

There is no specific Philippine statute governing JVs except the general law on partnerships. In 1989, then President Corazon C. Aquino issued Memorandum Order No. 266 to provide general guidelines for government-owned and controlled corporations (GOCCs) to enter into JVs with the private sector. In 2005, President Gloria Macapagal Arroyo issued EO No. 423, which mandated the National Economic and Development Authority (NEDA), in consultation with the Government Procurement Policy Board (GPPB), to issue guidelines regarding JV agreements of GOCCs, government corporate entities, government instrumentalities with corporate powers, government financial institutions, and state universities and colleges (SUCs) with private entities. The JV guidelines were drafted and approved in 2008. (Alberto C. Agra, 2011)[2]

(4) Legal Status of PPP-related Laws and Regulations

a) Outline of PPP-related Laws and Regulations

The BOT Law was enacted in 1990 and amended in 1994 by Republic Act No. 7718. The Philippine BOT Law stipulates the different PPP modalities allowed, nationality restriction, PPP project approval process, solicited and unsolicited mode[3], government guarantee and support, etc. The detailed implementing rules of the BOT Law are stipulated in its implementing rules and regulations (IRR), the latest of which was issued in 2005. The IRR covers all private sector infrastructure or development projects undertaken by national government agencies, including government-owned or controlled corporations (GOCCs), government financial institutions (GFIs), state universities and colleges (SUCs) and local government units (LGUs). For LGU projects, concerned LGUs may formulate additional guidelines/procedures not in conflict with the BOT Law and its IRR and pertinent provisions of Republic Act No. 7160 (Local Government Code of 1991) and its IRR.

The other legal basis of PPP in the Philippines is the JV Guidelines issued by NEDA in 2008 pursuant to EO No. 423 dated 30 April 2005. The 2008 JV Guidelines prescribe the rules, guidelines and procedures in forging JV agreements between private entities and GOCCs, government corporate entities, government instrumentalities with corporate powers, GFIs and SUCs.

There is also Republic Act No. 9184 (the "Procurement Law") that was passed on January 10, 2003. It applies to the procurement of infrastructure projects, goods and consultancy services, regardless of source of funds, whether local or foreign, by all branches and instrumentalities of government, its departments, offices and agencies, including GOCCs and LGUs. The detailed implementing rules of the Procurement Law are stipulated in its revised IRR, which became effective on September 2, 2009.

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[2] A. C. Agra et al. (2011) Knowing PPP, BOT and JV, A Legal Annotation

[3] There are no unsolicited proposals under RA 6975. It is not provided for. The general intention of RA 7718 is to make the BOT Law (RA 6975) easier and more attractive to investors. The lawmakers intended to expand the coverage and liberalize the procedure. The inclusion of unsolicited proposals is a major amendment from RA 6975. (Source: A. C. Agra et al. (2011) Knowing PPP, BOT and JV, A Legal Annotation, p. 79)

The GPPB issues guidelines, circulars, and policy opinions to supplement the IRR as may be necessary.

b) Position of PPP-related Laws and Regulations in the Legal Structure of the Philippines

The BOT Law is "law" which is passed by the national congress and has priority over EOs and the BOT IRR which are not passed by the national congress. Also, the BOT Law is "special law" and has priority over "general laws" such as civil law and corporation law in case there are conflicts in their respective provisions (BOT Law Sec.13).

The hierarchy of the legal structure in the Philippines is: 1st - Constitution, 2nd - Law, 3rd - EO, 4th - IRR, and 5th - Guidelines. Therefore, if there is a provision in the BOT IRR or 2008 JV Guidelines, which contradicts the BOT Law, the provision in the EO, IRR or JV Guidelines would be considered null and void.

Looking at other countries' practices, in Japan, the Act on Promotion of Private Finance Initiative (PFI), similar to the Philippine BOT Law, is also a "special law" which modifies its "general laws" such as the Local Government Act, Civil Code, Act on Land and Building Lease, and Companies Code. On the other hand, the legal basis of PPP in Indonesia is a presidential regulation (PR), which is not a "law"; the PR does not have priority over the laws.

The merits for having a "law" as the legal framework of PPP are that the law can modify the other general laws if there are contradictions, and the government policy can be set permanently. Since an amendment to a law needs to be passed by the national congress, it is more difficult to amend a law than revising a regulation. On the other hand, there are also demerits. If the law is too detailed, it would cause a lack of flexibility in view of the difficulty in amending the law. Some provisions stipulated in the BOT Law are too detailed, preventing flexible execution of said law (Llanto, 2010).[4]

The 2008 JV Guidelines are formulated pursuant to EO No. 423 (series of 2005) and the IRR of the BOT Law are the rules and regulations issued pursuant to the BOT Law. These must be consistent with EO No. 423 and the BOT Law, respectively, pursuant to which it was issued. If there is any inconsistency between EO No. 423 and the JV Guidelines, the EO shall prevail over the JV Guidelines.

(5) Preference in the Use of the JV Guidelines

Based on the legal structure of the Philippines, the 2008 JV Guidelines need to be consistent with the BOT Law if the JV modality was included in the BOT Law; however, at present, there is no provision for the JV modality in the existing BOT Law. Therefore, an implementing agency (IA) and private proponents are not required to comply with the provisions of the BOT Law if they select the JV modality. They only need to comply with the 2008 JV Guidelines.

JV modality is easier for both IAs and private sector to pursue compared to other PPP modalities under the Philippine BOT Law, particularly in government approvals that need to be obtained. For example, the national PPP projects under BOT Law need to be approved by the Investment Coordination Committee (ICC) of NEDA or the NEDA Board depending on the cost of projects;

[4]Gilberto M. Llanto, "A Review of Build-Operate-Transfer for Infrastructure Development", 2010

however, no approval from NEDA is required for JV projects. Due to the aforementioned reasons, IAs and private proponents prefer to use the JV modality whenever possible.

2.1.2 Comparison between Procurement Process under the BOT Law and the 2008 JV Guidelines

As mentioned in Section 2.1.1 (5), it seems the JV is preferred by IAs and private proponents since the guidelines generally require fewer government approvals and entail a shorter processing period. However, it is difficult for the government to know and clarify the situation of PPP projects undertaken under the JV Guidelines. There is less transparency in the procurement process undertaken under the 2008 JV Guidelines, which is often cited as a problem in previous studies (JICA PS).

The major differences between the BOT Law and the 2008 JV Guidelines in their respective procurement process are as follows (See also Table 2.1-1):

(1) Difference in Eligible PPP Modalities

Under the BOT Law, the allowable modalities can be a combination of build, operate, transfer, lease, rehabilitate, add, develop, own, manage, supply, construct, finance (BOT Law Sec. 2). On the other hand, the 2008 JV Guidelines only stipulate the JV modality.

(2) Difference in Approval Requirements

Under the BOT Law, PPP projects need to be approved by NEDA-ICC, NEDA Board, the Office of the President (OP) or Department of Finance (DOF) or Department of Budget and Management (DBM) but these approvals are generally not required under the JV Guidelines. For example, national projects costing up to three hundred million pesos (P300,000,000) shall be submitted to ICC of NEDA for approval and to the NEDA Board for projects costing more than three hundred million pesos (P300,000,000) under the BOT Law but not required under the JV Guidelines. As for projects undertaken under JV Guidelines, the general rule is that no NEDA approval or DOF or DBM approval is necessary. However, Section 8, Paragraph 2 of the JV Guidelines require that pursuant to Section 10 of EO No. 423, the heads of government entities should submit to NEDA the salient features and a copy of the JV agreements amounting to at least three hundred million pesos (P300,000,000) together with all documents required thereto for monitoring of compliance with relevant policies, procedures and conditions for approval of the JV undertaking. Also, under Section 7.2 of the 2008 JV Guidelines, for JV activities that will require national government undertakings, subsidies or guaranties, DOF and/or DBM clearance/approval need to be secured.

(3) Difference in Finance Resources

Under the BOT Law, private sector proponents are considered as main players for financing especially for BOT, build-transfer (BT), build-own-operate (BOO), and build-lease-transfer (BLT) (BOT Law Sec. 2). On the other hand, financing may be done jointly between a government entity and a private sector proponent under the JV Guidelines.

(4) Difference in Requirement for Reasonable Rate of Return

In case of negotiated contracts, a rate of return shall be determined by ICC of NEDA prior to the negotiation and/or call for proposals. If the project is a negotiated contract for public utilities projects

which are monopolies, the rate of return on rate base shall be determined by existing laws, which in no case shall exceed 12% (BOT Law Sec. 2(o)). On the other hand, there is no requirement for the imposition of a rate of return under the JV Guidelines.

(5) Difference in Conditions for Unsolicited Proposal

Under the BOT Law, an unsolicited proposal may only be accepted by government under certain conditions such as the project involves a new concept or technology and/or not included in the IA's list of priority projects, no direct government guarantee, equity or subsidy required, NEDA-ICC clearance before negotiations, and undertaking a Swiss Challenge (BOT Law Sec.4-A). However, all these conditions are not required under the JV Guidelines.

(6) Difference in Processing Period

Under the BOT Law, the processing period is expected to be between 250 to 410 days, but only 90 to 165 days under the JV Guidelines.

Table 2.1-1 Comparison between BOT Law and JV Guidelines

Aspects	BOT Law	JV Guidelines
Eligible PPP Modalities	Combination of Build/ Operate/ Transfer/ Lease/ Rehabilitate/ Add/ Develop/ Own/ Manage/ Supply/ Construct/ Finance	Joint Venture (continuing/ ongoing concern/ operation/ management)
Approval Requirements	NEDA-ICC; OP; DOF/ DBM approvals may be required	Governing Board or duly authorized representative; No NEDA-ICC required; As a general rule, no OP and DOF/ DBM approvals
Finance Resources	Private Sector Proponent	Joint between Government Entity and Private Sector Proponent
Reasonable Rate of Return	Prior to negotiation/ comparative proposal approval by NEDA-ICC for public utility monopolies (Maximum 12%)	No requirement for imposition of Rate of Return
Conditions for Unsolicited Proposal	Requirements: New concept or technology/ not priority project; No direct government guarantee; No comparative/ competitive proposal received; NEDA-ICC clearance before negotiations	No such requirements; JV allowed for any project
Processing Period	250 to 410 days	90 to 165 days

Source: Alberto C. Agra (2011) Knowing PPP, BOT and JV: A Legal Annotation

2.1.3 PPP Projects in the Philippines

There is no single definition of PPP in the world. In the Philippines, it seems that PPP includes privatizations such as the Manila water concession projects. Since the BOT Law was enacted in 1990, 103 PPP projects have reached financial closure by 2009 (IBRD PPI Database)[5]. Most of the PPP projects were in the energy sector and only a few PPP projects were undertaken in the remaining sectors of transportation, water and sewerage, and telecommunication.

As mentioned above, the PPP projects in the Philippines helped its economy and society considerably, especially the power projects introduced in the 1990s which saved the Philippines from a power crisis. At the same time, however, the problems regarding the PPP-related laws and regulations have been pointed out in various studies such as in the aforementioned JICA PS. Based on the abovementioned IBRD PPI database, nine PPP projects were cancelled or have failed from 1990 to 2009. One of the key projects which was cancelled was the Ninoy Aquino International Airport (NAIA) Terminal III Project. Philippine International Airport Terminals Co., Inc. (PIATCO) entered into a concession agreement with the government in 1997. However, the Arroyo administration went to court to invalidate the concession agreement with PIATCO for various invalid provisions contained in the concession agreement, and illegality of the government guarantee issued to PIATCO. The Philippine Supreme Court supported the government's claims and voided the concession agreement with PIATCO in 2003.

The major problems of PPP projects under the BOT Law are limited competition and insufficient transparency of unsolicited proposal projects, breach of contracts by the government, and limitation on foreign investments and borrowings. The details of these issues arising from PPP-related laws and regulations are discussed in Section 2.2.

2.2 Issues Arising from PPP-related Laws and Regulations

The JICA Study Team conducted reviews of existing studies on the PPP related Law, interviewed private proponents and reviewed comparative studies among other Asian countries regarding the PPP related Law. The legal issues which are identified through this Study are described below.

2.2.1 Unsolicited Proposals are Too Many

In the past, the Philippines learned valuable lessons from undertaking projects via the unsolicited mode, such as lack of transparency and disputes between the government and private proponents. NEDA emphasizes the solicited mode for priority projects under the Medium Term Philippine Development Plan (MTPDP)/ Midium Term Public Investment Program (MTPIP), but the BOT Law leaves room for undertaking projects through the unsolicited proposal mode.

(1) Limited Competition

One of the major reasons for applying PPP to public utility projects is to achieve a higher value for money (VFM), and high competition through a public procurement process is a key factor to achieve it. However, the competitiveness during the procurement process for unsolicited proposal projects is

[5] Refer to Section 4.11 for the detailed track records of PPP project.

not sufficient. Unsolicited project proposals under the BOT Law require undertaking a Swiss Challenge, which gives the proponents who did not submit the original unsolicited proposal a chance to compete with the original proponent by submitting a better bid than that submitted by the original proponent. However, the period of time allowed for proponents to submit comparative or competitive proposals is only 60 working days, which is not sufficient for non-original proponents to prepare competent proposals. The time period for submitting comparative proposals of 60 working days is one of the reasons for insufficient competition in unsolicited proposal projects. As a matter of fact, only one Swiss Challenger has beaten an original proponent in the past (Llanto, 2010). In order to eliminate constraints of competition in unsolicited proposal projects, the period of time for Swiss Challenge should be extended beyond 60 working days.

(2) Providing Inappropriate Indirect Subsidies

One of the conditions for the government to be able to accept an unsolicited proposal projects under the BOT Law is for the project not to require or have a "direct" government guarantee, subsidy or equity (BOT Law Sec. 4-A). When government subsidies or guarantees are required in a PPP project, the PPP project should be undertaken through the solicited mode to minimize the expenditure of the government/taxpayers. From this point of view, approving unsolicited proposals should be limited to projects which do not involve any type of government subsidy or guarantee. However, many unsolicited projects actually receive subsidies from the government because the existing BOT Law does not prohibit providing "indirect" subsidies to unsolicited proposal projects. The term "indirect" is vague and have caused controversies in past PPP projects. For example, in the Casecnan Transbasin Multipurpose Project, the Department of Agriculture (DA) insisted that an annual subsidy of PHP 1.2 billion is an indirect subsidy because the farmers would be the actual beneficiaries of the subsidies. The DBM expressed the opinion that the aforementioned subsidy is a direct subsidy and that the government would effectively subsidize the National Irrigation Administration (NIA), which in turn would use the subsidy to pay for the water delivered by the private proponent. NIA has earlier agreed to pay the private proponent for the annual delivery of water estimated at 809.1 million m^3 regardless of whether the water was actually delivered or not (Llanto, 2010). Allowing indirect government subsidies is one of the major issues of the existing BOT Law in terms of providing subsidies to certain private proponents which are not selected through a competitive public procurement procedure. For the aforementioned reasons, direct or indirect subsidies should not be allowed for unsolicited proposal projects.

(3) Insufficient Transparency

Since a concession right provides a privilege to a certain private proponent, there should be transparency in the selection of the private proponent. However, under the BOT Law, the IAs negotiate with the private proponents in closed meetings and decide whether the unsolicited proposals should be submitted to NEDA or not. This lack of transparency is reported as one of the reasons for the government's unpreparedness and for approving inappropriate design or risk allocations (Llanto, 2010; JICA PS, 2010). Transparency of unsolicited proposal projects should be improved.

2.2.2 Insufficient Government Functions and Non-compliance with Agreements

(1) Lack of Standard Mechanism to Provide Subsidies

Government subsidies are currently provided under each government agency's budget. There is no standard mechanism for prioritizing and allocating government subsidies for PPP projects. Also, the transparency for selecting the project which would receive government subsidies and deciding the amount of subsidies is insufficient. Procedure for prioritizing and providing government subsidies and decision making of the amount of subsidies should be standardized and be transparent to properly allocate government's limited resources to the most important projects. For example, in India, a separate viability gap fund (VGF) has been established by its finance department and this fund provides subsidies to PPP projects. The prioritization of allocations of subsidies is standardized throughout the ministries and transparencies are secured under the VGF approach.

(2) Non-compliance with Agreements and Lack of Performance Guarantee

In the Philippines, the government often does not fulfill its obligations under the PPP contracts. For example, the Toll Regulatory Board (TRB) sometimes did not approve increases in tariff rates required under the PPP contracts. According to the result of interview with private proponents, a majority of the interviewed private proponents pointed out regulatory risk as a major hindrance for their participation in PPP projects. Also, the cost incurred by the private proponents, as a result of government’s non-fulfillment of the terms of the agreement, should be compensated by the government. However, Article VI, Section 29 of the Constitution of the Republic of Philippines prohibits the government from spending public funds without an appropriation by congress; therefore, the fulfillment of compensation is dependent on whether congress passes an appropriation for payment of compensation to the private proponents affected. There is also no provision in the BOT Law that guarantees payment by government of any compensation due to the private proponents in case of government’s failure to comply with its obligations under the PPP contracts.

Since private proponents have concerns whether government will fulfill its obligations under the BOT contracts, a system to guarantee government's performance should be introduced. For example, in Indonesia, the Ministry of Finance created the fund called Indonesia Infrastructure Guarantee Fund (IIGF) and international organizations guaranteed it, which guarantees the government's performance also. In case of non-fulfillment by the government of its obligations under the PPP contracts, private proponents file claims to the IIGF for compensation and IIGF then claims against the government to recover the amount that IIGF paid to the private proponents. IIGF might provide useful insight for establishment of a performance guarantee system in the Philippines.

(3) Delay in Right of Way (ROW) Acquisition

Based on interview to private proponents conducted by the JICA Study Team, most of the private proponents pointed out the delay of land acquisition as one of the biggest problems for them to participate in PPP projects. Since ROW acquisition or land acquisition requires undertaking expropriation proceedings that only government can exercise (Republic Act No. 8974), private proponents cannot control risks regarding the delay in ROW acquisition. Therefore, those risks should be shouldered by the government. However, in the Philippines, it is common to enter into a PPP contract prior to completion of ROW acquisition necessary for the project and the risks associated with the delay in ROW acquisition are actually shouldered by private proponents. For example, it is

generally said that a financial institution does not approve financial closure until the completion of ROW acquisition for the project; hence, a private proponent cannot start construction (JICA PS, 2010). Then, the delay of construction causes the delay of opening the project facilities, which causes a time delay of income earnings. During the time of income earnings delay, private proponents need to spend for operating costs of the company and maintenance costs for financial agreements. Therefore, the delay of ROW acquisitions would possibly cause tremendous disadvantage to private proponents.

2.2.3 Limitation of Foreign Investment and Borrowing, and Foreign Exchange Risk

(1) Restriction on Foreign Investment

Foreign entities' participation is very much expected in the areas where domestic companies do not have sufficient experience or financial resources. However, the existing Foreign Investment Act of 1991 (RA No. 7042) and the BOT Law restrict the operators of public utilities to Filipinos or an entity in which at least 60% of the capital is owned by Filipinos. Therefore, foreign investors cannot undertake PPP projects in these sectors even by investing cash and knowhow, which may lead to lower incentives for foreign investors to enter the PPP market in the Philippines. The purpose for restricting foreign investment is to protect domestic private proponents in certain strategically important sectors. This results in lower VFM since it restricts competition and this outweighs the advantage of protecting a certain sector. The foreign entities' participation restriction should be lifted for certain PPP projects.

(2) Ceiling on Foreign Loan Guarantee

Since the project period of PPP is usually long (50 years maximum according to BOT Law) and the project incomes are flat during the term, another key factor to promote PPP Projects is the availability of project financing with a long-term repayment period and low interest rates for the initial investment of the private proponents. The financial market in the Philippines does not meet this need for cheap long-term financing of private proponents since, for example, the loan period of project financing is a maximum of twelve years and the interest rates are the base rate plus 2.5% to 3.5%. Players in the private financial sector usually insist that there is enough liquidity in financial markets and no financial constraint for PPP projects in the Philippines; however, as long as there is a necessity for the government to provide subsidies or support, long-term low interest loans should be introduced in order to reduce the government's burden.

In order to satisfy the aforementioned private sector's or government sector's needs, it is advisable to utilize official development assistance (ODA) funds. However, for example, if ODA funds are provided to private proponents through two-steps loans, government guarantees are required but the current head room available for foreign guarantees is close to its ceiling amount of USD 7.5 billion (Foreign Borrowing Act（RA No.4860, Section 3). Therefore, providing ODA funds to private proponents of PPP projects is currently limited. It is understandable to restrict foreign borrowings to a certain level as a national economic policy; however, there is a lack of compelling reason to just restrict the guarantee for ODA borrowings while the direct borrowings of the ODA fund are excluded from the foreign borrowing ceiling (RA No. 4860, Section 2, RA No. 8182). Since the government will be able to reduce its burden of subsidies by allowing private proponents to access ODA fund, the ODA fund should be excluded from foreign guarantee ceiling.

(3) Insufficient Mitigation Measures for Foreign Exchange Risk

Many private proponents that had foreign loans during the Asian financial crisis in the late 1990s suffered from the depreciation of the Philippine peso. Even though there was a mechanism to adjust for this by a tariff increase, some private proponents could not recover fully through the tariff adjustment (Based on interviews with private proponents). Also, it might be unfair to transfer all the foreign exchange risk to a certain public service users through increasing the tariff. The way of mitigating foreign exchange risks and risk allocations should be discussed more fully among the public and private sector.

2.3 Ongoing Amendment of the BOT Law

2.3.1 Movement and Outline of Amendment of the BOT Law and its IRR

(1) Movement and Outline of Amendment of the BOT Law

Since the BOT Law was passed in 1990, it was only been amended once, in 1994. This amendment added some modalities and clarified the unsolicited proposal approach. A number of bills seeking to amend the Philippine BOT Law have been proposed several times after the last amendment in 1994; however, it has not been amended since then.

Currently, three bills to amend the BOT Law have been filed in the House of Representatives (House of Representative Bill (HB) Nos. 4151, 4919 and 759). Among these bills, HB No. 4151 was drafted by the current administration and submitted by Congressman Belmonte (under the situation where promotion of PPP was a part of the conditions of the World Bank Development Policy Loan (DPL) and the PPP promotion policy was announced by Aquino administration in the first State of the Nation Address (SONA) in 2010), who is the Speaker of the House of Representatives, and Congressman Gonzales in February 2011. Comments to HB No. 4151 were submitted by the NEDA Committee on Infrastructure (INFRACOM), DOF and other government agencies. HB No. 4151 has been discussed in the committee and modified several times. The JICA Study Team obtained one original and three modified drafts so far as of October 2011, i.e.: the first bill submitted on February 8, 2011 (HB No. 4151-1), the second on April 26, 2011 (HB No. 4151-2), the third on August 2, 2011 based on INFRACOM Technical Board (HB No. 4151-3), and the fourth in September 2011 **(**HB No. 4151-4).

HB No. 4919 is based on the proposed amendments to the BOT Law found in "A Review of BOT for Infrastructure Development (2010)", which was written by Mr Llanto who was former Deputy Director General of NEDA and currently the senior research fellow of the Philippine Institute for Development Studies (PIDS). This proposed bill amending the BOT Law is the result of the study done by Canlas and Llanto under a technical assistance from USAID in 2006 and was submitted to the House of Representatives through Congressman Daza. HB No. 759 was submitted by Congressman Antonio.

The major amendments to the BOT Law proposed by HB No. 4151-1 are as follows:

- To allow NEDA to decide the length of public offering period for private proponents to submit counter proposals to an unsolicited proposal, but not to exceed one year. Also, if the unsolicited proposal is used as a basis for a solicited bidding, the original proponent of the unsolicited proposal may be reimbursed for costs incurred in its preparation, which shall be paid in full by

the winning bidder as a requirement for the award of the project.

- To prohibit any court, except the Supreme Court, to issue any temporary restraining order, preliminary injunction or preliminary mandatory injunction to restrain, prohibit, or compel the following acts with regard to projects of national significance as declared by the President of the Philippines:

  a. Acquisition, clearance and development of the ROW and/or site or location;

  b. Bidding or awarding;

  c. Commencement, prosecution, execution, implementation and operation;

  d. Termination or rescission of the contract; and

  e. The undertaking or authorization of any other lawful activity necessary or in connection with the execution or implementation of the project.

- To create a "special fund" to defray the cost of compensation to project proponents in the event that the government agency or GOCC fails to comply, or is prevented from complying, with its obligations under the contracts or agreements as a result of any act of another agency or branch of government; provided that no compensation shall be paid out of the special fund if the contract or agreement has been determined to be unlawful or unconstitutional by a final judgment of a court of competent jurisdiction.

(2) Movement and Outline of Amendment of the BOT IRR

Since many issues relating to PPP-related laws and regulations have been pointed out in many prior researches, the INFRACOM conducted on April 19, 2011 a consultation/forum with key stakeholders regarding proposed amendments to the BOT IRR. The following are some of the major proposed amendments:

- To add PPP modalities: Joint Venture (JV), Concession, Management Contracts, and Lease or Affermage.

- To add the approval of the draft contract by the head of agency/LGU based on the terms and conditions of the project as approved by the approving body. Also, the Office of the Government Corporate Counsel (OGCC) and/or the Office of the Solicitor General (OSG) shall issue counsel's opinion prior to execution of the contract.

- To add the clause that the ICC shall determine reasonable rate of return and operating and maintenance cost prior to negotiation and/or call for comparative proposal in case of an unsolicited proposal.

- To add that the government shall shoulder and pay the differential between the rate stipulated in the contract and the actual rate approved by the government/regulator.

- To add that government undertakings shall be based on the approved risk allocation matrix.

- To reduce timelines in the processing/evaluation of proposals.

- To delete the requirement for a cost recovery component of at least 50% of the project cost, or as

determined by the approving body. (Since Section 2(a) of the BOT Law has a similar clause, Section 2(a) of the BOT Law needs to be amended simultaneously.)

- To require that the draft contract (which is part of the bid documents) should use the model contracts provided by NEDA/PPP Center as reference.

2.3.2 Proposed Major Changes in the BOT Law

The comparisons between the current BOT Law and proposed bills to amend the BOT Law, and the comments from JICA Study Team are as follows:

(1) Expansion of Scope of PPP Projects

a) Integrate JV into the BOT Law: (HB Nos. 4151-2, 3, 4) (Appendix B-1 Ref. Nos. 14, 15, 16, 17)

JV and management/service contract are not stipulated in the existing BOT Law. HB Nos. 4151-2, 3, 4 stipulate the aforementioned modalities in the bills. This amendment brings all the PPP projects to be conducted under the same legal basis and bring higher transparency and competitiveness into JV projects by requiring JV projects to comply with the provisions of the BOT Law.

It is very important to include the JV modality into the BOT Law from the viewpoint of transparency. HB4151-2,3,4 and HB4919 changed the title of the Law from "BOT Law" to "PPP Act"

b) Introduce Low Profitable Projects into PPP:（HB Nos. 4151-3 4）(Appendix B-1 Ref. No. 3)

The existing BOT Law focuses mainly on projects with high profits and specifies the maximum limit of government subsidies at 50% of the project costs. Since the government is trying to apply PPP to social infrastructures such as public schools, which have only small profits, HB Nos. 4151-3, 4 eliminate the maximum subsidy limit provision.

Although it is a concern that the elimination of the maximum limit of government subsidies might be used to expand subsidies to unprofitable projects, this amendment should be welcomed in terms of promotion of social infrastructure PPP projects.

(2) Issues Relating to Unsolicited Proposals

a) Set Stricter Rules for Unsolicited Proposals：(HB Nos. 4151-1, 2, 3, 4) (Appendix B-1 Ref. No. 35)

HB Nos. 4151-1, 2, 3, 4 give the government three alternatives when unsolicited proposals are submitted to it, namely: (a) to accept the unsolicited proposals, (b) to reject them, and (c) to utilize the submitted unsolicited proposals as basis for public procurement. The existing BOT Law allows only options (a) and (b) but not (c). Also, even if option (a) is selected, the length of time for submitting a comparable bid in the Swiss Challenge stage should be extended from 60 working days to maximum of one year. This proposed amendment is to emphasize government's policy to promote solicited proposals and accept unsolicited proposals only under stricter conditions.

As mentioned in Sections 2.2.1 (1) and (3), it is desirable to accept unsolicited proposals under stricter conditions to ensure higher transparency and competitiveness in PPP projects.

b) Prohibit Government Support for Unsolicited Proposals: (HB Nos. 759, 4151, 4919) (Appendix B-1 Ref. Nos. 35, 36, 37)

The existing BOT Law prohibits providing "direct" (but not "indirect") government subsidies to unsolicited proposals. HB Nos. 4151-1, 2, 3, 4 proposed to prohibit not only "direct" but also "indirect" government support to unsolicited proposal projects. This amendment clarifies that the government does not give any support to unsolicited proposals.

As mentioned in Section 2.2.1 (2), this amendment is very important to avoid inappropriate government spending for unsolicited proposal projects by a loophole of "indirect" subsidies.

(3) Issues Relating to Insufficient Government's Functions and Non-compliance

a) Expedite ROW Acquisition: (HB No. 4151-4) (Appendix B-1 Ref. No. 49)

HB No. 4151-4 added the new clause to have smoother ROW acquisition by letting IA pay the property owner the amount equivalent to at least the sum of two hundred percent (200%) of the value of the property based on the current relevant zonal valuation of the Bureau of Internal Revenue (BIR) and the value of the improvement and/or structures.

ROW acquisition is not an issue limited to PPP projects but is a common issue to all public infrastructure projects. It seems difficult to explain to the property owners whose lands are going to be expropriated for non-PPP projects why there is a difference between the just compensation amount for the lands used for PPP and non-PPP projects.

b) Provide Government Performance Guarantee: (HB Nos. 4151-1, 3, 4) (Appendix B-1 Ref. Nos. 55, 56)

HB No. 4151-4 added the new clause "Appropriation for PPP Projects" which obliges the congress to automatically appropriate the necessary funds to cover the costs relating to the implementation of multi-year projects and the liability, penalties, and interests incurred by the IA in PPP projects. This clause actually forces congress to appropriate the necessary expenditure for PPP projects. This clause may conflict with the intent of Section 29 of Article VI of the Constitution of the Philippines. The constitutionality of this clause should be reviewed carefully.

On the other hand, HB No. 4151-1 proposed to establish a special fund to defray the cost of providing compensation to project proponents in the event that the government agency or GOCC fails to comply, or is prevented from complying, with its obligations under the contracts. To defray the cost of compensation through the special fund seems to be consistent with the constitution since it would pass the ordinary appropriation procedure by the congress when the money would be injected in the special fund.

(4) Issues Relating to Incentives to PPP projects

a) Declare it as a "Project of National Significance": (HB Nos. 4151-1, 3, 4) (Appendix B-1 Ref. No. 48)

HB No. 4151-3 added the new clause "Project of National Significance". The NEDA-ICC may identify a certain project as having national significance. This shall entitle the project with various incentives such as exemptions from real property taxes, deduction of local taxes, and provision of

necessary business permits. Under HB No. 4151-1, upon certification and recommendation of NEDA, it is the President of the Philippines who declares a project as a project of national significance; however, the authority to decide whether a project is a project of national significance was transferred to the NEDA-ICC under HB No. 4151-4. This change may promote a project of national significance by giving incentives to private proponents to participate in such PPP project.

It is desirable to designate a particular PPP project as a project of national significance in terms of business promotion; however, it should not to be selected arbitrarily but should be selected pursuant to certain standards. Also, this proposed amendment proposes some tax incentives throughout the project period. As the typical cash flows of private proponents are severely restricted during the first ten years since all the debts need to be paid off by then. Therefore, the timing and weight of tax incentives should be reconsidered to make it easier for private proponents to participate in PPP projects.

b) Provide Tax Incentives for PPP Projects: (HB No. 4151-2) (Appendix B-1 Ref. No. 53)

HB No. 4151-2 added the new clause to exempt PPP projects from all national and local taxes, instead, 5% of the gross income earned by project proponents shall be remitted to the national government. (Within the aforementioned 5%, 2% goes to local government units.) This proposed amendment is to promote participation of private proponents in PPP projects. This clause was removed in HB No. 4151-3.

Although tax incentives are desirable to promote PPP projects, introducing a new levy scheme in the current tax levy system will be complex and ineffective.

(5) Others

a) Prohibit the Issuance of Temporary Restraining Orders and the Like: (HB Nos. 4151-1, 2, 4) (Appendix B-1 Ref No. 51)

HB Nos. 4151-1, 2, 4 added the new clause which prohibits the lower court from issuing a temporary restraining order, preliminary injunction, or preliminary mandatory injunction against the government, or any of its subdivisions, officials or any person or entity, whether public or private, acting under the government's direction, to restrain, prohibit or compel certain acts with regard to projects of national significance. This clause is proposed to ensure stability of projects of national significance which would have a big impact on society. This clause was removed in HB No. 4151-2; however, it is restored in HB Nos. 4151-3, 4.

b) Create the PPP Center under the BOT Law: (HB Nos. 4151-2, 3) (Appendix B-1 Ref. No. 54)

Although the creation of the PPP Center is currently stipulated in EO No. 8, HB Nos. 4151-2, 3 propose to provide for the establishment of the PPP Center within the BOT Law, thus making the PPP Center a more permanent institution. However, HB No. 4151-4 removed the aforementioned clause.

The current PPP Center has been established by an EO, which can be easily revised by the cabinet without an amendment of the law by congress. In order to make the PPP system more stable, PPP Center, detailing its functions and powers, should be set out in a law. In Japan, the aforementioned Committee for the Promotion of PFI is stipulated in the PFI Law.

c) Change Committee Members in Formulating the IRR: (HB Nos. 4151-2, 3, 4) (Appendix B-1 Ref No. 50)

The BOT Law stipulates the committee members for formulating the BOT IRR, and amendments thereto, as DPWH, DOTC, Department of Energy (DOE), Department of Environment and National Resources (DENR), Department of Trade and Industry (DTI), Department of Interior and Local Government (DILG), Coordinating Council of the Philippine Assistance Program (CCPAP), DA, DOF, NEDA, and other concerned government agencies.

However, HB No. 4151-4 removes DPWH, DOTC and DA as committee members and adds DBM, OP, and the Department of Justice (DOJ) as members of the committee. Also, HB No. 4151-2 adds a private sector representative as a committee member; however, the private sector representative was removed in HB No. 4151-3.

Since PPP projects can be realized only when the private sector participates, the IRR of the BOT Law should include the opinions coming from the private sector. Therefore, the committee members for drafting amendments to the BOT IRR should include representatives from the private sector. In Japan, the Committee for the Promotion of PFI was set up within the cabinet office, which consists of leading persons from various sectors including the private sector. When the Japanese prime minister formulates the Basic Policy under the PFI Law, the prime minister is required to obtain the decision of the Committee for the Promotion of PFI.

2.3.3 Tentative Evaluation of Proposed BOT Law Amendments and its Timetable

(1) Tentative Evaluation of Proposed BOT Law Amendments

Since the Philippine congress is still in the process of amending the BOT Law, this evaluation by the JICA Expert Team covers proposed amendments to the BOT Law as of September 2011.

a) Establishment of the Comprehensive PPP Act of the Philippines

HB Nos. 4151-2, 3, 4 (Appendix B-1 Ref. Nos. 14, 15, 16, 17) proposed to include JV, concession, and management/service contract modalities in the BOT Law. As mentioned before, including the JV mode into the new PPP Act is very important in terms of improving the transparency of JV projects.

Also, HB Nos. 4151-3, 4 (Appendix B-1 Ref. No. 2) proposed to remove the 50% of project cost cap for government subsidy in order to promote social infrastructure PPP projects, which have low profitability, such as public schools. With this amendment, it would be possible to introduce PPP into various types of public procurements as long as there is VFM like in the United Kingdom and Japan.

From the abovementioned amendments, the existing BOT Law would be reborn as a new comprehensive PPP Act of the Philippines.

b) Improvement of Transparency and Competitiveness of PPP Projects and Achievement of Higher VFM

HB Nos. 415-1, 2, 3, 4 (Appendix B-1 Ref. No. 35) allow the use of submitted unsolicited proposals as the basis for public procurement, extend the submission period for comparative or competitive proposals (Swiss Challenge), and prohibit not only direct but also indirect government support for

unsolicited proposals. Similarly, HB Nos. 759 and 4919 also prohibit indirect government support for unsolicited proposals. In view of the abovementioned proposed amendments, the possibility for government to accept a negotiation-based unsolicited proposal would be less likely. It is possible that as a result of the decrease in unsolicited proposals, solicited proposals, which have higher transparency and competitiveness, may increase. Also, even if unsolicited proposals are approved, competition would be higher than ever because of the extension of the Swiss Challenge period.

From the abovementioned proposed amendments, the transparency and competitiveness of PPP projects would be improved and these improvements shall increase the quality of public services provided by PPP projects and bring higher VFM for the government.

c) Promotion of PPP Projects

HB Nos. 4151-1, 3, 4(Appendix B-1 Ref. No. 48) proposed the tax incentives for the project of national significance and HB No. 4151-2 (Appendix B-1 Ref. No. 53) proposed the tax incentives for all PPP projects. It is preferable to give tax incentives to promote PPP; however, there is a mismatch between these tax incentives and the needs of private proponents. The typical cash flows of private proponents are low during the first ten years since all the debt need to be paid off by then. Therefore, private proponents want to have strong tax incentives during the first phase of PPP projects but not during the latter phase of PPP projects. The tax incentives should be reconsidered based on the needs of private proponents.

HB No. 4151-1 proposed to establish a special fund to guarantee government performance of its obligations under PPP contracts. Since there is skepticism by private proponents that government will fulfill its obligations under the concession agreements based on the experiences of previous PPP projects, the establishment of this kind of guarantee system for government's performance would increase the incentives of private proponents to participate in PPP projects and promote PPP projects in the Philippines.

(2) Timetable for the Enactment of the New BOT Law

Since at least three bills to amend the BOT Law have been filed in the House of Representatives by the end of August 2011 and concerned departments and agencies and organizations are still submitting their comments to these proposed bills, it should take some time to consolidate them all into a final proposed bill for the amendment of the BOT Law. The enactment of the amendments to the BOT Law depends on how fast the government wants to effect such amendment; however, since the deadline of the Country Assistance Strategy as a condition of the DPL, which is one of the triggers for the amendment of the BOT Law, is in June 2013, the government should push for the passage of the new PPP law by the end of next year.

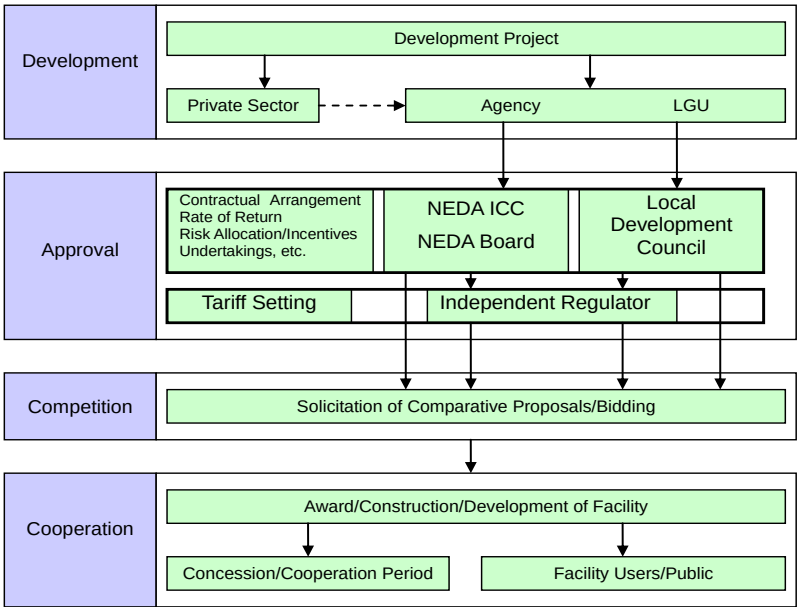
CHAPTER 3 REVIEW OF PPP PROJECT PROCEDURES

This chapter aims to discuss desirable PPP project selection procedures and criteria for the Government of the Philippines (GoP). Firstly, the current procedures of PPP project selection under the existing laws and regulations are observed. Secondly, the study results on PPP project selection procedures and criteria are presented. The main findings are that (1) preparatory studies for PPP project formulation are not properly addressed in the current process and (2) there are no formalized or explicit project selection criteria at present. Thirdly, based on the above observations and findings, the JICA Study Team proposes actions to be taken by GoP to improve PPP project selection.

3.1 PPP Project Procedures under Current Framework

3.1.1 Current PPP Project Procedure

The National Economic and Development Authority (NEDA) has developed a PPP guide named "A Guide to PPP in the Philippines" and it stipulates the PPP project procedure. The project cycle is classified into four steps: development (project formulation), approval, competition (procurement), and cooperation (operation). The first process is "development" where a PPP project is identified and formulated. The second stage is "approval" where the evaluation and approval of a PPP project are made. The third process is "competition" where a public tendering is made and the winning bidder is appointed. The last process is "cooperation" where contract award is made and the project design and construction start. The following figure shows the PPP project processing.



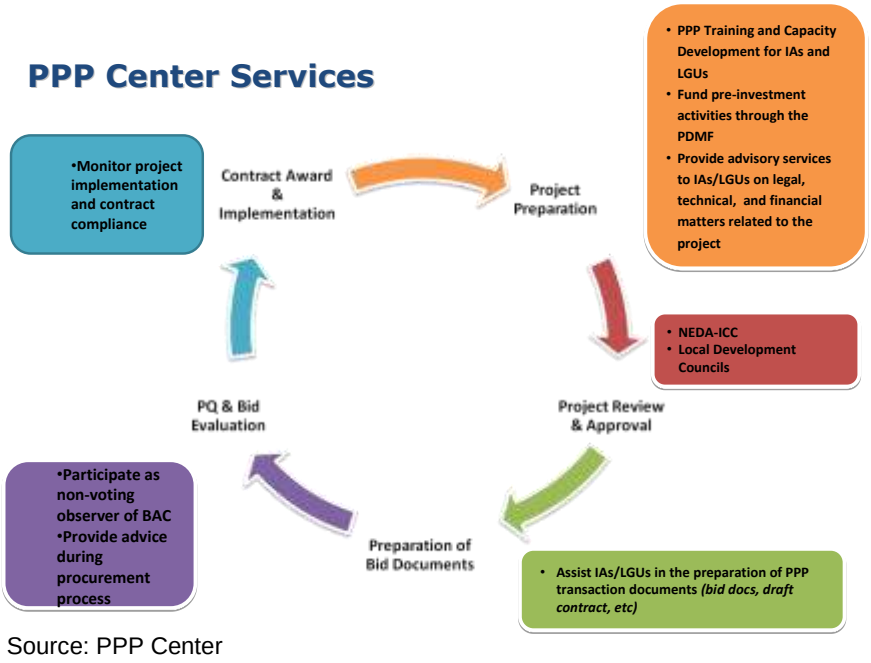
Source: NEDA, A Guide to PPP in the Philippines

Figure 3.1-1 Basic PPP Process Framework

One part of this process is that implementing agencies (IAs) and local government units (LGUs) need to get approval from NEDA and relevant authority to implement PPP project. Also, the tariff setting for the project requires approval from independent regulator. In this sense, IAs and LGUs need to obtain approval from two or more authorities.

3.1.2 Current Issues on PPP Procedure

GoP established the PPP Center in 2010 in order to accelerate PPP in the Philippines. The PPP Center is the organization responsible for promoting PPP. As can be seen from the figure below, the PPP Center has several functions in every step of a PPP project.



Source: PPP Center

Figure 3.1-2 Role of PPP Center

In the project preparation stage, the PPP Center conducts training of officers of IAs and LGUs. It also provides funds for pre-study from the project development and monitoring fund (PDMF). Besides these, the PPP Center provides advisory services on legal, technical and financial aspects. In the project review and approval stage, the PPP Center takes coordination among IAs/LGUs, NEDA, and local development councils. In the bidding stage, the PPP Center helps IAs and LGUs to prepare bidding documents. In the prequalification (PQ) and bid preparation stage, the PPP Center provides various supports to IAs and LGUs. In the contract award and implementation stage, the PPP Center monitors project and contract compliance. Accordingly, the PPP Center is supposed to provide various supports and advices to IAs and LGUs in every step of PPP projects.

With regard to the current PPP procedure, the JICA Study Team conducted interviews with NEDA and the PPP Center to find out issues they are facing. As a result of the interviews and discussions, the following issues are identified:

- The appropriate business case study (BCS) and PPP F/S have not yet been prepared yet because capacities and experiences of IAs and LGUs are still not sufficient.
- There is no formalized or explicit PPP project selection criteria. Because of this, there is a possibility that the most efficient government's resource allocation is not realized.
- The process of land acquisition and approval by sub-national governments are often slow. This hinders the timely implementation of projects.
- Contract compliance especially by the public sector is often violated. It undermines the smooth implementation of projects.
- The monitoring methods and items of projects are not formalized. Thus, IAs and LGUs are concerned on how to conduct appropriate monitoring.

The countermeasure to these issues, especially the PPP selection criteria, will be addressed in the following section. Solutions to other issues will be elaborated in Chapter 4 of this report.

3.2 PPP Project Selection Procedures and Criteria: Observation

3.2.1 Importance and Issues of PPP Project Selection Procedure and Criteria

The importance of PPP formulation and selection is becoming higher in the Philippines. In general, profitability of new PPP projects becomes lower and many projects require the government's supports. On the other hand, various supporting measures are being considered including private equity fund, viability gap fund (VGF) and Philippine Infrastructure Financing Facility (PIFF). In order to formulate the best project scheme, appropriate preparatory studies, such as BCS and/or PPP-specific F/S (hereafter called as "PPP F/S"), need to be conducted. Also, clear and explicit PPP project selection by both IAs/LGUs and NEDA shall be made. Especially, project selection by NEDA will function as "the government's resource allocation" because it is supposed to make prioritization of PPP candidate projects and decide allocation of government's supports such as VGF.

There are currently two principal issues with regard to PPP project selection. One issue is that preparatory studies such as BCS and/or PPP F/S are not necessarily conducted. It undermines the appropriate design of business case of PPP project. The other issue is that there is no explicit criterion of PPP project selection. Because of this, objectivity, transparency, and accountability of PPP project selection are not secured. It is also inconvenient for IAs and LGUs to prepare documents to be submitted to NEDA without clear guidelines of project selection.

Based on this recognition, the JICA Study Team reviews the current PPP project selection procedures and tries to propose the necessary PPP project formulation process and criteria.

3.2.2 Overview of PPP Project Selection Procedure

In this section, the current situation of PPP project selection procedure is examined in detail. According to the BOT Law and its implementing rules and regulations (IRR), when IAs and LGUs plan to implement PPP projects, they need to get approval from the authorities in charge including NEDA. IAs and LGUs will receive some benefits from the approval. The BOT Law and its IRR stipulate various benefits to IAs and LGUs as follows:

a) Legal Feasibility of Project (Legal Base: BOT Law Sec. 2)

By getting approval, the project itself, which assumes private participation, becomes legally feasible.

b) Investment Incentives (Legal Base: BOT Law Sec. 12 and IRR Section 13.2)

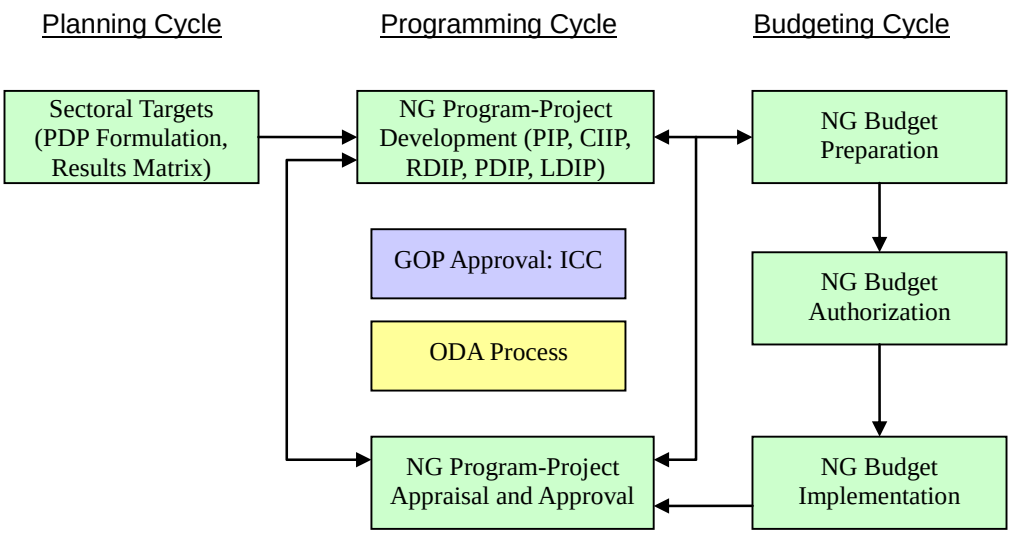
By getting approval, IAs and LGUs become eligible to provide incentives to a project proponent, such as tax benefits. The details of these incentives (which can be applied to IAs' projects) are stipulated in the Omnibus Investment Code of 1987 and Foreign Investments Act of 1991.

c) Government Undertakings (Legal Base: IRR Sec. 13.3)

By getting approval, IAs and LGUs become eligible to receive government's supports, such as subsidies and guarantees. The available kinds of government undertakings are as follows:

- Cost Sharing: Some parts of projects costs are borne by the government.
- Credit Enhancement: The government provides facilities such as subsidy or guarantee to enhance the credit of the project.
- Direct Government Subsidy: The government may provide direct subsidy to a project proponent.
- Direct Government Equity: The government may make equity investment for the project proponent.
- Performance Undertaking: The government may provide "performance guarantee" to the project proponent.
- Legal Assistance: The government may provide "legal assistance" to the project proponent.
- Security Assistance: The government may provide "security" to the project proponent.

Next, the current PPP project selection procedure and criteria are observed. A Guide to PPP in the Philippines stipulates the basic procedures of PPP project cycles. The general process of investment project implementation is shown in the following figure:



Source: NEDA, A Guide to PPP in the Philippines

Note: "NG" refers to the national government of the Republic of the Philippines

Figure 3.2-1 Investment Programming Process

The figure shows that three cycles shall be processed in parallel. The cycle starts from the planning cycle where sectoral targets are set based on the Philippine Development Plan (PDP) and matrix for major projects. In the programming cycle, the national government (GoP) plans the development program, which needs to go through the approval process of the Investment Coordination Committee (ICC) of NEDA. Then, the appraisal and approval by the GoP shall be done. In the budgeting cycle, GoP prepares the budget in the program and project development stage and then proceeds to the stages of budget authorization and implementation as the program and project advance.

Among these cycles and procedures, the project approval process by ICC plays a very important role because the detailed project assessment is conducted in this step and since ICC will finally decide whether or not the project shall be conducted by means of PPP. It also influences the budget of PPP, when some government supports are required for the project. Actually, authorities responsible for approval differ depending on the level (national/sub-national) and scale (project costs) or the project. According to the BOT Law IRR, the following classifications are made in terms of the authorities:

Table 3.2-1 Approving Authority for National PPP Projects

Category	Project Cost	Authority in charge of receiving a PPP project list
National Projects	～300 million pesos	ICC of NEDA
	300～ million pesos	NEDA Board
Sub-national Projects	～20 million pesos	Municipal Development Council (in case of municipality)
	～50 million pesos	City Development Council (in case of city)
	20～50 million pesos	Provincial Development Council
	50～200 million pesos	Regional Development Council
	200～ million pesos	ICC of NEDA

Source: The BOT Law IRR

As for national projects, IAs must get approval of ICC or the NEDA Board. As for sub-national projects, LGUs are required to get approval of development councils. If the project cost is over PHP 200 million, they need to get approval from ICC as well.

There is a procedure for PPP project appraisal and approval process by NEDA. The following table shows the general process of PPP from "project preparation" to "award and commencement of implementation[1]".

Table 3.2-2 PPP Approval Process (From Project Preparation to Commencement)

Process	Responsible Party	PPP Center Intervention
1. Project Preparation	IAs/LGUs	・ Fund pre-investment activities through the PDMF ・ Provide training and capacity development ・ Provide technical assistance in the review of the project's financial and economic viabilities ・ Provide legal advice during formulation of the contract
2. Project Submission to NEDA-ICC (Complete and qualified documentation)	IAs/LGUs	
3. Project Review and Evaluation	NEDA Secretariat/LGUs	Assist IAs/LGUs in complying with requirements during the project and contract evaluation
4. NEDA Board/ICC Approval ・ ICC Technical Board ・ ICC Cabinet Committee ・ NEDA Board	ICC NEDA Board	
5. Preparation of Request for Proposals (RFP)		Assist in the preparation of bid documents
6. Invitation and pre-qualification	IAs/LGUs	・ Per the BOT Law IRR, as non-voting observer of pre-qualification, bid and award committee (PBAC) for national projects ・ Provide advice during procurement process
7. Preparation and Submission of Bids	Private Sector	
8. Evaluation of Bids	IAs/LGUs	Assist in the evaluation of bids
9. Award and Commencement of Implementation	IAs/LGUs	Monitor implementation

Source: PPP Center/NEDA, "The Philippine Public-Private-Partnership (PPP) Program", A presentation material at the International Infrastructure Investment and Cooperation Forum on 25-29 May 2011, Beijing, China

Basically, this process is standard and does not have any critical problems. However, one important fact that the JICA Study Team has found is that there is no clear mentioning about study for PPP project planning. In order to realize a PPP project successfully, deliberate and detailed studies on PPP planning, especially on project scheme, risk sharing, and financial structure, are required. Otherwise, there is high possibility that the project will be stuck in the following stages (procurement, contracting,

[1] More detailed procedures are shown in Appendix C-1 of this chapter.

construction and operation).

In the table, there is some indirect mentioning of studies such as through the PDMF and economic and financial viability analysis. However, IAs/LGUs might not recognize the importance and necessity of the studies if there is no clear description in the PPP procedure.

Based on the above observation and consideration, the JICA Study Team suggests that such study process shall be embedded in the process clearly, since it will help IAs and LGUs to realize the importance of such studies as well as improve the quality of PPP project design itself. The details of the proposal are presented in the section 3 of this chapter.

3.2.3 PPP Application Documents and Evaluation Points

As can be seen from the table, the process is divided into nine steps and the project approval takes place in Step 4. IAs and LGUs are required to submit the following documents for review and evaluation by ICC and the NEDA Board:

a. Feasibility study
b. Accomplished ICC Project Evaluation Report (PER) Format 2
c. Endorsement of the concerned regional development council (RDC) for region-based projects
d. Endorsement from other concerned agencies
e. Clearance from DBM
f. Endorsement from the Government Corporate Monitoring and Coordinating Committee (GCMCC) with respect to the financial capacity of the concerned agencies
g. Agency plan for ROW acquisition (when applicable)
h. Location map (when applicable)
i. Environmental impact statement (EIS)
j. Environmental compliance certificate (ECC) for projects that fall within the EIS system set by the Environmental Management Bureau (EMB)

Regarding PPP selection criteria, the JICA Study Team has conducted interviews with NEDA and the PPP Center. As a result, it was found that there is no formalized PPP project criterion as of February 2012. NEDA and the PPP Center both admit there is a strong need to have formalized and effective PPP project selection criteria.

According to information from the PPP Center's homepage, the following are key points for prioritization of PPP projects offered by IAs and LGUs:

[2] The details of PER Format are shown in Appendix C-2 of this report.

Table 3.2-3 Key Points of Prioritization of PPP Projects

- Consistency with the sector's development plan/master plan - Prospects for bankability/viability - Readiness of the project in terms of completion of studies - Level of government support required for the project

Source: PPP Center Homepage

The above are certainly key points for the selection of PPP projects. "Consistency with the sector's development plan/master plan" is the criterion to see whether the project contributes to the achievement of the sector's targets. "Prospects for bankability/viability" is the criterion to see whether the project is feasible. "Readiness of the project in terms of completion of studies" is the criterion to see whether the project is implementable in terms of legal, technical, social and environmental aspects, including ROW acquisition. It also examines the maturity of plan and study of PPP projects. "Level of government support required for the project", obviously, is the criterion to determine the amount of the government expenditure for the project.

However, the details of the evaluation points are not clear. For example, the method of evaluating consistency is not shown. The same thing can be said for "prospects for bankability/viability", "readiness of the project in terms of completion of studies", and "level of government support required for the project". Without the details or breakdown, it may be difficult for NEDA to make the appropriate decision in terms of objectivity, rationality, transparency, fairness and accountability.

Besides the abovementioned general criteria, the PPP Center announces through its homepage that the following criteria are applied for the selection of PPP projects for the 2011 rollout:

Table 3.2-4 PPP Project Selection Criteria for 2011 Rollout

1. Project Readiness/Preparation a. For 2011 Rollout i. Feasibility study (F/S) to be completed within 2010 to 2011, ii. Completed F/S being reconfigured for PPP, and iii. Ready to be tendered in 2011. b. For Medium-term Rollout and Other PPP Projects i. Included in the PPP pipeline projects of the implementing agencies, and ii. Initial preparation on-going, i.e., concept stage, hiring of consultants for F/S preparation. 2. Responsiveness to the sector's needs (e.g., part of the transport network system, water supply/sewerage, electric power capacity, etc.); and 3. High implementability (bankable, no major issues).

Source: PPP Center Homepage

These criteria almost correspond to the abovementioned general criteria. The only substantial difference is that the criterion on government support is not mentioned for the 2011 rollout. However, again, the details of the evaluation items are not clearly mentioned.

3.3 Proposal for PPP Project Procedure and Selection Criteria

3.3.1 Proposal for PPP Procedure: Implementation of BCS and PPP F/S

The JICA Study Team proposes to add three steps to the existing process. These three steps are BCS, decision on PPP adoption and PPP F/S. By setting these three steps in the PPP process, it is expected that development of appropriate business scheme, clear decision-making, and smooth implementation of projects will be further promoted. BCS is indispensable to formulate the appropriate business case of a PPP project. The decision by IAs/LGUs on whether PPP option shall be adopted or not should be made based on the results of the BCS. And if IAs/LGUs judge that the adoption of PPP option is appropriate, PPP F/S shall be conducted.

The purposes and study items of BCS and PPP F/S are shown in the following table.

Table 3.3-1 Outlines of BCS and PPP F/S

	Business Case Study (BCS)	PPP F/S
Purpose	Decision-making on Adoption of PPP Option by IA and LGUs	- Getting Approval of NEDA - Preparatory Works for Bid Documents Preparation
Key Study Items	- Basic Conditions **- Project Scope of Works (SOW)** **- Project Modality** - Preliminary Demand Forecast - Rough Cost Estimation - Basic Risk Analysis - Project Schedule **- Budgetary Constraints**	- **Full Demand Forecast** - **Outline Design** - **Detailed Financial Analysis** - Project Scheme Analysis - Detailed Risk Analysis - Market Sounding - Implementing Organization and Schedule

Source: JICA Study Team

BCS and PPP F/S are different in both purpose and main study items. The purpose of BCS is to help make a decision on the adoption of the PPP option while that of PPP F/S is to obtain approval by NEDA and to conduct preparatory works for bid documents. The main study items are also different. The main study items of BCS are project SOW, project modality and budgetary constraints, since the results shall be used in the decision of IAs/LGUs. On the other hand, the main study items of PPP F/S are full-scale demand forecast, outline design of project facility, and detailed financial analysis, including fund source analysis.

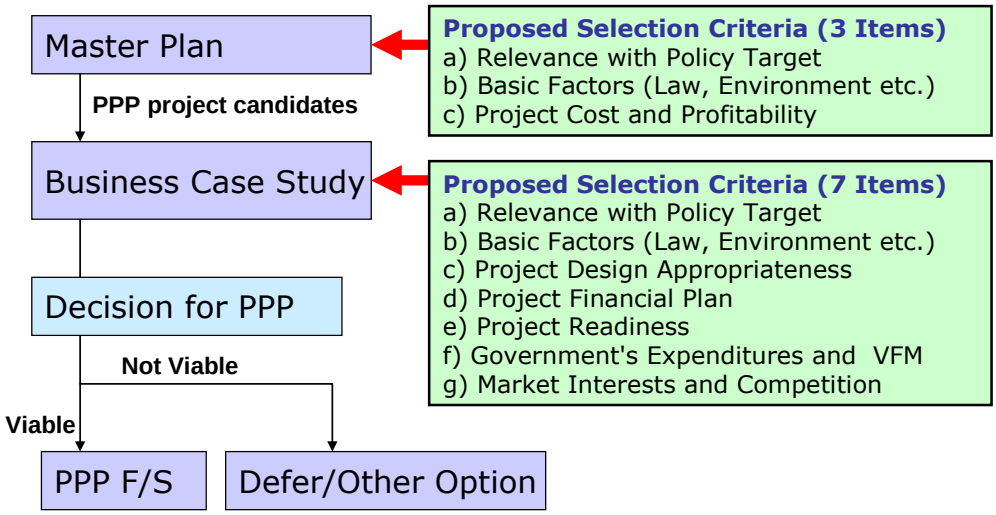
It is important that IAs/LGUs take appropriate consultation with the PPP Center and other

government stakeholder organizations in the course of BCS and PPP F/S.

3.3.2 Proposal for PPP Project Selection Criteria

(1) Selection Criteria for IAs/LGUs

The JICA Study Team proposes PPP selection criteria for both IAs/LGUs and NEDA. The PPP selection criteria for IAs/LGUs are necessary to make an appropriate decision on the adoption of the PPP option. The following figure shows the proposed flow and criteria for PPP selection by IAs/LGUs.



Source: JICA Study Team

Figure 3.3-1 Process Flow of BCS and PPP F/S

Firstly, PPP project candidates are identified in the master plan using three simple criteria (relevance with policy target, basic factors in terms of laws, environment, etc, and project cost and profitability). Then, BCS shall be conducted for the PPP project candidates. Based on the results of BCS, decision on whether PPP option shall be adopted or not shall be made, using seven criteria (relevance with policy target, basic factors, project design appropriateness, project financial plan, project readiness, government expenditures and VFM, and market interests and competition). If it is judged as appropriate, continuous study (PPP F/S) shall be conducted.

(2) Selection Criteria for NEDA

PPP project selection is finally approved by NEDA (ICC and Board). PPP project selection criteria are very important because it serves as a base of the PPP selection and decision-making by NEDA and GoP. There are mainly seven (7) functions of the PPP project selection criteria.

- Checklist for lack of information and project obstacles
- Basic information for discussion of the selection of PPP projects (prioritization)
- Assuring feasibility and implementability of PPP projects
- Basic documents for planning and implementation of budget
- Basic documents for development of GoP's PPP policy/strategy
- Securing fairness and transparency of PPP project selection process
- Appropriate information provision to private sector

It is essential that information on PPP project selection shall be disclosed to the public as much as possible. It will secure the fairness and transparency of the administrative procedure. It is also expected that it may inspire the appetites of private investors. It will also helpful for approving IAs and LGUs because it will be easier for them to prepare necessary information and documents for the application.

In terms of PPP project selection criteria by NEDA, the proposal by JICA Study Team are shown in the table in the next page. The matrix consists of "assessments items" and "points of discussion". This should be further elaborated through the discussion among relevant organizations of GoP. However the JICA Study Team believes that essential points are mostly covered in this matrix and can be a good benchmark to GoP.

Table 3.3-2 Proposed PPP Selection Criteria

Assessment Items		Points of Evaluation	Documents to be refferred
a) Relevance with Policy Target	a-1. Consistancy with Policy Target	Is the project in line with the Government's Policy?	- ICC PE Form - Sector Development Plan
	a-2. Consistancy with Project Priority	It it high priority project, compared with other necessary projects?	- ICC PE Form - Sector Development Plan
b) Crucial Factors	b-1. Legal Clearance	Is there any legal obstabcles in implementing this project?	- ICC PE Form - F/S Report
	b-2. Social Clearance	Is there any significant criticisms and social behaviours, which may hinder implementation of this project?	- ICC PE Form - F/S Report - Endorcement Certificate from Sub-national Authorities
	b-3. Environmental Clearance	Is there any crutial negative environmental influences in implementing this project?	- ICC PE Form - F/S Report - EIS, ECC
c) Project Design Appropriatness	c-1. Project Scheme Appropriatness	Is the project scheme appropriate from the view points of investors' appetite and bankability?	- ICC PE Form - F/S Report
	c-2. Rik Sharing Appropriatness	Is the risk sharing appropriate, reasonable, and fair for both IA/LGU and private proponent?	- ICC PE Form - F/S Report - Risk Allocation Matrix or Draft Concession Agreement
	c-3. Engineering Appropriateness	Are the engineering analyses in F/S appropritely conducted?	- F/S Report
	c-4. Technological Appropriateness	Are the technologies assumed to be applied appropriate from the viewpoints of suitability, availability and costs?	- F/S Report
d) Project Financial Plan	d-1. Appropriateness of Cost Estimation	Are the cost etimation analyses in F/S are appropritely conducted and trustable?	- F/S Report
	d-2. Cost Minimization Analysis	The issue of cost minimization appropritely addressed in F/S?	- F/S Report
	d-3. Project Cost Affordability (Private)	Are the expected costs available/affordable for private propoment?	- F/S Report
	d-4. Project Cost Affodability (Public)	Are the expected costs available/affordable for IAs and LGUs?	- F/S Report
	d-5. Credibility of Demand Forecast	Is the demand forecast appropritely conducted and trustable?	- F/S Report - Comments from Experts (if available)
	d-6. Appropriateness of Tariff Level and Structure	Are the tariff level and structure appropriate and realistic?	- F/S Report
	d-7. Credibility of Financial Plan	Is the overall financial planning appropritely conducted and trustable?	- F/S Report - Comments from Experts (if available)
e) Project Readiness	e-1. Implementation Schedule	Is the project implementation schedule appropriate and realistic?	- ICC PE Form - F/S Report
	e-2. ROW Acquisition	Is there a clear evidence which shows sureness and persuasiveness of completion of ROW delivery?	- ICC PE Form - F/S Report
	e-3. Coodination with Relevant Organizations	Are all necessary coordinations identified? Are the coodination with relevant organization being taken?	- ICC PE Form
	e-4. Preparation of Procurement Process by IAs and LGUs	Has IA/LGU prepared sufficient organizations, human resources (including consultants), and budgets for procurement process?	- ICC PE Form
f) Government's Expenditures and VFM	f-1. Amount of Government Expenditure (including Contingent Liability)	How much amount of the Government's expenditure required? Is it a reasonable amount?	- ICC PE Form - F/S Report
	f-2. Necessity and Appropriatness of other government's undertakings	What kinds of the Government's undertakings required? Are those undertakings necessary and appropriate?	- ICC PE Form - F/S Report
	f-3. Verification of VFM (Financial Impact to GOP)	Does the PPP method/modality bring VFM to the Government?	- ICC PE Form - F/S Report
g) Market Interests and Competition	g-1. Market Sounding	Has IA/LGU conducted a market sounding?	- ICC PE Form - F/S Report
	g-2. Market Interests	Are there sufficient interests of the market for the project?	- ICC PE Form - F/S Report
	g-3. Availability of neccesary technologies	Are the technologies assumed in the project available in the market?	- ICC PE Form - F/S Report
	g-4. Possibility of sound competition	Can we expect sound competition? I other words, are there more than two potential bidders?	- ICC PE Form - F/S Report

Source: JICA Study Team

3.3.3 Improvement of Project Evaluation Report (PER)

In order to conduct an appropriate evaluation for PPP project selection, the documents to be submitted by IAs and LGUs must contain all necessary information for that purpose. In this sense, the format of PER is important[3]. The JICA Study Team has reviewed the current format and proposes the improvement of the following points:

(1) PPP-specific PER format shall be developed.

The current PER format is not specific to PPP projects but also covers projects of conventional methods. There are some differences of check points between PPP and conventional projects, such as project scheme, project financing and risk sharing. In order to enable appropriate evaluation of PPP projects, a PPP-specific format shall be developed.

(2) Breakdown of Sections A-N shall be developed.

It is considered that the current sections of PER format are almost comprehensive and cover the necessary items. However, many descriptions of the format are still vague and lack concreteness. It is recommended that the breakdown of each section shall be developed. It will make it easier for IAs and LGUs to prepare the format and also for ICC to receive the necessary data and information to evaluate the project.

(3) Project scheme and modality shall be documented in Section E (Project Description).

In terms of a PPP project, the description of project scheme and modality is absolutely necessary. It is recommended that it shall be clearly mentioned in Section E (Project Description).

(4) Section F (Project Cost and Financing) shall cover project financing by private proponents.

Section F (Project Cost and Financing) only covers foreign source/local source and loan/grant. However, it is not sufficient for PPP projects since a PPP project requires project financing by private proponents. It may be difficult for the IAs and LGUs to have detailed assumptions on project financing by private proponents, but still, they are necessary components to assess the appropriateness of project financing methods. Thus, it is recommended that the plans and assumptions regarding project financing by private proponents shall be itemized as one item of the PER format.

(5) Description of Section J (Financial Analysis) shall be amended.

Some of the descriptions of Section J (Financial Analysis) are not appropriate. For example, in financial analysis, the net present value (NPV) and benefit-cost ratio (BCR) are irrelevant. Instaed, in a PPP project, cash flow analyses are required for both IA/LGU and the private proponent. Also, it is important to have information about the government's support. The format of financial analysis should be reviewed from these aspects. IAs/LGUs need to report what kind of supports they require for the project.

[3] The format of PER is shown in Appendix C-2 of this report.

(6) New section on "Risk Allocation" shall be developed.

History tells us that risk allocation plays a critical role in the success and failure of a PPP project. The current format does not explicitly require description of risk sharing between the public and the private. Major risks shall be identified, and their allocation and mitigation measures shall be described in the PER format. Especially, risks to be shouldered by the government and the reasons shall be clearly mentioned.

(7) New section on "Marketability" shall be developed.

Obviously, in order to implement a project through PPP, the market or private proponents must have enough interests, technologies and capacities for the project. Also, it is desirable to have a sound competition with more than two bidders. IAs and LGUs are required to conduct a market study and prove that the project is "marketable" in terms of private participation and competition. NEDA should require IAs and LGUs to describe the results of such analysis in PER format.

CHAPTER 4 ROAD MAP FOR ACCELERATION OF PPP

This chapter aims to present a road map for GoP to accelerate PPP in the Philippines. GoP has taken various measures to promote PPP; however, there is no grand view or strategy to boost PPP. The JICA Study Team believes that developing a road map for the acceleration of PPP will help GoP to have a broader view on its current operations and to build an effective strategy to further promote PPP in the Philippines.

This chapter consists of four sections. Firstly, the track record of PPP projects in the Philippines will be observed. Secondly, the characteristics of PPP in the Philippines will be figured out. Thirdly, the current operation of GoP to promote PPP projects will be reviewed. Especially, the program of technical assistance arranged by ADB is checked in detail. Finally, based on the above results, a road map for acceleration of PPP will be presented.

4.1 Track Record and Characteristics of PPP in the Philippines

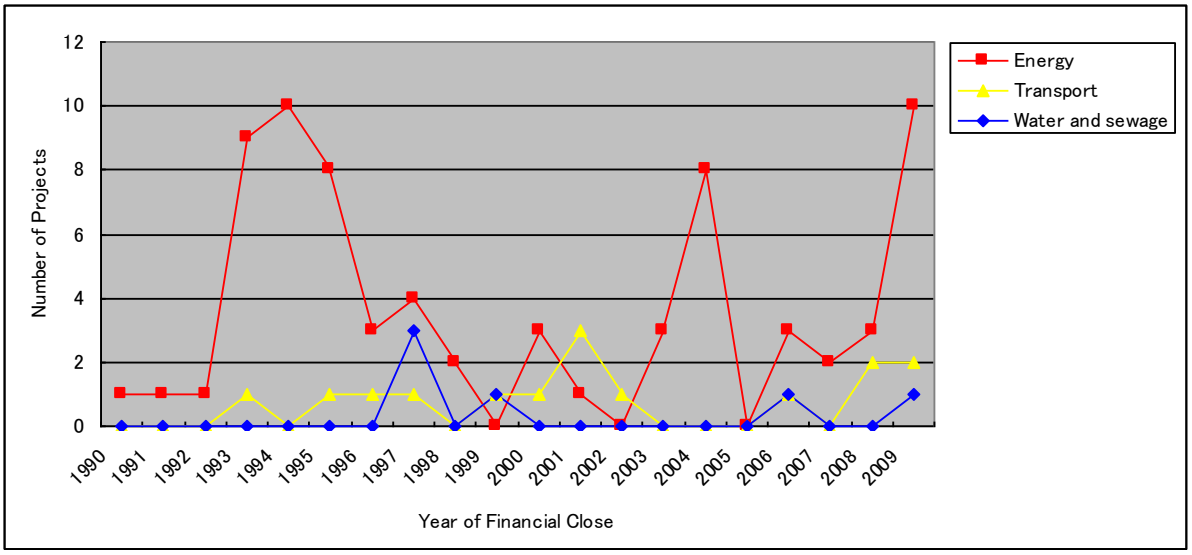
4.1.1 Track Record of PPP Projects

The Philippines has relatively long history of PPP. As mentioned in Chapter 2 of this report, the policy to adopt PPP or private participation in infrastructure (PPI) was launched in the early 1990s in the Philippines. The challenge was probably the fastest among Asian countries. In the initial stage, projects were formulated in the energy sector, followed by the transport sector. A typical project is the independent power producer (IPP) for power generation. Many IPP projects were formulated and implemented between 1992 and 1996. As for the transport sector, many projects took the form of joint venture (JV) and franchise until recent years.

In order to grasp the characteristics of PPP in the Philippines, it is meaningful to examine the track records of PPP projects. Unfortunately, GoP has not publicized official statistics on PPP. Thus, the JICA Study Team obtained a reference data from the World Bank webpage. The World Bank has developed a PPI database which records contractual arrangements with and without investments in which private parties assume operating risks in low- and middle-income countries[1]. According to

[1] The definition of PPP or PPI in the World Bank's database is not clear. It is mentioned that the data include BOT, PPP, Franchise, Joint Venture, IPP and Privatization. As for the methodology, the World Bank explains that "the project represents the best efforts of a research team to compile publicly available information on the projects, and should not be seen as a fully comprehensive resource. Some projects -- particularly those involving local and small scale operators -- tend to be omitted because they are usually not reported by major news sources, databases, government websites, and other sources used in the PPI Projects database".

the database, the track record of PPP projects in the Philippines shows a trend similar to the following figure:



Source: IBRD PPI Database

Figure 4.1-1 Track Record of PPP Projects in the Philippines

It is observed that the total number of PPP projects in sectors such as transport, energy and water and sewerage that has reached financial closure between 1990 and 2009 is 98. Specifically, the number is 75 for the energy sector, 15 for the transport sector, and 6 for the water and sewerage sector. Most of the projects in the energy sector are IPP projects. Records of transport sector consist of 5 road projects, 7 seaport projects, 2 airport projects and 1 railway project.

The figure shows that projects in the energy sector increased sharply from 1993. These projects are mainly IPP projects[2]. However, the number decreased from 1996 due to the Asian economic crisis. But such projects increased again after 2002 and the number is still increasing up to 2009. On the other hand, in the transport sector, PPP projects have not been so active. Although we can see some projects since 1996, the number is not so large[3]. However, the tendency of increase of PPP projects can be seen in 2008 and 2009.

Based on the above track record observation, the following three points can be drawn regarding PPP in the Philippines:

- PPP in the Philippines was led by the energy sector.
- Experiences of PPP in the transport sector and water (and sewerage) sector are still small.

[2] In 1993, Electric Power Crisis Act of 1993 (Republic Act No. 7648) was enacted and this promoted the increase of IPP projects in the Philippines.

[3] As observed in Chapter 2 of this report, BOT Law was enacted in 1990 and amended in 1994 by Republic Act No. 7718.

- Resurgence of PPP projects can be observed after 2007.

This would constitute one of the characteristics of PPP in the Philippines. Especially, it is important to recognize that the experiences of PPP especially in the transport sector are still small, although it is known that the history of PPP in the Philippines is longer than in other south Asian countries.

4.1.2 Characteristics of PPP Projects in the Philippines

In this section, the characteristics of PPP projects are figured out. The following are the main characteristics of PPP in the Philippines which the JICA Study Team has identified through this study:

- PPP has been led by the private sector.
- The capacity of public sector is not sufficient.
- Legal and institutional systems are old and not appropriately tailored to adopt PPP.

Firstly, in the Philippines, PPP has been led by the private sector. As observed in Chapter 2 of this report, the history of PPP in the Philippines started in the energy sector in the form of IPPs. Obviously, in the IPP project scheme, most of the project components, including design, build, finance, and operate, are the responsibility of the private sector. Also, most of the project risks lie on the private sector. In this picture, the role of the public sector is very limited (e.g., purchasing power with quality and quantity check). Another implication can be drawn from the practices of franchise and JV, where the private sector takes initiative to identify, plan and implement the project. In other words, the private sector has displayed stronger initiative in PPP at least until recent years.

Secondly, the capacity of the public sector is not sufficient. Obviously, this is the other side of the coin. PPP has been led by the private sector and public sector, effectually, has little experience of managing PPP projects. "Managing" here means "project management" of PPP projects which has project cycles such as identification, planning, procurement, contracting, construction, operation, and closure.

In terms of the capacity of the public sector, the JICA Study Team has found the following evidences which support the above claim:[4]

- Poor feasibility study and project planning (road sector)
  - Poor demand forecast (road sector)
  - Inadequate (capacity) design (urban railway sector)
  - Inappropriate project conditions (water sector, energy sector)
- Inappropriate risk sharing (rail sector, water sector, power sector)

[4] These facts are drawn from the study results of each sector. As for the details of the study results, see Chapter 5 of this report.

- Lack of capacity to assess financial plan of bidders (water sector)
- Insufficient project information, e.g., underground utilities (road sector)
- Delay of right of way (ROW) delivery (road sector)
- Slow administrative procedures (road sector)

Also, the statistical data of Figure 4.1.1 tell that the experiences of PPP projects other than in the energy sector are still small. The fact also proves that the capacity of the public sector is still not sufficient.

Thirdly, the current legal and institutional systems are old and not appropriately tailored to adopt PPP. The outline of PPP-related legal system is shown and analyzed in Chapter 2 of this report. For example, although the revision is being conducted, the current BOT Law was enacted in 1990 and amended in 1994. The world now has thousands of experiences of PPP and that should be properly reflected in the PPP legal system. Although GoP has issued some regulations and guidelines such as the IRR and JV Guidelines, effectually, the fundamental structure of the legal system has not been changed from early 1990s.

The following are illustrations of insufficiency of the current PPP-related legal and institutional systems:

- There is no formal criterion to select PPP projects.
- The procedure of treatment of unsolicited proposals, franchise and JV are not clear enough.
- There are very strong constraints for foreign investors compared to practices of other countries.
- There is no public financial institution which provides concessionary loan to private proponents.
- Provision of viability gap funding is not clearly mentioned in the existing laws.
- The function and position of regulatory authorities sometimes do not fit to the requirements of PPP.

It is well known that "newly-emerging countries" such as India, Indonesia and Vietnam are also promoting PPP very positively, and have established new PPP legal systems to fit the current global practices of PPP and attract both domestic and foreign investors. The JICA Study Team recognizes that GoP is also in the process, but it should be recognized that GoP's actions are slightly behind from those of its neighboring countries.

4.1.3 Current Efforts and Needs for Additional Programs

(1) Operations and Programs of GoP

In recent years, GoP has put high importance on PPP and has taken various measures to promote PPP. One such measure is the establishment of the PPP Center in 2010. The following are the representative operations and programs conducted in recent years:

Table 4.1-1 Recent Programs and Operations to Promote PPP

Year	Programs and Operations
2010	PPP Center was established. PPP project roll-out for 2011 was announced. Model bid and contract documents were developed. Policy notes and guidelines were developed. PDMF service was reactivated.
2011	Revision of the IRR is being conducted Revision work of BOT Law is being conducted. Establishment of private equity fund and PIPFF is being considered. Technical assistance of ADB/AusAID/CIDA was launched. Tender preparations for PPP projects are being implemented.

Source: JICA Study Team

As mentioned above, the PPP Center was newly established in 2010. In the same year, GoP announced the PPP project roll-out and policy notes and guidance were developed. Also, model bid and documents were developed and made public. In 2011, GoP started the discussion of amendment of the BOT Law and the revision of the IRR was conducted. In terms of financing facility, the establishment of private equity fund is being planned. Also, technical assistance sponsored by ADB, AusAID and the Canadian International Development Agency (CIDA) was launched. In this way, it is observed that the activities of GoP to accelerate PPP has been very active in the recent years.

On the other hand, these facts imply the following aspects of PPP in the Philippines:

- The actions to accelerate "contemporary PPP[5]" have not been very active compared to other countries until recent years.
- The current BOT Law was established in 1990 and amended in 1994. However, no revision has been made since then (up to 2011).
- The knowledge and experiences of public officers to conduct PPP are limited and still to be improved.

(2) Technical Assistance by ADB, AusAID and CIDA

In terms of capacity building, "Technical Assistance for Strengthening Public-Private Partnerships in the Philippines" is being carried out as of November 2011. This is a capacity development program financed by ADB, AusAID and CIDA[6]. The purpose of the program is to help the Philippines clear

[5] Here, "contemporary PPP" means the PPP model after 2000, which mainly requires governments' supports such as VGF, revenue guarantee, project cost sharing and public financing facilities.

[6] The Technical Assistance Project is hereafter called as "ADB TA".

obstacles and pave the way for PPP. Under this program, ADB provides a USD 1.5 million grant, AusAID provides a USD 7 million grant and CIDA provides a USD 1.2 million grant. The program will run from April 2011 to July 2013.

The expected outputs of the program are the following: 1) Strengthening of PPP Enabling Framework, 2) Strengthening Capacity of the PPP Center, 3) Institutionalization of PPP Best Practice and 4) Establishment of Long-term Financing and Risk Guarantee Mechanisms. The outline of the program is shown in the appendix of this chapter (Appendix D-1).

The JICA Study Team conducted an interview with an ADB officer, who is in charge of the program. The table in the next page shows the outline of the operation, including activities, schedules, and some notes from the interview. The following are the key notes of the said interview:

- The ADB TA mainly focuses on the capacity building of the PPP Center. Capacity building of IAs and LGUs is not the direct focus of the ADB TA.
- The ADB TA is very comprehensive but it cannot address all issues. Effective cooperation with GoP's activities and other donors, including with Japan, is expected.

Based on the review of the terms of reference (TOR) and the above interview, the JICA Study Team has found that the program focuses on the organizational and capacity development of the PPP Center. In other words, the organizational and capacity development of IAs and LGUs is not the direct target of the operation. However, capacity development of IAs and LGUs is essential to realize PPP projects. Even if there is a sound legal and institutional framework, projects will not be realized if the capacities of IAs and LGUs are low. The JICA Study Team suggests implementation of capacity development program for IAs and LGUs. The JICA Study Team considers the following items to be included in the program:

- Development of sector-specific guideline/manuals
- Review of current PPP project preparation procedure
- Strengthening PPP network between the PPP Center and IAs/LGUs
- PPP trainings
- On-the-job trainings with respect to supports for project implementation

It is expected that it will create effective synergy effects with ADB TA.

(3) Other Programs and Activities

Besides the ADB TA, there are several assistance programs planned by GoP and foreign agencies.

Singapore Cooperation Enterprise (SCE) has agreed with GoP to provide technical assistance (TA) to

promote PPP. The objectives of SCE TA are to:

- Achieve an in-depth understanding of the benefits and challenges of greater private sector participation in the financing of public sector projects and the policy actions required to strengthen the enabling environment and the legislative and regulatory frameworks for PPP;
- Build capabilities of key public sector officials involved in the procurement and implementation of infrastructure projects, through the implementation of a pilot PPP transaction; and
- Provide examples of Singapore's infrastructure procurement process by sharing Singapore's lessons and experience in developing successful and commercially viable PPP projects.

It was agreed that SCE will provide a grant worth approximately SGD 1.423 million (PHP 48.373 million) to DOTC for PPP capacity development of DOTC. GoP will provide counterpart fund of SGD 270,100. The grant will cover a one year period. Based on the Joint Press Release issued by SCE and Temasek Foundation on March 31, 2011, SCE will work with the DOTC to develop institutional capabilities for key agencies within the Philippine government responsible for the procurement of infrastructure projects under the PPP framework.

Furthermore, according to the Joint Press Release, SCE will send a team of Singaporean PPP experts to work with DOTC to prepare and structure a pilot project for procurement under the PPP framework. The pilot project will provide a real-life and hands-on case study where Philippine government officials can adopt relevant lessons from Singapore to bring projects to a biddable and bankable stage.

SCE will also help DOTC organize a series of capacity building workshops to build capacity for some 100 Philippine government officials in the development and implementation of PPP transactions. During these workshops, Singapore public sector agencies, such as Public Utilities Board, Singapore Sports Council and Institute of Technical Education, will share with the workshop participants the key challenges Singapore had faced, including the policy considerations, regulatory framework and practical experiences in implementing Singapore's PPP projects. The Singapore private sector players involved in Singapore's PPP projects will also share the perspective of the private sector investors and project developers in investing in a PPP project.

There is also information about assistance coming from the World Bank. According to the World Bank's website, it is interested in helping specific projects, such as expansion of the light rail transit (LRT) system and sewerage system in Manila. There can be further assistance that is directed towards individual projects.

4.2 Road Map for Acceleration of PPP

4.2.1 Necessity and Meaning of Road Map

As observed in the previous sections, various programs and operations are being conducted to strengthen the organizational and individual capacities for the promotion of PPP projects. However, there has been no integrated view and approach to harmonize the individual TA programs. The JICA Study Team recognizes a strong need to develop a road map in order to serve the following functions:

- Having a holistic view
- Understanding time targets
- Grasping relations/sequence of activities
- Clarifying activity priority
- Strategic allocation of resources
- Communication tools with stakeholders
- Using as a base of PPP strategy development
- Evaluation of progress
- Identification of issues and bottlenecks

According to the interview with the National Economic and Development Authority (NEDA) and the PPP Center, they also recognize a strong need to develop a road map, which includes the work activity breakdown and time schedule to be followed.

As the basis of the road map, it is meaningful to summarize the key observations made from Chapter 2 to Chapter 6 of this report. The following are the key information which serve as the basis of the road map:

- The history of PPP/BOT is longer compared to other countries.
- Actually, most of the PPP experiences are in the energy sector, especially IPP.
- There is a little experience of PPP in sectors other than energy.
- There are the BOT Law and its IRR but they need to be strengthened.
- Preparations of PPP tendering are being conducted but the knowledge and experiences of IAs and LGUs are not yet sufficient.
- There are problems of tariff setting and regulatory bodies.
- There are no PPP guidelines and operation manuals (Multi-sector and sector-specific) although model contracts and bid documents are developed in some sectors.
- The PPP selection criteria need to be developed.
- The PPP financial institutions need to be developed.

4.2.2 Road Map for Acceleration of PPP

Based on the study results of this chapter, the JICA Study Team has developed a table on the next page which shows the road map to accelerate PPP. It is expected that this road map will function as a base for further discussion among relevant stakeholders of GoP and private entities.

Table 4.2-1 Road Map for Acceleration of PPP in the Philippines

Category	Items	Action Taker	Schedule
			2011 Preparation / 2012 Trials / 2013 Review & Learning / 2014 Standardization / 2015 Completion
Milestone Review			★ ★ ★
			Framework Building / Framework Review
Legal and Institutional Framework	Drafting and enforcement of PPP Act	GOP	
	Amendment of IRR	NEDA/DOF	
	Amendment of Other Laws and Regulations	GOP/NEDA	Check
	Development of PPP Strategy	GOP/NEDA	
	Strengthening PPP Nework	NEDA/PPPC	
			Model Project
Model Project Implementation	Development of Model Projects	IAs/NEDA/DOF	
	Planning & Procurements of Model Projects	IAs/NEDA/DOF	
	– Project A:	IAs/NEDA	
	– Project B:	IAs/NEDA	
	– Project C:	IAs/NEDA	Check / Application of Funds
	Review and Creation of New Model Project		
			Guideline Development / Standaidization
Capacity Development	Capacity Development (TA) for PPPC	ADB etc.	
	Capacity Development (TA) for IAs and LGUs	Donors	
	Development of General PPP GL	NEDA/PPPC	
	– Risk Allocation Guideline	NEDA	
	– BCS and PPP F/S Guideline	NEDA	
	Development of Sector PPP GL	IAs	Tools
	Standardization of Bid Documents	IAs	
	Standardization of PPP Contract	IAs	
			Organization Review
Regulagory Organization Reform	Review of Formulation and Selection Process	NEDA/PPPC	
	Review of NEDA Board/ICC Process	GOP	Feedbac
	Review of Regulatory Bodies (e.g.MWSS, TRB	GOP	
	Review of LGU-Related Procedures	GOP/NEDA	
			Planning and Set-up
Development of Gov't Financial Institutions (PIPFF, VGF, Private Equity Fundetc.)	Development of Operation Plan	GOP	
	Preparatory Works for Establishment	GOP	
	Establishment and Operation Start-up	GOP	
	Application of Funds to Projects	GOP	

Source: JICA Study Team

The road map consists of action items and schedules. The action items belong to five categories: legal framework, model project implementation[7], capacity development, regulatory organization reform, and development of Philippine Infrastructure Financing Facility (PIFF). Specific actions, which are deemed necessary, are shown under each category. For each action, action taker(s) and schedule are shown.

In terms of the time horizon, the JICA Study Team set five-year horizon, starting in 2011 and ending in 2015. The phases are set depending on the fiscal year and they are classified as follows:

- Year 2011: Preparation (Preparation of framework, organizations and projects)
- Year 2012: Trial (Revision of framework and organizations, and implementation of projects)
- Year 2013: Review and Learning (Review the actions taken in 2011 and 2012)
- Year 2014: Standardization (Reflect lessons learnt and standardize implementation)
- Year 2015: Completion (Completion of five-year road map, e.g., further adjustments)

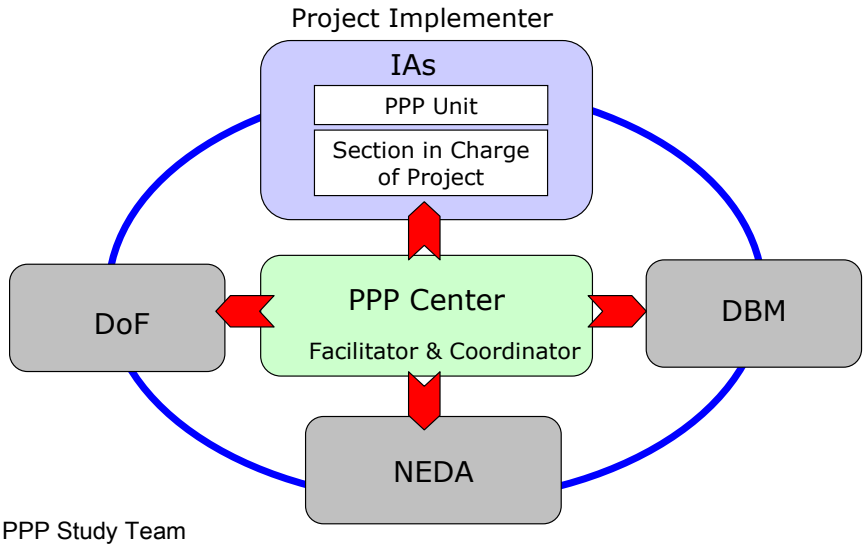
Milestone reviews shall be conducted every year. Especially, it is meaningful to conduct them in 2013 as an interim review and in 2015 as the final review to evaluate progress and achievements.

As can be seen, activities are bundled into several groups and the relations of the activity groups are shown in the road map. This helps to understand the sequence and relevance of each activity group. The following are the specific recommendations for principal categories:

Legal Framework

Currently, revision of the BOT law is being conducted. It is meaningful to further strengthen the legal basis of PPP and promote participation of private entities. When the work is completed, it is important to conduct review of related laws and regulations, because there might be some discrepancies and inconsistencies among them. It is also important to monitor and continue the review process to reflect results of model projects and regulatory organization reform. It is also important to build effective PPP networks among IAs/LGUs, the PPP Center, and other government organizations. IAs/LGUs should assume primary responsibility for the project all through the project life, however, PPP Center shall also play an important role to guide and support the implementation of PPP projects. The image of the network is shown in the following figure.

[7] Model project means the project being prepared under the new PPP organizations and concept in the Philippines.



Source: JICA PPP Study Team

Figure 4.2-2 Image of PPP Network

The networks are basically linked with circles. At the top of the circle are the IAs as project implementers. They should assume first responsibility of the PPP project as the project implementer or project owner. Within IAs, there should be two key sections, namely, the PPP unit to be established and the section in charge of the projects. It is important that these sections keep good relation and communication. At the center of the circle is the PPP Center. It functions as facilitator and coordinator of the project. In fact, it is expected that the PPP Center takes appropriate coordination among key departments, such as NEDA, DoF and DBM. It is important that these relations are clearly mentioned in official documents such as PPP Guidelines to visualize and smoothen the communication and coordination among the government stakeholders.

Model Project Implementation

In terms of model project implementation, it is important to reach to the appointment of winning bidders, entering into contracts and reaching financial close. Model project refers to a PPP project which is currently in the process of preparing public procurement, such as the NAIA Expressway Project and Bohol Airport Project. The experiences can be utilized for capacity development programs to be conducted in the future and also, it will be the basis of standardization of relevant documents and review of organizational framework.

Capacity Development

Currently, TA by ADB/AusAID/CIDA is being implemented. In fact, it covers wide areas of activities but it alone cannot cover all necessary activities. One of the significant characteristics of the TA is that it is mainly focused on the capacity development of the PPP Center. In other words, capacity development of IAs and LGUs is not included in the TA. However, improvement of capacity of IAs and LGUs is indispensable to further promote PPP projects. Thus, it is strongly recommended that TA for IAs and LGUs shall be conducted in line with the abovementioned TA. Capacity development program for IAs and LGUs may include PPP trainings, development of guideline/manual, and preparation of bidding documents including draft concession agreement.

Regulatory Organization Reform

There is a strong need to review the current practice of PPP-related procedures. It is found that the process of approval and permission at the beginning of projects is often slow and this can undermine the smooth implementation of projects. It is also found that there are cases when review of tariff by regulatory organizations is not timely and flexible and it becomes an obstacle to set desirable tariff levels. In order to avoid these problems, it is necessary to review and streamline the current procedure to secure smooth and timely implementation of projects.

Development of PIPFF, etc.

GoP is now preparing the establishment of PIPFF, VGF and private equity fund. As pointed out in Chapter 5 of this report, establishment of PIPFF as "long-term financing facility" is very effective since it will improve project financial viability and also contribute to improve value for money (VFM) for GoP through public expenditure saving. Details on the functions and effects of these financial institutions are deeply discussed in Chapter 5 of this report.

4.2.3 JICA's TA on PPP Capacity Building

With regard to capacity development, JICA has been conducting several PPP-related capacity development projects. Especially, in Indonesia, the capacity development project on toll road PPP project has been carried out from 2007 to 2012. In this project, JICA hired PPP experts from private consulting companies (Mitsubishi Research Institute, Inc. and KRI International Corporation) and the experts have been dispatched to Indonesian government offices. As of December 2011, Phase II of the project is being conducted. JICA got into contract with two consulting firms, namely, Mitsubishi Research Institute, Inc. and KRI International Corporation, and seven PPP experts are dispatched to the Government of Indonesia (GoI). The project focuses on toll road PPP projects and the GoI counterpart is the Ministry of Public Works. The outline of the project is shown in the following table:

Table 4.2-2 Outline of JICA's PPP TA in Indonesia

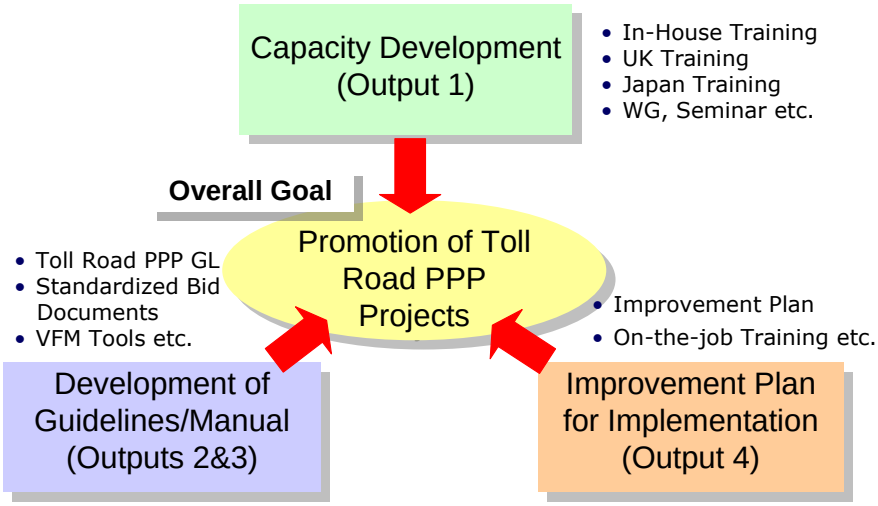
Overall Goal	Toll road development is accelerated through successful PPP scheme implementation.
Purpose	1. Planning and implementation capacity of Bina Marga and BPJT on PPP scheme on toll road project is improved. 2. Variety of new PPP schemes which realized optimal PPP projects are identified and applied to projects.
Outputs	1. Knowledge and understanding of Bina Marga and BPJT staff on PPP principles are improved and shared with other stakeholders through intensive in-house training or workshop/seminar. 2. Draft of practical rules and principle for planning PPP scheme on toll road project is developed. 3. Draft of guidelines and manuals of PPP feasibility study is developed. 4. An improvement plan of PPP project implementation is developed.

Source: JICA PPP Expert Team

The key activities and achievements so far are as follows:

- Series of trainings (e.g., in-house training, training in Japan and UK) were conducted.
- Toll Road PPP Guideline/Manual (draft) was developed.
- On-the-job training which focuses on financial analysis and modality selection was conducted.
- Model tendering documents and draft concession agreements were developed.
- As a result, several toll road PPP projects were announced for tender (pre-qualification).

The relations of the project's overall goal, outputs and key activities are visually shown in the following figure:



Source: JICA Expert Team

Figure 4.2-3 JICA's PPP TA for Indonesia (for the Ministry of Public Works)

The project has been implemented successfully and visible improvement of knowledge and techniques of public officers is observed. Especially, the JICA Study Team notes that improvements are observed in most of the items of the following aspects of PPP:

- Basic principles of PPP
- Laws and regulations
- Project scheme planning
- Project financing and VFM analysis
- Optimal risk sharing
- Monitoring and evaluation
- Tendering

The JICA Study Team considers that this model can be easily applied to GoP as well. Especially, this project focuses on the capacity building of a line ministry (Ministry of Public Works, the Directorate of Road) and thus, this will suit the needs of GoP.

CHAPTER 5 PPP FINANCE SCHEME

5.1 Financial Needs for Infrastructure Construction in the Philippines

In recent diagnostic studies[1] done on the Philippines as well as in competitiveness / investment climate surveys[2], the poor state of Philippine infrastructure has always been a critical shortcoming constraining Philippine growth. A quick scan of the information shows just how poorly the Philippine compares, historically and against neighboring countries:

- Over the past 30 years, Philippine infrastructure spending has averaged 2.1% of GDP, well below the 5% benchmark for developing countries; moreover, private infrastructure commitments have declined from a peak of 15.5% of GDP in 1997 to an average of 2.1% from 2000-09[3]. Meanwhile, public investment in fixed capital is only 2.4% of GDP, compared with a 4.3% average for ASEAN+3[4].
- The 2009-10 Global Competitiveness Report ranked the Philippines 98 among 133 countries, with only Vietnam among East Asian Countries ranking lower. Likewise, the 2009 IMD World Competitiveness Yearbook ranked Philippine basic infrastructure 57th out of 57 Asia Pacific Countries.
- Quality-wise, an IMF study[5] also revealed that on a scale of 0 to 10 (10 being adequate and efficient), the Philippines scored below the World and the Asia averages in energy infrastructure, water transportation and air transportation while having lower than average network of road and rail infrastructure.

The need to upgrade and expand the infrastructure network is well-recognized in the Philippines. **The government's Comprehensive Integrated Infrastructure Program (CIIP) 2009-2013 sums up the country's total investment requirements to over P3.3 trillion (US$77 billion) for the period. Apart from the different government instrumentalities (29%), this amount is expected to be financed by ODA (23%) and through private sector participation (47%).**

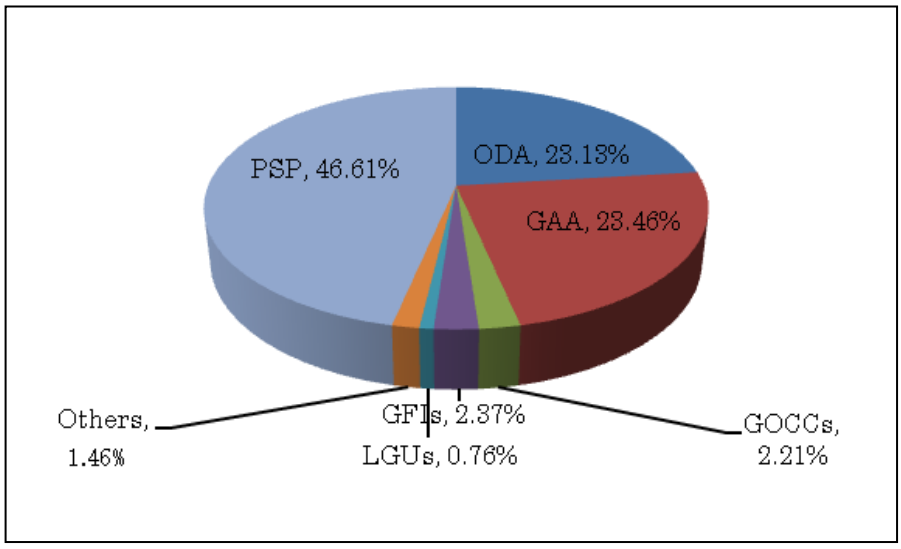
[1] See for example, 2007 ADB binding constraints to growth, 2005 World Bank "Towards a better investment climate for growth and productivity,", 2007 World Bank "Invigorating growth, enhancing its impact," and 2010 IMF "Post Crisis Fiscal Priorities for the ASEAN 5".

[2] See for example, World Economic Forum Global Competitiveness Report, ADB Investment Climate Survey, IMD World Competitiveness Yearbook (complementing hard data)

[3] ADB TA Report 45515-001: Strengthening PPP in the Philippines, February 2011.

[4] See Figure 2, Budina, Nina and Anita Tuladhar, "Post Crisis Fiscal Priorities for the ASEAN 5", WP 10/252, IMF, November 2010

[5] Ibid.



Source: NEDA

Figure 5.1-1 CIIP Financing Mix

Unfortunately, fiscal problems since the late 1990s to 2005 that re-emerged in the past couple of years (see discussion below) have not only limited government's ability to allot funds for basic infrastructure, but have also constrained ODA disbursements (due to lack of budget appropriation cover/ counterpart funding) and held back private investments (due to heightened macroeconomic risk perception). This is reflected in the **steady decline in the Philippine's investment ratio (both domestic and foreign) – from nearly 25% of GDP in 1997 to a low of 14% in 2006 before gradually improving to nearly 16% in 2010.** Foreign direct investments to all sectors, in particular, have averaged only $2.1 billion in the three years to 2009, paling in comparison with the average $6-9 billion of Indonesia, Malaysia, Thailand and Vietnam[6], due to poor investment climate, including inadequate infrastructure.

Indeed, as government struggles to meet development challenges, the question of how to finance the country's huge infrastructure needs over the long term has become a common theme in public discussions, given government's fiscal constraints and limited number of infrastructure projects that are commercially viable without government support.

The following surveys available domestic and international financial resources, identifying constraints to how extensively and efficiently they can be used to fund long-gestating, capital-intensive infrastructure projects in a developing country setting like the Philippines.

5.2 Expected Financial Resources

5.2.1 Domestic

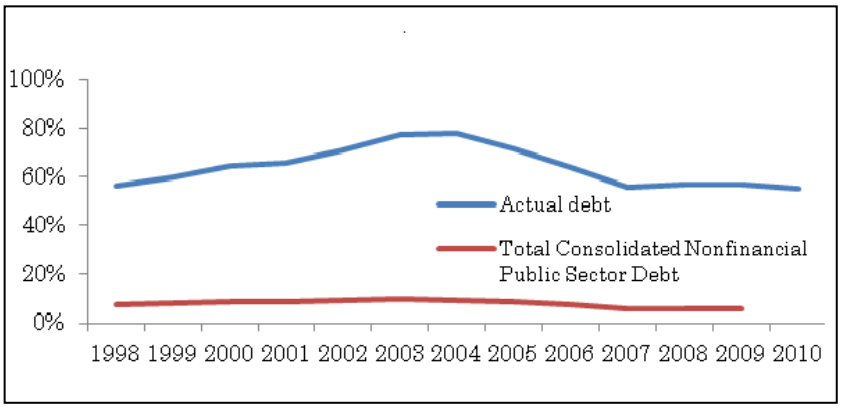
The Philippine's savings rate, even after accounting for disparity in income levels, is low by Asian standards. However, as investment rates fell and flattened and external balances, aided by remittance inflows, turned positive, the country's savings-investment gap reversed starting in

[6] Data from ASEAN Secretariat website, http://www.aseansec.org/18144.htm

2002, and savings continued to outpace investments in the ensuing years[7]. This is likewise reflected in the positive current account position in the balance of payments since that time. The excess savings as reflected in high liquidity in the domestic financial system and as may be seen in the rapid rise in placements in the Philippine central bank's special deposit accounts (more than doubling from about P550 billion in 2009 to P1.2 trillion by end-2010[8]) and its external account counterpart, the increase in the gross international reserves from $46 billion to $64 billion from 2009-10. Nevertheless, while the private sector has been saving more, government has been incurring budget deficits and this has a negative impact on the country's overall savings rate and ability to finance growth in investments over the long term. Moreover, a current account deficit may re-emerge should imports rise if government succeeded in its objective of encouraging a higher level of investment, including in needed infrastructure via PPP. Meanwhile, efforts to deepen the financial system and potentially raise household savings[9] have seen gradual success, with domestic liquidity (measured by M3) hovering around 50% of GDP.

(1) National Government

Over the past two decades, the national government was able to achieve fiscal surpluses in only four years, from 1994 to 1997. The growing problem of balancing the budget from then through 2004 (a politically difficult period for tax or user charges adjustments) and the need to avoid a potentially explosive debt situation meant severe compression in discretionary government expenditures. Moreover, the little left for capital outlay had to be spread out all over the country resulting in only small projects at the congressional district level receiving funding while strategic projects with high national development impact were left in suspension.



Source: BTr

Figure 5.2-1 National Government and Nonfinancial Public Sector Debt, as % GDP

[7] See ADB Critical Constraints to Growth, http://www.adb.org/Documents/Books/Philippines-Critical-Dev-Constraints/chap03.pdf.

[8] BSP Inflation Report, December 2010.

[9] The relationship between savings and financial development is not necessarily positive, with a strand of research arguing that better risk sharing as financial products multiply as well as improved access to credit may reduce precautionary savings. An explanation advanced for the Philippine's low savings rate however is the high dependency ratio resulting from a young population.

(2) Government Financial Institutions (GFIs)

Already, government has tagged five GFIs to help in jumpstarting its PPP program. These include two banks (DBP, Land Bank), two pension institutions (SSS, GSIS) and the National Development Company (NDC), government's investment arm. Discussions on the best structure for the GFIs' participation in the PPP program are on-going. Considering the GFIs' extensive history of unprofitable and even failed politically-directed investments that had in the past mired them in controversies or worse, required government to bail many of them out, executives in these institutions, as well as fiscal authorities, are cautious in this regard, despite the relatively healthy balance sheets of most of them at this time. (See Annex A tables)

a) Development Bank of the Philippines (DBP)

Together with its current name, DBP acquired its mandate to extend medium to long-term credit facilities for developmental projects in 1958. Almost three decades later in 1986, it was rehabilitated with the national government absorbing the losses and DBP's mandate refocused from retail to wholesale lending through a network of financial institutions[10]. DBP acquired a universal banking license in 1995, enabling it to engage in a wider set of activities (now including, aside from wholesale and retail lending, investment banking and trust services). By 1998, its authorized capital stock was raised from P5 to P35 billion under Republic Act 8523, which also exempted the bank from the Salary Standardization Law. Currently, government paid up capital amounts to P12.5 billion.

While there are no explicit government guarantees for the bank under its charter (except for its ODA), given ownership structure (100% government) and the bank's public policy role, government is widely expected to step in with support should the need arise. The flipside is government's ability to influence the bank and thus, challenges to managing at times conflicting commercial and developmental goals.

Relative to private banks, other unique features of DBP include[11]: (a) heavy reliance on government-related funding, which includes P81 billion of government deposits (over 30% of liabilities) and government guarantees on over P100 billion of loans from donor agencies (about 40%); (b) higher than average credit concentration, with its 10 largest borrowers accounting for almost 40% of total loans; and (c) in contrast to other banks, the average duration of its liabilities is longer than assets, due in large part to ODA funding source.

DBP is the seventh largest bank in the country[12]with assets of P297 billion at end-2010, a compounded annual growth of 7% since 2006. Over the last five years, the bank has demonstrated: (a) good profitability with return on asset averaging 1.5%, (b) relatively healthy balance sheet with the NPL ratio declining to 3%, which is about the industry average, and (c) capital adequacy ratio of 23%, significantly above regulatory standard (10%) and the industry average (16.5%). Despite its supposed focus on wholesale lending, the bulk of DBP's loan portfolio (about P150 billion or 50% of assets in 2010) comprises retail lending.

[10] ADB Third DBP Loan 1088-PHI, December 1999, http://www.adb.org/documents/pers/pe539.pdf

[11] Moody's, Credit Opinion: DBP, 14 February 2011. Data on funding mix from DoF.

[12] Based on BusinessWorld 4Q2010 Banking Report ranking by assets.

b) Land bank of the Philippines

Aside from DBP, Landbank is the only other 100% government-owned policy bank in the country providing long-term financing for projects, in its case, with a focus on the rural / agricultural sector. The bank was set up in 1963 as part of government's Agricultural Land Reform Code and was "revitalized" in 1973 with higher capitalization, a universal banking license and expansion of services outside the agricultural sector. The bank's authorized capital was raised twice more after that, the last time to P25 billion in 1998. Government currently has about P12 billion in paid-in capital.

Under its charter, Landbank's foreign borrowings enjoy explicit government guarantee. At the end of 2009, it has about P30 billion of outstanding loans from multilateral and bilateral agencies. In addition, Landbank is a government depository bank and sources over three-fourths of its funding from deposits which comprises mainly of government deposits (including GOCCs and LGUs).

Landbank is the fourth largest bank in the country with assets growing by a compounded annual rate of 12% since 2006 to reach P566 billion by 2010. It has an extensive branch network spread across the countryside for delivering credit to priority sectors (namely, farmers, fisherfolk, microenterprise, SMEs, agribusiness, agri-infrastructure (LGUs), agri-related projects of GOCCs, environmental projects, livelihood loans, socialized housing, schools and hospitals); and utilizes a network of accredited cooperatives for its wholesale lending. Despite this, its loan portfolio accounts for only 35% of total assets, with loan-deposit ratio at a little over 50%. Over the last five years, Landbank has also shown (a) good profitability with a 1.2% average return on assets, (b) reduced bad assets with a 3.4% NPL ratio by 2010, and (c) capital adequacy ratio of over 17%, albeit with about P5 billion of deferred charges still to be written down as of the third quarter of 2010.

c) National Development Company

NDC, established in 1919 as a semi-private corporation, became a public corporation in 1936 to implement government's economic policies and take an active role in natural resource development. It was reorganized to act as government's investment arm in 1979 (with a 50-year corporate life) to invest in developmental projects where private investors are unwilling or unable to invest in. Over the years, it has been involved in agricultural industries, mining and quarrying, energy, manufacturing, transportation services as well as land distribution and warehousing.

Financially, NDC is quite weak and has been recommended for disposition[13]. Accumulated losses over the years (e.g., from 1999 to 2005 and again in 2009) due to inadequate returns on investments (only 23% of equity investments is operational) and poor collection efficiency have reached P6.6 billion as of end-2009, eroding the P8.6 billion capital contributed by government. Thus, NDC has had to rely on borrowings, primarily by issuing domestic bonds that are by charter automatically guaranteed by the national government, to finance new activities. Government assistance to NDC is in the form of "advances" and "net lending."

Recent performance shows: (a) assets growing to P11.5 billion in 2009 (10% annual growth from 2005-09), but this still includes a large number of non-operating companies, (b) average 2005-09 return on equity of 7.8% and return on asset of 1.6% based mainly on earnings in 2006-08, (c) high leverage

[13] See ADB TA PHI-4809 GOCC Reform Project, 2008.

with a debt level at end-2009 that is over 4x equity, and (d) interest expense accounting for almost 70% of total expenses in the four years to 2009. NDC today has only 25 employees.

NDC is authorized under its charter to contact foreign loans that are fully guaranteed by the national government. But such NDC loan will still count against the guarantee ceiling under the Foreign Borrowings Act. NDC is also allowed to guarantee foreign loans issued by companies including its own subsidiaries. In addition, the NDC charter authorizes the national government to issue a counter-guarantee on the guarantee obligations of NDC and such counter-guarantee is not subject to the limitations set under the Foreign Borrowings Act. NDC has a fully-owned subsidiary, the NDC-Philippine Infrastructure Corporation (NPIC), which was incorporated in 2005, to provide project management services and tasked with developing, packaging, structuring, and and managing crucial infrastructure projects.

d) Social Security System (SSS)

The SSS was established in 1954 as a social security institution covering workers in the private sector. Over the years, its mandate and coverage was expanded such that today, under the Social Security Act of 1997, it is mandated to cover almost all individuals in the private sector "against the hazards of disability, sickness, maternity, old-age, death and other contingencies resulting in loss of income or financial burden." While government "accepts general responsibility" for the solvency of the institution, there are no explicit government guarantees on the obligations of the SSS.

The SSS is a defined-benefit, partially-funded system. Several studies[14] have identified structural and governance weaknesses (in part reflected in socially and politically-motivated investments in the past, including in non-productive infrastructure projects and mortgage investments) that have limited its effectiveness and contributed to its long-term unsustainability. While reforms have been gradually implemented in recent years (e.g., raising the contribution rate), the latest actuarial valuation done in 2007 shows fund life (when reserve funds will be depleted) lasting up to 2039 only, with payouts starting to exceed income in 2030.

The SSS has an asset base of P273 billion at end-2010, up 17% from 2009. Based on its audited 2009 financial statements, over 80% of its assets then was invested domestically, in "non-current financial assets". The bulk of this is in government securities (non-negotiable because of tax-exempt status) and local equities, including in shares listed in the relatively small and illiquid local stock market. Its "non-current financial assets" also include a P74 billion loan portfolio, over 60% of which are loans to members, and the rest largely for housing-related loans. Considering the riskiness of its investments, SSS realized only a 5.4% average return on its reserve fund from 2005-09 (the average 91-day T-bill rate during the period was 5%).

e) Government Service Insurance System (GSIS)

The GSIS started in 1938 as a life insurance institution for certain segments of government employees.

[14] For example, analyses done by the Retirement Income Commission in 2001 and a consulting firm, TSG, in 2006, both with support from the World Bank.

Several subsequent pieces of legislation expanded its responsibilities (e.g., grant loans to, provide compulsory retirement benefits, protect government property, survivorship and sickness benefits), with its current mandate provided under the Government Service Insurance System Act of 1997. GSIS covers all public sector employees (except the military, police, judges and local government). There are no explicit government guarantees on loans incurred by GSIS; government guarantee is only on the fulfillment of its obligations to members "as and when they fall due".

Like the SSS, GSIS is a defined-benefit, partially-funded system. It shares many of the governance and structural problems of SSS with similar results in terms of reduced effectiveness in carrying out its core mandate. GSIS has not provided updated estimates of its actuarial life.

GSIS has assets of P629 billion at end-2010 (including Administered Funds which comprise less than 10% of total assets). Like SSS, the bulk of its assets is lodged under "loans and investments", albeit GSIS has a significantly larger loan portfolio, mostly to members. GSIS also holds non-negotiable government securities and invests in the local stock market (it has also tried investing internationally but following the impact of the global financial crisis, has very recently decided to withdraw these investments). Compared with SSS, it generated better returns of about 10% on equity over the five year period to 2010, equivalent to its target actuarial return.

f) Trade and Investment Development Corporation of the Philippines (TIDCORP)

PhilEXIM was created as the Philippine Export and Foreign Loan Guarantee Corporation (PHILGUARANTEE) in 1977 to guarantee foreign loans for developmental purposes and to support the export sector by providing guarantees on loans granted by financial institutions. It was renamed Trade and Investment Development Corporation of the Philippines (TIDCORP) in 1988 and its services expanded to include investment insurance and direct lending for Philippine companies. Designated as PhilEXIM in 2002, it is allowed under its charter to borrow foreign loans that are fully guaranteed by the government. Legally, TIDCORP may guarantee the official, external loans of other GFIs or even private companies (there are precedents), with the guarantees carrying the full faith and credit of the Republic and appearing, based on Department of Justice opinion, to be outside the ceiling of the Foreign Borrowings Act.

TIDCORP is capitalized at about P5 billion (out of an authorized and subscribed capital stock of P10 billion, which was raised from P2 billion in 1985[15]). However, despite positive earnings in the last three years, accumulated losses from earlier years have eroded its capital, such that by end-2010, it has remaining capital of less than P1 billion and would need capital infusion from the national government to enable it to credibly expand its guarantee portfolio. While the company is allowed under its charter to guarantee up to 15x its subscribed capital of P10 billion, in practice, it limits its guarantees to tangible capital for prudential reasons based on BSP supervision. At end-2010, the company already has outstanding guarantees of nearly P14 billion. TIDCORP guarantee can cover both credit and political risk.

TIPCORP's ability to participate in large-scale PPP projects is limited by its available capital, indicating a need for fresh capital infusion from the national government. Discussions with

[15] TIDCORP, 2009 Annual Report.

management reveal that while it is prepared to act as conduit for ODA loans, it has no institutional experience in contracting, managing and lending out such loans. Also, the company will require higher staff complement to enable it to do project and credit screening for two-step loans for infrastructure projects.

Overall, of the six GFIs, DBP has perhaps the most experience in financing long-term infrastructure projects and in light of its recent partnership with the IFC in designing the financial structure for the proposed NAIA Expressway project can be expected to over time, build up expertise in screening and financing PPP projects. In comparison, Land Bank and the pension agencies do not have the in-house skills to be able to pursue PPP projects on their own while NDC and TIDCORP do not have the necessary manpower. On the other hand, if there is a way to strengthen NDC's staff complement, it is the most logical among the six GFIs to either direct invest in PPP projects or act as conduit for national government or external donor financing for selected projects.

(3) Financial institutions

Despite impressive growth in a number of nonbank segments[16], the Philippine financial system continues to be bank-centric, with total bank assets recorded at P6.4 trillion (75% of GDP) in 2010. Within the banking system, universal and commercial banks dominate, accounting for almost 90% of the system's assets. They are the ones that have the financial muscle to fund large infrastructure projects. Even then, since the Asian crisis, banks have been quite reserved in extending credit with net domestic credits outstanding at around 50% of GDP in recent years, low by either historical (almost 80% recorded in 1997) or other Asian country standards[17].About a third of this is extended to the public sector. Nevertheless, with a gross loan portfolio below P3 trillion – translating into a loan-deposit ratio of just above 60% - and with the consolidated capital adequacy ratio of commercial banks at over 16%, above the 10% regulatory standard, there is much room for banks to expand lending.

That said, apart from increased risk-aversion following the Asian crisis, there are other factors that may make it difficult for banks to pour money into infrastructure projects. These include (a) a stricter supervisory and prudential framework with the single borrower's limit – set at 25% of networth– the oft-cited binding constraint considering that proponents of infrastructure projects have for the most part been the large local conglomerates[18], (b) relative inexperience with project financing as recent bank lending for infrastructure have mostly relied on the strength of the project proponent, rather than on project cashflows, and (c) asset-liability duration mismatches due to short-term deposit funding base that make it difficult for banks to lend long.[19]

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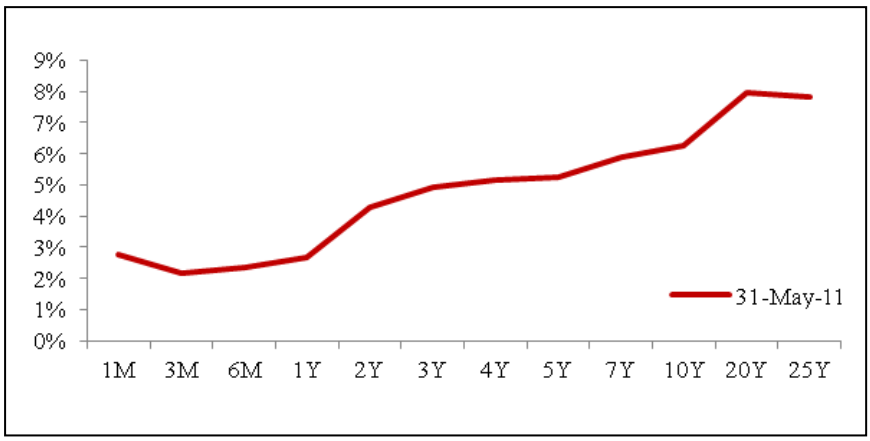
[16] Among the largest financial institutions outside of the banking system are pension institutions (dominated by GSIS and SSS) and investment (trust) companies (following rising popularity of mutual funds / investment funds in recent years. Insurance companies have also grown but remain relatively small, asset-wise.

[17] See IMF Financial stability report, April 2010 (Figure 1).

[18] In the country's top 10 banks, the ten largest borrowers account for anywhere from 10% to 35% of total loans. (See IMF Financial stability report, Figure 5)

[19] The IMF reports that the duration of assets exceeds the duration of liabilities for most banks. (See IMF Financial stability report, Figure 5)

Local bankers admit that the longest they can lend is around 12 years. In practice, banks price term loans off the Treasury yield curve plus a premium depending on borrower risk profile. Current practice is to use the five-year secondary market rate for local Treasury bonds (PDST-R@ at 4.2% at end-2011) and add a premium ranging from 2.5% for prime clients to as much as 3.5% for non-prime. This translates into lending rates of 6.7% to 7.7%, depending on risk, re-priced every five years. While bank loans are typically variable-rate, fixed-rate loans are available but at a much higher premium to the borrower.



Source: BSP

Figure 5.2-2 Peso yield curve, PDST-R2

Local investment banks have also increasingly taken active interest in infrastructure in the areas of transaction advisory, project development and underwriting debt and equity securities. The country's three largest banks – BDO, Metrobank and BPI – have investment banking arms that, particularly in the case of BDO Capital, dominate this market segment. There are also non-bank related investment house, leaders include ATR-Kim Eng (with Singaporean links) and Exchange Capital/CLSA (majority shareholder is France's Credit Agricole).

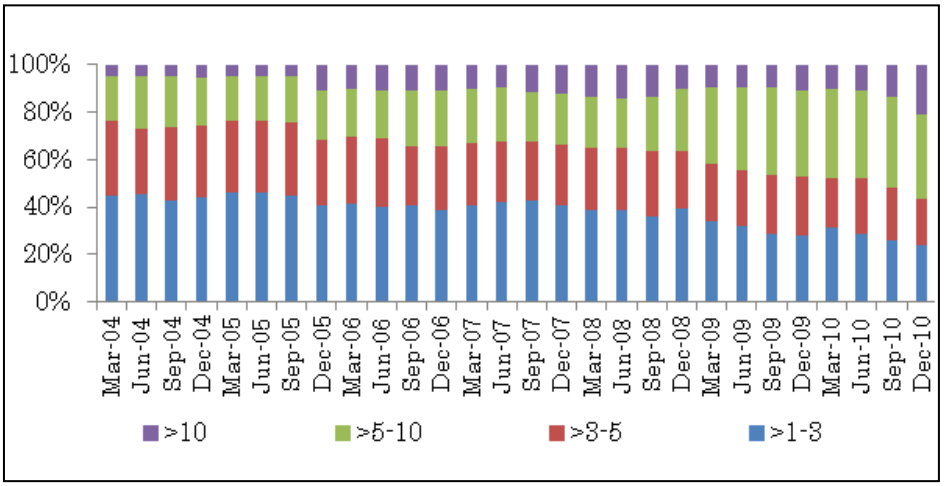
Aside from banks, investment houses and pension funds (mainly SSS and GSIS), another important segment of the local financial system consists of insurance companies, with combined assets (about P500 million in 2009) less than 10% of total bank assets. Insurance companies have a strict set of allowable investments, including mortgages, land (up to 40% for foreign insurance firms), buildings, government bonds, prime corporate bonds, blue chips stocks and bank deposits, each not to exceed the lower of (a) 10% of admitted assets or (b) 25% of approved capital base.

(4) Capital markets

a) Local currency bond market

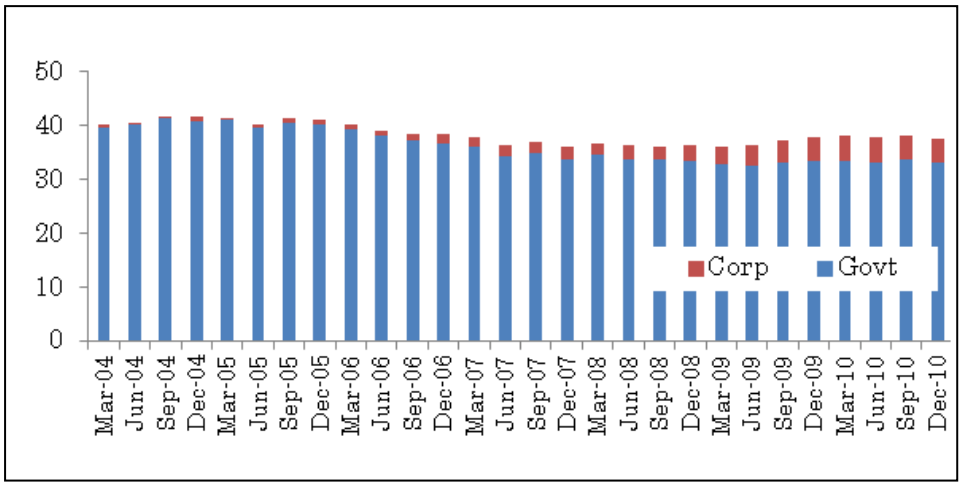
In recent years, large companies with strong balance sheets have preferred to borrow directly from the capital markets (local or international). From practically nil in 2000, outstanding local currency corporate issues reached nearly 5% of GDP by 2010. This however is small in comparison with outstanding government securities which at 34% of GDP, comprise almost 90% of the local bond market. Likewise, government has over the years been able to gradually extend the maturity of its bonds, with longer-than-10-year bonds comprising 21% of outstanding government bonds in 2010

compared with only a 5% share in 2004. Private corporations on the other are able to borrow for 10 years at most, and at relatively low cost. However, non-bank bond issuers are typically companies that have good track record and strong balance sheets and are part of conglomerates and even then, they seldom issue bonds to finance new projects but rather rely first on bank financing before using bond financing for successful projects that mature[20].



Source: Asian Bonds Online

Figure 5.2-3 LCY Bond Market in % GDP



Source: Asian Bonds Online

Figure 5.2-4 Government Securities Maturity Profile

[20] Felipe Medalla, unpublished report "Financing of privately provided infrastructure"

Table 5.2-1 2010 Corporate Bond Issuances

Issue	Issue Amount	Issue Date	Maturity Date	Coupon	Yield
Bank Issues					
RCBC LTNCD - Coupon Bearing	2,854,000,000.00	6-May-2010	6-Nov-2015	6.5000	6.5000
RCBC LTNCD - Zero Coupon	2,146,000,000.00	6-May-2010	6-Nov-2015	-	
East West Bank Tier 2	1,500,000,000.00	2-Jul-2010	2-Jan-2021	7.5000	
United Coconut Planters Bank LTNCD	4,519,289,000.00	25-Nov-2010	25-Feb-2016	6.2500	6.2500
	11,019,289,000.00				
Corporate Issues					
Tanduay Holdings, Inc. Bonds	5,000,000,000.00	12-Feb-2010	13-Feb-2015	8.0550	6.0000
AC Putable Bonds	10,000,000,000.00	30-Apr-2010	30-Apr-2017	7.2000	6.5000
AC Multiple Putable Bonds	10,000,000,000.00	12-May-2011	12-May-2021	6.8000	6.7000
	25,000,000,000.00				

b) Stock market

The Philippines has a relatively small stock market, with only 253 listed companies and market capitalization at a little over 100% of GDP (in dollar terms, about half the size of stock exchanges in Indonesia and Thailand and a third of Malaysia's). Capital raised in the three years to 2010 averaged about US$1 billion a year, which is quite low compared with neighboring stock markets. Moreover, the IMF noted that (a) the market is not liquid, partly due to the small free float of most companies and (b) companies belonging to conglomerates make up about 3/4s of the market's effective capitalization[21]. Similar to bond issuances, raising equity capital is limited to companies with proven track records as new companies involved in infrastructure projects that cannot show historical financial statements cannot raise capital based on projected project revenues[22].

(5) Potential investors

Corporate sponsors are important players in Philippine infrastructure, given not only financial resources but sectoral expertise to design and operate infrastructure projects. Many of these are member companies of conglomerates, but independent construction and engineering firms as well as tollway and utility operators and other facilitators who pull together needed skills are critical players as well. These firms have the incentive to come in early in the project development stage not only to earn returns as equity investors but also to ensure participation in project-related works. Private conglomerates also have the incentive to prepare unsolicited proposals for a wide range of infrastructure projects in light of not only project returns but also resulting synergies with their existing businesses.

Given conglomerates' dominance in the Philippine economy - owning interests in a range of sectors from banking[23] to property to infrastructure (telecommunications, energy, water and air transportation)

[21] IMF Financial Stability Report.

[22] Felipe Medalla, unpublished report "Financing of privately provided infrastructure"

[23] For example, conglomerates own seven of the 10 largest banks in the country23 and as noted above, dominate the local

– it is not surprising that most recent infrastructure transactions in the country have involved their related companies (e.g., re-bid of Metro Manila west zone water concession in 2007, privatization of various power generating plants over the years and the power transmission company also in 2007, toll roads). Among the largest Philippine conglomerates are Ayala Corporation (P201 billion in enterprise value), Alliance Global (P124b), JG Summit (P252b), SM Investments (P421b) San Miguel Corporation (P371b). Other major players include Metro Pacific Investments, Aboitiz, and the Metrobank Group[24]. They have not only expressed keen interest in government's PPP program but are actively seeking out new infrastructure projects.

Similarly, construction companies are generally upbeat about government's PPP program[25] and have been important investors in local infrastructure. In recent tollroad projects, members of the Philippine Construction Association (PCA) have led or participated in the winning consortia (e.g., Tarlac-La Union-Pangasinan Expressway Project, STAR Tollway). Construction companies are also present in other infrastructure sectors, for example water distribution (DMCI Holdings owns over 40% of Maynilad Water Co.), reclamation projects (RII Builders in Smokey Mountain, FFCruz in Mandaue), port projects (RII Builders and FF Cruz), housing (Pabahaysa Riles with San Jose Builders)[26].

5.2.2 Legal Aspect

(1) Nationality Requirement for the concessionaire of the PPP Project

Republic Act No. 7042, as amended, otherwise known as the "Foreign Investments Act of 1991", (the "FIA) has enunciated the policy of the Philippines to open up to foreign investments different activities which significant contribute to national industrialization and socio-economic development although maintaining restrictions provided by the Philippine Constitution and laws in certain nationalized activities.

There are no foreign equity limits in areas of activity not found in the FIA Negative List (the "Negative List"). The Negative List is a "list of areas of economic activity whose foreign ownership is limited to a maximum of forty percent (40%) of equity capital of the enterprises engaged therein." The Negative List has 2 component lists, A and B. List A enumerates economic activities, including mass media, retail trade, public utilities, that are reserved to Philippine nationals as required by the Philippine Constitution and specific laws. List B include those economic activities that are related to national defense or have implications on public health and morals.

The term "Philippine national" is defined in Section 3(a) of the FIA as follows:

> a) the term Philippine national shall mean a citizen of the Philippines, or a domestic partnership or association wholly owned by citizens of the Philippines; or a corporation organized under the laws of the Philippines of which at least sixty percent (60%) of the capital stock outstanding and entitled to vote is owned and held by citizens of the Philippines; or a corporation organized abroad and registered as doing business in the

equity market.

[24] Credit Suisse, Philippine Conglomerates, December 2010.

[25] See BSP Business Expectations Survey, May 2011.

[26] Based on discussions with Mr. Arturo Samia, a key player in the construction

> Philippines under the Corporation Code of which one hundred percent (100%) of the capital stock outstanding and entitled to vote is wholly owned by Filipinos or a trustee of funds for pension or other employee retirement or separation benefits, where the trustee is a Philippine national and at least sixty percent (60%) of the fund will accrue to the benefit of Philippine nationals: Provided, That where a corporation and its non-Filipino stockholders own stocks in a Securities and Exchange Commission (SEC) registered enterprise, at least sixty percent (60%) of the capital stock outstanding and entitled to vote of each of both corporations must be owned and held by citizens of the Philippines, in order that the corporation shall be considered a Philippine national."

The restriction on concessionaires for a PPP Project would therefore depend on the type of PPP Project being undertaken. If it is an economic activity that is required by the Philippine Constitution or laws, such as public utilities, to be limited to Philippine nationals, then there would be nationality restrictions on the operator if the PPP Project involves operating a public utility.

Under the BOT Law and its IRR, if the infrastructure or development facility, under a build-operate-transfer contractual arrangement, whose operation requires a public utility franchise, then the proponent must be a Filipino or if a corporation, must be duly registered with the SEC and owned up to at least 60% by Filipinos.

(2) Foreign Loans

The general policy of the BSP is to regulate foreign loans/foreign currency loans "to ensure that principal and interest owed to the creditors can be serviced in an orderly manner and with due regard to the economy's overall debt servicing capacity." As a general rule, public and private sector publicly guaranteed obligations from foreign creditors, OBUs and FCDUs/EFCDUs require prior BSP approval. Other private sector loans from these creditors and other financing schemes/arrangements shall require prior BSP approval and/or registration if these will ultimately involve foreign exchange sourced from the Philippine banking system.

(3) Foreign Exchange Controls

Under the BSP Manual of Regulations on Foreign Exchange Transactions, foreign investments are required to be registered with the BSP if foreign exchange is to be sourced from the Philippine banking system. Inward foreign investments duly registered with the BSP or with a custodian bank duly designated by the foreign investor, shall be entitled to full and immediate repatriation of capital and remittance of dividends, profits and earnings using foreign exchange to be purchased from Authorized Agent Banks (AAB) and AAB-forex corporations.

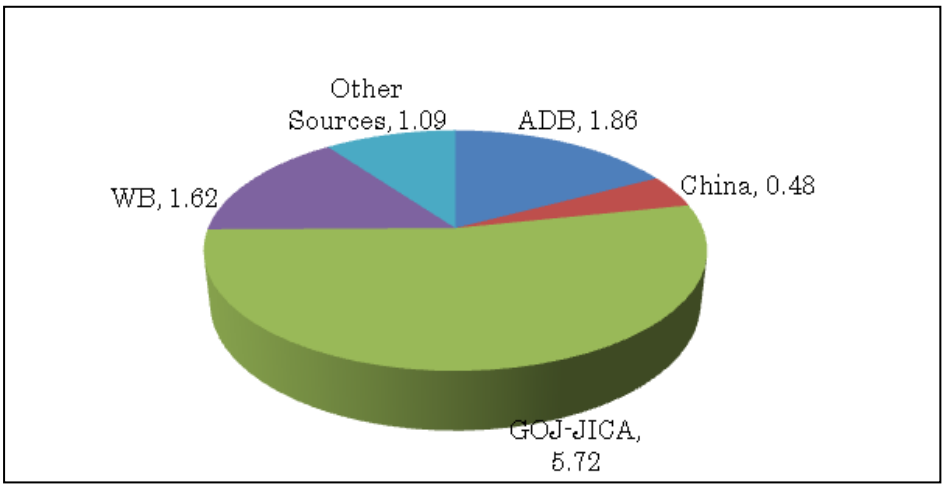
If foreign investments are not registered with the BSP, the Philippine company and/or the foreign investor cannot use the Philippine banking system to convert its profits and earnings from Philippine Pesos into other currencies or service the repatriation of capital or dividends outside the Philippines. They can however source their foreign exchange requirements from outside the Philippine banking system (i.e., foreign exchange dealers).

The Monetary Board, with the approval of the President of the Philippines, however, may temporarily suspend or restrict the sales of foreign exchange in the imminence of, or during an exchange crisis, or in time of national emergency.

5.2.3 Foreign

(1) Public sector financiers[27]

Official development assistance (ODA) from multilateral and bilateral agencies for infrastructure projects comes in the form of concessional loans extended directly to government or to public sector institutions with the national government providing guarantees. NEDA reports average annual ODA loan commitments of $10 billion for all sectors in the last ten years, with the Government of Japan – JICA traditionally providing the biggest share – average of over 50% in the last 10 years but declining in recent years to 36% ($3.5 billion) by 2009. The most active multilateral agencies, the Asian Development Bank (ADB) and the World Bank have smaller loan commitments – average of $1.9 billion and $1.6 billion, respectively over the past ten years – but have been able to preserve their shares of total ODA loans.



Source: NEDA

Figure 5.2-5 ODA Loans Portfolio, average for last 10 years, billion USD

Whether from multilateral or bilateral sources, ODA loans are suited for infrastructure financing given concessionality built into interest rates (as low as below 1% for JICA) and maturities (up to 40 years for JICA, up to 30 years for ADB and WB). Nevertheless, while ODA loan commitments may appear large, actual availments are relatively modest – about $1 billion in 2008 and $2.5 billion in 2009 based on Commission on Audit figures due to a host of implementation issues from start-up delays (including prolonged procurement and right of way issues) to budget bottlenecks[28].

Apart from these direct country assistance, most donors have private sector arms (e.g., IFC for the WB, ADB Private Sector Operations, JICA-PSIL for Japan) that are able to finance private sector infrastructure requirements directly through loans or equity that have longer maturities than what domestic financial markets typically provide. They also provide guarantees / insurance against various types of risk, including partial credit and political risk.

[27] Source: NEDA, 18th ODA Portfolio Review, 2009 and ODA Terms and Conditions, as of February 2011. www.neda.gov.ph

[28] Source: NEDA, 18th ODA Portfolio Review, 2009.

Additionally, export credit agencies in OECD and other developing countries also provide financing for nationals engaged in infrastructure projects abroad, with loans based on commercial interest rates[29]. A more recent development is the build-up of huge amounts of reserves in sovereign wealth funds (e.g., China, HK, Singapore) that are seeking higher-return investments across the globe, including in infrastructure projects countries particularly in Asia. These funds, while government owned/managed, are operated to achieve primarily commercial objectives.

(2) Private sector financiers

As elsewhere, private capital flows to the Philippines rise and fall depending on global financial conditions, with plunges in inflows observed after the Asian financial crisis (1997) and the more recent global financial crisis (2008). These flows, which come mainly in the form of foreign direct investments (FDI), portfolio flows (debt and equity) and bank loans have started to recover in 2009, albeit paling in magnitudes relative to neighboring economies. Moreover, since the Asian crisis, very little has been channeled to local infrastructure with foreign interest concentrated mainly in the power sector, in line with government's privatization of generation and transmission assets. This may ben seen in FDI statistics showing inflows averaging only $1.6 billion a year in the past 10 years. Portfolio inflows have gone mainly into government securities while loans from foreign banks have been modest, some to companies in infrastructure like telecommunications, power and water distribution.

While the Philippine's inability to attract foreign capital, particularly into infrastructure, can be traced to a host of concerns, including regulatory weaknesses, that heighten investment risks, the success of other Asian economies in drawing in foreign capital points to the availability of external financing for worthy projects. An ADB study[30] for instance noted that international banks are able to carry large-sized loans directly on their balance sheets but typically do not hold them to maturity. By selling their infrastructure portfolio through different vehicles (e.g., securitization) into the secondary market, they are able to attract funders such as pension funds and insurance companies that prefer to hold long-term assets.

In fact, given the huge pools of long-term institutional funds in the global market, including sovereign wealth funds, there is growing demand for private equity or infrastructure funds that can offer regional diversification and higher risk-adjusted returns. These dedicated funds have mushroomed in recent years looking for opportunities in Asia, particularly China and India and lately, Indonesia, suggesting great potential for these funds to fill the infrastructure financing gap – with the caveat that they tend to invest only in "preferred infrastructure" or mature projects, which are in short supply in the Philippines. Nevertheless, discussions with local financial sector players indicate that there is growing interest to set up Philippine-dedicated infrastructure funds.

Finally, the ADB study also cites ability of financial innovation, introducing risk management products like credit default swaps, risk pools and monoline insurers, to expand global infrastructure financing.

[29] See www.oecd.org for reference rates and other terms and conditions.

[30] Market Survey of Subnational Finance in Asia and the Pacific, 2008. http://www.adb.org/Documents/Papers/Market-Survey-Subnational-Finance/default.asp

5.3 Financial Scheme under Consideration to Promote PPP Framework

5.3.1 Government of the Philippines initiatives

Since the new administration took office, there have been various initiatives from government to jumpstart the PPP program. With the issuance of Executive Order 8 in September 2010, government launched a revitalized PPP Center, subsequently rolled out 10 priority PPP projects and streamlined the NEDA-ICC process, including reducing the processing time to 30 days for projects that meet ICC requirements. Government has also set aside funds to support the PPP Center as well as to finance essential PPP activities (e.g., preparation of feasibility studies, right of way acquisition, viability gap funding) of line agencies. This includes the P300 million allocated to the PPP Center under Executive Order 8 as well as sums appropriated in departmental budgets for supporting individual department's infrastructure projects. A PPP Strategic Support Fund in the 2011-2012 budget gives P5 billion each to DOTC and DPWH and P2.5 billion to the Department of Agriculture. In one tollroad project (Tarlac-Pangasinan-La Union Expressway), government has also resorted to asset contribution to help finance PPP. This involves government constructing one segment of the road on budget and contributing the complete segment as subsidy (rather than cash) to close the project's viability gap, with the bid parameter based on highest payment to government for the contributed road segment.

Quite apart from these and as part of its program to promote PPP for infrastructure, the Philippine government through the Department of Finance (DoF) is exploring ways to ensure that the private sector will have access to long-term peso financing . The funding mechanisms under study are at various design stages and can be expected to continue evolving in the coming months. Basically, there are three pools of funds already set up or still under consideration.

a. Project Development Monitoring Fund (PDMF). This is a P550-million revolving fund, managed by the PPP Center (currently housed in the National Economic and Development Authority), that would service the requirements for project preparation and tendering of implementing agencies. In addition to the P300 million allocated under Executive Order 8, the ADB, partnering with Australia and Canada, has provided the remaining seed fund for the PDMF through a technical assistance (TA) grant. Aside from pre-investment activities, the PDMF will also help to develop and strengthen the capacity of implementing agencies to identify, formulate and implement bankable PPP projects. To date, nine local and international firms have been pre-qualified under ADB procurement guidelines to conduct these pre-investment studies while nine projects have been approved for PDMF support[31].

b. Philippine Infrastructure Development Fund (PIDF). As originally envisioned, this will be a P200-billion fund managed by the NDC, which will borrow the amount from four GFIs – SSS, GSIS, DBP, LandBank – through a government-guaranteed bond float. The four GFIs have agreed to contribute up to P50 billion each to this facility, staggered over time based on demand. The purpose of the PIDF is to essentially supplement the national government budget by providing viability gap funding as well as support for other public sector pre-project deliverables such as right of way acquisition, as well as feasibility studies (hence a potential overlap with the PDMF). To date, an Executive Order to establish the facility has yet to be issued in light of continuing concerns about government's debt stock and transparency of

[31] Source: PPP Center website (ppp.gov.ph)

off-budget financing which falls outside the purview of congress.

c. Philippines Infrastructure Financing Facility (PIFF). Unlike the other two which use existing government structures, the PIFF is expected to be a new institution that will be privately-held. The rationale for the PIFF, per KPMG which was commissioned to study its feasibility, is the lack of long-term financing in the Philippines, with the PIFF expected to serve as "catalyst" for mobilizing long-term private investments in infrastructure. The legal structure has evolved from that of an investment house to a private equity fund, mainly to address various legal and regulatory restrictions constraining the participation of several GFIs[32]. Also, the change is driven by desire to have a more manageable facility (in terms of fund size and overhead costs).

   The latest proposal, prepared by the IFC and ADB which are leading the design effort, envisions the establishment of a 15 to 20-year, $200 million fund that will provide equity and mezzanine financing to infrastructure projects, including but not limited to those under the government's PPP program. The private equity fund is expected to be a purely commercial venture with a proposed 7-year investment horizon, participated in by multilateral and donor agencies, GFIs and private institutional investors. It has an illustrative pipeline of 11 projects in the rail, road, airport, irrigation and health care sectors valued at P177 billion in total, with the PIFF indicatively taking up 5% of equity and 10% of mezzanine financing in each project. It is estimated to take roughly 12 months from the time the PIFF concept is approved to fund incorporation.

   Despite continuing discussions about the PIFF and the evident support of the multilaterals, the case for the proposed facility in spurring infrastructure development at this time is not entirely convincing, especially in light of its commercial interests that constrains it to offer financing with much longer maturity and lower interest rates. Additionally, other donors such as the WB-IFC has voiced reservations about the need for the PIFF, considering that in their view, the binding constraint at this time in not financing but having a pipeline of well-studied infrastructure projects ready for bidding under the PPP framework. Meanwhile, GSIS is exploring the concept of setting up its own infrastructure fund (not for long-term lending but as a private equity fund) managed by a professional third-party fund manager, with the GFI taking the lead and 60% majority ownership and official development partners taking minority stakes.

A fourth mechanism that is being eyed as a potential funding source for Philippine infrastructure is the $13 billion ASEAN Infrastructure Fund currently being set up. The Fund is spearheaded by the Asian Development Bank which will reportedly provide $150 million equity capital. Other member nations of the ASEAN, led by Malaysia and Indonesia, will also contribute to the $485 million reported initial equity[33].

[32] In meetings with the target investors of PIFF, the JICA Study Team learned that a number of issues have been raised on the proposed structure. On the side of the GFIs, these include charter limitations (e.g., SSS is not allowed under its charter to invest, GSIS charter subject to alternative interpretations), regulatory constraints (e.g., single borrower's limit and ceiling on non-allied equity investments for the banks), potential negative impact on the banks' capital adequacy ratio, ability of the PIFF to meet minimum hurdle rates (e.g., actuarial required returns for the pension funds) considering developmental objectives and concentration risks, as well as governance issues linked to the PIFF's conflicting commercial vs. developmental goals and dispersed ownership structure and operational issues related to its ability to attract needed talents.

[33] Business World, ASEAN infrastructure fund seen fueling regional boom, September 25, 2011,

5.3.2 Recent Government Policy Change to use more ODA loan

There have been recent pronouncements, notably from the new leadership in the Department of Transportation and Communication, of DOTC adopting a "hybrid model" of financing PPP projects. Based on its pronouncements, the scheme appears to involve using official development assistance (ODA) to finance civil works (for railway, the tracks) while bidding out the remaining components (e.g., rolling stock, O&M, etc.) to interested private sector proponents. The long-term, low-interest nature of ODA loans is seen as a way for government to deliver necessary infrastructure services at least cost to users. With the public sector directly undertaking the provision of civil works, effectively "non-cash VGF", the scheme is also seen as an alternative or complementary way for government to give subsidy to PPP projects, reducing or entirely doing away with the cash component of the VGF.

To date, government has yet to elaborate on how it intends to actually implement the hybrid scheme nor has it adopted the scheme as an overarching policy, applicable to all sectors, including those outside the DOTC. It is also not clear how government intends to address some of the constraints to adopting the facility, including its basic problem of a) insufficient fiscal headroom for direct capital spending and b) statutory limits on guaranteeing ODA loans. Moreover, the private sector has raised concerns about potential delays associated with introducing the ODA leg which aside from the longer processing time adds another layer of complexity in reconciling policies and procedural requirements of government, official funders, and private investors that may negate expected efficiencies associated with private sector participation in infrastructure PPPs.

5.3.3 PPP Experience in India and Indonesia

The idea for the PIFF appears to have been inspired by reported successes in India and Indonesia, which both set up infrastructure financing private entities.

India set up the India Development Financing Company (IDFC) in 1997. The IDFC due to its long head start is the more accomplished, now registering assets of 335 billion rupees (US$7.49 Billion under current exchange rate) and revenues of 40 billion rupees (US$894 Million under current exchange rate) and net income of 10.6billion rupees (US$237 Million under current exchange rate). It was able to do an initial Public offering (IPO) in 2005 and thus has further enhanced its reputation as an infrastructure financing entity. Indonesia followed suit and established the Indonesia Infrastructure Finance Company (IIFC) in 2009, with strong recommendation of international financial institutions composed of the multilateral and bilateral agencies led by the ADB. The IIFC however has not started its operation yet and therefore there is no track record as of August 2008.

In India however we have to recognize that in 2007 Indian government has established further two new financial facilities to support PPP infrastructure projects, namely Viability Gap Fund (VGF) as subsidy fund in the Ministry of Finance and India Infrastructure Financial Company Ltd (IIFCL) as independent public financial institution. VGF is basically funded by the government and the World Bank and other IFIs as well and the fund will be subsidized to the private investor which has applied with the lowest amount to be subsidized in the open bid made by State (provincial) government. The investor(s) which obtained VGF subsidy would ask an investment bank to undertake due diligence and to organize a finance syndication comprising of the bank(s) and IIFCL which are expected to finance 50:50 with their

own decided interest rate and its maturity period to be long enough to cover the period requested by the investor(s). VGF has already enough track record by providing its subsidy to more than 90 PPP projects since three years ago as of August 2008.

5.3.4 Recommended PPP Public Financial Framework

Our recommended PPP financial framework proceeds from the fact that following over a decade of underinvestment, the Philippines has huge demands for infrastructure as shown in the CIIP. Also, despite current high liquidity in the financial system, long-term funds for infrastructure remains limited and in time may become a binding constraint, especially if investments take off rapidly.

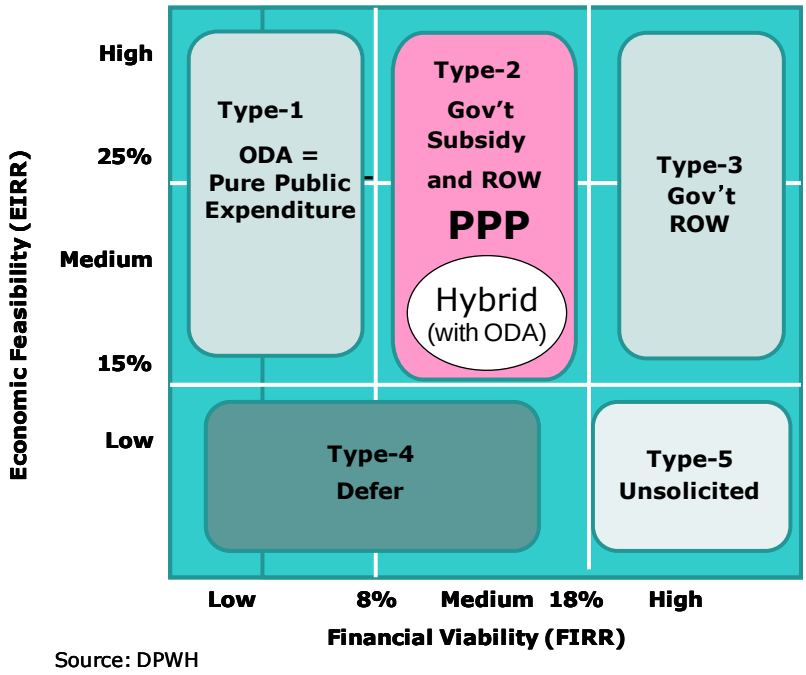
We also recognize that the recommended PPP financial framework is of secondary importance to having a good enabling environment for PPP, including clarity in policies and predictability in rules and fundamental guidelines for selecting projects that will be done via PPP vs. other modes of financing (e.g., public expenditure). While the Philippines has existing legislation (BOT Law), the majority of projects over the past decade have been done under the unsolicited mode, raising issues related to poor project preparation and controversies and leakages in the use of public funds. Putting in place a more transparent, competitive PPP project selection, structuring and contracting process will go towards a) generating more projects, especially those of strategic scale, to address pressing infrastructure needs, b) optimizing "value for money" for the public, and c) leveraging both taxpayer and ODA resources better by attracting private sector resources. In this regard, government needs to provide elaboration and definition of policies and procedures in the following areas:

1. Adoption by NEDA Cabinet level of PPP policies that encourage line agencies and private investors to undertake PPP projects, particularly in cases where the projects have revenue streams, and partial cost recovery potentials.

2. Adoption of clearer guidelines to identify PPP projects. An example of this (see Figure 5.3-1), proposed by the DPWH Secretary, simply classifies projects based on their economic and financial rates of returns (EIRR, FIRR). At the extremes, projects with (1) high EIRR (above 15%) but low FIRR will be publicly-funded, (2) low EIRR and FIRR, deferred, (3) high EIRR and high FIRR, privately-financed with government support limited to right of way acquisition, and (4) low EIRR but high FIRR, purely private sector projects.

   PPP projects will be those that have high EIRRs, with FIRRs that are not too low but not high enough to meet private investors' hurdle rates. These projects, which would have high economic externalities, long gestation periods, and where there is need to keep user fees affordable (including projects in mass transport, toll roads, secondary airports and ports), would require some form of government support to achieve commercial viability. The bulk of the projects listed in government's PPP priority list belong to this category.

   This is the sweet spot for PPP, and the area of focus of this report, recognizing that projects with high commercial returns will naturally be pursued provided government creates a clear regulatory environment, as has been the experience in the telecommunication sector since the mid-90's, and more recently, the generation and distribution sector of the power industry.



Source: DPWH

Figure 5.3-1 Sweet Spot of Hybrid

3. Adoption of clear government policy at the highest level, i.e., NEDA Cabinet, on appropriate tariff levels at the sector level, and tariff formula for individual projects prior to such projects being bidded out. Tariff policy and specific tariffs set will need to not just optimize revenues from user charges/reduce fiscal costs, but also consider sector objectives and plans, project externalities, and broader social objectives in a coherent and consistent way. For example, a sharper articulation of tariff policy would be most helpful at this time for mass transport, toll roads, water, where there seems to be continuing uncertainty, even for PPP projects/concession agreements that are already existing.

4. Identification of land acquisition (ROW) cost, which ideally should be made by government out of its own budget.

5. Adoption of a short list of major strategically important PPP projects, say no more than 10, at NEDA Cabinet level, that will be provided priority attention of the national government in terms of provision of government support, speed and focus in implementation for the remainder of the administration's term (i.e,. up to 2016). Examples of such projects in the past administrations include the first batch of BOT projects in power that were done to address the power shortage in the early 90's (Pagbilao, Sual coal power generation projects financed by JXIM, IFC, ADB) and the privatization of the MWSS water distribution system.

   The current administration has early in its term come up with a list of PPP projects for priority implementation but it is not clear whether this list was prepared based on identification of government's strategic priorities (rather than state of readiness of such projects at that time) and whether these remain government priority projects. A second list of 15 projects has recently been announced.

Table 5.3-1 Projects for Roll Out: 2012

	Project Name	Sector	Project Cost (Php)
1	Puerto Princesa Airport Development Project	Airport	4.20 B
2	North Luzon Expressway-South Luzon Expressway Connector Project	Toll roads	20.18 B
3	Vaccine Self-sufficiency Project	Health	0.96 B
4	O&M of the Laguindingan Airport	Airport	1.5 B
5	Common automatic fare collection system for Metro Manila's light railways	Railway	0.33 B
6	Mactan Cebu International Airport New Passenger Terminal Building Project	Airport	TBD
7	O&M of hydropower plants (Agus hydroelectric power plants turbines 4 and 5 and Macua Multi-hydro Power Plant)	Water	TBD
8	Philippine Orthopedic Center Modernization Project	Health	
9	Cavite-Laguna (CALA) Expressway	Toll roads	19.69 B
10	New Bohol Airport Development Project	Airport	7.60 B
11	A new water supply project involving a dam and water treatment plant for Metro Manila	Water	25.00 B
12	Establishment of cold chain systems	Agriculture	1.30 B
13	O&M of the Light Rail Transit-2 (LRT-2) East Extension	Railway	11.30 B
14	Corn Bulk Handling and Trans-shipment System Project	Agriculture	2.00 B
15	Balara Water Hub	Water	20.00 B
		TOTAL	**114.06 B**

Only with the above clearly defined and articulated can a workable financial framework be designed. With the recent launch of the PDMF expected to develop a pipeline of bankable PPP projects, what we think the Philippine government needs to be clear minded about is (a) whether it is prepared to provide subsidies to close viability gaps and (b) how it intends to provide these subsidies considering its own budgetary processes and the legislature's appetite for appropriating large, unallocated funds ("lump sums" outside of implementing agencies' budgets). In our view, government recognizes the necessity of providing subsidies for projects characterized by high EIRR/below hurdle FIRR in order to encourage private participation and help its PPP program take off. But how it can do this in a coherent and effective way remains the question.

The choice, we think, is between on-budget or off-budget financing or a combination of the two. Hence, we recommend the setting up of two complementary facilities – (a) a Viability Gap Fund (VGF) and (b) a Philippine Infrastructure Public Financial Facility (PIPFF). The VGF will serve as the facility for providing upfront support to bring projects (Type 2 in Figure 5.3-1) to commercial viability while the PIPFF, which seeks to provide off-budget support in light of difficulties associated with appropriating large amounts for single projects, even strategically important ones, will provide upfront staple financing in order to reduce the amount of VGF required by bidders.

With the tariff defined from the start, the VGF will be the bid parameter with a positive (negative) bid representing subsidy by (payment to) government to ensure that the project maximizes social welfare through the tariff. Some features of the two proposed public financial facilities, i.e. VGF and PIPFF, are

described below but will need further elaboration after more consultations with concerned government agencies, particularly DoF and DBM.

<VGF: Viability Gap Fund>

1) VGF is an unprogrammed amount appropriated annually to provide incremental support to PPP projects of line agencies, local governments and GOCC's.
2) VGF provides subsidy for construction cost other than land acquisition. However, if it is not possible under current Philippine conditions to exclude right of way cost from the VGF, then government needs to identify separately the amount allocated for ROW. The maximum amount of the subsidy to be granted from VGF should be decided – 30% of the project cost is desirable but if ROW is included, this may go up to 50%.
3) Management of the VGF may alternatively be: (a) by an inter-agency committee, with representation from NEDA, DoF, PPP Center and DBM, or (b) lodged in a particular agency, e.g., NEDA or DoF.
4) The sources of VGF would be from GOP and donors in the form of grant and/or concessional loan.
5) Contracts for PPP projects would be awarded on the basis of the lowest VGF

<PIPFF: Philippine Infrastructure Public Financial Facility>

1) The purpose of the PIPFF is to provide long-term, fixed-cost affordable financing that will help bring down the debt service burden of the project and reduce the need for government VGF and/or increase the number of important infrastructure projects for Philippine development.
2) It will preferably be lodged in an existing public financial institution to be identified to provide long-term and concessional loan. It can either be structured "on-book" of the financial institution or off-book, as a trust fund (with the national government as trustor).
3) Funding to PPP projects would be provided as co-financing with primarily local private funders on a 50:50 basis, with the latter doing the due diligence and credit evaluation. Selection criteria, approval guidelines and lending terms will be agreed upon among the Philippine government, concerned institution/s, and development partners
4) On-lending terms may include such features that lower the financing burden such as—preferential fixed long term rates, early maturities being taken by local financiers while PIPFF will take later maturities.
5) PIPFF will provide a flexible, quick disbursing component in traditional Yen ODA package which normally requires longer processing time) that can provide staple long term financing to support PPP projects more swiftly, and within full control of Philippine authorities under the agreed lending guidelines of the program.

5.4 Expected JICA's Financial Contribution to PPP Framework

5.4.1 Japanese Government Policy

The Japanese government has strong interest in PPP Infrastructure development in Asia and decided to resume the facility of private sector investment and loan (PSIL) in JICA which would be able to finance to a private company and private projects without government guarantee. JICA is now considering how JICA would be able to contribute to PPP framework and PPP infrastructure projects by utilizing the PSIL as well as Yen ODA loan. This new area of participating in PPP is seen to expand the range of

potential Japanese assistance to the Philippines, over and above what is already in the ODA pipeline for the country, and can help reverse the decline in Japanese ODA over the years.

To promote above mentioned GOJ's policy for PPP, GOJ intends to utilize following public financial arms facilitated with JICA, JBIC, and NEXI.

- JICA provides ODA loan to the public entities for development projects including infrastructure in the form of direct loan to the projects, two-step loan and "Hybrid" (two-tier system). Its applicable terms and conditions for the Philippines in 2011 is 1.4% of interest rate (refer to STEP 0.2 %) and 30 years with 10 years grace of repayment period (STEP 40 [grace 10] years).

  JICA can also provide equity and loan directly to private entities for development of the borrowers' country through newly resumed facility called PSIF (Private Sector Investment Finance).

- JBIC can also provide mainly loan to public/private entities at concessional basis but at tied basis, and limitedly invest in equity to the private.

- NEXI (Nippon Export and Investment Insurance) provides insurance and guaranty to Japanese companies on their overseas activities.

5.4.2 Expected JICA's contribution for the Two Institutions

In line with the policy of Japanese government mentioned above, JICA is ready to support PPP infrastructure projects by extending ODA loan and PSIF as described below.

1) <u>ODA Yen Loan</u>

- In addition to direct lending to a project, JICA could provide ODA loan to public institutions like VGF (an account of government itself) and PIPFF (a public financial entity). For PIPFF, ODA loan could be extended through GOP or directly with the guaranty of GOP.

- Terms of the ODA loan (2011) was annual interest rate of 1.4% with maturity period of 30 years with 10 years grace period, which would be enough concessional in comparison with expected lending condition of PIPFF. ODA loan to VGF is deemed to be simply budget support to which GOP is responsible for the repayment.

2) <u>PSIF</u>

- Private Sector Investment and Finance is a renewed financial facility which would invest and/or lend to private companies and private projects in developing countries. PSIF could finance to the financial facilities to promote development as well. Eventually PSIF's finance to VGF and PIPFF is not appropriate due to that its finance cost is higher than ODA loan, instead PSIF could do to PIFF as well as private projects and PPP project.

- Terms and conditions of PSIF finance would be similar with them of IFC and Private Sector Operations Department of ADB, which would be decided in considering the nature and features of the projects. The most concessional terms would be less than ODA loan. PSIF could participate in the equity of the projects with expectation of certain dividend.

5.4.3 Possible Modalities of JICA's Financial Contribution to PPP Framework

JICA has made a great contribution to infrastructure development in Philippines by providing its ODA

loan to GOP as its public expenditure sources. And now JICA, in line with the policy mentioned above, is ready to support PPP infrastructure projects by extending not only ODA loan but also PSIF which is newly facilitated.

JICA's contribution could be largely divided into two ways: one is directly to the projects and the other is through intermediates such as GFIs (DBP, Land Bank, NDC, TIDCORP), PIFF and PIPFF, namely indirectly to the projects. Conventional ODA loan is through GOP, but this is regarded as "direct". VGF is also counted in this direct way, because VGF itself would be an account to be set in the Government to be provided to private companies/projects.as a capital subsidy

In Figure 5.4-1, ten (10) modalities of JICA's financial contribution are presented. The five (5) modalities (I~V) given in the left side show basically JICA's direct financing to projects (with exception of government interventions), while the other five given in the right side show JICA's indirect financing to projects, namely through certain entities like GFI's. Certainly, indirect financing always gives some merits (i.e. risk sharing, smooth implementation) but also demerits (i.e. complexity).

Brief explanation of five (5) direct financing modalities given in the left side in Figure 5.4-1 is as follows.

① Conventional ODA Financing to Public Expenditure Projects (PEP)

② Expected PSIF Financing to Private Projects (new facility)

③ ODA Financing to Subsidy Needed Private Projects

Subsidy needed private projects mean the government subsidy is necessary to be profitable to attract private proponents. Since JICA cannot directly provide financing to private projects, VGF can be a substitution of ODA financing for JICA. VGF, which comprises of financing from donors including JICA (also grants can be expected) as well as the government source, provides subsidy to the identified PPP projects. The subsidy is to be given to lowest bidder from private proponents to minimize government burden.

④ ODA Financing to Two-Tiered Projects
The government takes responsibility in the lower part that is the civil portion, whereas the private proponents the upper part such as machines and equipments. This way of financing has recently become popular as a new way of PPP, in which Yen Loan can be provided to the civil portion through the government.

⑤ ODA/PSIF Joint Financing to Subsidy Needed Projects under Two-Tiered System
Usually, subsidy is not provided for two-tiered projects; however it would be necessary for projects with high public interest and work less profitability.

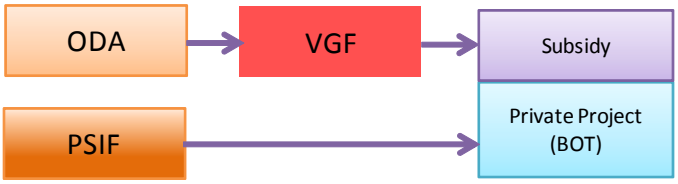
Figure 5.4-1 5 Ways of Japanese Financial Cooperation for Infrastructure Projects (1)

(Direct Ways to the Projects)

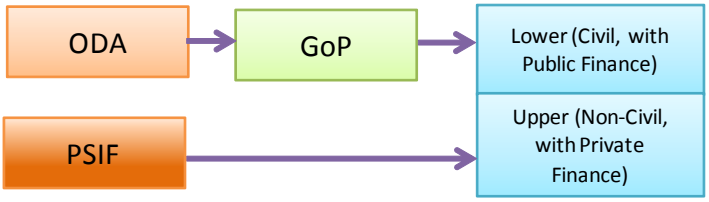
① Conventional ODA Financing to Public Finance Projects (PFP)

② Proposed PSIF (JICA) Financing to Private (Pure BOT) Projects

③ Proposed ODA Financing through VGF to Subsidy Needed Private Projects
(After ODA Financing, the Projects turned to be PPP Projects)



④ Proposed ODA Financing in Separated Method to PPP Projects



⑤ Proposed ODA/PSIF Joint Financing to Subsidy Needed PPP Projects

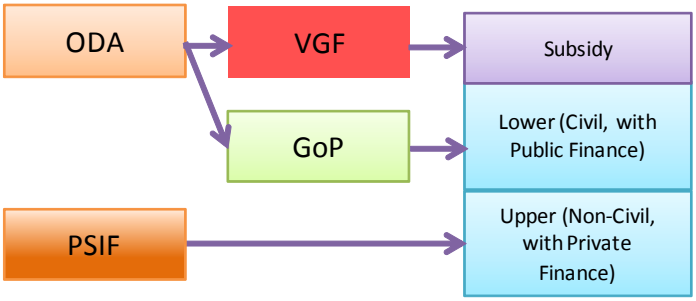
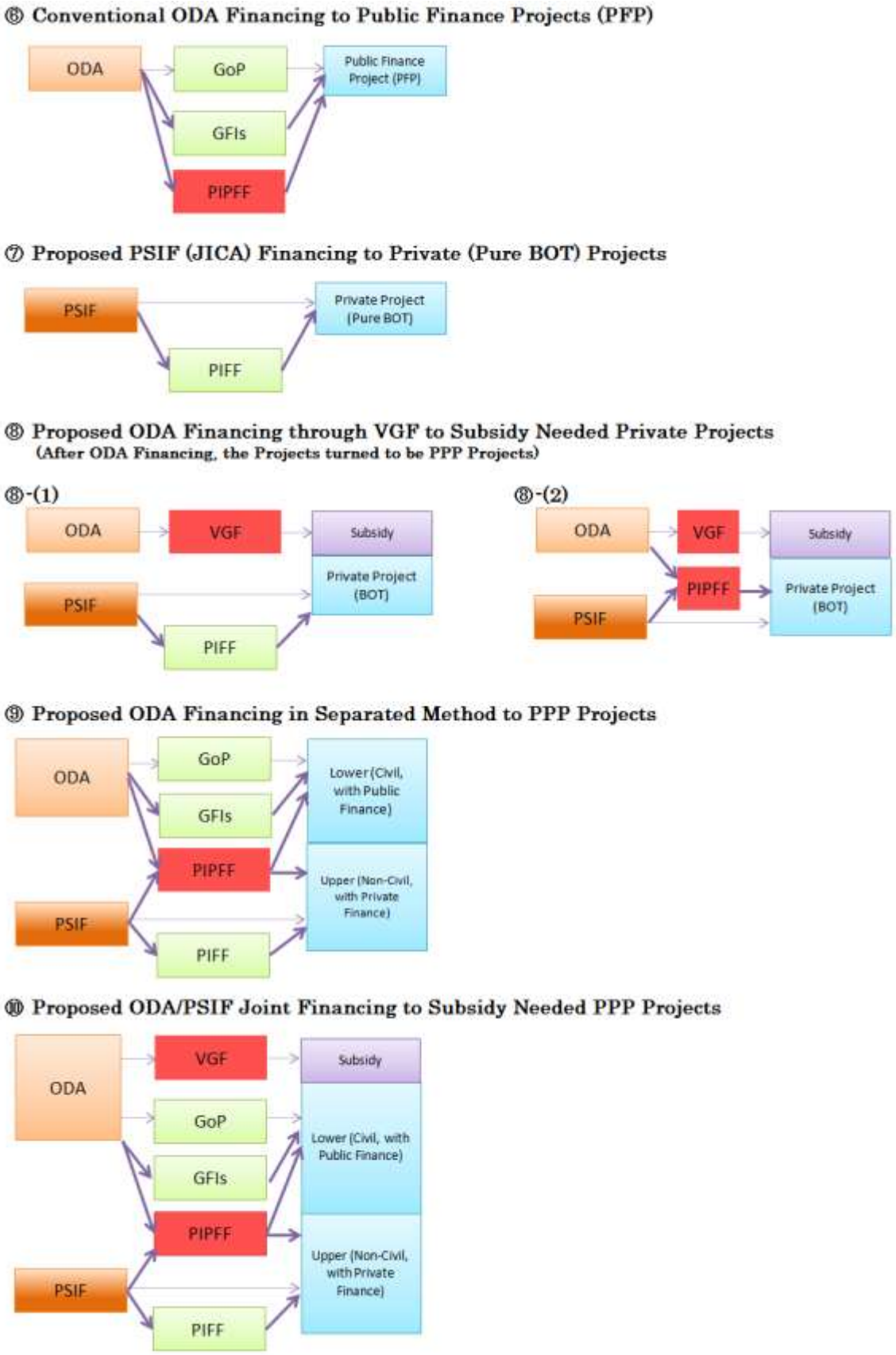


Figure 5.4-1 5 Ways of Japanese Financial Cooperation for Infrastructure Projects (2)
(Indirect Ways to the Projects)



As indirect financing covers several projects, it is expected to extract various lessons learnt for smooth implementation of the projects as well as to promote knowledge sharing. Especially, there are merits for the Japanese to be familiar with the conditions of the country.

⑥ Two step loan via government financial institutions (GFIs) is particularly convenient for small scale projects. The proposed PIPFF targets for infrastructure projects which require much longer term loan for big infrastructure projects.

⑦ PIFF has been considered by ADB as PPP financial framework; however it is rather suitable for private projects with high rate of return compared with PPP projects.

⑧ This is for Subsidy Needed Private Projects. PIFF and the proposed public facility can be considered as an intermediate entity depending on financing conditions in the market. PIPFF is more suitable for PPP projects with more concessional conditions.

⑨ PIPFF will be utilized for social projects under hybrid system.

⑩ This is ODA/PSIF joint financing to subsidy needed projects under hybrid system. Various combinations are possible and it is important to build an appropriate Finance Structure by scrutinizing the target project.

5.4.4 Merits of JICA's contribution for the Philippines and JICA

To date, the Philippine PPP program remains a work in progress with the institutional framework for project selection and financial support policies for PPP promotion yet to be explicitly spelled out. The proposed financial schemes outlined above seek to provide an overview of how JICA facilities can be used to help move the Philippine's PPP program forward. They also reveal current institutional gaps in the Philippine PPP financial framework, namely, the VGF and the PIPFF, which will need to be properly designed in the months ahead. JICA hopes to be able to assist in this effort of completing the PPP institutional and financial framework.

Moreover, in light of the concessional nature of JICA money, especially for ODA, adopting the proposed financial framework is expected to decrease government expenditures for undertaking infrastructure projects (i.e., lower government's borrowing costs), leverage the use of scarce government resources in order to get more projects implemented, improve financial viability of projects through the more effective funding mechanism identified and thus, make infrastructure projects more attractive for the private sector. Specific merits of these financial facilities include:

1. The VGF framework described above provides a more deliberate and systematic process in allocating resources than current ad hoc practice driven by agency budget requests. By having a lump sum, it also provides greater flexibility and efficiency in use of budget resources by allowing allocation and reallocation depending on which projects are most ready.

2. Such a framework can help attract additional resources from development partners, especially bilateral funding sources, and help address envisioned long-term constraint for infrastructure financing. Creating a lump sum VGF pool funded by ODA support, can sway bilateral official funders to a quick disbursing mode of assistance, diversifying from traditional project linked ODA with lengthy processing time.

3. Both the VGF and PIPFF facilities will help bring down the user charges for PPP projects, and improve their economic and commercial viability, and public acceptance, esp. large strategically important ones.

4. For the PIPFF, use of the GFI's borrowing authority/ties to provide off-budget support in the form of long-term loans will help relieve national government budget constraints as this reduces the required VGF. Moreover, through co-financing with the private sector, the PIPFF attracts additional resources, risk sharing and quality assurance, and thus high confidence of financial viability and full recovery.

These positive contributions are expected to provide the supporting financial framework to government's PPP program over the medium term, and help spur economic development.

5.4.5 Hurdles to JICA's contributions

While JICA is now prepared to participate with ODA and PSIF either directly to the project or indirectly (through PIPFF, PIFF) in the PPP program, its immediate entry is held back by the lack of an overarching PPP financial framework and its elements, including identification of key public sector players that will administer interested donor funds and clarity in program guidelines that donors can use to design their own mode of entry in PPP projects. This missing policy framework will necessarily keep official as well as private parties interested in the PPP programs to stay on the sidelines in the meantime. At the same time, work on the two facilities need to proceed in terms of:

a) Clear public policy on appropriating for and funding VGF

A basic issue that emerged from the discussions with government is congress's likely reluctance to appropriate too large an amount for incremental and unprogrammed VGF in the annual budget. The impediments to this are twofold.

- Current legislative practices provide budget cover for only current spending of approved projects, giving rise to risk associated with the uncertainty of continuing appropriations for future public sector commitments, which the multi-year obligation authority (MYOA) mechanism does not satisfactorily address. This spreading thin of government budget over several projects/expenditure items is driven by effort to meet competing budget demands with limited resources.

- Congress would be reluctant to unduly delegate budget allocation power to the executive in the form of a large completely unprogrammed amounts for VGF beyond the limited amount that has already been provided the DOTC, DPWH (P5 billion each for 2011) and Department of Agriculture (P2.5 billion).

A possible solution around Congress' reluctance would be to have it also approve a strictly vetted list of important projects whose total VGF requirement would be much higher than the total amount of VGF requested from Congress for that year. This under-budgeting approach is meant to conserve limited budget space and is based on an expectation of high likelihood that not all projects in the list will be ready. It also creates incentive to implementing agencies to move quickly to get to the head of the queue.

The request for VGF for projects should cover not just the amount required to be disbursed for the current year, but the entire amount needed by those projects over their project lives .

While this may increase the reported deficit on obligation basis for that year, it will not have impact on government's cash deficit (the number that financial markets monitor) until the amount is actually disbursed over time.

A second issue is the sourcing and currency mix for government borrowing for VGF. Government has reduced its reliance on foreign borrowing in an effort to reduce foreign exchange risk exposure. While the focus of this has been on the commercial or capital market component of its borrowing program, and there is remaining interest to maximize where possible access to ODA, the very comfortable foreign reserve position has reduced the incentive for doing so, given also it is more complex and time consuming to negotiate and conclude ODA loans than capital market operations.

b) Identifying the appropriate financial institution to administer the PIPFF considering the GFI's charter, financial and human resources and track record.

Continuing efforts to rationalize and streamline Philippine GOCCs, coupled with the national government's tight budget constraint will make setting up a new financial institution solely mandated to handle PPP funding difficult. Hiring the necessary skilled talents to man a new public institution with no track record of success nor of durability will be equally challenging. Thus, the best option for quickly getting the PIPFF up and running it is to tap existing GFIs with the mandate, the track record and the manpower resources and establish a separate PIPFF unit within the GFI. The candidates at this time include the government banks, DBP and Land Bank, as well as NDC and TIDCORP. DBP is attractive given JICA's own familiarity with the bank and experience in dealing with them but a structure using either DBP or Landbank would have to consider constraints related to banking regulations, e.g., CAR, SBL, that have cost implications on PIPFF's lending. On the other hand, NDC and TIDCORP, both of which will require financial and institutional strengthening to be able to manage the PIPFF facility. But in light of the next issue (c), should still be seriously considered.

c) Address the limited headroom for guarantee under the Foreign Borrowings Act

The Foreign Borrowings Act sets the limit at $10 Billion the total amount of foreign loans, credits or indebtedness national government can contract and at $7.5Billion the guarantee ceiling. Although the ODA Act expressly excluded ODA loans from the debt ceiling set under the Foreign Borrowings Act, the ODA Act did not provide that the ODA loans of GOCCs or GFIs guaranteed by the National Government is not counted against the guarantee ceiling set by the Foreign Borrowings Act. The current guarantee headroom stands at around $900 Million.

Given other competing demands, this limited headroom constrains using ODA to fund the PIPFF. Alternative solutions need to be explored including (i) amending the law to increase the ceiling or exempt gurantees on ODA loans from the ceiling and (ii) tapping NPIC (NDC subsidiary) and TIDCORP, whose guarantees fall outside the guarantee ceiling of the Foreign Borrowings Act, to act as conduit for national government to provide long-terming financing to national priority infrastructure projects, without impacting on the limited guarantee headroom under the Foreign Borrowings Act.

d) Define appropriate arrangements between DoF and the PIPFF vehicle on guarantee and foreign

exchange fees

Additionally, there is reluctance on the part of the Department of Finance to continue providing foreign exchange guarantee cover for two step loans that have been traditionally provided to DBP and Land Bank. They are trying to limit fiscal risks from volatile losses due to sharp depreciation of the peso/appreciation of the Yen. While the low interest and long maturities of the ODA should likely offset these losses, government accounting rules and financial management processes do not allow for creating a sinking fund which earn interests against which such volatile losses can be offset. On the other hand, the DBP and Land Bank are not allowed by the BSP to carry such risks for prudential reasons.

Even if the DoF is prevailed upon to continue providing the cover, there is additionally the need to review the pricing of both the guarantee on the ODA loan and the FX cover, which the DoF pegs at 1% and 3%, respectively, with the end in view of limiting the add-on costs of ODA funds to end-users.

A separate issue raised by government officials is added cost of putting borrowed ODA funds in the PIPFF for which commitment fees on undrawn balances will have to be paid. A structure that allows the PIPFF to draw on ODA loans only if there are ready projects should be explored (credit line concept that moreover hastens donor approval processes for projects).

e) Align and harmonize procedures between public and private portion in hybrid projects

While the proposed hybrid structure of combining official donor funds with private monies for infrastructure projects appears to have been adopted by one department (i.e., DOTC), it remains unclear if this is general government policy for all sectors. Hence, to date, there have been no pronouncements on how government intends to implement the hybrid scheme. A key issue that will need to be delved into to come up with a working model is how to harmonize the varying policies, systems, processes and procedures of the different public sector players, the different donor agencies and the private sector as well as risks associated with timing/scheduling, asset mismatch and counterparty issues for each portion of the hybrid scheme. For the public sector portion, models of ODA delivery currently exist in several GFIs but will need to be reviewed for suitability especially if coursed through a new unit such as the proposed PIPFF. Private sector concerns will also need to be taken into consideration. Clear rules of game and conditions for private sector participation in the private portion of the hybrid scheme will also need to be set for transparency and to avoid mid-project delays.

5.4.6 Optimal Structure to be recommended in the Philippines

As the most optimal modality among ten (10) shown in Figure 5-1, the modality of (V) ODA/PSIF Joint Financing to subsidy needed PPP Project could be recommended to be established. The main reason for it is GoP could choose any variation which would fit to the selected project.

Among the various alternatives, higher probability modalities would be following four as shown in figure 5.4-2. There are four hybrid modalities as follows:

1. **Hybrid 1**: This is the simplest way. ODA would finance directly public portion (mainly for civil works) and private sector would finance private portion (mainly for non civil works, equipment) GOP would have to finance ROW to which ODA could not cover as a rule.

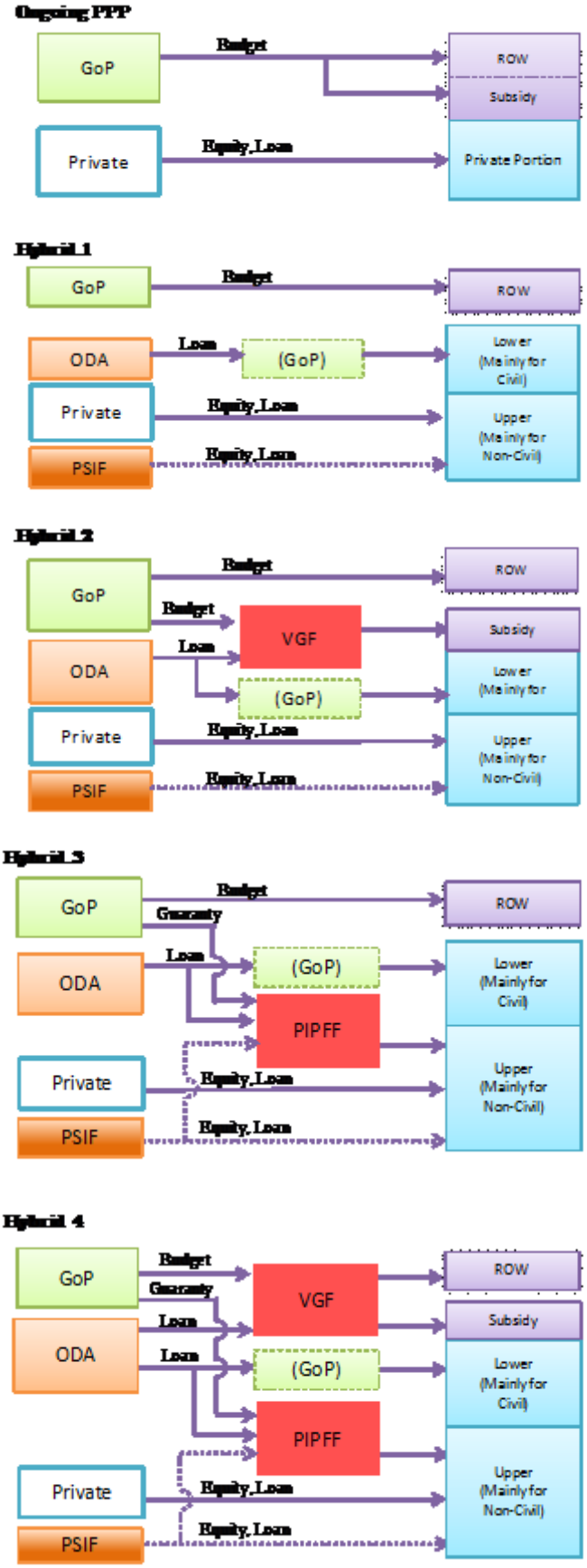
2. **Hybrid 2**: This is the way to utilize VGF, to which GOP and ODA could provide funds, would provide subsidy to ROW and a part of project cost. In addition, ODA would finance also the public portion and private sector would finance private portion. This format might be appropriate for the smaller projects and their profitability is usually lower such as social infrastructure like education and rural hospitals.

3. **Hybrid 3**: This is the modality to utilize PIPFF without having VGF, therefore applicable projects are with the nature of large-scale and enough profit expected. Railway, toll road and some airport project would be appropriate.

4. **Hybrid 4**: This is to utilize two financial institutions, VGF and PIFF for the project which is large scale and at the same time less profitable and comparatively higher risk. For these projects, private investors would prefer borrowing than investing. If public financing is available, their preference would be clearer.

Based on the modalities, case study, taking currently rolling out projects, would be conducted in coming months and the outcome would be reported in separate manner, not in the FR, in due course

Figure 5.4-2 Optimal Structure to be recommended in the Philippines



CHAPTER 6 CAPACITY BUILDING FOR PPP PROJECT PREPARATION

6.1 Current Status

The capacity development plan shown in the "Road Map for PPP Acceleration" covers a wide range of programs, such as strengthening the capacities of the PPP Center and IAs, preparation of guidelines for risk sharing and PPP F/S, and standardization of bid documents and PPP contracts. The ADB, including other donors, are currently ready for the implementation of their respective capacity development programs. The capacity development programs to be carried out by ADB, AusAID and CIDA mainly focuses on the PPP Center with emphasis on institutionalization of PPP best practices. The Singapore Cooperation Enterprises will provide a grant to the GOP for the enhancement of the practical capabilities of DOTC staff members in the field of procurement for PPP projects.

One of the more important lessons derived from the country's experience in PPP projects was the "poor quality at entry". The term "quality at entry" implies the need for a better and more transparent project preparation based on open-bidding based solicited proposal. What is badly needed are comprehensive feasibility study reports for PPP projects. A comprehensive feasibility study entails a project feasibility analysis that covers legal, institutional, financial, project implementation and risk sharing analysis. The IAs will be deeply involved in ensuring the required "quality at entry".

Institutional reforms for attainment of "quality at entry" should encompass: *i*) establishment of Project Implementation Units (PIU) inside IAs and LGUs that will coordinate projects with the PPP Center; *ii*) recruitment of staff members for a PIU; and, *iii*) set up the coordination system between the PPP Center and each PIU. The year 2011 should have been planned for the strengthening capacity preparation of the different government units involved for "quality at entry", but the initial findings on the current state of PPP in the Philippines showed the lack of awareness of the concerned IAs for "quality at entry", so that majority of the IA staff members have a poor understanding of the need to improve services during the project preparation stage. Another finding was the lack of coordination or communication between the PPP Center and IAs.

As seen in Figure 4.2-1 (Road Map for Acceleration of PPP in the Philippines), capacity development for IAs is planned for implementation on the "Trial" year of 2012. The Study period, from March 2011 to February 2012, is supposed to be the right time for the preparation of capacity development programs for IAs, for implementation of the capacity development programs anticipated in 2012 onwards.

6.2 Study Activities for Capacity Development

The Study, which started on March 28, 2011, initially had the following scope of works for capacity development: *i*) risk analysis capability of line agencies (IAs). The Study Team held several mini-workshops with IAs (i.e., primarily with DOTC and MWSS) with discussions focusing on risk identification and preparation of risk matrices, including identification of mitigation measures. The mini-workshops also touched on risk allocation/risk sharing, which is vital for PPP F/S and evaluation

of bid documents.

In the course of the Study, NEDA requested the Study Team to clarify the so-called "Road Map for PPP Acceleration" and PPP project selection methodology. In response, the Study Team added the preparation of the road map for PPP, including PPP project selection methodology, to the original scope of works. The road map primarily assists the PPP Center in understanding the milestones for PPP improvement. It suggests the importance of coordination between the Center and IAs through model projects and joint preparation of PPP guidelines, such as PPP F/S and risk sharing. The road map presented in the 2nd PPP Cooperation Workshop (August 25, 2011) contributed to the awareness of participants from IAs of their responsibilities especially at the preparation stage.

After the submission of the Progress Report (July 2011), the Study Team began to deliberate on the importance of a well-prepared PPP feasibility study. During the course of the study, the Study Team did not find samples of well-prepared PPP feasibility reports in the Philippines. The major difference between F/S of ODA-funded projects and F/S of PPP projects is the inclusion of: *i*) PPP modality (BOT, BOO, BT, etc); *ii*) functions to be managed by the private proponent; *iii*) legal study concerning project implementation and risk hedging; *iv*) financial structure equity and debt finance; *v*) project implementation structure including SPC; *vi*) financial feasibility based on a combination of government subsidy and various financing options; and, *vii*) analysis of contingent liabilities for risk sharing. Preliminary assessment shows that concerned stakeholders may not have the correct understanding of what constitutes a PPP F/S. The 3rd PPP Cooperation Workshop held on December 6, 2011 gave emphasis on PPP project procedures, where the proposed processes from project preparation to PPP feasibility study were clarified. The Study further amended the scope of works, adding case study of a PPP project. The case study primarily focuses on the financial feasibility of a project financed by VGF and PIPFF. This additional scope contributes further to the capacity strengthening of IAs and the PPP Center, which is mandated to conduct technical assistance to IAs.

6.3 Lessons from the Study

(1) Lack of Synergy Effect

The year 2011 is earmarked as the first year for PPP acceleration. The ADB and AusAID are ready to provide technical assistance, in the form of capacity development programs, to the PPP Center. Nevertheless, it took time to prepare such technical assistance services, particularly the preparation of consulting services. Under such circumstances, the Study has been solely carried out. Had the road map for PPP been prepared in 2010, a joint cooperation between ADB, AusAID and JICA for capacity development for the Center would have materialized in 2011, resulting in a synergistic effect on capacity development. The schedule from year 2012 onwards should be carefully arranged by taking into account the possible synergistic effects on capacity development. The road map showing a milestone for PPP improvement gives the NEDA/PPP Center guidance on how to implement capacity development programs. In this respect, NEDA should coordinate all planned programs from the different donors in order to gain synergistic effects on capacity development of the different government agencies.

(2) Necessity of a Method for Risk Sharing

A risk analysis covering a wide range of risks has not been effectively made to demonstrate its

ultimate objective of allocating risks between parties. The revenue risk sharing scheme between the government and the concessionaire brought about by unstable demand is a good agenda to analyze contingent liabilities assumed by the government. Since the private proponent is apprehensive to most government risk sharing schemes, especially on instances when revenues are reduced, this agenda should be discussed and shared with the major stakeholders, including the Department of Budget Management that prepares the government guarantee fund for contingent liabilities. A risk sharing method is a common agenda that should be tackled not only by IAs, but also by NEDA/PPP Center and DOF/DBM.

(3) Open Discussion on Tariff Design

The tariff study included as additional scope of work in the Study covers tariff design, tariff adjustment and parameters (least tariff or least subsidy) used at the time of bid evaluation. Tariff design is in reciprocal relation with subsidy. The Philippines has learned valuable lessons from the MRT-3 Project that resulted in government subsidy to the project which then led to disputes between the concerned parties. The government's non-approval of tariff adjustments as stipulated in a project contract is often interpreted as a regulatory risk. In short, tariff design should be closely related with controversial issues, such as subsidy and risk. In this regard, tariff design should be discussed openly between the concerned parties, including the private sector.

Tariff design needs to balance a number of objectives; *i*) cost recovery, *ii*) fairness and equity, *iii*) simplicity and comprehensibility, and *iv*) need for subsidy. From the viewpoint of private proponents, the commercial viability of a PPP project is determined from required service standard (costs) and tariffs (revenues) generated. A private operator will only be interested in getting involved in a project if it sees a fair chance of making a profit, given a predetermined set of service standards and tariffs. Urban water supply and urban railway projects desperately need rationalized and structured combination of service standards and tariffs. On the other hand, as a starting point for the promotion of fairness, different customer groups should observe and demand tariffs that are reflective of the cost of supplying the service. People accepting lower quality of service should have their bills lowered. Specific subsidies or cross-subsidies built into a tariff system address these situational disparities.

(4) Training of Staff Members of IAs and PPP Center for PPP F/S

The PPP Center's mandate includes providing fund for pre-investment activities through the PDMF, and providing technical assistance in the review of PPP project feasibility studies; while IAs are responsible for the preparation of Terms of Reference (TOR) for PPP F/S. Capacity strengthening of staff members of IAs and the PPP Center on conducting proper PPP F/S is thus vital for PPP project preparation. This Study should have contributed to this aspect. It would take time for the government staff to acquire basic knowledge on legal, financial and risk management required for a PPP project feasibility study. There are direct and indirect approaches in capacity strengthening of the concerned staff members. The former is through the employment of resource persons for the PPP Center and PIUs of IAs. The latter is the TOT system, where trainers (the staff members of the Center) provide technical assistance to PIUs on PPP feasibility study preparation.

Part II.
Sector Study for PPP Projects Improvement

CHAPTER 7 TOLL ROAD SECTOR

7.1 Brief History of PPP Projects

Toll road development has evolved into three distinct approaches, namely the franchise approach, the Joint Venture (JV) approach and the BOT Law approach.

7.1.1 Franchise Approach: Late 1970s to 2000s

The first toll roads that allowed private sector participation in public infrastructure projects were the North Luzon Expressway (NLEx) and the South Luzon Expressway (SLEx). Both expressways were constructed using public funds. Presidential Decree (PD) No. 1112, also called the "Toll Operation Decree", issued in 1977, created the Toll Regulatory Board (TRB), under which the private sector was allowed to operate, maintain and expand the facility. The TRB was authorized to enter into contracts for the construction, operation, and maintenance of toll facilities, such as but not limited to, national highways, roads, bridges, and public thoroughfares.

Under PD No. 1113 in 1977, the Construction and Development Corporation of the Philippines (CDCP) was granted the right, privilege and authority to construct, operate and maintain toll facilities for a period of thirty (30) years from May 1, 1977, and extend the North Luzon Expressway (NLEx) to Pangasinan and the South Luzon Expressway (SLEx) to Quezon.

Through PD No. 1894 in 1983, the Philippine National Construction Corporation (PNCC, formerly CDCP) was further granted the authority to construct, maintain and operate **any or all such extensions, linkages or stretches from any part of NLEx and/or Metro Manila Expressway**. The franchise for the Metro Manila Expressway and all extensions/linkages shall have **a term of thirty (30) years commencing from the date of completion of the project.**

Major projects implemented under this approach are:

- North Luzon Expressway (NLEx)
- South Luzon Expressway (SLEx)
- Manila-Cavite Coastal Expressway (CAVITEx)

7.1.2 Joint Venture Approach: Early 1990s to Present

With the increase in traffic and further deterioration of the franchised expressways, the need for rehabilitation, improvement and widening of the facilities has increased sharply. Since the original franchise holders did not have enough financial capacity to undertake such works, a group of private investors submitted an unsolicited proposal to the original franchise holder for financing the required rehabilitation/widening/improvement of the facilities under a joint venture approach. These private investors, in joint venture with the original franchise holder, implemented the necessary works, and the joint venture company had a supplemental toll operation agreement (STOA) with TRB.

Major projects implemented under this approach were:

- Rehabilitation, improvement and widening of NLEx
- Rehabilitation, improvement and widening of SLEx
- Construction of Skyway Phase I and Phase II over SLEx
- Extension of CAVITEx

7.1.3 BOT Law Approach: Middle of 1990s to Present

In 1990, Republic Act (RA) No. 6957, otherwise known as the BOT Law, provided the basis for private sector participation in the financing, construction, operation and maintenance of infrastructure projects.

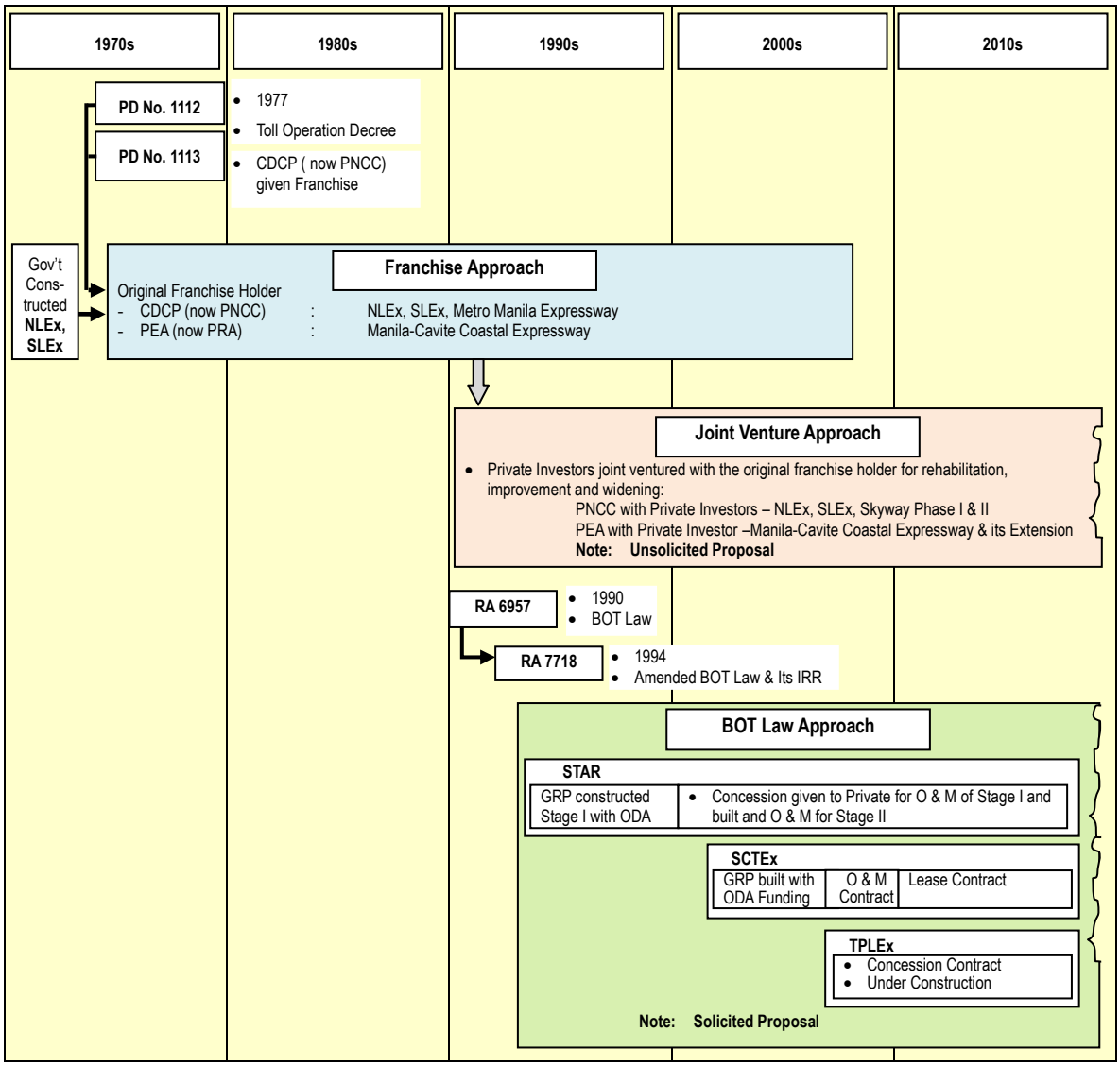
In 1994, RA No. 6957 was amended by RA No. 7718, which, among other things, allowed more BOT variants, recognized the need for private investors to realize rates of return reflecting market conditions, allowed government support for BOT projects and allowed unsolicited proposals, although it nevertheless discourage unsolicited proposals by setting restrictions on government financial support. The revised implementing rules and regulations (Revised IRR) of the BOT Law, as amended, have been prescribed to cover all private sector infrastructure or development projects.

Major projects implemented under this approach are:

- Southern Tagalog Arterial Road (STAR)
- Subic-Clark-Tarlac Expressway (SCTEx)
- Tarlac-Pangasinan-La Union Expressway (TPLEx), which is currently under construction

Historical flow of private sector participation in toll roads is shown in Table 7.1-1.

Table 7.1-1 Historical Flow of Private Sector Participation in Expressway Projects



Source: Preparatory Survey for Public-Private Partnership (PPP) Infrastructure Development Projects in the Republic of the Philippines, 2010, JICA

7.1.4 Merits and Demerits of Franchise Approach and JV Approach

Merits

- With the initiative of the private sector, the existing expressways have drastically strengthened their transport capacities.
- Involvement of the public sector funding was minimal and limited to ROW acquisition.

Demerits

- Franchises have been granted to the private sector in very loose and broad terms, stated as, "Granted the authority to construct, maintain and operate **any or all such extensions, linkages, or stretches"**. There are no fixed routes/alignments for which the franchise is granted. For example, in the case of "Metro Manila Expressway", its route (beginning, end points and areas to be traversed) is unknown. Thus, when DPWH proposes a similar concept of project or to

connect a new link to the existing expressway, the franchise holder claims it is their project.

- Involvement of DPWH, which is the national agency for planning and implementation of road projects in the country, has been minimal. Thus, DPWH could not take a leadership role in the expressway network development.

7.2 Major Players in Toll Road Development

Major players under the BOT Law approach and the Joint Venture approach are shown in Figures 7.2-1 and 7.2-2 respectively.

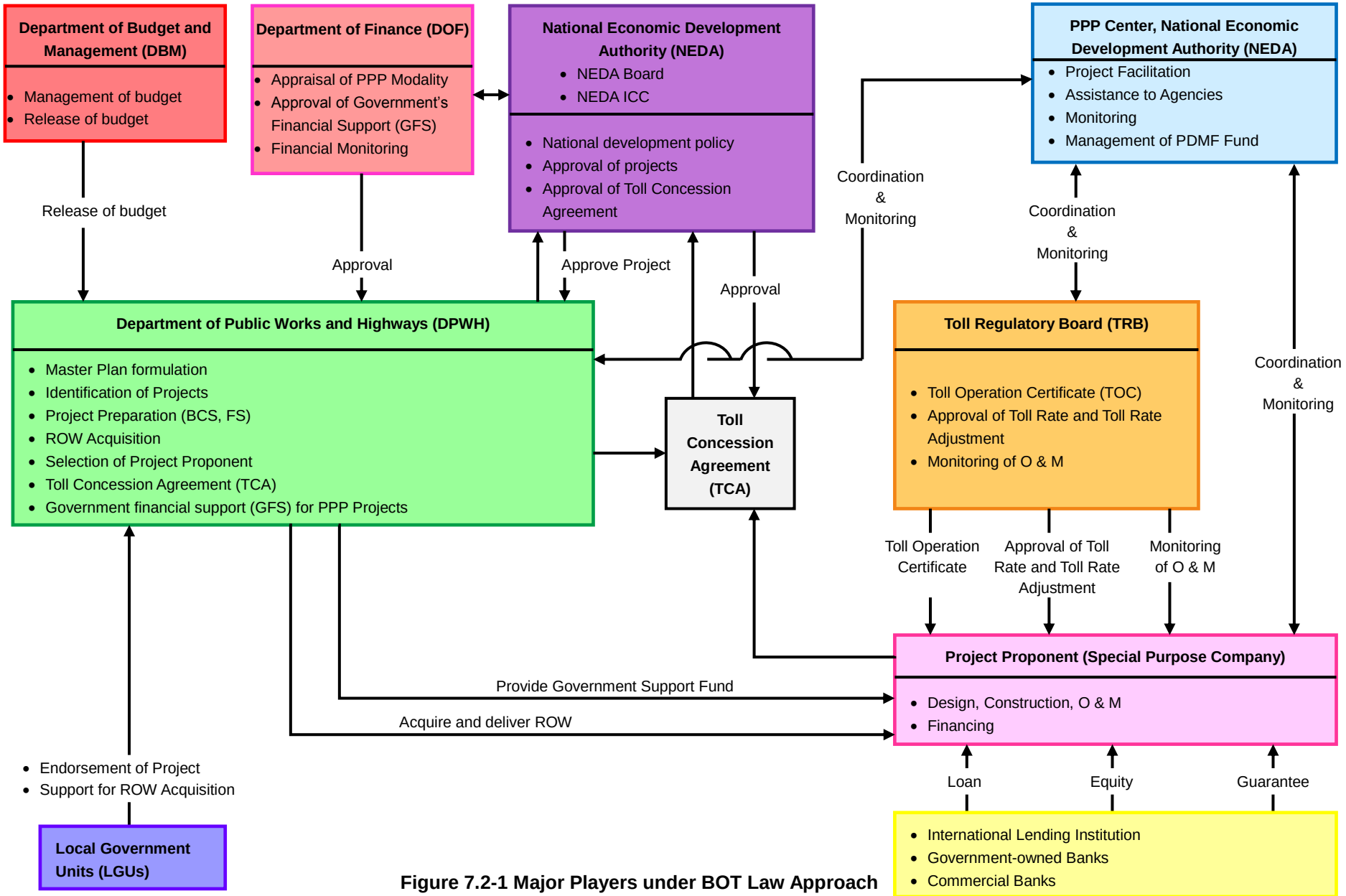


Figure 7.2-1 Major Players under BOT Law Approach

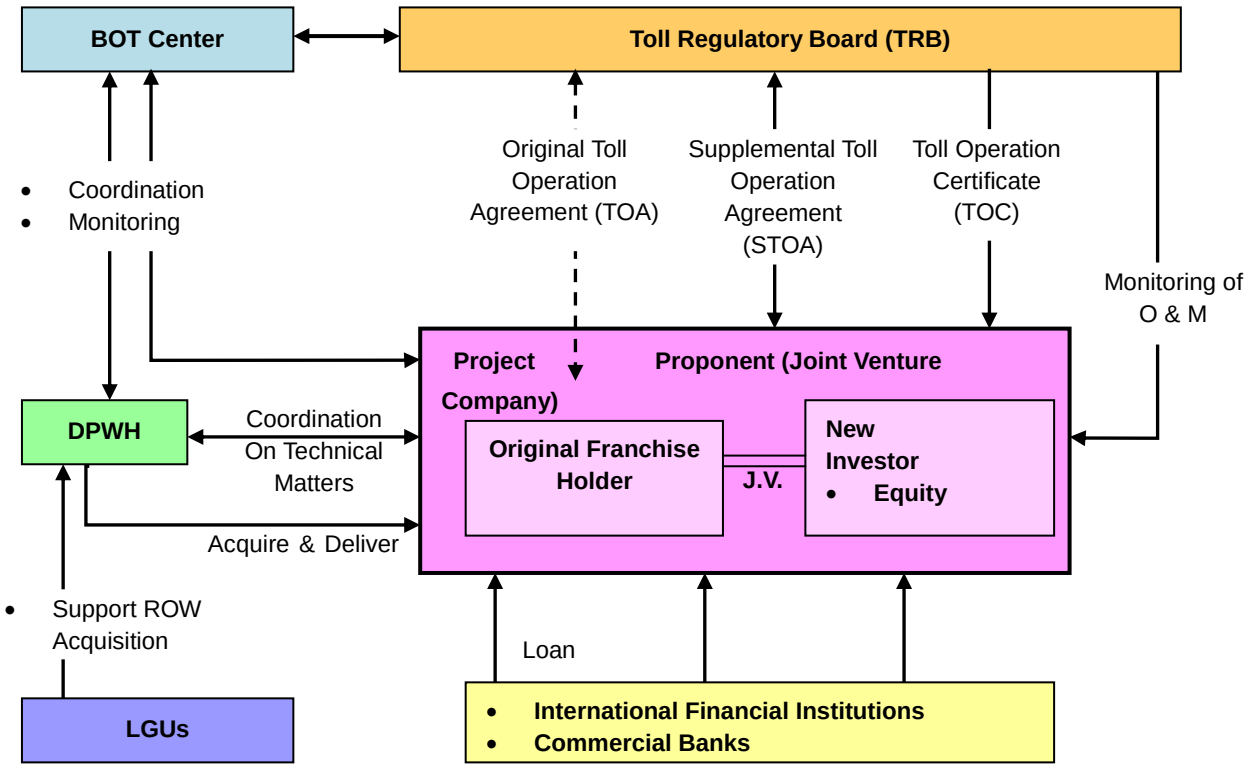


Figure 7.2-2 Major Players under Joint Venture Approach

Major roles of major players are as follows:

(1) Department of Public Works and Highways (DPWH)

Although DPWH is the lead agency that is responsible for highway network development, it was not so active in the past as far as toll road development is concerned which was rather propelled by the private sector and government-owned and controlled corporations (GOCCs), such as the Base Conversion Development Authority (BCDA) and the Philippine Reclamation Authority (PRA). Under the current administration, however, DPWH is now quite active in pursuing toll road development.

Major roles of DPWH are as follows:

- Toll road development master plan formulation (policies, strategies, targets, long lists of toll roads and implementation plans, etc.)
- Preparation of short- and medium-term toll road development plan (short list of toll roads and implementation plan)
- Project preparation (business case study and feasibility study)
- ROW acquisition
- Selection of concessionaire
- Provide necessary government financial support (GFS) such as subsidy for construction cost
- Enter into toll concession agreement (TCA)
- Monitoring of operations and maintenance

(2) Toll Regulatory Board (TRB)

Under the franchise approach and JV approach, TRB is the signatory on the toll operation agreement (TOA) or supplemental toll operation agreement (STOA).

Under the BOT Law approach, TRB's roles are rather limited to the following:

- To issue toll operation certificate (TOC)
- To approve toll rates and toll rate adjustments
- To monitor O & M

In the past, delineation of functions between DPWH and TRB was not so clear, but Executive Order (EO) 686, December 19, 2007 clearly defined the roles of the two parties as follows:

DPWH

- Enter into contract for the construction, operation and maintenance of toll facilities for highways, roads, bridges and thoroughfares.
- Determine the kind, type and nature of highways, roads, bridges and thoroughfares.
- Expropriate private property

TRB

- Issue, modify and publicize the toll rates and approve or disapprove petitions for the increases; and,
- Grant authority to operate a toll facility and issue the necessary TOC.

The initial toll rates and the adjustment formula of toll rates are specified in the TCA entered into by and between DPWH and the selected concessionaire; therefore, TRB is basically required to automatically approve toll rates and toll rate adjustments.

(3) National Economic Development Authority (NEDA)

Major NEDA and NEDA Board roles are as follows:

- Establish national development policies and strategies
- Approve toll road projects
- Approve TCA

(4) PPP Center

Major roles of PPP Center are as follows:

- Facilitate PPP projects and assist national agencies and corporations and LGUs
- Provide advisory services and technical assistance
- Manage and administer Project Development and Monitoring Facility (PDMF)
- Monitor and facilitate PPP projects

(5) Local Government Units (LGUs)

Major roles of LGUs are as follows:

- Endorse projects
- Support DPWH for ROW acquisition

(6) Project Proponent (Concessionaire)

- Design, construction and operation/maintenance
- Financing

The delineation of roles between the Government and the private sector as specified in the BOT Law and its IRR is shown in Table 7.2-1.

Table 7.2-1 Delineation of Roles Between the Government and the Private Sector($^1/_3$)

Under RA 7718 (BOT Law) and its IRR

Stages	Activities	Government	Project Proponent (Private)
1. Project Approval	1.1 Project ID and Preparation	By Agency (F/S, Contract Documents)	-
	1.2 Approval of Project	By Approving Body (ICC, NEDA Board, Local Councils)	-
2. Public Bidding and Contract Approval	2.1 Advertisement and Invitation to P.Q.	By PBAC	-
	2.2 Preparation of P.Q. Document	-	Preparation
	2.3 P.Q. of Bidders	By PBAC	-
	2.4 Proposals/Bid Preparation	Issuance of Request by agency (Pre-Bid Conference by PBAC)	Preparation
	2.5 Bid Submission and Evaluation	Evaluation by PBAC	Submission
	2.6 Approval of Contract Award	- Recommendation by PBAC - Approval by Agency	-
	2.7 Issuance of Notice of Award	By Agency	-
	2.8 Execution/ Approval of Contract	- Execution by authorized signatory of Agency - Submission of copy of signed contract to Approving Body	- Execution by authorized signatory of winning proponent
	2.9 Issuance of Notice to Commence Implementation	By Agency	
3. Detailed Engineering Design	3.1 Detailed Engineering (DE) Designs and Plans	Preparation of DE (government option) Setting of design performance standards	Preparation of DE based on government performance standards
	3.2 Review and Approval of Detailed Engineering Design and Plans	By Agency	
4. Construction	4.1 Project Construction	-	- Construction per design/performance standards. - Proponent may engage qualified foreign/Filipino contractors
	4.2 Performance Guarantee/ Security		Posting of security in cash, LC, bank guarantee, surety bond to guarantee con-tract obligations up to project acceptance.
	4.3 Technical Supervision/ Review of Project Construction	Inspection and checking to determine conformance with plans, specifications and standards	Correction of deviations
	4.4 Contract Variation	- Recommendation by agency - Prior approval by approving body	-

Source: IRR of RA 7718

Table 7.2-1 Delineation of Roles Between the Government and the Private Sector($^2/_3$) Under RA 7718 (BOT Law) and its IRR

Stages	Activities	Government	Project Proponent (Private)
4. Construction	4.5 Milestones	Setting of milestones as part of bidding documents	Execution of Project in accordance with pre-determined milestones
	4.6 Liquidated Damages	-	Damages due for every day of delay beyond target completion date
	4.7 Contract Termination/ Rescission	Rescission if project proponent fails to perform any provisions on the approved contract	Termination if agency fails to comply with any major obligation in the approved contract
5. Operation and Maintenance	5.1 Performance Guarantee/ Security for Operation		Posting of security in cash, LC, bank guarantee, surety bond to guarantee proper operation
	5.2 Repair and Maintenance Costs		- Repair/ maintenance performance standards - Set aside maintenance funds from revenues and deposit this in an escrow account_
	5.2 Contract Termination/ Rescission	Rescission if project proponent fails to perform any provisions on the approved contract	Termination if Agency fails to comply with any major obligations on the approved contract
	5.3 Transfer of and warranty over Facility	-	Post Warranty Security
6. Repayment Schemes	6.1 General Classification	- Depends on contractual arrangement or as accepted by the Approving Body	For BOT arrangement: Collection of reasonable tolls, fees, and charges over a fixed term.
	6.2 Tolls, fees, Rentals, and Charges	- Bid Evaluation by agency - Approval by the approving body - Incorporation in the contract - Upheld by regulator	Charging approved tolls, fees, charges
	6.3 Adjustment of Tolls/ Fees/Rentals/Charges	- Pre-determination of toll adjustment formula and official price indices and inclusion in Instructions to Bidders - Prior to bidding, secure advice of regulator and/or approval by approving body for such formula	Actual adjustment based on pre-determined formula and official price indices in the approved contract
7. Investment Incentives	7.1 Available Investment Incentives	- As provided for under Omnibus Investment Code	Availing of incentives

Source: IRR of RA 7718

Table 7.2-1 Delineation of Roles of the Government and the Private Sector($^{3}/_{3}$) Under RA 7718 (BOT Law) and Its IRR

Stages	Activities	Government	Project Proponent (Private)
8. Government Undertakings	8.1 Cost sharing for Construction	- May provide ROW and, where applicable, financing (GFS) of portion/share of capital cost not exceeding 50% of total cost - May finance GFS from ODA	Financing of the capital cost, net of GFS
	8.2 Credit Enhancement	- May include guarantee on performance of agency obligations	
	8.3 Direct government subsidy for O&M	- May finance a portion of O&M cost, or condone/ postpone payments due from proponent, or contribute property to the project	
	8.4 Direct government equity	- May subscribe shares of stocks of the project company	
	8.5 Performance Undertaking	- May assume responsibility for the performance of agency's obligations under the contract, including monetary obligations for default.	
	8.6 General	- Agency may offer any of the above government undertakings to be submitted to the approving body for approval of the project and the contract - Agency should pre-clear the undertakings with the entity that will grant the same	
9. Coordination and Monitoring of Projects	9.1 Coordination and Monitoring 9.2 Report to ICC, President and Congress	- BOT Center shall be responsible - BOT unit of agency shall be responsible for planning, overseeing and monitoring projects	

Source: IRR of RA 7718

7.3 Sector Characteristics

Characteristics of PPP expressway projects can be summarized as follows:

a) Huge upfront investment is required

Toll road projects require huge construction cost at the initial stage of the project which usually becomes a financial burden on the part of the private sector. It is quite important to make the project bankable from the financial viewpoint. A proper PPP modality should be selected for the private sector to participate in PPP projects.

b) Long period is required to recover investment

A long period (usually over 20 years) is required to recover investment, which usually makes it difficult to correctly forecast future economic conditions, government policies, government stability,

etc.

c) Unreliable traffic demand forecasts and revenue estimates

Accurate traffic demand forecast and revenue estimate is difficult, particularly for greenfield projects, thus, revenue risk is high.

d) Regulatory frameworks credible to investors

Regulatory frameworks credible to investors are essential to attract investors. The TCA should properly address regulatory risks.

e) Appropriate toll level and social acceptance

Appropriate toll level and social acceptance needs to be established.

7.4 Lessons Learned from Previous Projects

Various reports and opinions of the present concessionaires were collected and identified. Major bottlenecks of previous PPP projects were summarized hereunder:

a) Incomplete and poor quality of feasibility studies

Unlike conventional Government procurement, a PPP project is bid out to select a concessionaire based on the results of a feasibility study. Under the conventional Government procurement process, a detailed design is prepared before selection of a contractor. The detailed design stage presents enough opportunities for the correction of feasibility study results. This difference in F/S quality should be recognized and addressed; and as a solution, a comprehensive and high quality feasibility study should be undertaken with sufficient allocation of time and budget.

Incomplete and poor quality of feasibility studies will result in the following:

- Changes in project scope of works during detailed design and construction stages.
- Delay in ROW acquisition (ROW acquisition should be preferably completed before bidding).
- Delay in issuance of national and local government's permits and/or approval.
- Inaccurate traffic demand forecasts and revenue estimates.
- Inaccurate topographic survey data and insufficient geo-technical investigation.

b) Delayed delivery of ROW

One of the most serious bottlenecks in the PPP project cycle is the delayed delivery of ROW which results in the following impacts:

- Delayed start of construction resulting in delayed income generation.
- Delayed financial closure.
- Construction cost and O & M cost increase due to inflation during prolonged ROW acquisition period.

c) Insufficient and inaccurate information on underground public utilities

This is a common problem of urban expressway projects.

- Underground public utilities which are unaccounted for in the design may result to suspensions or delays in construction.

d) Inaccurate traffic demand forecast and lower-than-anticipated toll revenues

Although it is quite difficult to accurately estimate traffic attraction to an expressway, particularly in the case of greenfield projects, traffic demand should be estimated as accurately as possible. Various kinds of traffic surveys, including willingness-to-pay survey, the cargo/freight movement survey, etc., should be undertaken and conservative estimates should be made.

Accurate traffic demand forecast is crucial in determining the financial viability of a project. The selection of the appropriate PPP modality is another important matter that needs to be addressed in less profitable projects.

- Lower toll revenues seriously affect the project's financial viability.

e) Delay in the issuance of TOC and disapproval of contract-prescribed toll rates and toll rate adjustments

This kind of delay has often been experienced in the past, partly due to some political intervention or opposition from road users. The impact of socio-political issues is deemed critical on the part of the private sector, unless it is properly compensated.

- This delay affects the income of the concessionaire, resulting in lower investment returns.

7.5 PPP Modality and Revenue Risk Sharing

a) Wide Variety of PPP Modality

There are wide varieties of PPP modalities to choose from, depending on the project's profitability. When a project is highly profitable, more involvement of the private sector and less involvement of the public sector is needed. On the other hand, when a project is less profitable, more involvement of the public sector is required. Representation of PPP structure is shown in Figure 7.5-1.

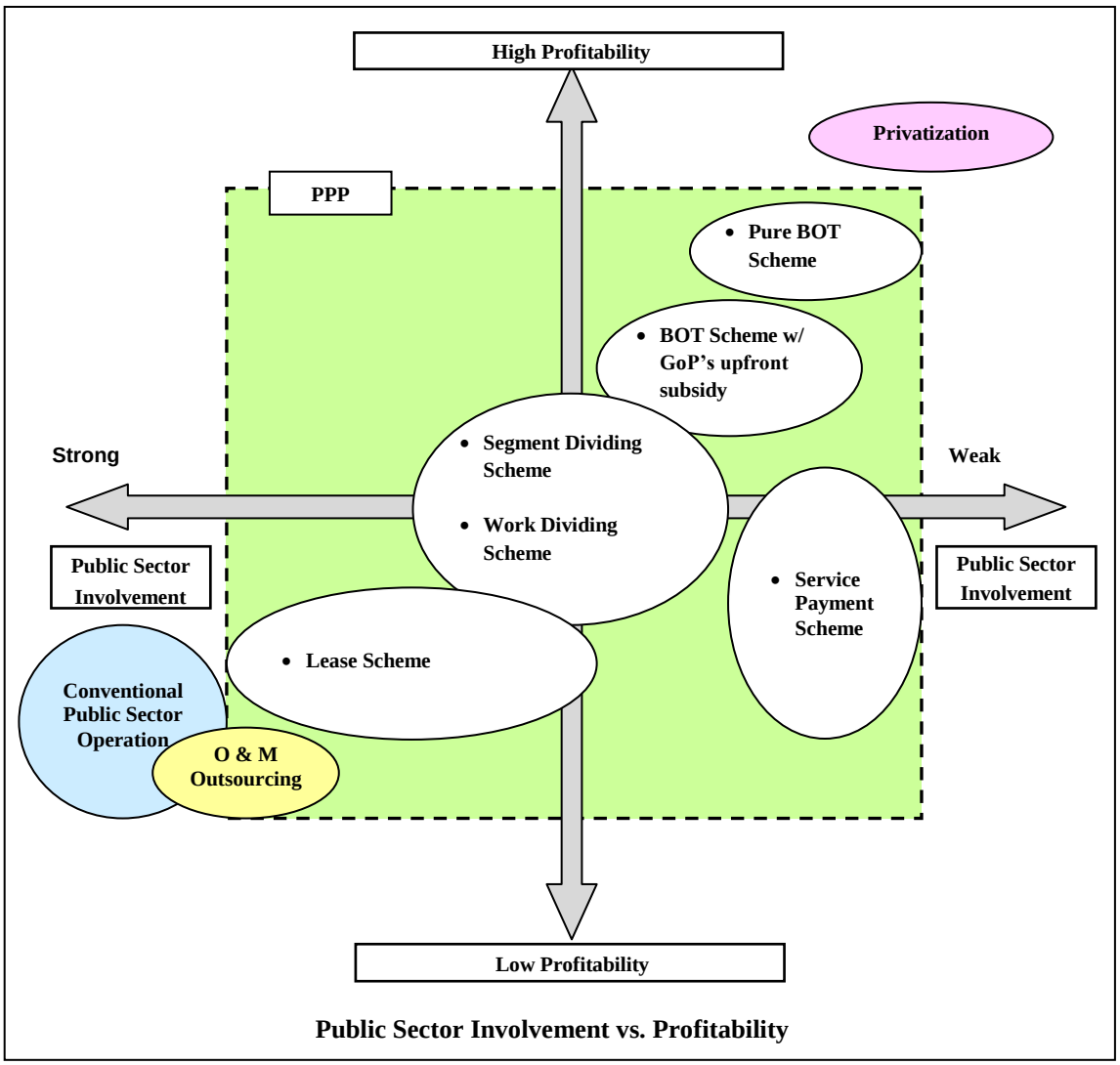


Figure 7.5-1 Representation of PPP Structure

b) Basic Types of PPP Modality

There are many types of modality. Various types of PPP modality were classified into five basic types as shown in Table 7.5-1.

Table 7.5-1 Basic Types of PPP Modality

	Responsibility		Examples in the Philippines
	Public Sector	**Private Sector**	
Type-1: Pure BOT Type	• ROW acquisition	• Design, construction and O & M • Financing of above. • Investments will be recovered by toll revenue • Revenue Risk (Note-1)	• Rehabilitation/ Widening of: - NLEx - SLEx - Manila-Cavite Expressway • Construction of : - Skyway I & II - Manila-Cavite Expressway Extension
Type-2: BOT Type with GOP Subsidy/ Financial Support	• ROW acquisition • GOP provides up-front subsidy (max. is 50% of project cost), or Government Financial Support (GFS)	• Design, construction and O & M. • Financing of above with GOP subsidy or GFS. • Investment will be recovered by toll revenue. • Revenue Risk (Note-1)	• TPLEx
Type-3: Segment Dividing Type (Project is divided into GOP Segment and Private Segment)	• ROW acquisition of both segments • Design and construction of GOP segment. • GOP segment will be leased to the private sector at the lease fee of 0-100% of GOP Expenditure.	• Design and construction of the private segment. • O & M of both segments. • Financing of above. • Investments will be recovered by toll revenue of both segments. • Private sector pays lease fee to GOP. • Revenue Risk (Note-1)	• STAR
Type-4: Service Payment Type	• ROW acquisition • During O & M period, GOP will pay service fee to the private sector to recover its investment. • Toll revenues usually turned over to GOP. If toll revenues are not enough to pay service fee, GOP adds subsidy. • Revenue Risk	• Design, construction and O & M. • Financing of above. • Receive service fee annually to recover investments.	• MRT-3 (O & M by GOP)
Type-5: Lease Type	• ROW acquisition • Design and construction	• O & M • The private sector leases the facility from GOP and pays lease fee to GOP. • Lease fee ranges from 0-100% of GOP expenditure. • Revenue Risk (Note -1)	• Original NLEx and SLEx • SCTEx

Note-1: Revenue risk can be shared with GOP by adopting minimum revenue guarantee, etc.

Source: Preparatory Survey for Public-Private Partnership (PPP) Infrastructure Development Projects, JICA, 2010

c) Revenue Risk Sharing

As discussed in Section 7.1.3, one of the major risks of the private sector is the revenue risk. There are several measures to mitigate this risk by sharing the risk between the private sector and the public sector as shown in Table 7.5-2.

Table 7.5-2 Revenue Risk Sharing Schemes

Type	Outlines	Examples
Fixed revenue guarantee	The government guarantees the agreed fixed revenue as availability fee, provided that agreed service level is attained.	A13 Road in England
Banding	Toll fee to be adjusted depending on actual traffic.	DBFO Road in the UK (early phase)
Cap and floor	The government collects the amount above the agreed upper limit or compensates the amount below the agreed lower limit of toll revenue.	Sydney Harbour Tunnel in Australia
Variable terms of contract period	Contract is terminated once the investor acquired the agreed benefits.	Sky bridge in the UK

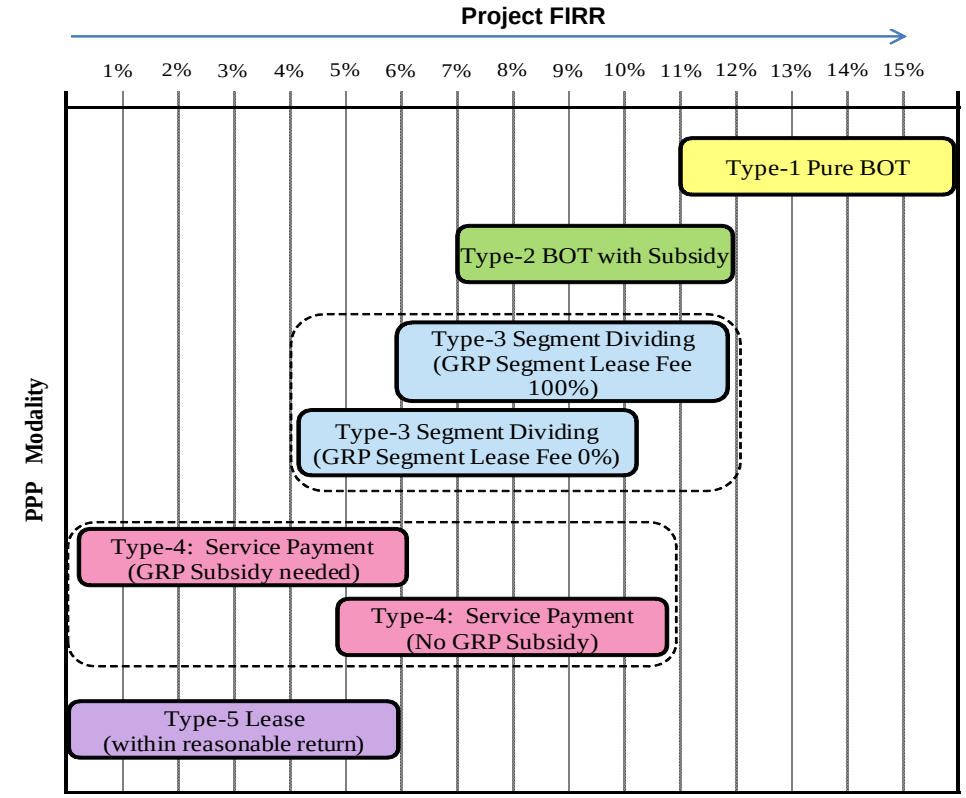
Note: DBFO = Design, Build, Finance and Operate
Source: JICA Study Team

d) Applicability of basic types of PPP modality from the viewpoint of profitability

There are various toll road projects in the Philippines ranging from highly profitable to less profitable ones on the part of the private sector. Even less profitable projects can be converted to a profitable one with reasonable government financial support.

Most highly profitable projects have already been implemented under BOT schemes but the number of highly profitable projects are becoming less and less, therefore, reasonable financial support from the public side is needed and becoming more important. In this connection, during the feasibility study stage, various types of PPP modality should be studied and the most appropriate PPP modality should be selected.

The Preparatory Survey for Public-Private Partnership (PPP) Infrastructure Development Projects, JICA (2010) tested 10 priority toll road projects with respect to the selected appropriate PPP modality, and developed a general indication of applicability of the basic types of PPP modality as shown in Figure 7.5-2, using Project FIRR as an indicator. Project FIRR is defined as "the financial internal rate of return when all costs including ROW acquisition cost are financed by the private sector". General applicability of PPP modality is summarized in Table 7.5-3.



Source: Preparatory Survey for PPP Infrastructure Development Projects, JICA, 2010

Figure 7.5-2 General Indication of Applicability of PPP Modality

Table 7.5-3 Applicable Condition of Each Type of PPP Modality

PPP Type		Applicable Conditions
Type-1: Pure BOT Scheme		• Applicable to projects with Project FIRR of over 11% or close to WACC.
Type-2: BOT Scheme with Up-front Subsidy		• Applicable to projects with Project FIRR between 7% and 12%. • Various amounts of up-front subsidy should be studied. (Maximum subsidy is limited to 50% of the project cost in accordance with BOT Law.)
Type-3: Segment Dividing Type	GRP Segment to be leased to SPC	• Applicable to a project with Project FIRR between 6% and 12%. • Various apportioning of segments, as well as lease fee of GRP segment, should be studied. • Not applicable to projects with length of less than 5 km • Division of a project into segments should allow solitary functioning of a segment completed earlier than the others.
	GRP Segment is leased to SPC free of charge	• Applicable to a project with Project FIRR between 4% and 10%. • If IRR for SPC and Equity IRR become quite high (i.e., about 22% or more), GRP segment should be leased to SPC. • Not applicable to projects with length of less than 5 km • Division of a project into segments should allow solitary functioning of a segment completed earlier than the others.
Type-4: Service Payment Type	With GRP Subsidy	• Applicable to a project with Project FIRR between 0% and 6%. • Verify if GRP subsidy is within a reasonable range.
	Without GRP Subsidy	• Applicable to a project with Project FIRR between 5% and 9%. • IRR for SPC and Equity IRR should be within reasonable range (i.e., about 22%). • When this type is applied to a project with Project FIRR of about 11% or more, toll revenues become much higher than the service fee, which means the Government gets high profit, thus such projects should adopt Type-1 or Type-2.
	Common to above	• The Government must allocate budget for payment of service fee for the full duration of operation period (commonly for 30 consecutive years), thus, sustainable and firm commitment of the Government for this type is required.
Type-5: Lease Type		• Applicable to a project with Project FIRR between 0% and 6%. • When this type is applied to a project with Project FIRR of more than 6%, the private sector's financial return becomes unreasonably high, thus, other types with higher participation of the private sector should be studied, or toll rates should be set low.

Source: Preparatory Survey for PPP Infrastructure Development Projects, JICA, 2010

7.6 Toll Rates

7.6.1 Present Toll Rates

Toll rates (as of May 2011) of existing toll roads are shown in Table 7.6-1. Since September 2011, a 12% Value Added Tax (VAT) was imposed on toll rates.

Table 7.6-1 Present Toll Rates per Km

Toll Road		Class 1 (Car, Jeep, Pick-up)	Nature of Work Done
Metro Manila Skyway (MMS)	Elevated, Phase I	6.84	• All elevated toll road. • Completed in 1999.
	Elevated, Phase II	11.92	• All elevated toll road. • Completed in 2011.
	At-grade	7.85	• Rehabilitation of at-grade toll road under the elevated toll road. • Completed in 1999.
North Luzon Expressway (NLEX)		2.38	• Widening of 4 lanes to 6-8 lanes. • Completed in 2005.
South Luzon Expressway (SLEX)		3.02	• Widening of 4 lanes to 8 lanes. • Completed in 2006. • Extension completed in 2011.
Manila-Cavite Toll Expressway (CAVITEX)	Phase I	3.33	• Improvement of existing road. • Completed in 1998.
	Phase II	8.96	• New construction with reclamation. • Completed in 2011.
Southern Tagalog Arterial Road (STAR)		1.43	• About ½ of the section was constructed using ODA funds (4-lane). • Operation started in 2000. • 2 lanes of rest of section completed in 2008.
Subic-Clark-Tarlac Expressway (SCTEX)		2.68	• All sections constructed using ODA fund (4-lane). • Completed in 2008.

Note : Class 2 (light truck), toll rate is 2 times that of Class 1
Class 3 (heavy truck and trailer), toll rate is 3 times that of Class 1
Source : TRB, May 2011

7.6.2 Initial Toll Rate Setting

The initial toll rate is determined based on the financial model submitted by the Concessionaire and agreed with the government. Initial toll rate is affected by the following factors:

a) PPP Modality
b) Cost
   - ROW acquisition cost
   - Detailed design cost, construction cost, construction management cost
   - O &M cost
   - Consultancy cost including independent consultant cost
   - Insurance cost
   - Price escalation
c) Financing Cost
   - Debt-Equity ratio
   - Interest rate
   - Debt repayment period and grace period
   - Debt repayment structure
   - Short-term loan
d) Taxation
   - National Government and Local Government taxes
e) Depreciation
   - Method
   - Period
f) Revenues
   - Toll revenue (initial toll rate and toll adjustment)
   - Other revenues
   - Government financial support, if any
   - ROW acquisition cost by the government
g) Concession Period

7.6.3 Toll Adjustment Formula

Some examples of toll adjustment formula are presented hereunder:

(a) SLEX

During financing period:

$ATR_p = ATR_0 \, x \, I_p$

where:

ATR_p Authorized Toll Rate for the year p
ATR_0 Initial Reference Authorized Toll Rate
I_p Toll adjustment index for year p
p Year fractional to the date of toll effectivity date

$$I_p = \frac{PCPI_{(p-1)}}{PCPI_{(0)}} \; x \; (1 + F_c)^{(p-2005)}$$

$PCPI_p$ Philippine Consumer Price Index in the month of September in year p, except for the first review, which will be latest, as published by the National Statistics Office.
$PCPI_0$ Base Philippine Consumer Price Index in December 2004, as published by the National Statistics Office.
F_c Minimum base escalator of one percent (1%)

After financing period:

$$ATR_p = ATR_{(p-1)} \; x \left[1 + \left(\frac{PCPI_{(p-1)} - 1}{PCPI_{(p-3)}}\right) x \; 50\%\right]$$

$ATR_{(p-1)}$ *Authorized Toll Rate* for year $(p-1)$

(b) STAR
From the 1st to the 10th year of operation:

$TR_N = TR_O (K + C)^n$
where:
$K = 0.25 (CPI_C – CPI_R) / CPI_R + 0.2(ER_C – ER_R) / ER_R$

C = 1.045 from the 1st year up to the 10th year of operation
n = Number of years between any periodic adjustment and its succeeding periodic or interim adjustment
TR_N Toll Rate for the succeeding three (3) Franchise Years
TR_O Toll Rate at the last Toll Review Date before Rounding
CPI_C Consumer Price Index (CPI) for Batangas on the toll review date. The CPI to be applied herein shall be the CPI as determined by the National Census and Statistics Office (NCSO) for the month immediately preceding the toll review date, whichever is the latest CPI available.
CPI_R CPI for Batangas at the last toll review date
ER_C The exchange rate ("Exchange Rate") between the Philippine Peso and the currency in which the loans are denominated calculated by taking the average rate in each month as published by the Bangko Sentral ng Pilipinas (BSP) over the 6-month period preceding the toll review date.
ER_R The Exchange Rate used in the aforesaid formula at the last toll review date.

On the 11th up to 30th year:

$TR_N = TR_O (K+(1 + C)^n)$
where: notations are the same as above, except C which is equal to zero

For the purpose of adjusting the toll rates, all three (3) vehicles classified shall be subject to the same rate of adjustment as indicated in the formula above. (18th June 1998)

(c) TPLEX

For the first 10 years of the operation period:

$TR_N = TR_O (K + C^n)$

where:

$K = (CPI_C – CPI_R) / CPI_R$

- C = 1.080 from the 1st year up to the 10th year of operation
- N = Number of years between any periodic adjustment and its succeeding periodic or interim adjustment
- TR_N Toll Rate for the succeeding two (2) operating years
- TR_O Toll Rate at the last toll review date before rounding
- CPI_C Consumer Price Index (CPI) at the toll review date. The CPI to be applied herein shall be the CPI as determined by the National Census and Statistics Office (NCSO) for the month immediately prior to the toll review date, whichever is the latest CPI available.
- CPI_R CPI for Regions I and III or in its absence, for Regions outside Metro Manila at the last Toll Review Date.

On the 11th up to 30th years:

$TR_N = TR_O (K + 1)$

- TR_N Adjusted Toll Rate
- TR_0 Toll Rate from the last adjustment

Note: For the purpose of adjusting the Toll Rates, all three (3) vehicle classifications shall be subject to the same rate of adjustment as indicated in the formula above. (August 28, 2008).

(d) Example of an Australian Case

Adjusted Rate = $\left(\frac{CPI_{FY-1}}{CPI_{Base}}\right)$ x Original Rate

Where:

CPI_{FY-1} = the CPI for the Quarter expiring on 31 December of the immediately preceding Financial Year.

CPI_{Base} = the CPI for the Quarter expiring on 31 December of the base year

Original Rate = the rate specified in Schedule 4 (Toll Calculation Schedule).

7.7 Risk Analysis

Based on the lessons learned from the past projects and foreseen events, major risks of toll road projects are identified as shown in Figure 7.7-1. Among identified risks, the common and critical risks are as follows:

Common and Critical Risks

- Poorly-prepared or non-comprehensive feasibility study
- Delay in ROW delivery
- Delays in Government's approvals and permits, probable causes are as follows:
  - Approval of contract
  - Approval of detailed design
  - Issuance of construction completion certificate
  - Issuance of toll operation certificate
  - Approval of toll rates and toll adjustment
- Delay in relocation of public utilities
- Lower traffic demand and toll revenue

For all identified risks, risk mitigation measures should be properly planned in advance and risk allocation should be established. The methodology in addressing these risks shall be made clear in a toll concession agreement. The risks, risk mitigation measures and risk allocation between parties are summarized in Table 7.7-2.

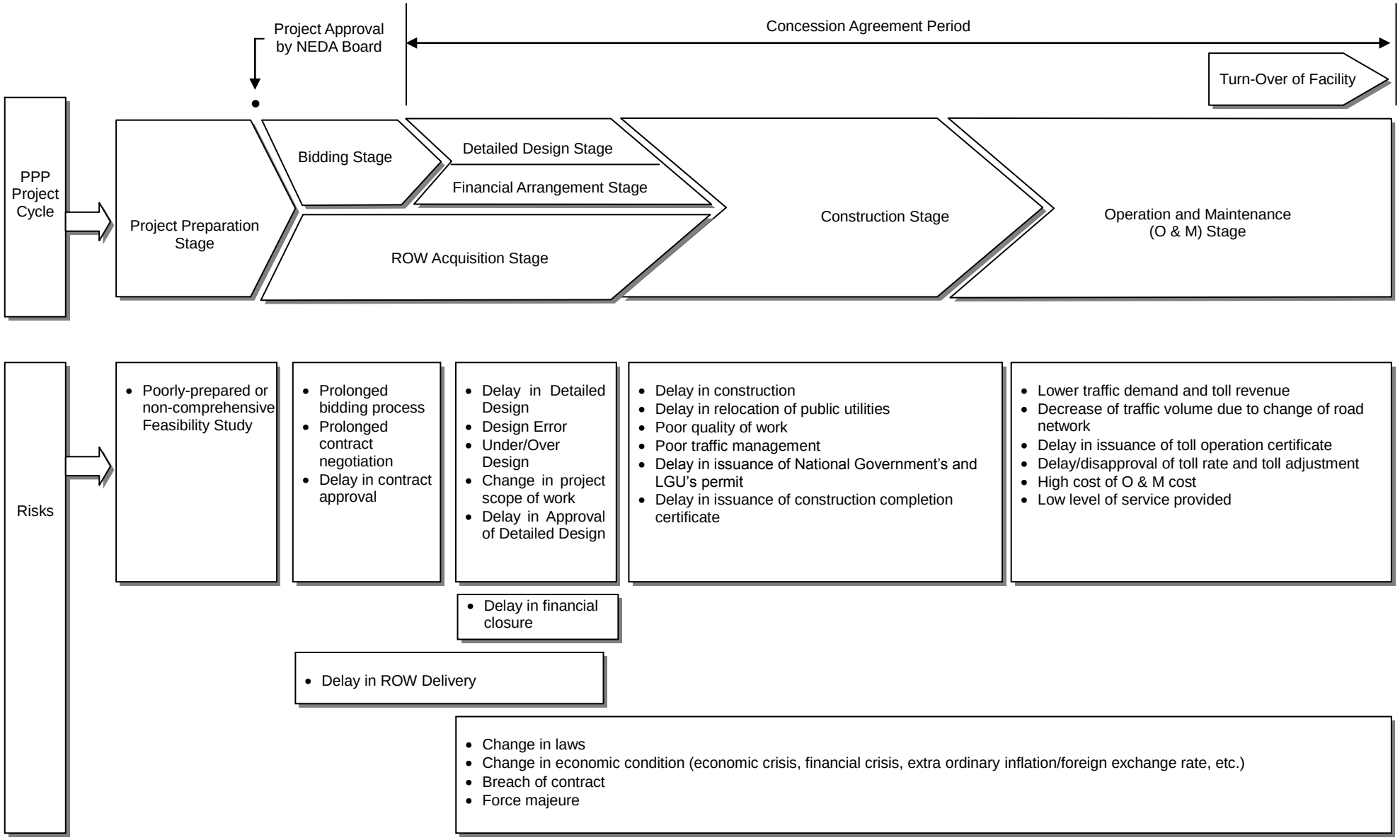


Figure 7.7-1 PPPP Project Cycle and Risks

Table 7.7-1 Major Risks of Toll Road Projects ($^1/_3$)

Risks	Impacts of Risks	Probability of Risk Occurrence	Risk Magnitude if it Occurs	Risk Mitigation Measures	Risk Allocation	
					Public	Private
PPP Project Cycle:	***Project Preparation Stage (Feasibility Study Stage)***					
Poorly-prepared or Non-comprehensive Feasibility Study	• Causes various risks during implementation a) Change in project scope of work b) Delay in ROW acquisition c) Delay in approval of permits, such as ECC, LGUs' endorsement, NEDA-ICC d) Inaccurate traffic demand forecast/revenue estimate e) Poorly-prepared study on PPP modality, resulting in bid failure f) Insufficient engineering surveys which affect construction cost	High	High	• Full-scale FS should be undertaken with sufficient allocation of time and cost a) Proper coordination not only with DPWH, but also concerned LGUs and PAPs. b) FS should define ROW acquisition limit. c) Proper consultation with concerned agencies & PAPs. d) Comprehensive traffic demand analysis, including willingness-to-pay survey. e) Various PPP modalities should be studied to select optimum type (i.e., make the project bankable) f) TOR should specify	○	
PPP Project Cycle:	***Bidding Stage***					
Delay in bidding process, contract negotiation and approval of contract	• Causes prolonged standby period, resulting in additional cost for both the public and the private sectors.	High	Low	• Preparation of complete bid documents, and draft concession agreement. • Bid evaluation method should be clearly specified in the bid document.	○	○
PPP Project Cycle:	***ROW Acquisition Stage***					
Delay in ROW delivery	• Causes a) Delay in financial closure. b) Prolonged construction period and completion of construction. c) Delay in start of operation, resulting in delayed income generation. d) O & M cost increase due to inflation during prolonged ROW acquisition period.	High	High	• Early start of ROW acquisition soon after the project is approved by NEDA-ICC. • Mobilization of adequate number of ROW acquisition teams. • Proper budgeting and timely release of budget. • Adjust toll rate to reflect adjustment in concession period.	○	
PPP Project Cycle:	***Detailed Engineering Design Stage***					
Delay in Detailed Design	• Causes delayed start of construction	Low	Medium	• Employment of competent engineering firms		○
Change in scope of work	• Causes delayed detailed design, construction cost increase, delayed construction.	Medium	High	• Undertake comprehensive FS and stakeholders meeting. • Pay compensation cost, shoulder construction cost and approve extension of construction period.	○	
Delayed approval of Detailed Design	• Causes delayed start of construction.	Low	Low	• Regular checking of detailed design. • Proper coordination with DPWH, Design Company and I.C.	○	
Design error	• Causes delay in construction when error is found during construction stage. • Causes premature damages to the facility, when error is found during O & M period, resulting in additional remedial works and/or suspension of operation.	Low	High	• Employment of Independent Consultants. • Professional Indemnity Insurance		○

Table 7.7-1 Major Risk of Toll Road Projects ($^2/_3$)

Risks	Impacts of Risks	Probability of Risk Occurrence	Risk Magnitude if it Occurs	Risk Mitigation Measures	Risk Allocation	
					Public	Private
Under Design	• Causes early deterioration of facilities and higher maintenance costs. • Causes low level of service, resulting in traffic congestion. • Expensive & difficult to collect.	Low	Medium	• Clear definition of design standards and levels of service in TCA. • Employment of Independent Consultants.		○
PPP Project Cycle: ***Construction Stage***						
Delay in construction due to delayed delivery of ROW		- Described in ROW Acquisition Stage -				
Delay in meeting Financier's pre-requisites	• Causes delayed financial closure and delayed start of construction.	Medium	Medium	• Selection of reliable concessionaire • Select PPP scheme with sufficient Government Financial Support		○
Poor quality of work	• Causes premature deterioration of facilities resulting in high maintenance costs for both routine & periodic maintenance.	Low	Medium	• Employment of Independent Consultants • Employment of Qualified Contractors		○
Delayed relocation of public utilities both overhead and underground (-within existing road ROW Utility Company, -outside existing road ROW DPWH/ Concessionaire)	• Causes prolonged construction period.	High	High	• Proper investigation during DED • Proper coordination with Utility Companies • Funding by the Concessionaire with condition of refund	○	○
Delayed Construction	• Causes a) Additional cost b) Delayed start of operation c) Delayed income	Low	Low	• Employment of Qualified Contractors • Liquidated damages		○
Poor traffic management	• Causes a) Public inconvenience b) Negative economic impacts	Medium	Medium	• Proper coordination with traffic police and LGUs • Strict specification in TCA		○
Delayed issuance of National Government Permits	• Causes construction delay	Medium	Medium	• Proper coordination with concerned agencies • Pay compensation cost	○	
Delayed Issuance of LGUs' Permit	• Causes construction delay	Medium	Medium	• Proper coordination with LGUs concerned • Pay compensation cost	○	
Natural calamities	• Causes a) Prolonged construction period b) Additional cost	High	High/High Medium	• All Risk Insurance		○

Table 7.7-1 Major Risk of Toll Road Projects ($^{3}/_{3}$)

Risks	Impacts of Risks	Probability of Risk Occurrence	Risk Magnitude if it Occurs	Risk Mitigation Measures	Risk Allocation	
					Public	Private
PPP Project Cycle: ***Operation and Maintenance Stage***						
Lower Traffic Demand and Toll Revenue than Estimated	• Causes low financial return	High (for greenfield projects)	High	• Selection of Suitable PPP Modality • Reliable traffic demand analysis by the bidder	○	○
Case-1: Low demand along the corridor and low revenue		Low/ Medium (for brownfield projects)	Low/ Medium	**Case-1:** Introduction of minimum revenue guarantee system or adjust concession period.	○	○
Case-2: High demand but low traffic on an expressway due to high toll rate or low revenue due to low toll rate				**Case-2:** Adjust toll rate		○
Decrease of traffic volume due to change of road network	• Causes low financial return	Medium/ High	Medium/ High	• Planned improvement/ upgrading/ new road construction along the same corridor should be informed.	○	
Delayed issuance of toll operation certificate	• Causes low financial return	Medium	Medium/ High	• Adjustment of toll rate or extension of concession period or pay compensation cost.	○	
Delayed approval of toll rates and toll rate adjustments	• Causes low financial return	Medium	Medium/ High	• Automatic approval in accordance with TCA • Adjustment of toll concession period or pay compensation cost	○ ○	
High O & M cost	• Causes low financial return	Low	Low	• Improvement of O & M system		○
Low level of service provided	• Causes public inconvenience and negative economic impacts	Low	Low	• Strict monitoring by Independent Consultants and imposition of penalties		○
Common Throughout PPP Cycle						
Extraordinary Inflation and/or Foreign Exchange Rate Change	• Causes low financial return	Low	Low	• Extraordinary adjustment of toll rates, or • Extension of concession period	○	
Change in Law	• Causes change of fundamental conditions of the contract	Low	Medium	• Pay proper compensation cost	○	
Requisition or similar act	• Damage to credibility of the Government	Low	High	• Pay proper compensation cost	○	
Force Majeure	• May cause termination of contract	Low	High	• Both parties should discuss how to cope with the situation in accordance with the Agreement	○	○

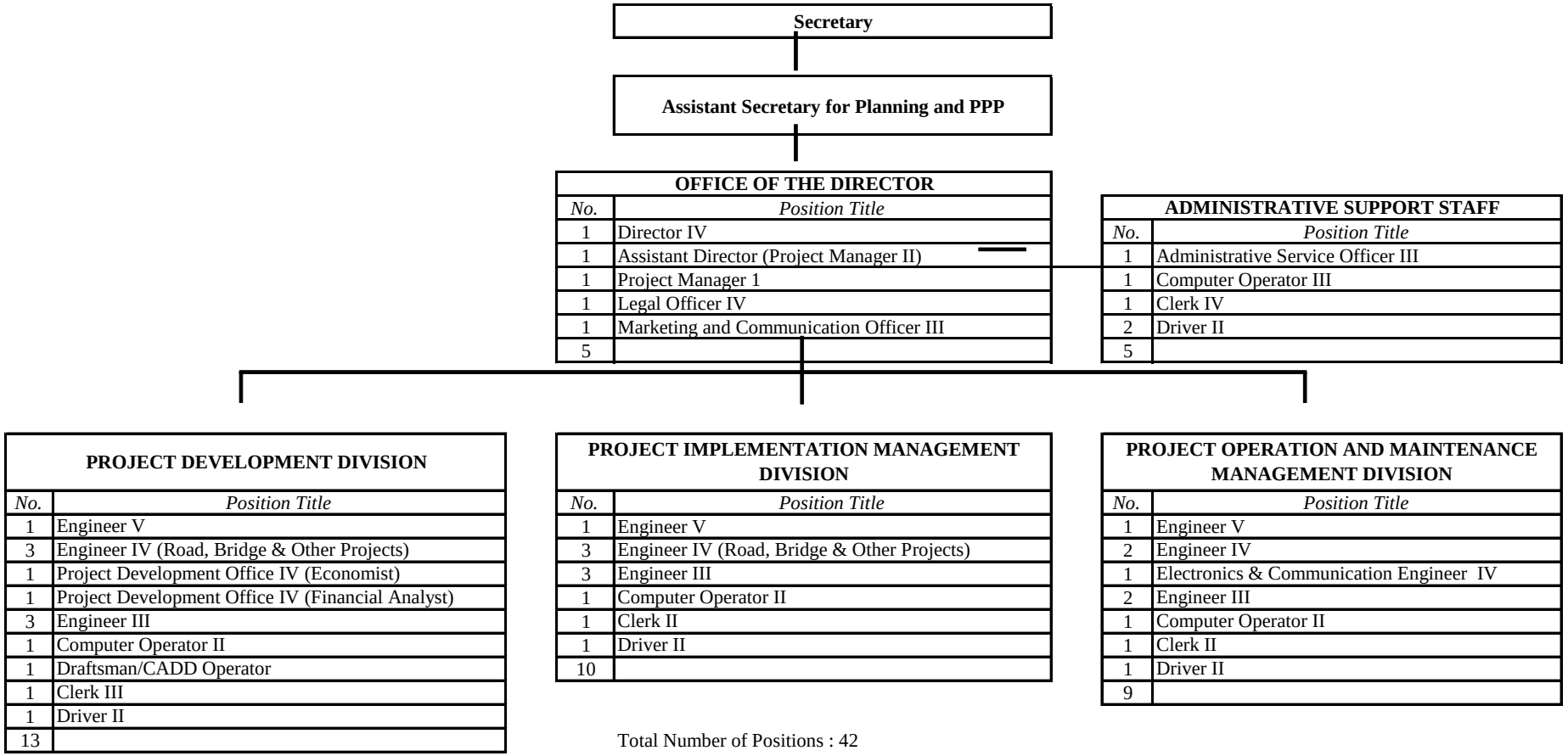
7.8 Institutional Setting and Capacity Development Requirements

7.8.1 Institutional Setting

The DPWH Project Management Office - Build-Operate-Transfer (PMO-BOT) is the office responsible for planning and management of all PPP projects under DPWH. PMO-BOT was established in the early 1990s, thus, has relatively long history. However, it was not so active until 2010, since most PPP projects have been implemented through the franchise and JV approaches. With the new policy of the current administration to pursue PPP scheme for infrastructure projects, PMO-BOT became one of the busiest PMOs of DPWH. The organizational structure of PMO-BOT is shown in Figure 7.8-1. The functions of each department are shown in Table 7.8-1.

PMO-BOT is currently focusing on the following PPP projects:

- Concessionaire selection for Daang-Hari-SLEx Connector Road
- Unsolicited proposal evaluation for NLEx-SLEx Connector Road
- Project management of TPLEx
- Bid preparation for NAIAX
- Project preparation for CLLEx
- Project preparation for CALAX



OFFICE OF THE DIRECTOR	
No.	*Position Title*
1	Director IV
1	Assistant Director (Project Manager II)
1	Project Manager 1
1	Legal Officer IV
1	Marketing and Communication Officer III
5	

ADMINISTRATIVE SUPPORT STAFF	
No.	*Position Title*
1	Administrative Service Officer III
1	Computer Operator III
1	Clerk IV
2	Driver II
5	

PROJECT DEVELOPMENT DIVISION	
No.	*Position Title*
1	Engineer V
3	Engineer IV (Road, Bridge & Other Projects)
1	Project Development Office IV (Economist)
1	Project Development Office IV (Financial Analyst)
3	Engineer III
1	Computer Operator II
1	Draftsman/CADD Operator
1	Clerk III
1	Driver II
13	

PROJECT IMPLEMENTATION MANAGEMENT DIVISION	
No.	*Position Title*
1	Engineer V
3	Engineer IV (Road, Bridge & Other Projects)
3	Engineer III
1	Computer Operator II
1	Clerk II
1	Driver II
10	

PROJECT OPERATION AND MAINTENANCE MANAGEMENT DIVISION	
No.	*Position Title*
1	Engineer V
2	Engineer IV
1	Electronics & Communication Engineer IV
2	Engineer III
1	Computer Operator II
1	Clerk II
1	Driver II
9	

Total Number of Positions : 42

Figure 7.8-1 Organizational Chart of PMO-BOT

Table 7.8-1 Functions of Each Division in PMO-BOT

Division	Functions
Project Development Division	1. Formulate, review, and update policies, guidelines, standards, and processes for the development of PPP projects under DPWH; 2. Identify, select and develop Public-Private Partnership (PPP) projects of the Department in accordance with the Medium-Term Philippine Development Plan (MTPDP); 3. Initiate/undertake/participate in the conduct of the project business case studies to determine PPP suitability assessment of the project; 4. Participate in the conduct of feasibility studies of potential PPP projects, covering its basic aspects – traffic/market, technical/engineering soundness, environmental impacts, economic feasibility, financial viability, risk assessment, and operation and maintenance (O & M) arrangements – to establish the feasibility of undertaking the projects via PPP modalities; 5. Conduct financial viability assessment to determine Financial Internal Rate of Return (FIRR), Financial Net Present Value (FNPV), Debt Service Cover Ratio (DSCR), Loan Life Cover Ratio for alternatives; 6. Prepare project proposals, including draft bidding documents, performance standards and specifications, and concession agreement of PPP projects for submission to NEDA/approving authorities and for eventual solicitation of bids; 7. Initiate the inclusion of PPP projects in the DPWH Infrastructure Program, and the government counterpart funding requirements for right-of-way (ROW) and Government Financial Support (GFS) for capital cost in the DPWH budget; 8. Undertake promotion, marketing, and consultation with concerned stakeholders for PPP projects, including private investors, financiers; 9. Establish measurable Key Performance Indicators (KPIs) and targets for project outputs and outcomes; 10. Monitor and evaluate the post-project impact or outcome of PPP facilities against targets/forecasts such as traffic usage, reduction in travel time, decrease in road user costs, reduction in accident rates, economic feasibility, and financial viability, and feed back the results; and 11. Perform other duties and responsibilities as may be assigned from time to time.
Project Implementation Management Division	1. Develop, review and update guidelines, and construction of PPP expressway and other infrastructure projects of DPWH; 2. Review and recommend for approval the detailed engineering designs and plans prepared by the DPWH and/or proponents for PPP projects; 3. Undertake and coordinate the acquisition and delivery of the ROW with the permits to enter, cleared, cleared of obstructions, according to the schedule in the approved project proposal and the Agreement; 4. Initiate and coordinate the procurement of PPP projects, including bidding, evaluation of bids, awards, and finalization of contracts. After thorough evaluation of bids and proposals, recommend to higher management the award of PPP projects to the bidder/proponents who submit the lowest complying bid/proposal; 5. Craft and review concession agreements, participate in negotiation for PPP projects, and other legal matters; 6. Review/evaluate solicited/unsolicited proposals from the private sector and participate in the negotiations of approved proposals ensuring that existing rules and regulations such as guarantees and subsidies are strictly adhered to; 7. Oversee the financial closure for PPP projects by the concessionaire/investors according to the concession agreement to ensure the timely provision of the agreed GFS for the project; 8. Undertake and coordinate the review and technical supervision of detailed engineering designs prepared by the concessionaire to check compliance with the minimum design performance standards of DPWH; 9. Perform technical supervision over the construction works of PPP projects to check compliance with the concession agreement, including conformance with the approved detailed engineering design and construction performance standards and specifications; 10. Monitor the progress and implementation of the project to ensure that the parameters during the bidding and the terms and conditions in the concession agreement, including specified project outputs, are strictly adhered to/carried out; 11. Determine the challenges/bottlenecks/successes encountered in the implementation of projects, recommend solutions of the bottlenecks to higher management and adoption of successful lessons learned for use in future projects; and 12. Perform other duties and responsibilities as may be assigned from time to time.
Project Operation and Maintenance Management Division	1. Develop, review and upgrade guidelines, standards, and procedures for O & M of PPP expressway and other projects of DPWH; 2. Monitor and ensure that the toll rate adjustments as bid and provided in the concession agreement are enforced by the appropriate authorities; 3. Perform tactical supervision over the facility operations (toll collections, traffic management, road safety, weigh bridges, signages, staff management, etc.) of the Concessionaire to check its compliance with the Concession Agreement, including conformance with the minimum performance standards and the approved Maintenance Manual; 4. Perform technical supervision over the facility maintenance (routine, periodic and preventive maintenance, rehabilitation, etc.) of the Concessionaire to check its compliance with the Concession Agreement, including conformance with the minimum performance standards and the approved Maintenance Manual; 5. Provide for the transfer to the Government, and subsequent operation management of PPP facilities at the end of their concession period; and 6. Perform other duties and responsibilities as may be assigned from time to time.

7.8.2 Capacity of PMO-BOT

Experience of PMO-BOT is not so extensive and limited to two (2) projects; STAR Project and TPLEx Project, although it also extended some technical support to NLEx, SLEx, Manila-Cavite Coastal Expressway and SKYWAY projects. Thus, there is only a limited number of staff members with enough relevant experience.

Currently, the Department of Finance (DOF), PPP Center, TRB, and the Office of the Solicitor General are assisting PMO-BOT in the preparation of bid documents for the selection of a concessionaire; strengthening of organization and capacity building of PMO-BOT staff is definitely needed.

The on-going rationalization plan of the Government limits increase in the number of staff, therefore, the immediate solution to increase the number of qualified PMO-BOT staff is difficult. The following two types of solution is needed:

- Capacity development of existing PMO-BOT staff.
- For immediate projects, PMO-BOT should organize a special project team inviting expatriates from other DPWH departments/services staff such as PMO-Feasibility Studies, Legal Services, Bureau of Design, and other PMO offices.

7.8.3 Proposed Capacity Development Program

The following three sets of capacity development programs are recommended:

Program I	:	Management Staff-Level Training Course
Program II	:	Specialist Training Course
Program III	:	Preparation of Standards and Manuals

Program I : Management Staff-Level Course

This program intends to develop the capacity of management staff of PPP related offices, such as PMO-BOT, Planning Service, PMO-FS. The program should cover the following topics:

- Basic principles of PPP projects
- Laws and regulations
- Institutional framework
- Project identification and prioritization
- Business case/feasibility study
- Toll road planning and design
- Traffic demand forecast
- PPP modalities
- Economic evaluation
- Financial evaluation
- Risks
- ROW acquisition and resettlement procurement
- Project implementation

- Operation and maintenance
- Project monitoring and post evaluation

Program II : Specialist Training Course

This program intends to develop the capacities of specialists, therefore, programs shall be prepared for various fields of the PPP project cycle.

- Transport Planners/Traffic Engineers : Traffic Demand Forecast
- Highway Planners/Engineers : Toll Road Design, Interchange Design, Toll Collection Facility Design
- Economists and Financial Analysts : Economic Evaluation and Financial Evaluation
- Highway planners, Document Specialists, Legal staff : Preparation of Tender Documents, Toll Concession Agreement, Risks
- O & M staff : Minimum performance requirements

Program III : Preparation of Standards and Manuals

The following standards and manuals are prepared:

e) Toll Road Design Standards

There are no toll road design standards authorized by DPWH. For the consistent development of tollway network, this should be prepared and authorized by DPWH. It should also be a part of the Tender Documents as well as the concession agreement. Two kinds of standards should be prepared, one for intra-urban tollways and the other for inter-urban tollways.

f) Standard Pre-qualification and Tender Documents

For various types of PPP modalities, standard pre-qualification and tender documents should be prepared by utilizing existing and on-going tenders.

g) Draft Toll Concession Agreement

For various types of PPP modalities, draft toll concession agreement should be prepared which will form part of tender documents.

h) Tollway Operation and Maintenance Manual/Minimum Performance Standards

This should also be part of the tender documents. The Toll Road O & M Manual, which was prepared in the 1990s, is already obsolete.

To provide appropriate transport services to road users, toll road operation and maintenance must be done in accordance with established O & M standards and the minimum performance standards should be always monitored.

i) Standard TOR for Business Case/Feasibility Study

In cases of PPP schemes of Type-1 (pure BOT), Type-2 (BOT with subsidy), Type-3 (Segment Dividing) and Type-4 (Service Payment), the project is bid out to select a concessionaire immediately after the completion of a feasibility study,. Therefore, the feasibility study must be comprehensive. The detailed scope of works and appropriate duration of the study period should be defined. In consideration of the above, standard TOR for PPP projects should be prepared.

7.9 Summary of Sector Issues

a) Roles of DPWH and TRB in TCA

DPWH is the signatory, on the part of the government, on the TCA, and TRB is not a co-signatory of TCA under the current BOT Law. TRB functions as the regulator, issues TOCs, and approves initial toll rates and toll rate adjustments. Under TCA, **DPWH is responsible for timely issuance of TCA and approval of initial toll rates and toll rate adjustments**. Initial toll rates and toll rate adjustment formula are specified in TCA.

DPWH and TRB need to closely work together for the establishment of conditions in the TOC, initial toll rates and adjustment formula from the feasibility study stage to the bid documents preparation stage. By establishing consensus between the DPWH and TRB on TOC conditions and toll rates, this serves as a mitigating measure against DPWH's risk of delay in the issuance of TOC and approval of toll rates.

b) Re-examination of Existing Franchises

Existing franchises need to be re-examined at least on the following:

- The expressway routes of existing franchises are very loosely specified. As a minimum, the starting point, end point and the corridor to be traversed should be clearly specified.
- Milestones for completion should be specified.

c) Monitoring of Operation and Maintenance (O & M)

Under TCA, DPWH is responsible for monitoring of O & M. On the other hand, TRB needs to monitor O & M to evaluate and approve toll rate adjustments. A joint working force composed of DPWH and TRB needs to be organized.

In the past, monitoring of O & M was not fully implemented due to lack of qualified staff and budget; it is therefore worthwhile to employ an independent monitoring team.

It is also necessary to prepare updated standard operation and maintenance manuals for toll roads, to achieve a common standard for all toll roads.

d) Regulatory Risk

Regulatory risk will be compensated by the government under the proposed amendment of the BOT Law. One of the private sector's concerns is how the government can guarantee the timely compensation payment for regulatory risks, which is one of the major issues in the evaluation of the project's bankability on the part of the private sector.

DOF is now studying the system of compensation payment for regulatory risks. It is hoped that the system will be established as early as possible.

e) Entry Point of Toll Road Project Proposal

There used to be many entry points for toll road projects, such as DPWH, TRB, GOCCs (BCDA, PRA, MWSS). Now, DPWH is the sole entry point for all toll road projects. However, there are some projects which were proposed to agencies other than DPWH. One example is the La Mesa Parkway which was proposed to MWSS. DPWH should be responsible for those projects proposed to other agencies in the past.

f) Inter-operability Requirement of the Toll Collection System

The toll road network is progressing and many different operators are/will be involved in operating parts of the toll road network. In order to reduce traffic congestion at toll booths and improve serviceability of toll roads, it is definitely needed to introduce inter-operability of toll collection system.

g) Compilation of Toll Roads Data/Information

At present, no agency is compiling toll road statistics, data and information. DPWH should compile all statistics, data and information on toll roads including the following:

- Toll road inventory
- Traffic volume
- Toll rates
- Construction cost
- O & M cost
- Accident records

h) Strengthening of PMO-BOT

PMO-BOT is currently managing the following projects:

- Daang Hari – SLEx Connector Road
- NAIAX
- CLLEx
- CALAX
- NLEx – SLEx Connector Road
- Locally-funded business case studies of several projects

The PMO-BOT is currently and will be busy in the future in line with the government policy of promoting PPP projects.

The PMO-BOT needs to be strengthened, particularly its core staff.

7.10 Recommendations

a) Implementation of full-scale/detailed Feasibility Study

The project should be properly prepared and approved by the NEDA Board prior to the bidding stage. Full-scale/detailed feasibility study should be undertaken in order to successfully implement PPP projects. It should be kept in mind that after the feasibility study, the bidding shall start and during this bidding stage, the ROW acquisition should also be started; therefore, the feasibility study must plan implementation schedule for bidding and ROW acquisition. DPWH should allocate more time and fund in the conduct of feasibility studies.

b) Full coordination from the early stages of the project between DPWH and TRB

DPWH and TRB should fully coordinate from the feasibility stage of the project to O & M stage in order to agree on issuance conditions of TOC and establishment of toll rates and its adjustment formula so that the regulatory risks related to the above can be mitigated.

c) Re-examination of existing franchises

For the existing franchises given to the private sector in the 1970s, 1980s and 1990s, DPWH should re-examine the definition of the expressway routes and confirm from these franchise holders the milestone of implementation of franchised expressway.

d) Monitoring of O & M

The Joint monitoring team of DPWH and TRB should be organized, or an Independent Monitoring Consultant should be employed for the strict implementation of O & M requirements by the operators. A Standard O & M Manual should be also prepared in order to achieve a uniform level of O & M for all toll roads.

e) Establishment of a Regulatory Risk Compensation System

The Government should establish a compensation system for regulatory risk which will greatly improve the bankability of PPP projects.

f) Re-examination of Toll Road Projects which were proposed to Agencies other than DPWH

DPWH is now designated as the sole entry point for all toll road projects. Those projects which were submitted to agencies other than DPWH should be re-examined by DPWH.

g) Nationwide introduction of inter-operability of toll collection systems

It is anticipated that there will be many toll road operators in the development of the toll road network.

In order to avoid frequent stops of road users at toll booths and improve serviceability of toll roads, nationwide introduction of inter-operability of toll collection systems is a must. DPWH and TRB should work together in introducing this system.

h) Compilation of Toll Road Data/Information

DPWH should compile all toll road information, data and statistics to facilitate the assessment of the present condition of toll roads, and for effective planning of future toll road projects.

i) Strengthening of PMO-BOT

The management of PPP toll road projects will be under PMO-BOT. This agency should be upgraded to handle PPP projects and strengthened in terms of capacity of staff members of PMO-BOT.

CHAPTER 8 URBAN RAILWAY SECTOR

8.1 Sector Characteristics

The goal of the sector analysis is to form a basis for making a proposal to the institutional side, based on various technical studies. For this purpose, it is reasonable to start the discussion on the analysis of sector characteristics. Although detailed railway projects in Metro Manila (LRT-1, LRT-2, and MRT-3) are reviewed in the following chapters, the study team points out the following six main sector characteristics in this chapter:

(1) Large Investment with Longer Payback Period

Compared to other infrastructure projects, development of urban railway systems requires a larger capital investment with longer payback period. In the Philippines, the government used different approaches to finance the large investment cost of urban railways. For the Light Rail Transit Lines 1 (LRT-1) and 2 (LRT-2), the government utilized ODA loans from Japan and Belgium, while for the Metro Rail Transit Line 3 (MRT-3), they adopted the build-operate-transfer (BOT) approach (specifically build-lease-transfer or BLT). Moreover, in the case of MRT-3, government subsidies and guarantees were used to encourage private sector participation.

The urban railway project also requires a long project period. In the case of MRT-3, the contract period took as long as 25 years. During such period, the contractor is required to maintain land facilities and rolling stocks.

(2) Integrated Technical System

An urban railway system is an integrated system with a mixture of diverse sub-systems. These sub-systems include civil works, tracks, stations, signals, power supply facilities, and rolling stocks. These different sub-systems need to be efficiently integrated in order to maximize the potential benefits of the whole system. A high level of technical capability is therefore needed for the construction, and operation and maintenance (O&M) of the system.

(3) Social Concern to Tariff Rates

The level of tariffs and amount of subsidies are often affected by politics and social concerns. In the tariff settings for railways in Metro Manila, there are provisions in the contract stating that the amount of tariffs can be reviewed properly by the government agency. In reality, however, the implementation of any rate increase is still subject to political approval. Social concerns and public reaction therefore have a large effect on the fare increase.

(4) Importance of Network and Modal Integration

A successful urban railway system requires effective connection among various lines and with other transit modes. Therefore, careful and thorough planning of network and modal integration must be done prior to the actual implementation of the project, to maximize benefits. However, it is often difficult to realize the optimum networking and efficient integration of the different modes of transport. For example, in Metro Manila, many stations at connection points are relatively far from

each other (i.e., Cubao Station serving as connection point between the LRT-2 and MRT-3). Also, road-based transit modes such as jeepneys and buses tend to compete with the existing railway system. Careful planning can be done for better integration of these modes to provide complementary or feeder services to the railway system, resulting in a more effective and efficient public transport system.

(5) Strong External Effects

There is a strong relationship between railway development and external market such as land development. The integration of railway and land development provides value-added opportunities in terms of revenues and profits that can be earned from real estate and commercial development along the rail line and stations. This in turn can be used to finance or cross-subsidize the construction costs of the railway system. In addition, there is a potential increase in ridership resulting from an integrated real estate and commercial development along the railway corridor. In the case of the MRT-3, the BLT contract includes the rights of land development around the stations for 50 years, while there are no such contract in LRT-1 and LRT-2. In Japan, private rail operators such as Tokyu and Hankyu have also developed lands along their railways. In these cases, capital gains from the land were reinvested in the railway construction.

(6) Importance of O&M Capability and Performance

As mentioned in Item 1), railway projects require long term O&M period. Thus, it is important to select contractors who have technical expertise and proper management capability. On the other hand, in developing countries such as the Philippines, there are few companies that have the necessary technical expertise in O&M of urban railway systems. This becomes a hindrance to the government‘s objective in developing the urban railway system in Metro Manila.

8.2 Projects Overview

8.2.1 Previous Urban Railway Projects in the Philippines

(1) Brief History of Urban Railway Sector

As early as the 1900s during the American occupation, an electric street railway system (locally known as “tranvia”) was in operation in Manila. It provided a cheaper and more efficient mode of transportation than horse-drawn carriages (called “kalesa”), which was a popular means of transportation at that time. However, tranvia operations were permanently stopped during the World War II. Subsequently, buses and jeepneys (public transportation made from U.S. military jeeps) became the major mode of transport until recently.

During the 1970s, the government recognized the need for an effective rail transport system due to the worsening traffic congestion along major roads in Metro Manila. The government commissioned various studies with multilateral institutions such as JICA and the World Bank, to obtain recommendations on how to effectively implement an urban railway system in Metro Manila. One of the recommendations from the studies is a proposal to build the LRT-1. This was built as an elevated line along Taft Avenue and Rizal Avenue, traversing the cities of Pasay, Manila, and Caloocan, aiming to alleviate heavy traffic congestions in these areas.

In July 1980, the Light Rail Transit Authority (LRTA) was created as the government agency responsible for the construction, O&M, and/or lease of LRT systems in the Philippines.

The LRT-1 was constructed through the ODA approach. It was built initially using Belgian ODA loans, and the subsequent capacity expansions through Japanese ODA loans.

In the mid-1990s, rapid urbanization of Metro Manila resulted in a very large increase in vehicular traffic on the roads in and around Metro Manila, especially near the central business district (CBD). The government thus looked into projects that will increase the capacity of its urban transportation systems.

One of the busiest transportation corridors in Metro Manila, in terms of passenger and vehicular traffic, is the Epifanio de los Santos Avenue (EDSA). It is considered as one of the world's busiest thoroughfares, linking several business centers in Metro Manila. The government concluded that the best solution to the traffic problems along EDSA was to construct the MRT-3.

The MRT-3 was a BLT project between the Department of Transportation and Communication (DOTC) and Metro Rail Transit Corporation (MRTC). It was a solicited proposal presented almost at the same time when the original BOT Law (RA 6957) was passed in Congress in 1990. In 1994, the BOT Law and its Implementing Rules and Regulations were amended (RA 7718). The amendment further defined different schemes, which are allowed under the BOT Law and provided the legal framework for the BLT agreement between the two parties.

Another high-volume and slow-moving transport corridor is the stretch, which runs along Marcos Highway, Aurora Boulevard, Ramon Magsaysay Boulevard, Legarda and C.M. Recto Avenue. Thus, the government decided to construct the LRT-2 to alleviate the traffic congestion in this corridor. It was built using Japanese ODA loans.

At present, more than one million passengers per day are using the LRT-1, LRT-2 and MRT-3 systems (refer to Appendix E-2: Present Railway Network in Metro Manila). However, driven by the steady economic, business, and commercial development in Metro Manila, passenger traffic growth has been increasing. Consequently, the government is now looking at expanding the capacity of the MRT-3, extending the LRT-1 and LRT-2 lines, and constructing additional lines to serve more passengers.

(2) Key Players

In the urban railway sector, the MRT-3 project in Metro Manila is the first BOT/PPP project in the Philippines. Based on the scheme shown in Figure 8.2-1, the key players in said sector are as follows:

a) DOTC

During the construction phase, DOTC provided technical supervision over the project activities as well as the proper implementation of the traffic management plan, in coordination with the Metro Manila Development Authority (MMDA). DOTC was also responsible for the acquisition of Right-of-Way (ROW) and the relocation of informal settlers, relocation of utilities (power, water, and other utilities) that were affected by the project, and issuing the required letters of credit.

Under the terms of the BLT contract, DOTC is also required to operate the MRT-3 under a lease agreement with MRTC, the proponent of the MRT-3. As operator of the MRT-3, DOTC is responsible for the operation of the system, ridership support and the collection of fares (farebox collection

system).

b) LRTA

At present, LRTA operates LRT-1 and LRT-2 in Metro Manila. Aside from this, through the LRTA Board, and in consultation with DOTC and the Land Transportation and Franchising Board (LTFRB), LRTA determines the fare rates for LRT systems including the MRT-3. (Details are presented in Appendix E-1: Legal Aspects). Although LRTA is the government agency responsible for construction, O&M, and/or lease of LRT systems in the Philippines, it was not given the responsibility for the MRT-3. However, it is designated as the implementing agency for any future projects related to LRT-1 and LRT-2, such as capacity expansion and line extension projects.

c) Other Government Entities

The National Economic and Development Authority (NEDA), in coordination with the Department of Finance (DOF) and the PPP Center (formerly known as the BOT Center), is responsible for project evaluation and approval. Currently, the PPP Center is doing the coordination and monitoring of the projects. Government subsidies are provided under the General Appropriations Act (GAA).

d) Special Purpose Company (SPC)

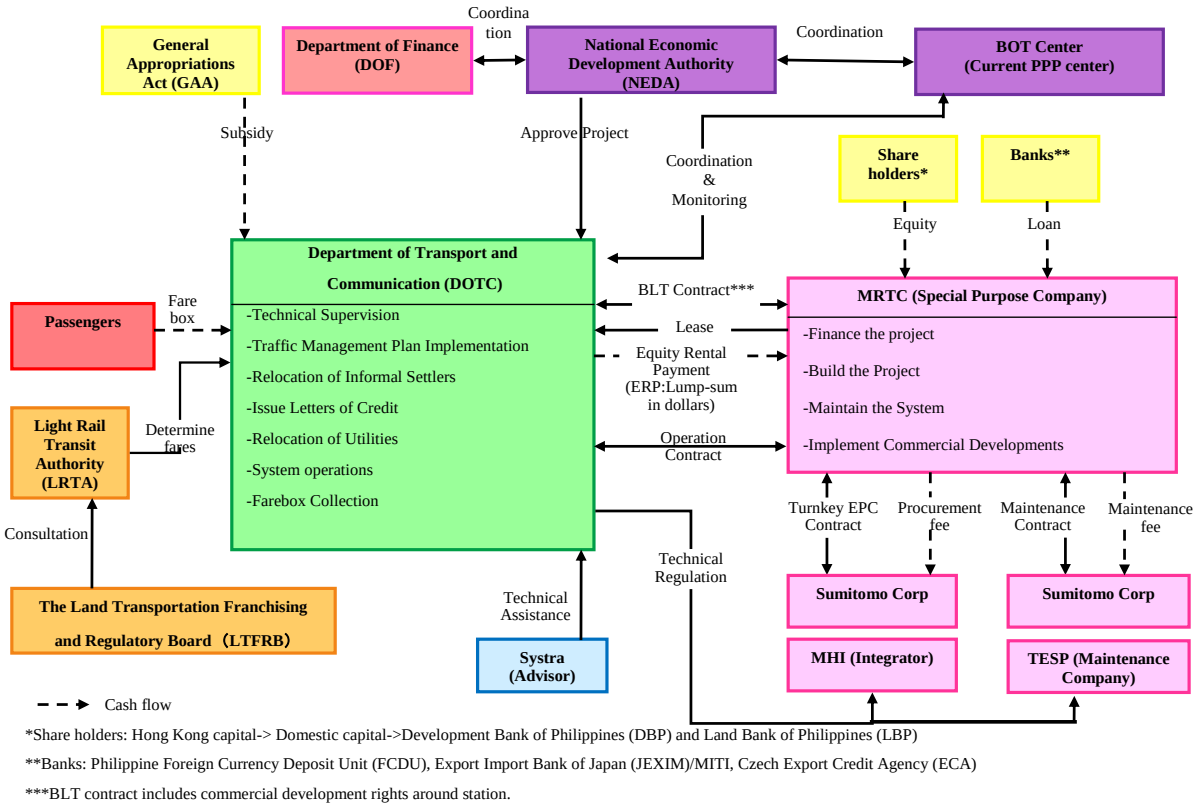
The SPC for the MRT-3 project is MRTC. Based on the PPP contract with DOTC, the SPC is the main contractor of the project. In the case of MRT-3, the type of PPP contract adopted is BLT. A BLT scheme is a contractual arrangement whereby a project proponent (MRTC) is authorized to finance and construct an infrastructure facility and upon its completion, turns it over to the government agency (DOTC) concerned on a lease arrangement for a fixed period. After which, ownership of the facility is automatically transferred to the government agency concerned. MRTC was responsible for the design and construction, maintenance of the system, financing the project, and implementing commercial development.

e) Other Private Entities

Other private entities include finance providers such as shareholders, banks, EPC providers, and maintenance providers. The original shareholder of MRT-3 was a company incorporated in Hong Kong at the initial point. Currently, the Development Bank of the Philippines (DBP) and the Land Bank of the Philippines (LBP) are the major shareholders. Banks that provided financing to the MRT-3 project were the Philippine Foreign Currency Deposit Unit (FCDU), Export Import Bank of Japan (JEXIM), the Postal Bank of the Czech Republic and the Czech Export Credit Agency (ECA), and a group of local banks.

A fixed-price turnkey EPC and maintenance contract was signed between Sumitomo Corporation and MRTC. Under Sumitomo Corporation, Mitsubishi Heavy Industries (MHI) was the integrator of EPC procurement; while TES Philippines, one of the subsidiaries of MHI, is the maintenance provider. MHI sub-contracted the civil works to EEI Corporation, and the rail vehicles to CKD Dopravni System.

In addition to these private entities, DOTC employed the services of Systra as the technical advisor for the MRT-3 project.



Source: JICA Study Team

Figure 8.2-1 Key Players in the MRT-3 Project

(3) Lessons Learned from Previous Projects

The following are the lessons learned from the LRT-1, LRT-2 and MRT-3 projects:

a) Setting Adequate Design in Project Preparation

As railway project is larger and longer than other infrastructure projects, the initial capacity design is critical. In the case of Manila urban railways, capacity design is smaller than actual demand in LRT-1 and MRT-3, while larger than the actual demand in LRT-2. During project preparation and train system selection (i.e., selection of type of rolling stocks, electro-mechanical and signalling system, etc.), it is important to choose optimum technologies based on proper demand forecast, future railway expansion planning, and analysis of the urban growth.

b) Achieving Optimum Financial Risk Sharing between Public and Private Sectors

Government guarantees can be used to encourage private sector participation in urban railway projects. In the Philippines, the government used sovereign guarantees to encourage the private sector to participate in projects like MRT-3. However, it can be argued that such guarantees (i.e., 15% Return-On-Equity guarantee) are too disadvantageous for the government considering as well that the risk is transferred from the private sector to the government. By using government guarantees in trying to create an attractive environment for private sector participation in capital intensive projects, the principle of risk sharing between the public and private partners is being eroded. A variety of

financing options is available, which should be studied thoroughly during the planning and feasibility stages, to be able to identify which option is the most suitable for any future project.

c) Using Life-Cycle Cost Concept in Detailed Engineering Stage

Urban railway system is made up of different sub-systems that should be properly integrated. Considering this, it is important to bring optimal integration among these sub-systems based on the demand level and urbanization stage of the region. During the detailed engineering stage, consideration for the optimum technical choice should be based not only on the lowest cost but also on the life-cycle cost concept (i.e., assess the cost not only in the initial construction and installation phase but also during the O&M phase) to avoid future unplanned rehabilitation and higher maintenance cost.

d) Determining and Implementing Optimum Tariff Rates

Proper identification and setting of the optimum tariff rate are key to maximize revenue and to minimize government subsidy. It is important to identify the tariff rate based on the passengers' willingness to pay (price elasticity of demand), without sacrificing the economic and social benefits derived from the system.

On the other hand, in the Manila urban railways, it is considered that the tariff level is too low to compensate the investment and operation costs. It has been set between the tariff level of air conditioned bus and that of jeepneys, based on affordability of urban railway tariff for the people. Also, the tariff has not been duly increased in line with general price increase.

One way to properly determine the levels is through periodic ridership surveys. Comparative cost-benefit analysis can also be done with other modes like buses and jeepneys to determine the rate, which should be competitive and reasonable for the passengers.

Once the optimum rate is properly identified, the government must have the political will to enforce the optimum rate. For the MRT-7, there are now some provisions in the contract, which state that the government will have to shoulder the difference between the agreed rates and the applied rates. Failure to enforce the agreed rates will result in more government subsidy to the project.

e) Construction of Intermodal Facilities and Proper Network Planning

An efficient network and modal integration will result in an increase in ridership. In Metro Manila, modal interchange and within-mode transfers have long been a problem. Provisions for intermodal transfer stations and better network planning would lead to an increase in efficiency of the existing transport network. An efficient network is possible through proper planning and design to be able to shorten the distance between connection points.

Railway passengers usually depend on walking or road-based public transport (jeepneys and buses) as feeder modes. Therefore, to increase ridership, it is important to efficiently integrate these modes with the railway system, through the use of such easily accessible intermodal facilities as well as transfer stations and common terminals. Construction of properly located intermodal facilities and common terminals will improve transfers among buses, jeepneys, and urban railway lines.

f) Increasing Project Viability Through Railway and Land Development Integration

Development of commercial and residential areas along railway corridors will increase passenger demand. Railway construction raises property values along railway lines, providing other potential

source for value in financing a part of the railway investment. This will increase the viability of railway projects and therefore attract more private companies in investing and participating in the projects.

For LRT-1 and LRT-2, the government did not have an integrated land or commercial development. The benefit that would have resulted if they integrated the commercial development with the rail transit project could have been used as an additional source of funds for the rail construction. The source of funds cannot be recouped from fare revenues alone. In the case of MRT-3, the construction of its railway system and commercial development around stations were integrated in the contract. However, it does not necessarily mean that the government was successful in using the land development adequately as a financial source of the railway development. Additionally, there was no idea on storing the income of land development for the future reinvestment of railway.

An on-going railway project like the MRT-7 is a good model for an integrated urban railway and land development project. Currently in the initial construction phase, the railway project is an integrated project comprised of the construction of the railway system, a real estate and commercial land development project along the rail line, and a road project serving as a connection and feeder line to the rail system.

g) Lack of Competition and Expertise in Railway Sector

The limited number of companies with necessary expertise in urban railway sector in the Philippines results in less competition for such projects. This leads to higher project costs, unfavorable conditions being forced on the government, inadequate and inefficient O&M performance, as well as insufficiency in the introduction of innovative and updated technologies.

Given that the technology and expertise level of local companies with regard to railway sector are very low, foreign companies with the necessary technologies and expertise should be invited to participate in railway projects in the Philippines. To encourage them to participate, it may be necessary to introduce some amendments to existing laws and policies, which serve as barriers to these foreign companies' participation. At the same time, it is also possible to encourage local companies to develop their technical capabilities through the transfer of technology and expertise by means of participating in joint ventures and partnerships with expert foreign firms. Consequently, these measures will attract foreign participation; lower the project costs; provide more efficient O&M; and promote use of updated and innovative technologies in the railway sector.

On the other hand, some problems are caused by poor maintenance management that transpired in the Metro Manila railway system. This is also partly attributed to the lack of competition and technical capability as well as the use of outdated systems. Currently in LRT-2, some parts of the elevated railway tracks require lower speed limits for train operation due to lack of appropriate maintenance works. Proper maintenance should be mandatory, and one way of enforcing this is to provide periodic reviews of Key Performance Indicators in the contract, or concession agreement.

h) Issues Observed by the JICA Team

The lessons above are based on some on-site observations made by the JICA Team. Table 8.2-1 shows the observed issues in each line and at each stage.

Table 8.2-1 Issues Observed by the JICA Team

Stage	LRT-1	LRT-2	MRT-3
(1) Project Preparation	-Smaller capacity design -No utilization of land development profit	-Larger capacity design -Improper alignment -Inconvenient connection to other line -No utilization of land development profit	-Less utilization of land development profit
(2) Bidding			-Higher guaranteed return -Smaller competition
(3) ROW Acquisition			-Delay of land acquisition of depot
(4) Detailed Engineering Design	-Matching error among sub-systems (heights of platform, etc.) -Over-specification in electric facilities -Possibility of capacity increase		-Misuse of track structure - Over-specification in electric facilities -Possibility of capacity increase
(5) Construction (including EPC procurement)		- Delay in construction	
(6) O&M	-Lack of spare parts for rolling stocks	-Improper track maintenance	
(7) Political and Legislative Risks	-Low tariff level based on a-priori social concern		
(8) Economic and Financial Risks	-No tariff increase duly in line with general price increase		

Source: JICA Study Team

8.2.2 Planned Urban Railway Projects in the Philippines

(1) MRT-7

a) Overview of the MRT-7 Project

The MRT-7 project is a 23-km mostly elevated railway from North Avenue/EDSA to San Jose del Monte, Bulacan, and consists of 14 stations.

The project also includes the construction of a 22-km, 6-lane asphalt road that will connect the North Luzon Expressway (NLEX) to the major transportation hub development in San Jose del Monte. The MRT-7 starts from said road and ends at the integrated station beside SM City North EDSA.

Passengers will be able to transfer to the LRT-1 and MRT-3 through the Metro Manila Integrated Rail Terminal that will link the three lines at North Avenue in Quezon City.

The contract for a Build-Gradual Transfer-Operate-Maintain (BGTOM) Concession Agreement for MRT-7 was signed by DOTC and Universal LRT Corporation (ULC) on June 18, 2008, with target completion by the 3rd quarter of 2014.

The project cost of US$1.235 billion will be financed under a debt-equity ratio of 75:25, with ULC putting in equity of US$309 million.

Railway Line and Highway

- Elevated MRT – 12.11 km
- At-Grade MRT – 6.655 km
- Open-Cut MRT – 1.445 km
- Tunnel MRT – 0.785 km
- 6-lane Road – 22 km

Stations

- Elevated – 8 Stations
- At-Grade – 3 Stations
- Depressed – 3 Stations

Figure 8.2-2 MRT-7 Railway Line

b) Real Estate Development

One of the main characteristics of the MRT-7 project is the combination of railway development and real estate development.

The project proponent, ULC, commits to undertake the real estate development of a 173-ha land situated at the terminus in San Jose del Monte, Bulacan.

- 100,000 sq.m. of residential units per year for 20 yrs.
- 45,000 sq.m. of commercial space per year for 20 yrs.
- A shopping mall of at least 90,000 sq.m.

Republic of the Philippines (ROP)/DOTC share is either 20% of the net proceeds in the sale or lease of the developed land, or 34.6 ha of the undeveloped land.

c) Revenue Sharing and Fare Differential

The revenue sharing scheme between the DOTC and ULC is as follows:

- Less than 11.9% Internal Rate of Return on Equity (IRRe):
  - ULC – 70%

  - ROP/DOTC – 30%
- Between 11.9% and 14% IRRe:
  - ULC – 50%
  - ROP/DOTC – 50%
- More than 14% IRRe:
  - ROP/DOTC – 100%
- Non-implementation of agreed fare shall entitle ULC to fare differential payment from the government.

(2) Other Projects

a) PRIVATIZATION OF O&M OF LRT-1 AND MRT-3 SYSTEMS

This project aims to transfer integrated O&M of LRT-1 and MRT-3 to a private sector service provider during the interim period of 3-4 years. After this, the LRT-1 South Extension Project contractor is expected to assume overall responsibility for the integrated LRT-1 and MRT-3 systems.

The invitation to bid for the contract of service for the O&M of LRT-1 and MRT- 3 was published on March 28, 2011.

Bidding is expected to be completed by the 2nd quarter of 2011, with contract award by 4th quarter of 2011. However, it was reported that this process has been stopped to enable the newly installed DOTC Secretary Mar Roxas to properly evaluate the project.

b) LRT- 1 SOUTH EXTENSION PROJECT

This project involves the extension of the existing 15-km LRT-1 system southward to Bacoor, Cavite, by an additional 11.7 km. The project will also include eight passenger stations, with provisions for two additional future passenger stations.

There will also be a satellite depot for light maintenance to be located at the southern end of the proposed line, as well as intermodal facilities installed at high-demand stations. Additional rolling stocks will be provided to meet future load requirements once the MRT-3 and LRT-1 are integrated.

Due diligence review, contract packaging and preparation of bid documents are set to be undertaken by Systra. The publication of invitation to bid was done in July 2011.

c) LRT- 2 EAST EXTENSION PROJECT

This project involves the expansion of the existing LRT-2. It involves the construction of a 4-km eastern extension of LRT-2 from Santolan in Pasig City, to Masinag Junction in Antipolo, Rizal. An additional two passenger stations will be located at Sta. Lucia Mall and at Masinag.

The project pre-feasibility study has been completed by JETRO in March 2010. The Feasibility Study (FS) thru JICA technical assistance to reconfigure the project into a PPP scheme commenced in January 2011. The FS is intended to validate extension options, scope of work and project costs.

The PPP tender was expected by the 4th quarter of 2011, and the publication of invitation to bid was set in November 2011.

d) MRT/LRT COMMON TICKETING SYSTEM PROJECT

This project aims to integrate the fare collection system of the existing MRT-3, LRT-1 and LRT-2. It involves bidding and financing of automatic fare collection system for the three urban railway lines, including provisions for out-of-station point-of sales.

Due diligence review, contract packaging and preparation of bid documents for PPP scheme were undertaken by Systra. Bidding and contract award was scheduled for completion by the 4th quarter of 2011.

8.2.3 Previous Urban Railway Projects in Asia

Although a lot of PPP projects in the urban railway sector have been introduced in Asian countries, most of them resulted in financially improper situations as shown in Table 8.2-2. Out of these examples, the Seoul Subway Line 9 in Korea exhibited better financial output.

Table 8.2-2 Asian PPP Projects in Urban Railway

Nation	City	Line name	Project type			Line Open	Length (km)	Risk				Result (exit etc)
			BOT	BTO	Other			Macro economy	Political	Construction completion	Demand	
Thailand	Bangkok	BTS Skytrain	○ Rolling stocks	○ facilities		1999	23.5 (2008)	Asian Financial Crisis	Fare increase denied	Change of the place of depot		Deduction of debt
		Subway Blue Line	○ E&M		ODA Civil, Tracks	2004	20.0			4-year delay	40% of planned demand	Re-schedule of debt
Malaysia	Kuala Lumpur	KL Monorail	○			2003	8.6	Asian Financial Crisis				-Changed original concession -SPV bankrupted
Korea	Seoul-Inchon	Inchon Airport Access		○		2007	40.3				7% of planned demand	Government buy out
	Yong-in	Yong-in LRT		○	Civil part by public	2010 (planned)	18.1		Revenue guaranty denied			Opening Extended
	Seoul	Subway Line 9		○	Civil part by public	2009	27.0 (1 st)				83% of planned demand	No financial restructuring

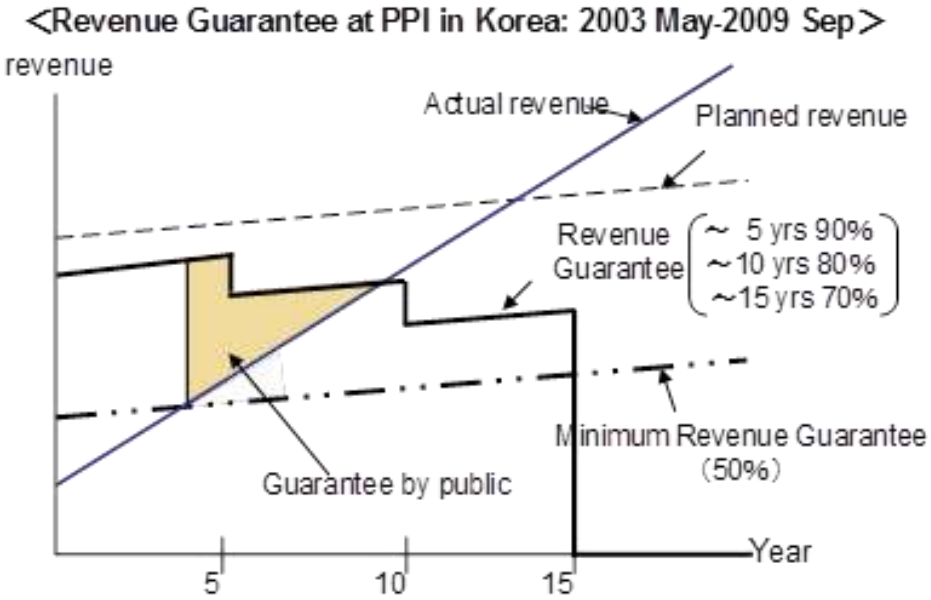
Source: JICA Study Team

In the Seoul Subway Line 9 Project, optimum risk allocation and risk mitigation measures were conducted. The examples of risk allocation are vertical separation (civil and track works by public, E&M by private), and revenue guarantee with incentives.

As shown in Figure 8.2-3, some part of the revenue is guaranteed by the government. The guarantee level is dependent on the years (i.e., 1-5 years: 90%, 6-10 years: 80%, 11-15 years: 70% of the planned revenue). To avoid too much burden on the government, minimum revenue guarantee is also set at 50% of the planned revenue.

As for risk mitigation, efficient, safe, and reliable operations as compared to existing lines are realized

by using advanced railway technologies such as the auto train operation (ATO) and automatic fare collection system.



Source: JICA Study Team

Figure 8.2-3 Example of Risk Sharing in Tariffs

8.2.4 Effective Use of Profit from Land Development – The Japanese Case

(1) Backgrounds and Basic Ideas in the Japanese Case

The coordination strategy between urban rail and suburban development had been employed by private rail companies operating in large metropolitan regions in Japan throughout the 20th century. Such strategy had been effective against specific backgrounds as follows:

1) Long lasting and huge demand for suburban housing under ever-rising land price,

2) Suburban detached housing with housing lot had long been regarded as a promising and secure way of asset holding for middle-class people,

3) Hilly forest and farmland in the suburbs are mostly subdivided, and agro-forestry production had not been profitable, and

4) These suburban land can be easily developed into suburban housing sites if rail access to the center is provided.

In other words, housing demand was present and suppliers were ready, if coordination strategy worked well between rail and urban development.

In light of the above background, the idea is to use the benefit from suburban development for rail investment.

Actually, in large Japanese cities, private rail companies play a key role in urban transport. These private companies have survived more or less 80 to 100 years without government subsidy. They purchase ROW, construct facilities, procure rolling stock and operate railways by themselves. They

are 100% privately-owned rail companies. The secret is the "so-called" business model of private rail companies in Japan.

(2) Outline of the Business Model of Japanese Private Railway Companies

The coordinated planning and finance, i.e., the business model, by private rail companies in Japan can be summarized as follows:

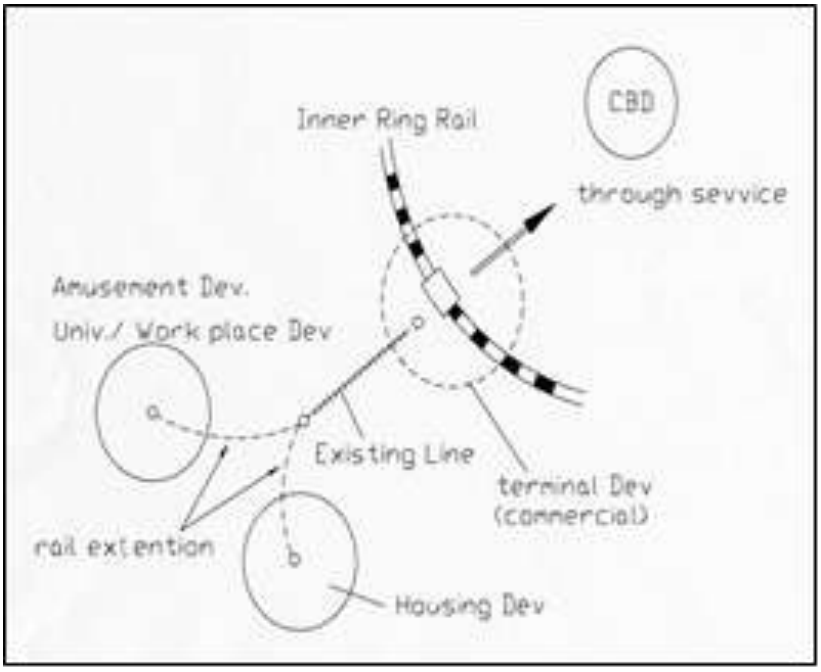
- The first is to obtain license from the national government for exclusive franchise for suburban rail construction and operation in certain areas. In most cases, licenses were issued in the 1930s.
- The second is to acquire land tenure in the area franchised, and set up development unions with land owners, prior to development.
- The third is to hold two business sectors, i.e., rail and real estate, under one single CEO. The two sectors are mutually supportive. Rail extension and new stations provide the means of commutation, and will attract people for new development. Moreover, new development provides passengers for new rail operations.
- Further steps of coordinated planning and financing follow after the purchase of land tenure. Thus, the fourth step is to form development plans, including rail extension routes and location of new stations.
- The fifth step is to implement piece by piece development, coupled with rail extension or provision of new stations, after obtaining necessary official approvals from local governments.
- The sixth step is sales of developed suburban housing and/ or housing sites.
- The seventh is to reinvest the gained development benefit into further rail extension and development.

(3) Important Considerations for Coordination Strategy

Three important points are to be considered for coordinated planning and finance:

- The first point is staged rail extension and/or new station provision, coupled with piecemeal development. The size and timing of such joint development should carefully be decided as oversupply of developed land or too early rail extension may aggravate financial position of joint development.
- The second point is a careful choice of land use pattern. Special attention is to be paid to avoid depending too much on housing development. Because housing community tends to produce one way rail transportation demand during peak hours: in the morning, inbound to CBD, and in the evening, outbound to suburbs. Furthermore, such demand pattern is evidently not desirable from the viewpoint of efficiency. What is needed is to introduce different types of land use, i.e., schools and universities, clean industrial estate and research institutes. Students and employers in the suburbs may induce reverse directional transport demand in peak hours, and thus contribute to more efficient rail operation.
- The third point is the provision of through-service to CBD. Many suburban rails in Tokyo Metropolitan Region (TMR) are connected with downtown subway lines in a seamless manner.

Furthermore, suburban trains run directly into subway tracks, and vice-versa. The through-service provides very convenient and speedy commutation for suburban dwellers.

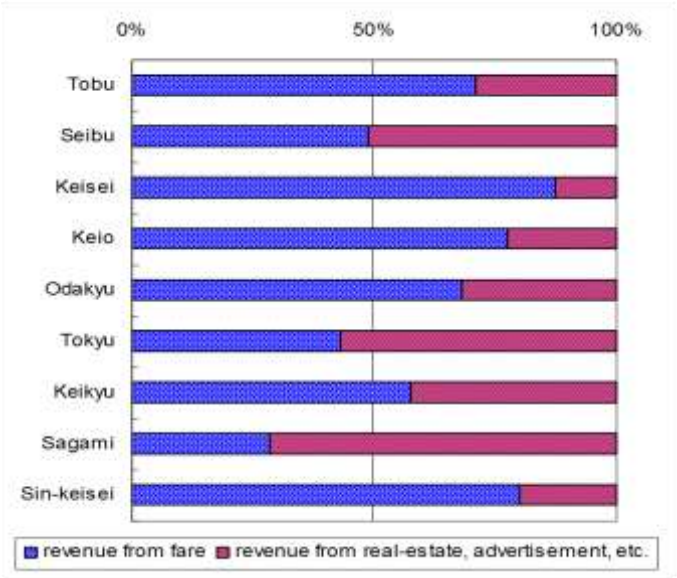


Source: JICA Study Team

Figure 8.2-4 Coordination Strategy

(4) Revenue Base of Private Rail Companies

The coordination strategy serves not only as an urban transport policy but also as a business model for suburban rail companies. Actually, nine major private rail companies (except for Japan Railway East, a part of the former Japan National Railway) in TMR rely heavily on non-rail revenue, including real estates and advertisements. Some 30-50% of their total revenue comes from non-rail revenue. Real estate business strengthens the financial base of private rail companies, and enables further investment in rail sector.



Source: JICA Study Team

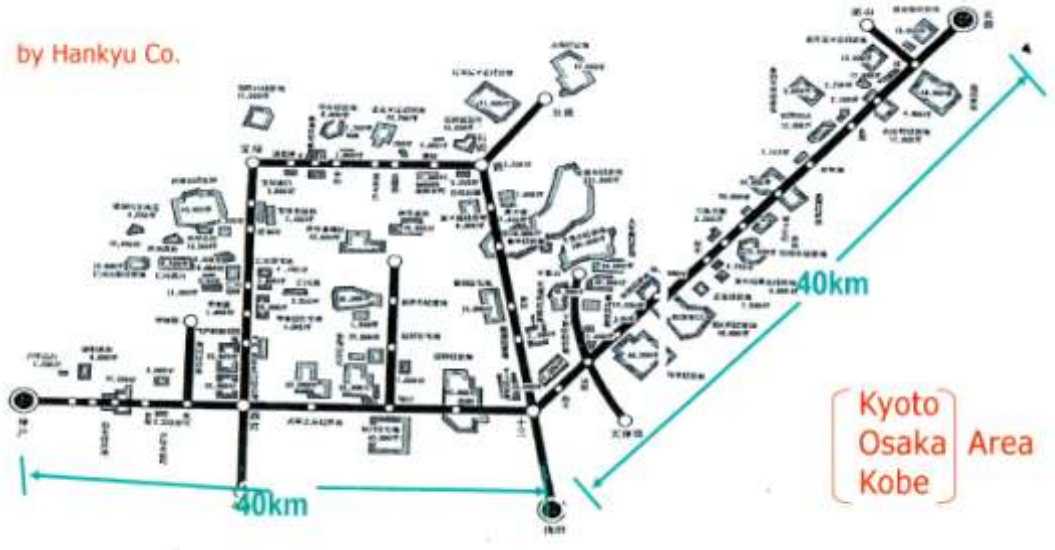
Figure 8.2-5 Revenue Base of Private Rail Companies in Japan

(5) Tradition and Results

The coordination strategy had been inherited throughout the 20th century in Japan. The initial practice of the strategy can be traced back to the year 1910. A suburban rail company in the Osaka Metropolitan Region, the second largest region in Japan, developed a housing estate, located some 20 km away from the central region. Right after the opening of its rail extension, 200 house and lots in the 11 ha estate were sold out. For those who settled in, it meant a new life style, i.e., greenery and healthy suburban life with comfortable means of commuting through a new rail.

Since the 1920s, this business model had widely been adopted by other private rail companies in other metropolitan regions. Moreover, the business model had survived for more than 80 years since then. By the end of the 20th century, the total area developed by the nine major private companies reached to some 15,000 ha in TMR.

- 1910 Ikeda City (20 km from central Osaka) by Hankyu: 11 ha
- ～ 2000 Total area developed by Hankyu Co. : 1,737 ha
- ～ 2000 Total area developed by private rail company in TMR : 14,720 ha



Source: JICA Study Team

Figure 8.2-6 Example of Coordinated Urban Rail and Suburban Development in Japan

(6) Role of the Public Sector

The coordination strategy had long been supported by the public sector through various means. Support from the national rail authority includes:

(1) Licensing of exclusive franchise for rail operations in a certain corridor

(2) Provision of low-interest loan for rail investment

(3) Issuance of development permits

(4) Authorization of city planning and land use control in favor of the strategy

8.3 Issues in the Urban Railway PPP in the Philippines

As discussed in Chapter 2.1, the risk was too much on the public sector in the case of MRT-3, and the private sector has a relatively stronger power than the public sector under the Philippine urban railway PPP projects. Also, as indicated in Chapter 1, railway project is not suitable for pure BOT, and requires government financial support as it needs a large investment, while the income is less because of the low tariff settings.

Thus, the main issues in the urban railway PPP in the Philippines are as follows:

a) Influential political power in the private sector

So far, urban railway PPP projects are basically unsolicited projects in the Philippines. The MRT-3 project was an unsolicited project at the initial stage. The MRT-7 project, which is currently in the planning process, is also unsolicited. On the contrary, urban railways are run by the public sector in almost all the cities in the world. Even when an urban railway system is developed using the PPP method, the project type is basically solicited in the case of other countries. In the Philippines, however, strong political power in the private sector seems to promote extensive interests in the urban

railway PPP projects.

b) Lack of urban railway know-how in the government side

Although the Philippine government owns the Philippine National Railways (PNR), the management and technical know-how of inter-city railway service of the PNR were not successfully transferred to the urban railway projects. Also, in the urban railway projects in Metro Manila, individual ODA projects or PPP projects are implemented without strong linkage among the projects. Thus, together with the point mentioned above, the influence of the government has been weak with regards to the urban railway development in the Philippines.

c) Necessity of selecting the best modality

To gain financial feasibility or viability, it is essential that a portion of the railway asset should belong to the government. A vertical separation, where the civil works part belongs to the government, is considered as the proper modality for urban railway projects. However, as the integration of sub-systems is also important in a railway project, careful technical design to match the sub-systems is required when dividing the railway asset.

d) Requirement for appropriate risk sharing between the public and private sectors

Appropriate risk sharing between public and private sectors is required. Revenue risk sharing is one of the crucial points. For example, in order to avoid the regulatory risk for the tariff setting, it is essential that the government guarantees the difference of the regulated tariff and the projected tariff.

e) Needs to obtain the "third source" of cash-in other than the tariff and government support

Other than the tariffs (the "first source" of cash-in) and any financial support from the government (the "second source" of cash-in), it is important for the project to make use of railway-related revenues such as land development along the lines, commercial development in and around the stations, and so on. As indicated in Chapter 8.2-4, Japan experienced urbanization throughout the 20^{th} century. It is observed that this is happening in the Philippines right now. On the other hand, careful consideration is required for the financial scheme setting because a large-scale land development has huge demand risk, which will be disadvantageous to the railway PPP project.

<Column> Backgrounds in Metro Manila from the view point of urban railway installation

Metro Manila has a very dense population and several cores within the area. Its population density is 18,670/km^2 (in the year 2007), and is one of the densest cities in the world. Also, it has several cores such as Makati, Ortigas, Quezon City, Caloocan, Pasay, and Pasig within the metropolitan area. This is similar to Tokyo, which has cores such as Marunouchi, Ginza, Shinjyuku, Shibuya, Ikebukuro and so on. Moreover, the population of each city in Metro Manila is growing. These backgrounds are intrinsically advantageous to urban railway installation as well as related land developments.

Total Population				
City/Municipality	As of Aug. 1, 2007	Land Area (square km) [b1/-b3/]	Population Density	Growth Rate (2000-2007)
Philippines	**88,564,453** [a]	**300,000**	**295**	**2.04**
National Capital Region	**11,566,325**	**619.5**	**18,670**	**2.12**
City of Manila	1,660,714	25.0	66,482	0.68
City of Mandaluyong	305,576	9.3	32,893	1.29
City of Marikina	424,610	21.5	19,731	1.14
City of Pasig	627,445 [c]	48.5	12,948	3.04
Quezon City	2,679,450	171.7	15,605	2.92
City of San Juan	125,338	6.0	21,065	0.87
Kalookan City	1,381,610	55.8	24,780	2.23
City of Malabon	363,681	15.7	23,150	0.98
City of Navotas	245,344	8.9	27,443	0.87
City of Valenzuela	568,928	47.0	12,100	2.21
City of Las Piñas	532,330	32.7	16,284	1.65
City of Makati	567,349	21.6	26,303	3.41
City of Muntinlupa	452,943	39.8	11,395	2.48
City of Parañaque	552,660	46.6	11,867	2.88
Pasay City	403,064	14.0	28,852	1.77
Taguig City	613,343	45.2	13,567	3.82
Pateros	61,940	10.4	5,956	1.05

Source: National Statistics Office

Figure 8.3-1 Metro Manila Population Density

8.4 Risk Analysis

8.4.1 Purpose of Risk Analysis

The purpose of risk analysis using risk matrix is to analyze the potential risks of a project through risk identification, risk mitigation, and risk allocation. The output of the analysis can be used not only as a basis for the tender documents and/or concession agreements, etc., but also as a source of information for legal/institutional improvements in PPP projects in the Philippines.

8.4.2 Methods

Risks are listed on the basis of PPP stages as shown below. Note that (7) and (8) are common to every stage.

1) Project Preparation Stage

2) Bidding Stage

3) ROW Acquisition Stage

4) Detailed Engineering Stage

5) Construction Stage (including EPC)

6) Operation and Maintenance Stage

7) Political and Legislatives Risks

8) Economic and Financial Risks

Risks are highlighted in accordance with sector characteristics discussed in Chapter 1.

8.4.3 Risk in Railway Sector

(1) Major Risks in Railway Sector

Detailed risk matrix is shown in Appendix E-4.4. Among the risks in the urban railway sector, it is considered that those that concern demand, design, and regulation are important. Examples of these risks are as follows:

- Demand Risk
  - Level of demand: very basic risk
  - Fluctuation of demand
  - Synergetic effect with land development
  - Project delay affects the realization of revenue
- Design Risk
  - Matching error between sub-systems
  - Insufficient integration between lines
- Regulatory Risk
  - Tariff settings
  - Tariff revision

(2) Risk Allocation

Examples of risk allocation for demand risk, design risk, and regulatory risk are shown below:

Table 8.4-1 Examples of Major Risks in the Urban Railway Sector and Their Allocation

	Public	Private
Demand Risk		
-FS stage	*	
-Operation stage	*	*
Design Risk		*
Regulatory Risk	*	

Source: JICA Study Team

As mentioned in the case of Seoul Metro (Chapter 8.2-3), the minimum revenue guarantee by the government is an effective way of allocating demand risk during the operation stage, between the public and private sector. It is not preferable to just copy the idea from abroad, but it is worth discussing the applicable method of demand risk allocation during the operation stage.

(3) Risk Mitigation

Risk mitigation measures for demand risk, design risk and regulatory risk are as follows:

- Demand Risk
  - Better projection by using appropriate data and parameters based on survey

- Better projection by milestone setting in demand forecast based on stage of development along lines
- Selection of the best PPP modality
- Bidders' initiative in reliable demand forecast
- Introduction of necessary revenue guarantee

- Design Risk
  - Plan upgrading of the design in accordance with the stage of demand level in the future
  - Apply life-cycle cost concept
  - Employment of outside technical experts

- Regulatory Risk
  - Government guarantees the difference between the agreed tariff and the approved tariff
  - Transparent process of regulating tariffs to prevent "too low tariff"
  - Setting formula of the regulation
  - Change "implicit policy" in the level of tariff as compared to other modes

(4) Main Points from Risk Analysis

As mentioned in Chapter 8.2-1, the risk was higher on the public sector in the case of MRT-3. On the other hand, it is impossible for the private sector to afford all risks in urban railway sector. Thus, selection of the best modality and appropriate risk sharing between public and private sectors are crucial.

8.5 Analysis of Four PPP Projects in Urban Railway in the Philippines

There are four PPP projects related to construction of urban railways, which were done or planned in the Philippines, as described in Chapter 8.2-2. These include MRT-3, MRT-7, LRT-1 extension, and LRT-2 extension. Together with the sector analysis in Chapter 8.3 and the risk analysis in Chapter 8.4, the JICA study team analyzed the suitability of these four projects as PPP projects.

The JICA study team considers that the background data (line length, number of stations, line length still needed for ROW acquisition, and line length within nearby undeveloped area) and financial data (daily ridership, investment cost, IRR, debt/equity) are important factors to evaluate if the project is/was suitable for PPP (Table 8.5-1).

- MRT-3

MRT-3 is the first PPP railway project in the Philippines. Its financial scheme was BLT. As described in Chapters 2 and 3, risk was too much on the government side under said financial scheme. Also, income from non-railway sector was less utilized in MRT-3. In this sense, MRT-3 project is a PPP project where more private contribution should have been required.

- MRT-7

MRT-7 is an ongoing project implemented through BGTOM (Build-Gradual Transfer-Operate-Maintain). In this financial scheme, it is considered that the sharing of risk between the government and private sector is more adequate than that in MRT-3. Also, land profit will be used as a source for the railway project in MRT-7, as described in Chapter 2.1. In this sense, MRT-7 is a PPP project which will utilize more private contribution.

- LRT-1 Extension

LRT-1 extension is a planned project under ODA and PPP financial scheme. A specific financial scheme, however, has not been decided yet. This project requires a large investment and ROW acquisition. On the other hand, there is a possibility of using non-railway profit because there are still some potential undeveloped areas along the line. In this sense, LRT-1 extension would be a potentially good PPP project if proper support from the government and other organizations such as JICA are introduced.

- LRT-2 Extension

LRT-2 extension is a planned project under ODA and PPP financial scheme. A specific financial scheme has not been decided yet. There is less potential for land development along the LRT-2 extension line. Introducing the vertical separation scheme would be a condition for ensuring the viability of PPP for this project. Currently, another JICA study is ongoing for the LRT-2 extension.

Table 8.5-1 Characteristics of Current / Potential Urban Railway PPP Projects

Line	Financial Scheme			Background Data				Financial Data				Overall Evaluation
	Scheme Type	Connection with Land Development	Status	Line Length	Number of Stations	Line Length Still Needed for ROW Acquisition	Line Length within or nearby Undeveloped Area	Daily Ridership Demand	Investment Cost	IRR	Debt/Equity	
MRT 3	BLT (Build-Lease-Transfer)	Development rights at depot, stations and airspace above stations(?)	- 1997 contract signed - 1999 start operations	16.9 km	13	only depot area*	none*	(actual) 418,794 (2010)	US $675 Million	15%	72/28	Risk was too much on the government side. Less utilization of income from non-railway sector.
MRT 7	BGTOM (Build-Gradual Transfer-Operate-Maintain)	Real estate development at terminus (170 has.)	- 2008 contract signed - 2013 target start of operations	23 km	14	30%*	10%* large undeveloped area at terminus for real estate development	(projected) 300,000/day initially, projected to rise up to 850,000	US $1,235 Million	11.90%	75/25	Trying to share the risk between the govt and the private sector. Make good use of land profit as a source for the railway project.
LRT 1 Extension	ODA + PPP	not decided	- August 2011 target completion of feasibility study	11.7 km	8 + provision for 2 additional stations	23%	7%*	not decided	US $1,555.55 Million	not decided	not decided	Requires large investment and ROW acquisition. Possibility of using non-railway profit. Proper support by the govt is necessary.
LRT 2 Extension	ODA + PPP	not decided	- August 2011 target completion of feasibility study	4.14 km (East extension)	2 for East extension	none for East extension	less for East extenstion*	not decided	US $ 220 million (Php 10.781 Billion) for East extension only	not decided	not decided	Less potential for land development
				4.14 km (East extension) 1.62 km (West extension)	3 (2 for East extension + 1 for West extension)	none for West extension*	none for West extention*	not decided	Php 15.72 Billion (East and West extension)			

* Suppositions by JICA Study Team

CHAPTER 9 AIRPORT SECTOR

9.1 Sector Characteristics

9.1.1 Aviation Industry

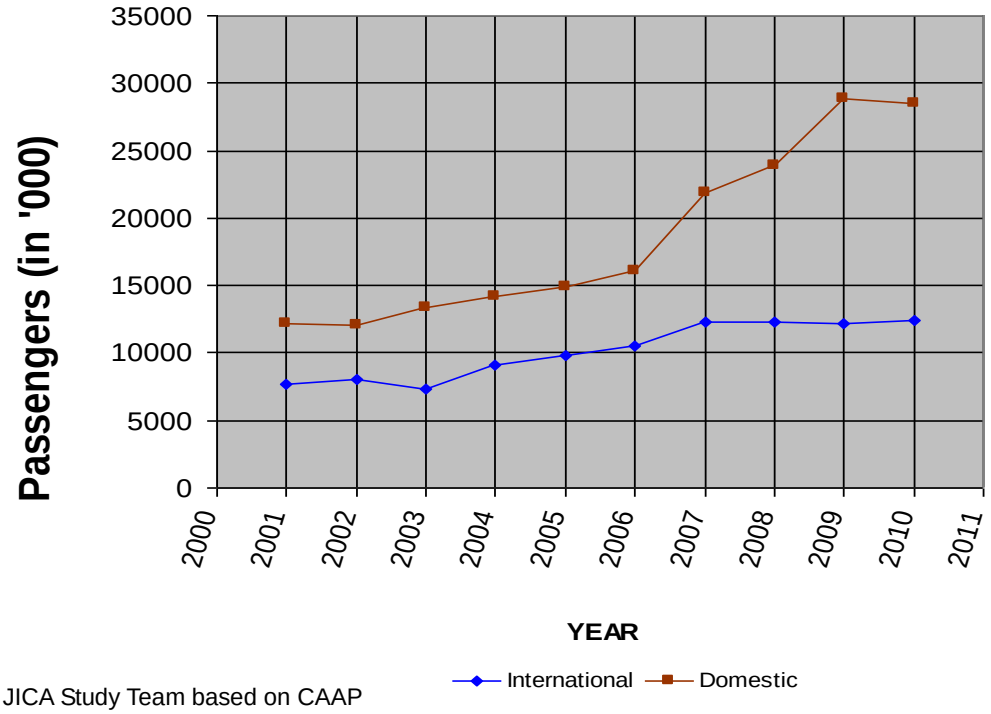
The world trend in the aviation industry shows that the liberalization of air transport regulations and the emergence of Low Cost Carriers (LCCs) are the major contributors to the increase in air traffic.

In Asia, the Open Skies Policy is expected to significantly increase interregional tourism between ASEAN member states. The government initiatives for Open Skies Policy paved the way for bilateral, regional and multilateral air service agreements among countries in the ASEAN region. This policy will be enhanced further by the creation of an ASEAN-wide single aviation market under the establishment of the ASEAN Economic Community (AEC) in 2015. The airports in the region are also being upgraded in anticipation of the increase in traffic.

The recent increase in air traffic volume in the ASEAN region prompted the construction or rehabilitation of airport infrastructure among the different member states. Most airport infrastructure in the capital cities of ASEAN member states can accommodate large aircrafts. However, few airports are featured because of inadequate facilities in accordance with International Civil Aviation Organization (ICAO) standards, such as short runway lengths and narrow parking apron. Consequently, ASEAN member states have recently implemented the improvement of airport facilities and services to meet the rapid increase in air traffic volume.

The increasing operations of LCCs in the region have induced the construction of 'budget' terminals which cater specifically to these carriers. In the ASEAN region, there are several airport projects that are either on-going or planned to address the increase in air traffic. In Kuala Lumpur and Yangon, there are on-going airport projects that are expected for completion in 2011. Other airport projects in capital cities such as Bandar Seri Begawan, Hanoi, Jakarta, Manila and Vientiane are either being developed or planned.

In the Philippines, the airline industry has a constantly increasing air traffic passenger movement from 2001 to 2010, both in terms of passengers and cargo. The domestic air passenger movement has increased at a fast annual rate of 10% while the international passenger traffic increased at roughly 6% annually as shown in Figure 9.1-1. With this difference in growth rates, the share of international passengers out of the total traffic has dropped to just 30% of the total traffic from a high share of 40% in 2001.



Source: JICA Study Team based on CAAP

Figure 9.1-1 Air Traffic Passenger Movement: Philippines, CY 2001 to 2010

The deregulation of the airline industry in the Philippines was implemented in 1995 under Executive Order (EO) 219. As stated in this EO, any domestic route that is being serviced by only one air carrier shall be open for entry to another carrier to promote competition. The regulation of fares will only be on domestic routes serviced by a single operator. Fares are deregulated for those domestic routes with at least two operators. All freight rates, charges and passage rates shall be monitored by the Civil Aeronautics Board.

The implementation of EO 219 in 1995 has resulted in increase in the number of airlines operating in the Philippines. Before 1995, Philippine Airlines (PAL) virtually monopolized the country's civil aviation industry. The current aviation market is now shared by Cebu Pacific, Philippine Airlines, Airphil Express and Zest Airways. The Philippine Airlines' current share of the total passenger volume has been reduced to just 39% from a virtual monopoly before 1995 (see Table 9.1-1).

Table 9.1-1 Domestic Carriers' Share of Passenger Volume, Year 2010

Airline	Passenger Volume ('000)	Share (%)
Cebu Pacific	4,428	45%
Philippine Airlines	3,827	39%
Airphil Express	855	9%
Zest Air	401	4%
Others	323	3%
Total	**9,834**	**100%**

Source: JICA Study Team based on CAAP data

9.1.2 Airport Category

Table 9.1-2 below shows the description of airport categories in the Philippines. The categories of the airports included in the PPP Center's list of projects for 2011 rollout are either Principal Class 1 or International. The Principal Class 1 airports of Bohol (Tagbilaran), Legaspi and Cagayan de Oro are planned to be replaced by the new Bohol Airport in Panglao, new Legaspi Airport in Daraga and Laguindingan Airport, respectively.

Table 9.1-2 Philippine Airport Categories

Category (number)	Requirement	Airports
International (10)	Immigration (C.I.Q) Facility	NAIA, Mactan, Davao, Clark, Subic Bay, Kalibo, Laoag, Puerto Princesa, Tambler, Zambonga
Principal Class 1 (15)	Scheduled Flight Operation	Bacolod, Butuan, Cagyan de Oro, Cotabato, Daniel Romualdez, Dipolog, Dumaguete, Iloilo, Legaspi, Naga, Pagadian, Roxas, San Jose, Tagbilaran, Tuguegarao
Principal Class 2 (19)	Operation for Jet Aircraft	Antique, Baguio, Basco, Caticlan, Jolo, Marinduque, Masbate, Surigao, Virac, etc.
Community (41)	Operation for Turboprop Aircraft	Alabat, Bagabag, Cauayan, Jamalig, Lubang, Plaridel, San Fernando, etc.

Source: JICA Study Team based on CAAP

9.1.3 Sector Features

This section discusses the features of the aviation industry that make investing on airport infrastructures attractive to the private sector. These are: a) constantly increasing traffic and emergence of LCCs; b) limited competition from other transport modes/lower traffic demand risk; c) wide range of services that can be offered to the private sector; and d) earnings potential in foreign currency.

a) Constantly Increasing Air Traffic and Emergence of LCCs

The liberalization of the air transport service industry, which resulted in the emergence of LCCs and increase in air traffic, are positive features that enhance the viability of airport projects in the Philippines. These traffic growth trends are expected to continue in the near future, consequently reducing the potential risk due to traffic demand fluctuations. The growth rates for the total air traffic passenger movement in the Philippines from 2001 to 2010 attained an average of 8.6% annually.

b) Limited Competition from other Modes of Transport/ Lower Traffic Demand Risk

Traffic demand risk of airport sector is further reduced by the virtually non-existent competition from other transport modes. In particular, the geographical isolation between airports in some regions of the Philippines and ASEAN also restrains competition from other modes of transport. Currently, the other transport modes such as rail, road and maritime that can potentially compete with airline companies

are still too slow to pose challenge to air transport. The locations of airports in the Philippines are far from each other making it difficult to promote competition between airports. With less competition from other airports, the probability of capturing an area-specific market is higher. The rail system in the Philippines is relatively underdeveloped while other transportation modes are either too slow and/or too expensive to compete with LCC-dominated air transport.

c) Wide Range of Airport Services and Charges that can be Transferred to the Private Sector

In comparison to other modes of transport, air transport offers a wider selection of airport services which the private sector can take over from the government. Correspondingly, there are numerous airport charges that can likewise be allocated to the private sector. This is not the case for other transport modes where there is less choice on the number of services and revenue sources that can be transferred to the private. The current trend for airport PPP projects worldwide is to transfer more airport services and their corresponding revenues to the private sector.

d) Earnings Potential in Foreign Currency

One of the sectoral characteristics that attract private sector interest in the development of an international airport infrastructure is the earnings potential in foreign currency from international airport operations. The private sector is therefore encouraged to capture more of these airport charges paid in foreign currency as these revenues will make the project less susceptible to foreign exchange risks.

The private sector also has to consider the following 'constraints' in the form of; e) huge investment cost requirement; and f) lack of integration with other transport links/access.

e) Huge Investment Cost Requirement

Land acquisition including earthmoving for civil works shares a large portion of investment costs. Several hundred hectares of land area are required for an airport. Other criteria for the selection of an ideal airport location include flat terrain, good drainage facilities, unobstructed approaches, existing transport linkages and accessibility to urban centers. The difficulty in finding large areas that satisfy the different criteria leads to increase in land acquisition cost.

f) Necessity of Integration with other Transport Links

Transport links and accesses are vital to the success of an airport project in attracting additional air traffic. Without effective transport links to the airport, the passenger and cargo traffic demand will be constrained by the transport links connected to it.

In summary, the level of private sector participation is heavily reliant on the (i) airport type, location and transport links; (ii) required investment cost; and (iii) the projected revenues that the airport can generate in the Philippines. The revenues that can be generated from airports in different countries are dependent on the socio-economic conditions at the airport location, general state of the economy and the volume of passenger and cargo traffic. It is expected that the private sector will be more interested in airports located in capital cities as such locations usually attract high passenger and cargo traffic demand.

9.2 Project Overview

9.2.1 Past Airport Projects

(1) Brief History

The Civil Aeronautics Board (CAB) and Civil Aeronautics Administration (CAA) reorganized under EO 776 in 1952 provided for the regulation of civil aeronautics in the Philippines. Up to 1990, the development and management of new airports are undertaken by the government. The Manila International Airport (MIA) and Mactan Cebu International Airport (MCIA) constructed during this period are until now under the administration of different airport authorities, Manila International Airport Authority (MIAA) and Mactan Cebu International Airport Authority (MCIAA).

The first airport project in the Philippines proposed under PPP Scheme is the Ninoy Aquino International Airport (NAIA) Terminal 3. The progression of private sector participation in airport projects commencing with the unsolicited proposal for NAIA Terminal 3 is illustrated in Figure 9.2-1. The original project proponent submitted its unsolicited proposal to the Department of Transportation and Communications (DOTC) in 1994. Three years after, in 1997, a notice to proceed was issued by DOTC to the winning bidder, Philippine International Air Terminals Co. (PIATCO). The project, during construction period, encountered numerous legal constraints and some of these issues remain unresolved until now. The more recent airport project carried out by DOTC and Civil Aviation Authority of the Philippines (CAAP) under a contract-add-operate-transfer (CAOT) scheme is the Caticlan Airport Development Project.

The government entity primarily in-charge of PPP projects for the airport sector is DOTC. This setup continued until the creation in 2008 of CAAP under Republic Act 9497. The creation of CAAP was first proposed under the ADB-assisted study "Institutional Strengthening of the Civil Aviation Sector Project (ISP)" in 1997. The creation of CAAP is consistent with the government policy on airport sector manifested in DOTC letters both dated March 17, 2005, signed by the DOTC Secretary.

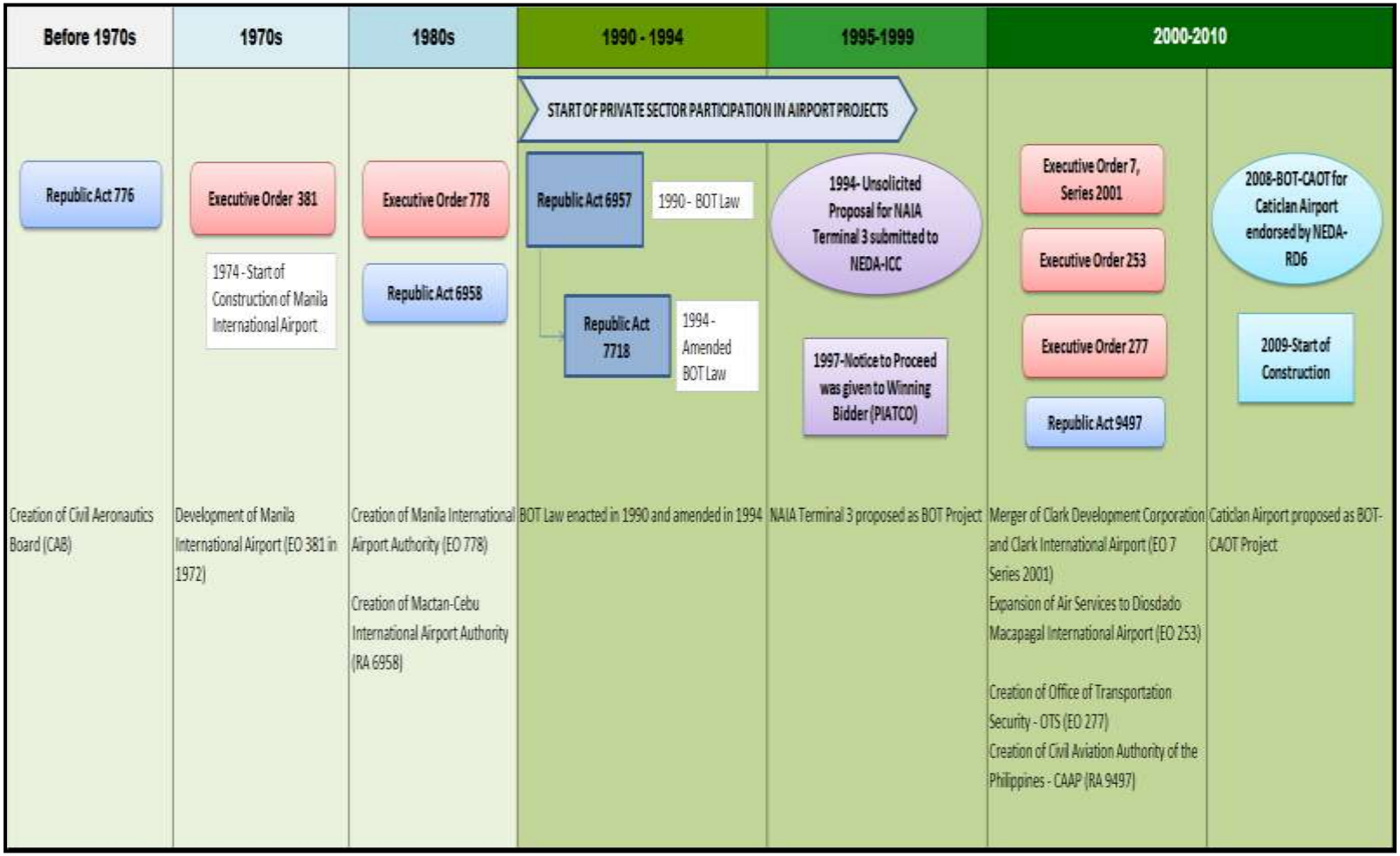
The airport sector policy statement is as follows:

1) The sector shall be organized such that the policy and regulatory functions remain with the government or government-controlled entities.

2) Service and infrastructure shall be provided by incorporated commercial entities owned and/or operated by the private sector or local government.

On March 4, 2008, Republic Act No. 9497 was enacted and the Air Transportation Office (ATO) was abolished and replaced by CAAP.

The implementing rules and regulations (IRR) of R.A. 9497 state that the responsibility for the development of new airports is within CAAP's authority. However, as CAAP is recently formed and still lacks the financial capability to undertake major and highly complex projects such as the NAIA Terminal 3, this responsibility temporarily remained with the DOTC. Even though CAAP has financial autonomy from DOTC, its annual budget is only sufficient to pay for operational and maintenance expenses of its offices. Because of this, the government guarantee often required by the private sector on solicited proposals, for now, can only be given by DOTC, and not by CAAP.

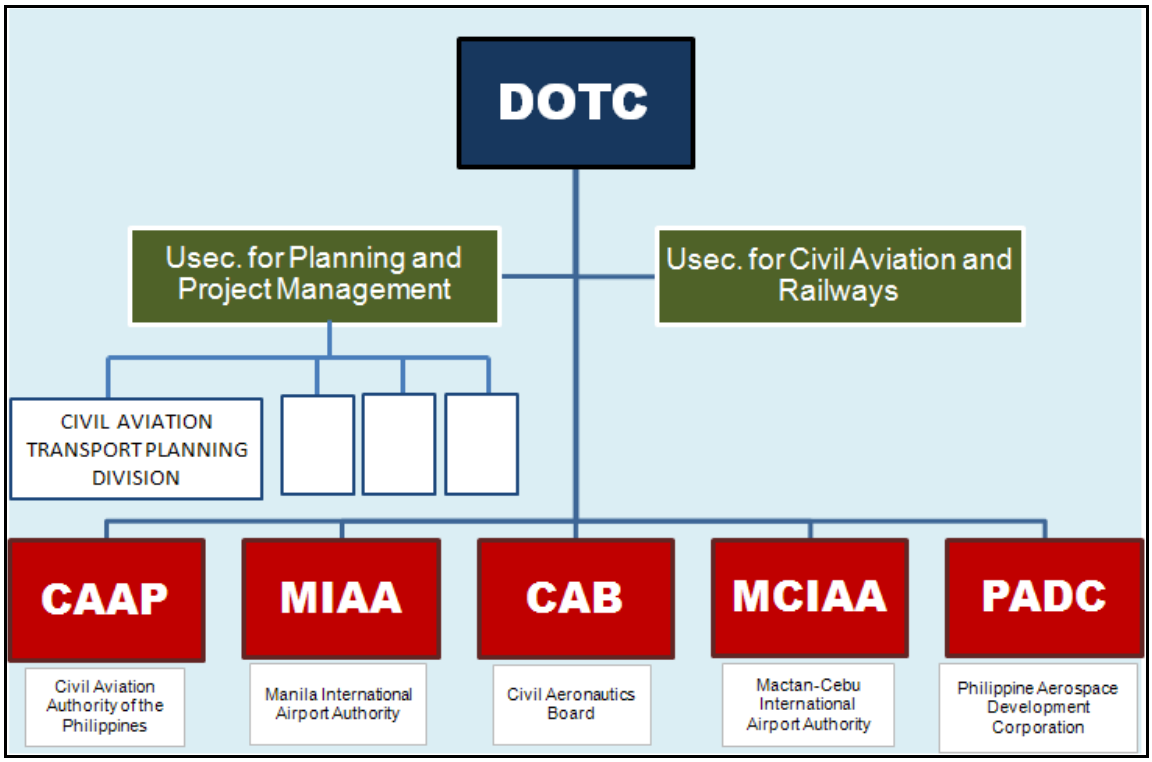


Source: JICA Study Team based on various GOP legislation documents

Figure 9.2-1 Historical Background of Private Sector Participation in Airport PPP Projects in the Philippines

(2) Key Players

The key players for the airport sector are DOTC and the different major agencies under DOTC, as shown in Figure 9.2-2.



Source: JICA Study Team based on DOTC

Figure 9.2-2 Organization Chart of DOTC for Airport Sector

The roles and functions of each sector are herein described:

a) Undersecretary for Planning and Project Management

- Assists the secretary on all aspects of policy planning, project management, and development.
- Civil Aviation Transport Planning Division: Formulates programs and policies for the development of civil aviation transportation in accordance with national thrusts and priorities.

b) Undersecretary for Civil Aviation and Railways

- The undersecretary oversees all activities of the department regarding civil aviation and railway transport. He or she coordinates the transportation plans, programs, and projects of the department, and is responsible for their economical, efficient, and effective administration.
- For airport security concerns, DOTC has the Office for Transportation Security (OTS) created under Executive Order 277. The OTS is the group tasked to oversee the management of the overall security functions inside the airport

c) Civil Aeronautics Board

CAB is the agency of the government mandated to regulate the economic aspect of air transportation. CAB shall have the general supervision, control and jurisdiction over air carriers, general sales agents, cargo sales agents, and air freight forwarders as well as their property, property rights, equipment, facilities, and franchise (R.A. No. 776, as amended by P.D. 1462). CAB is an attached agency of DOTC. In the exercise of its regulatory powers, it is authorized to issue Certificates of Public Convenience and Necessity (CPCN) to domestic carriers, Foreign Air Carrier's Permit (FACP) to foreign carriers, and letters of authority to airfreight forwarders, general sales agents, cargo sales agents who are fit, willing, and able to perform services as required by public convenience and necessity. CAB likewise performs quasi-judicial functions.

d) Manila International Airport Authority

MIAA is the airport organization mandated by the Philippine government to formulate internationally-accepted standards of airport accommodation service to be adopted in international airports. The agency's tasks also include upgrading and provision of safe, efficient and reliable airport facilities for international and domestic air travel. Another responsibility included in its mandate is the promotion of air traffic in the Philippines for both international and domestic travel. Lastly, the authority is also given the responsibility to maintain its financial viability and autonomy.

e) Civil Aviation Authority of the Philippines

CAAP, as the primary aviation authority in the Philippines, is tasked to perform regulatory functions for the aviation industry in the Philippines. The authority's functions include establishing and prescribing rules and regulations for the (a) inspection and registration of all aircraft owned and operated in the Philippines and all air facilities; (b) corresponding rules and regulations for the enforcement of laws governing air transportation. Other responsibilities assigned to the agency are to determine, fix and/or prescribe charges and/or rates pertinent to the operation of public air utility facilities and services; administer and operate the Civil Aviation Training Center (CATC); and operate and maintain national airports, air navigation and other similar facilities in compliance with ICAO. The organizational chart of CAAP (Appendix F-1) shows the different departments tasked to oversee the implementation of the abovementioned responsibilities.

(3) Past PPP Projects

The Philippines has undertaken just two PPP projects for the airport sector so far. These are the NAIA Terminal 3 build-operate-transfer (BOT) project and the on-going Caticlan Airport CAOT project. The NAIA Terminal 3 project, which was the first airport PPP project in the country, encountered numerous problems. This project left various lessons related to the concession agreement. The second

airport PPP project, the Caticlan Airport CAOT project, has, for now, less legal and technical issues compared to the NAIA Terminal 3 project.

a) NAIA Terminal 3

The NAIA Terminal 3 project was based on an unsolicited proposal prepared by Asia's Emerging Dragon Corporation (AEDC) to the Investment Coordination Committee (ICC) of the National Economic and Development Authority (NEDA) in October 1994. The estimated project cost was US$369 million, which includes the cost of relocating facilities of the Philippine Air Force. The only challenger for the project, PAIRCARGO, later renamed as PIATCO, won the project over AEDC as the proponent failed to match the challenger's offer. The Concession Agreement (CA) was then signed by the DOTC Secretary on July 12, 1997 and the notice to proceed issued to PAIRCARGO/PIATCO two days later. Historical process of this project is shown in Figure 9.2-3.

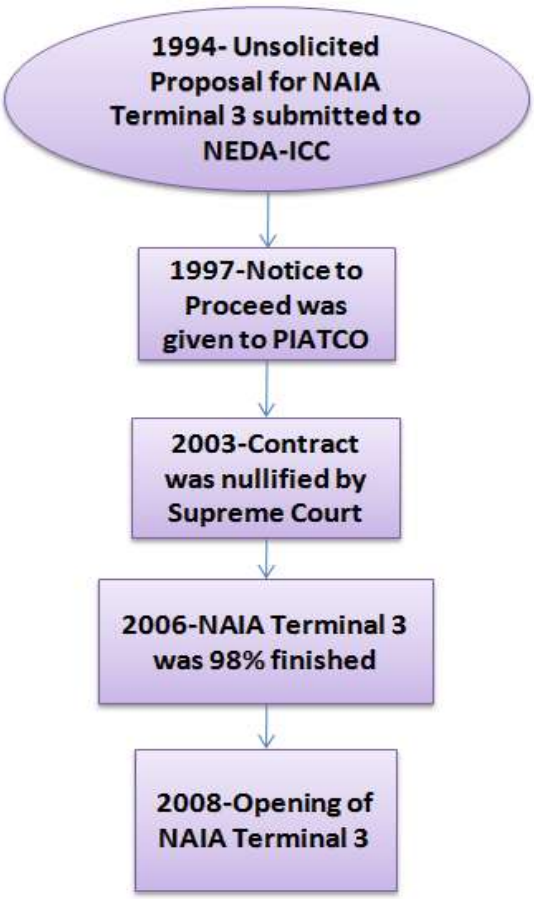


Figure 9.2-3 Historical Background of NAIA Terminal 3 Project

During construction stage, numerous issues were raised by the Department of Finance (DOF), NEDA and Department of Justice (DOJ) concerning the CA which then led to contract amendments. The Amended and Restated Concession Agreement (ARCA) was signed on November 26, 1999, with the last of three supplemental agreements signed on June 22, 2001. However, by the second half of 2002, the government decided to take the position that the contract should be renegotiated due to certain provisions that are disadvantageous to the government. In 2003, the Supreme Court (SC) declared the 1997 CA, the 1999 ARCA and its supplements, as null and void. The SC decision was attributed to [1](a) the absence of the requisite financial capacity of the Paircargo Consortium (predecessor of PIATCO), which is required under the BOT Law; (b) material and substantial amendments to the 1997 CA which deviated from the original contract bid upon, which is contrary to public policy; and (c) the amendments in the 1997 CA provided for a direct government guarantee which is expressly prohibited by the BOT Law and its Implementing Rules and Regulations.

[1] Llanto, G. *A Review of Build-Operate-Transfer for Infrastructure Development*. Philippines

Although the airport facility opened in 2008, there still remains an unresolved arbitration case between the two parties at the international courts. There are conflicting decisions issued by different international arbitration courts in Singapore and the United States. The arbitration case filed with the International Chamber of Commerce in Singapore favored the Philippine government while the most recent decision from the Washington-based International Center for Settlement of Investment Disputes granted Fraport victory in the dispute over the terminal building.

The terminal building's structural design issues were also raised after some portions of the ceiling collapsed three times between March 2006 and September 2007. Investigations show that some portions failed the code-based and performance-based tests conducted by two different engineering consultant groups.

Despite the issues concerning the NAIA Terminal 3, its international and domestic passenger traffic has steadily increased from 2.8 million during its partial operation in 2008, 7.4 million in 2009 to almost 10 million passengers by 2010.

b) Caticlan Airport

The Caticlan Airport, which services mainly the tourist destination of Boracay, achieved one of the highest yearly growth rates in terms of passenger traffic for domestic destinations from 2001 until 2010 with an annual average increase of 16%. The peak in passenger traffic was achieved in 2008 reaching 761,961 passengers. The decline in the number of passengers started in 2009 and continued in 2010 when the traffic has fallen to 462,078 passengers. This reduction in aircraft movement and passenger volume can be attributed to the on-going upgrading activities at the airport.

The airport was proposed under the CAOT scheme by the Caticlan International Airport Development Corporation (CIADC) in 2008. The CAOT scheme is defined under R.A. 7718 as "a contractual arrangement whereby the project proponent adds to an existing infrastructure facility which it is renting from the government and operates the expanded project over an agreed franchise period. There may or may not be a transfer arrangement with regards to the added facility provided by the project proponent".

By December 2009, a notice to commence implementation was given to CIADC by DOTC. The scope of works of the Caticlan Airport Development Project includes: (a) improvement of existing terminal; (b) extension of the runway to 2.1 km, under 3 phases over a period of 7 years; and (c) upgrading of airport facility to improve comfort, security and safety of passengers. By June 2010, San Miguel Corporation acquired majority stake in CIADC. Currently, the Trans-Aire Development Holdings Corporation (TADHC) has already taken over CIADC. The renovation of the terminal has reached 40% completion as of January 2011. The concession period, which is for 25 years before turnover to the government, can be renewed for another 25 years.

(4) Lessons Learned

a) Major Issues

The previous and current airport PPP projects show that the main problems originated from: (a) non-standardized procedures and approval routes; (b) inconsistent government policies; (c) non-compliant CA provisions with the BOT Law; (d) virtually non-existent penalties/fines on erring parties, both private and public groups; (e) lack of coordination between different government agencies involved in the project; and (f) unclear delineation of responsibilities.

Some of the legal, operational and maintenance issues raised by different stakeholders during project implementation stage are the following:

- Attendant/contingent liabilities and step-in rights and obligations of the GOP
- Subsequent amendments to provisions in the CA giving preferential treatment to one proponent
- Qualifications of the bidder
- Increase in project cost
- Unclear delineation of O&M responsibilities for some airport services

Some provisions in the CA have been classified as onerous. One such provision is the government's assumption of the liabilities of the private sector in case of the latter's default. Several government agencies raised this issue, pointing to the BOT Law conditions for an unsolicited proposal. Section 10.4 of R.A. 7718 states that "as a general rule, the government may grant investment incentives and government undertakings to unsolicited proposals as enumerated under Rule 13, except for direct government guarantees, direct government subsidy or government equity". Based on this, the project proponent of an unsolicited proposal is not entitled to direct government guarantee, direct government subsidy or government equity. With the government providing this guarantee and the private sector as the recipient shows violation of both parties of the BOT restrictions for unsolicited proposals. This has to be addressed by the GOP as both public and private sectors are in clear violation of the law.

Another issue raised is the amendment of some provisions in the CA such as the tariff adjustment formula. Some of these amendments were done after the bid was awarded, giving undue advantage to the winning bidder. As expected, the losing bidders complained, stating that these changes in the contract provisions should have been included in the bid documents. The inclusion of amendments after the bid was awarded is tantamount to giving preferential treatment to the winning private proponent. The government is encouraged to come up with clear guidelines on amendments, such as the formula for tariff adjustment, to avoid similar problems in the future.

Mentioned also are some questions related to the pre-qualification and bidding processes. The questions raised are on the degree of transparency of the evaluation process, qualifications of Pre-qualification, Bids and Awards Committee (PBAC) members, penalties on erring parties and the

virtual non-existence of an oversight committee. Another problematic item is the ownership requirement for local partners in the case of public utility franchises. This requirement as stipulated in the existing law calls for at least 60% ownership by Filipinos. Several PPP projects, not just specific to the airport sector, have shown that project proponents tried to circumvent this requirement by creating dummy corporations.

One of the problems encountered by the private proponent during project implementation is the increase in cost due to additional scope of works. These are works deemed necessary by the proponent in order to satisfy international operational safety requirements, but have not been included in the original scope of works. Another issue raised by the private sector is the recurring breakdown of some airport equipment which were not included in their scope for maintenance. The private sector normally assumes maintenance of the equipment in order to maintain the required level of service at the airport.

These experiences show that the current system of political, bureaucratic and legal environment for PPP projects needs improvement in order to solve the current issues and future requirements of private sector participation in government infrastructure projects.

b) Lessons Learned

The lessons learned based on the two airport PPP projects can be summarized in the following manner:

- Government procedures and approval processes;
- GOP policies;
- BOT Law and concession agreement; and
- Risk management.

Amendment of the following regulations, procedures, policies and practices is suggested to further enhance the investment environment for PPP projects in the airport sector.

- Government procedures and approval processes

  The experience in previous projects showed that the current procedure in securing approval for PPP projects is deficient and loosely structured. Some agencies of the government complained that they were not informed of changes to the original CA. The deficiencies in the processes do not end here. Regulations specify timelines for processing but these are neither enforced nor penalties meted out to entities which did not meet deadlines. Evidently, this shows that there is lack of coordination between government agencies in the approval process for submittals. Likewise, these procedural shortcomings also apply to the approval of amendments, restatements and supplements to the original CA.

- GOP policies

  As for the uncertainties in government policies in these projects, these are linked to the power struggle between the incumbent and opposition. The change in government position in these projects can be traced back during the transition period when there was leadership change in GOP. There is no definite solution to this as the problem is political. Inconsistencies in government policies, evident even between different government agencies, will continue to pose problems on future PPP projects and discourage private sector investment unless these agencies take a more concerted and less ambiguous stance or approach in handling PPP projects.

- BOT Law and concession agreement

  Although revisions in the BOT Law are desired, such as the public utility franchise ownership requirement of at least 60% by Filipinos, these are not recommended as any proposed amendment will require congress approval. This approval process is deemed circuitous and lengthy. As such, it is not encouraged as a short-term option. Instead, the effort should be concentrated on ensuring legality of provisions in the concession agreement. In addition, there are other government regulations essential in promoting investment in PPP projects, which need re-assessment. As mentioned, one particular law is the ownership restrictions on public utility franchises. The government has to re-evaluate this restriction on foreign ownership as this might be curtailing investment in PPP projects. The government has to rationalize this ownership restriction with the more urgent need of providing public service to the people.

- Risk management

  The main focus on the different sectoral workshops conducted is risk management. During these workshops, preliminary assessment of the government's capability to undertake this task was evaluated. The assessment results are not encouraging as risk management is not yet an integral part of project evaluation and monitoring procedure. Integrating risk assessment in project evaluation and risk monitoring during construction and O&M phases of the project will translate to improvement in cost and time management of the project.

The above recommendations are considered essential in promoting investment in PPP projects. However, these institutional improvements have to be combined with the government initiative to produce different PPP modalities that will entice private sector investment on infrastructure projects.

9.2.2 New Airport PPP Projects

(1) PPP Center's Airport Projects for Rollout in 2011

The airport projects included in the list for 2011 rollout of the PPP Center are the following: 1) New Bohol Airport Development; 2) Puerto Princesa Airport Development; 3) New Legaspi (Daraga)

Airport Development; and 4) Privatization of Laguindingan Airport Operation and Maintenance. As for 2012, the airport projects lined up by the government for implementation are: 5) Kalibo Airport Upgrading; and 6) Diosdado Macapagal International Airport Development.

a) New Bohol Airport Development

Bohol, as one of the major tourist destinations in the Philippines, is experiencing constantly increasing air traffic for the past several years. The airport in Tagbilaran, which is of Principal Class 1 category, is already experiencing air traffic congestion due to the increasing passenger volume. In order to address this problem, the New Bohol Airport was planned.

The planned location of the New Bohol Airport is in Panglao Island. This new international airport will replace the existing airport in Tagbilaran and the vacated airport land will be developed into a commercial area. The new runway will be 2,600 m long and 45 m wide. The forecast passenger traffic demand by 2021 will reach 506,000. The estimated project cost as of 2011 is PHP 7.3 billion, with PHP 5.4 billion allocated for airside facilities and PHP 1.9 billion for the landside facilities. The feasibility study for the airport resulted in the estimated project financial IRR (FIRR) of 2.7% and economic IRR (EIRR) of 23.6%. The projected EIRR is higher than the hurdle rate of 15% set by NEDA-ICC.

b) Puerto Princesa Airport Development

Puerto Princesa is the major city in the island province of Palawan, a main tourism destination with its white sand beaches, diving spots and numerous other world-class destinations. The city is one of the key destinations in the country with a total number of 400,911 passengers passing thru the city's airport for the year 2010.

The project involves the rehabilitation/improvement of the existing Puerto Princesa Airport to meet the standards of ICAO. The proposed scope of works on different studies includes the following for the airside facilities: runway strip widening and pavement works; new runway shoulders; apron, military apron, taxiways, maneuvering area, and airside roads. On the landside facilities, the works consist of new passenger terminal building; new cargo terminal building; new administration and auxiliary buildings; landside roads, security fence, parking facilities; and drainage. The procurement of equipment includes navigational aids, ATC & communications and airfield ground lighting. This project plans to improve the capacity of the airport to attain a project life until 2020 before reaching the limit based on the forecast arrival peak hour demand. The estimated FIRR for this project is only 0.6%. However, the projected EIRR of 20.7% is higher than the NEDA-ICC hurdle rate of 15%.

c) New Legaspi (Daraga) Airport Development

The proposed international airport in Daraga, Albay will replace the existing Principal Class 1 airport in Legaspi City. This airport is envisioned to serve as the gateway for the major tourist destinations in the Bicol Region which include Mayon Volcano in Albay, Caramoan Islands in Camarines Sur and

Donsol in Sorsogon.

The estimated project cost as of 2008 is PHP 3.5 billion with 60% allocated for the airside civil works and air navigational facilities and the remaining 40% for the landside building works and airport terminal systems. Although the project's feasibility study (commissioned by DOTC) resulted to negative FIRR, the projected EIRR of 18.3% is still higher than the hurdle rate set by NEDA-ICC.

d) Privatization of Laguindingan Airport Operation and Maintenance

The project involves privatization of the operation and maintenance of the Laguindingan Airport. This will follow once the construction, testing and commissioning of the new airport have been completed partially. The current status of construction is as follows:

The on-going construction of the new airport has reached physical progress of 87% completion as of August 2011. This new international airport, which replaces the airports of Cagayan de Oro and Iligan, will serve as the main gateway for Northern Mindanao. This is also envisioned to boost economic growth along the Cagayan de Oro-Iligan Corridor. The 2007 project cost of the airport as approved by NEDA is PHP 7.85 billion with the GOP portion constituting PHP 2.84 billion and the remaining PHP 5.02 billion sourced from foreign funding. The project has the following three components and project durations:

- Component 1: Civil Works/ January 18, 2008 to January 17, 2012
- Component 2: Consulting Services for the Detailed Design and Construction, Supervision/ June 16, 2000 to June 28, 2012
- Component 3: Air Navigation System and Support Facilities (ANSSF)/ To be determined

The privatization of the airport O&M is estimated to cost PHP 460 to 675 million per year with the tentative schedule for concession contract administration starting from January 2012 until February 2032.

e) Kalibo Airport Upgrading

The congestion in Kalibo Airport has been relieved with the start of operations in the annex terminal building in 2010. The old terminal has been programmed to be upgraded with funds from CAAP's corporate budget for calendar years 2011 and 2012. Included in the scope of works are: rehabilitation/expansion of fire station building, replacement of instrument landing system (ILS), installation of aerodrome terminal information system (ATIS), and site acquisition for apron expansion area.

f) Diosdado Macapagal (Clark) International Airport (DMIA)

The government has lined up, as a potential future project, the new international airport in Clark, Pampanga that will be linked with the NAIA Airport. The Clark (or DMIA) Airport is considered as one of the more attractive investment options for the private sector. The traffic volume at the Manila

airports may soon be achieved in a few years' time and in order to address the additional passenger traffic demand, the Clark Airport is considered as the most viable option that will address the congestion in NAIA terminals. The main problem is the linkage between the airports in DMIA and NAIA. One option suggested is to have a rail link between the two airports. In order to address the viability of the rail link, Clark Airport as envisioned should just be one of the stations of a rail line that extends north of Manila. EO 174 issued on April 28, 1994, designating Clark as a premier international airport mentioned the following:

- The designation of Clark Special Economic Zone (Clark Field) as the future site of a premier international airport upon completion and development of the aviation complex situated therein which is now being undertaken by the Bases Conversion Development Authority (BASECON) and the Clark Development Corporation (CDC) conformably with the provisions of RA 7227, otherwise known as the Bases Conversion Act of 1992;
- BASECON and CDC shall implement the phased development of the Clark Aviation Complex, together with its expressway and rail access systems in accordance with its master plan with the support of the Department of Public Works and Highways (DPWH) and Philippine National Railways (PNR).

9.3 Risk Analysis

A risk analysis for PPP projects for the several stages of project development has been conducted in this study. Risk analysis starts with identification of risks, followed by clarification of their effects, probabilities and consequences. The risks identified are then allocated to parties which are deemed best able to handle the risks. Measures to mitigate the consequences or probability of risks are then considered. The final step of risk analysis is the quantification of the risk effects.

The different risks identified by the various stakeholders on airport projects are classified according to the following: i) Political & Legislative, ii) Economic & Financial, iii) Traffic Demand & Revenue, iv) Land Acquisition, v) Design, vi) Construction, and vii) Operation & Maintenance.

9.3.1 Workshop

Workshops were conducted to strengthen the capacity of the different government stakeholders belonging to the airport sector, such as DOTC and CAAP.

The capacity strengthening workshops (a participatory approach) for government staff members in this study utilized sample PPP projects as examples. The risk analysis as part of capacity strengthening of government staff members has been conducted on two workshop types. First are the mini-workshops targeting DOTC and CAAP, while the other types are the comprehensive workshops targeting majority of the government institutions.

The mini-workshops have been conducted during the course of the study. These mini-workshops were intended to discuss risk identification, risk mitigation and risk allocation for the airport sector. The comprehensive workshops have been conducted twice so far. The workshops conducted so far are listed in Table 9.3-1 below in detail:

Table 9.3-1 Schedule of Workshops

Mini-workshop	Date	Place	Participants
1st	July 26, 2011	DOTC	DOTC, CAAP
2nd	August 9, 2011	DOTC	DOTC, CAAP
3rd	August 16, 2011	Crowne Plaza Hotel	DOTC, CAAP
4th	August 23, 2011	DOTC	DOTC, CAAP
5th	September 1, 2011	DOTC	DOTC, CAAP
1st Workshop (Comprehensive)	April 15, 2011	Mandarin Oriental Hotel	DOF, PPP Center, DOTC, CAAP, DPWH, DOE, Phil-Exim, Landbank, TRB, etc.
2nd Workshop (Comprehensive)	August 25, 2011	Crowne Plaza Hotel	DOF, PPP Center, DOTC, CAAP, DPWH, DOE, Phil-Exim, Landbank, TRB, etc.

Source: JICA Study Team

The minutes of discussion for the mini-workshop and the comprehensive workshops are included in Appendix F-2.

The mini-workshop participants are from the different departments under DOTC and CAAP. They are from the: (i) Legal Service; (ii) Project Management Office; (iii) Budget Division; (iv) Airport Transport Planning Division; and (v) CAAP.

In the mini-workshops, the study team assisted the participants in i) identification of risks on different implementation stages of an airport project, ii) evaluation of important risks to be hedged, iii) mitigation measures for risks evaluated, and iv) risk allocation between public and private sectors. Through the first three mini-workshops, the objective was to prepare the risk matrix form. The 4th and 5th mini-workshops were conducted to finalize the risk matrix form by participants. Based on the risk analysis, the following three scenarios concerning allocation of airport services between public and private sectors were proposed:

The minutes of discussion and the final risk matrices are in Appendix F-2.

(1) Risk Identification

The risk identification commenced with the brainstorming activity with the mini-workshop participants. The mini-workshop participants identified risks based on their respective experiences. These risks were then tabulated and a risk matrix which was prepared by the JICA study team was formulated based on the input from participants. This risk matrix also served as the template for the succeeding sessions. The participants primarily identified risks relating to their scope of responsibilities. For instance, the DOTC-Airport Project Management Group identified risks mainly associated with project implementation or construction stage and Caticlan Airport project provided by San Miguel-TADHC insights on the risks affecting private sector investments.

The participants reviewed the above reference materials to identify what went wrong in the project. During the interview sessions, the public and private sector representatives involved in the project provided insights on the problems encountered by both groups. The complete list of risks identified is in the risk matrix tables provided in Appendix F-3.

(2) Risk Importance

The level of importance of risks is established by assigning probability and consequence for each risk identified. The probability and consequence levels used are low, medium and high. The experience of the mini-workshop members on the issues has proven to be indispensable in undertaking this task. Inexperienced members can only rely on the inputs of the more experienced members during these sessions as the group was composed of government personnel with varying levels of experience.

(3) Risk Mitigation

The mitigating measures proposed were also based on the team members' experience on different projects that they were involved in. The mitigating measures suggested include insurance requirements, contingency on funds and on the schedule, effective monitoring and improved quality control measures. Mitigating measures identified in different government contracts and regulations have also been inputted in the risk matrix form. For the details of the mitigating measures, please refer to the risk matrices in Appendix F-3.

(4) Risk Allocation

Extensive knowledge of both the public and private sectors' capabilities is important in allocating risks between the different stakeholders. The strategy adopted at this stage is to allocate risk to the party who is best able to accommodate that particular risk. This can only be done if the mini-workshop participant is aware of the capability of each entity involved in the project.

9.3.2 Results

The results show that several risks are significant and therefore critical to either the project's realization or to its viability. The following risks have been identified as the major risks during the

mini-workshop sessions. These major risks require further mitigation and/or transfer of responsibility.

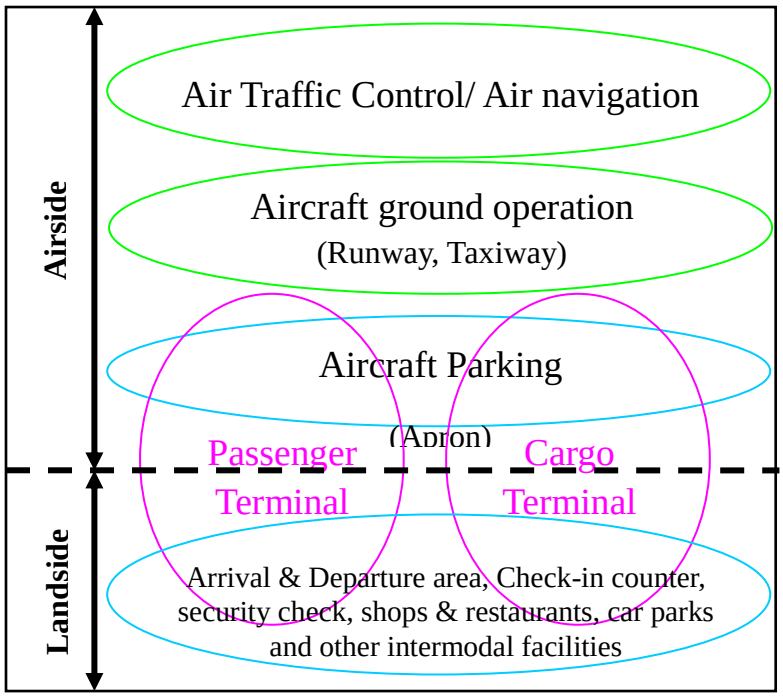
- Delay in approval procedure;
- Delay in land acquisition
- Delay in resettlement;
- Completion risk due to delay in construction;
- Cost increase due to contractor failure;
- Problems with quality of labor, materials, and performance criteria;
- Time-consuming procedures and delays in decision making, licensing and approval by the government;
- Coordination failure between DOTC and government organizations;
- Exchange rate risk;
- Construction and materials cost fluctuations due to foreign currency fluctuations; and
- Construction cost increase due to inflation.

9.4 Strategies for Formulation of Airport PPP Projects

9.4.1 Airport Functions and Facilities

An international airport serves as access for passengers and cargos entering and exiting the host country. The airport normally has international and domestic zones, with the international zone secured by a more rigorous, multi-level screening of passengers and cargoes.

The airport is divided into two major areas, the landside and airside. The landside and airside functions are described as follows: (a) Landside – arrival and departure areas of land transport, private and public transport, check-in counters, pre-departure security check, shops and restaurants, and car parks; (b) Airside – air traffic control, aircraft ground operation, aircraft parking, immigration check, public concourse, baggage claim areas, inbound customs clearance and duty-free concession. Connecting the landside and airside areas are the cargo and passenger terminal areas which offer the various services shown in Figure 9.4-1.



Source: JICA Study Team

Figure 9.4-1 Different Components of Airport Services and Activities

The different airport services provided in the landside and airside areas are described herein along with the delineation of responsibilities between the government and private sector for a typical PPP project.

(1) Landside

Located in the landside area are the intermodal facilities for private and public transport. These facilities include car parking areas, boarding and alighting zones for taxis, railway station and bus terminals. This area serves as the primary access for passengers and cargoes to the main terminal areas. Upon entry to the terminal, preliminary security checks and check-in procedures are undertaken in the area. The private sector normally handles the check-in of passengers. Generally, security control is a government function, although some airlines also conduct their own security checks. Also at the landside area, private concessionaires may provide commercial services, such as shops and restaurants.

(2) Airside

Air navigation services, usually provided by the government through an airport authority, includes the operation, maintenance and management of air navigation systems equipment. Likewise, the air traffic service, which ensures orderly and expeditious flow of air traffic, is also under government control. Also, inbound and outbound customs clearance and immigration check are performed by the government on the airside area. The maintenance of runway, apron and taxiway are classified as part

of airside services. Airside functions, in most instances, are under government control except for the duty-free concessions.

9.4.2 Airport Charges

For the airport services illustrated in Figure 9.4-1, the corresponding airport charges can be divided into aeronautical and non-aeronautical revenues. The aeronautical revenues can be derived from the fees or charges on air navigation, overflight, landing and take-off, aircraft parking, passenger services, freight charge while the non-aeronautical from concession and car parking charges. The allocation of charges to the private sector is dependent on the level of private sector participation. Different cases of airport service allocation are shown in Table 9.4-2 with the corresponding allocation of charges in Table 9.4-3.

Table 9.4-1 Airport Charges

Aeronautical Revenues	Non-aeronautical Revenues
Landing and takeoff charge	Concession charge
Passenger service charge (PSC)	Car parking charge
Aircraft parking charge	Advertisement charge
Freight charge	
Air navigation charge	
Overflight charge	

Source: JICA Study Team

The three cases for allocation of airport services into public and private sectors are shown in Table 9.4-2. The detailed explanation of each case is shown below.

- Case 1: This case has the least number of services allocated to the government. Only the air traffic control/air navigation, C.I.Q. and airport security remain under the government. The rest of the airport services are provided by the private sector.
- Case 2: The scope of the passenger and cargo terminal areas is with the private sector. The government is responsible only for airport ground operation (runway, taxiway), air traffic control/navigation, C.I.Q. and airport security.
- Case 3: This has the least number of services transferred to the private sector. Only the passenger and cargo terminal building are allocated to the private sector.

Table 9.4-2 Allocation of Airport Services between Public and Private Sector

Services	Case 1	Case 2	Case 3
Air Traffic Control/Air Navigation	Public	Public	Public
Aircraft Ground Operation (Runway, Taxiway)	Private	Public	Public
Passenger Terminal Area	Private	Private	Public
-Apron	Private	Private	Public
-Passenger Building	Private	Private	Private
-Carpark	Private	Private	Public
Cargo Terminal Area	Private	Private	Public
-Apron	Private	Private	Public
-Cargo Building	Private	Private	Private
-Forwarder Handling Area	Private	Private	Public
C.I.Q., Airport Security	Public	Public	Public

Source: JICA Study Team

Table 9.4-3 shows the three cases for respective charges or fees to be assigned to public and private sectors based on Table 9.4-2. Revenues from landing/take-off and aircraft parking charges are accrued in foreign currency by operation of foreign carrier at international airport.

Table 9.4-3 Allocation of Airport Charges for Cases 1 to 3

Charge	Case 1	Case 2	Case 3
Air Navigation Charge	Public	Public	Public
Overflight Charge	Public	Public	Public
Landing and Takeoff Charge	Private	Public	Public
Aircraft Parking Charge	Private	Private	Public
Passenger Charge	Private	Private	Private
Concession Charge	Private	Private	Private
Car Parking Charge	Private	Private	Public
Freight Charge	Private	Private	Private

Source: JICA Study Team

Currently, there are no specific government guidelines on the procedure for tariff setting of airport charges. The current practice adopted by CAAP in setting the maximum regulated fees is to follow the fees and charges set by NAIA or other airports of similar international standard.

9.4.3 Privatization of Airport Services

The government can adopt investment enhancement strategies in order to improve the airport

investment environment for the private sector. The present environment for investment in airport infrastructure may already be suitable for private sector involvement. However, additional government incentives can further promote private investment in airport infrastructure.

One way to promote private sector investment in airport projects is to bundle the airport project with a 'more' profitable property development. The government can entice more the private sector in investing on airport infrastructure by either assigning the more profitable airport infrastructure components to the private sector and/or bundling the project with airport land which can be used for property or commercial development. Under this scenario, earnings from property development can serve as cross-subsidy for the other airport projects.

9.4.4 PPP Modality (Next Phase of the Study)

(1) PPP Organizational Framework and Procedures

There are two types of processes under the BOT Law, the solicited and unsolicited proposals. Figure 9.4-2 shows the sectoral relationship diagram between different key players in airport PPP projects. Likewise, the approval process upon submittal of the project proposal to NEDA is detailed in Annex A of the ICC's Guidelines and Procedures. However, there are some distinct differences between approval procedures for solicited and unsolicited proposals, which are explained as follows:

a) Solicited Proposal

In the solicited proposal process, the implementing agency (IA), in this case DOTC/CAAP, prepares a list of priority projects that may be financed, constructed, operated and maintained by the private sector. The IA shall ensure, before advertising for solicitation of proposals, that all the essential project development documents are already available. The IA's PBAC shall also be responsible for all aspects of the pre-bidding and bidding process. As for the investment incentives and government undertakings that the project proponent can avail of, these are stated in Rule 13 of the Revised IRR of R.A. 7718. These include, among others, direct government guarantee, direct government subsidy or government equity.

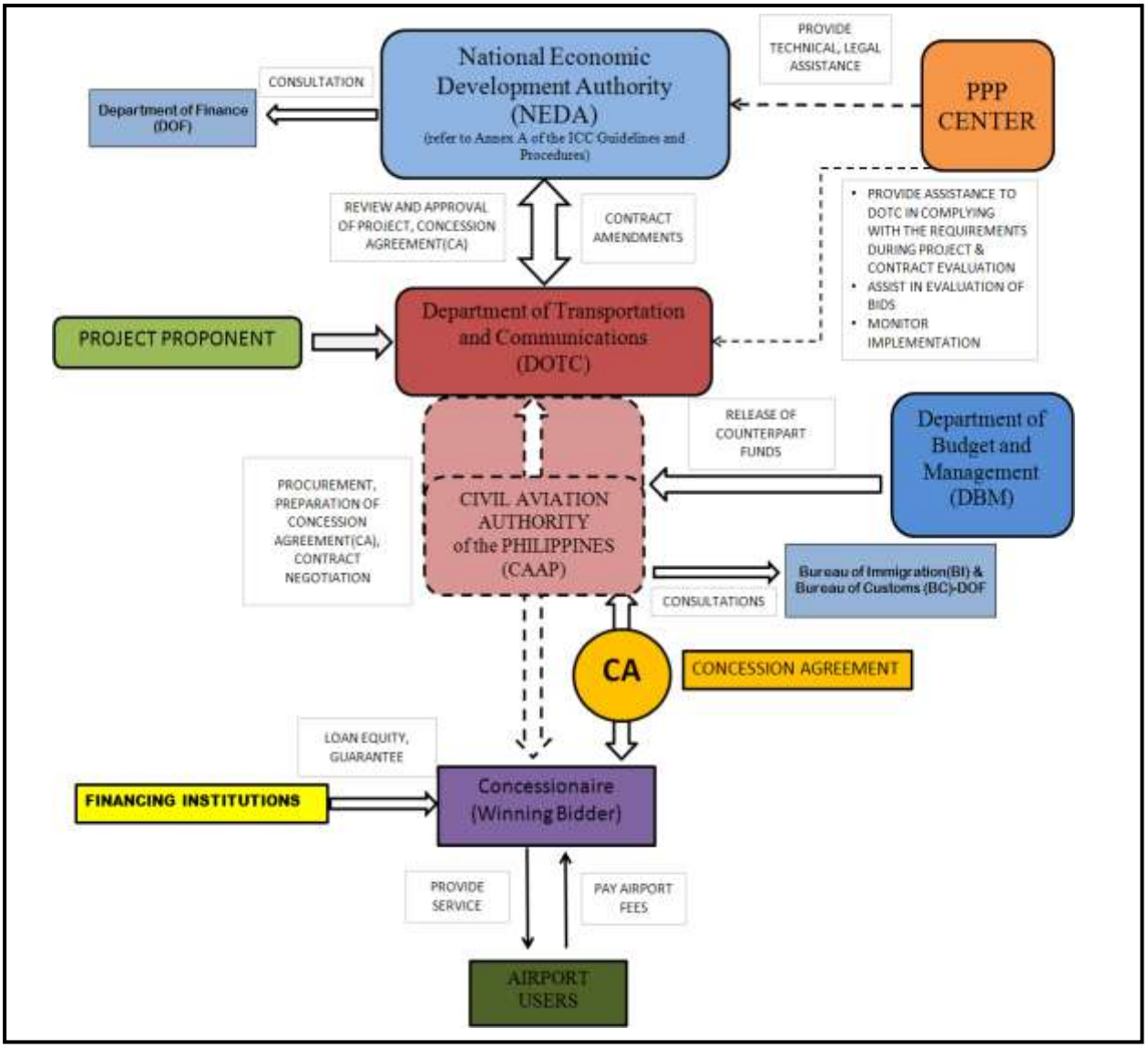
b) Unsolicited Proposal

The procedure for an unsolicited proposal to the government commences with the submittal of project proposal by the original project proponent to DOTC/CAAP. The project proponent shoulders the cost of the feasibility study and other project development incidental costs. The technical merits of the proposal is evaluated by the IA and once approved by its Technical Working Group (TWG) and the department secretary/director general, this is submitted to NEDA for the ICC's review and approval. Figure 9.4-2 illustrates that after the project is approved by NEDA, the PBAC is tasked to prepare all aspects of the pre-bidding and bidding process and comparative bidding process (otherwise known as the "Swiss Challenge"). In the Swiss Challenge approach, in case the winner of the comparative bidding is not the original proponent, the original proponent is given the right to match the price

proposal of the winning bidder. If the original proponent fails to match the price proposal of the comparative proponent after a specific period, the contract shall be awarded to the comparative proponent.

However, unsolicited proposals are constrained by the following conditions under the BOT Law:

- Only those projects not listed in the list of priority projects are eligible to be accepted as unsolicited proposals, unless involving a new concept or technology.
- As for the investment incentives and government undertakings, direct government guarantee, direct government subsidy or government equity are not allowed for unsolicited proposals. All other investment incentives and government undertakings enumerated in Rule 13 are available to the project proponent.



Source: JICA Study Team based on several GOP homepages

Figure 9.4-2 Sectoral Relationship Diagram for Airport PPP Projects

(2) Assessment of the Country's Readiness for PPP Projects

The country's readiness for partnership undertakings between the government and private sector lies on the state of its implementing and regulatory institutions, both in terms of financial standing and organizational setup. The main agencies involved in airport PPP projects are DOTC and CAAP. DOTC is the original agency that handles planning of transportation projects including airport infrastructure. The creation of CAAP thru R.A. 9497 established a financially autonomous agency that is primarily tasked to regulate and develop the Philippine aviation industry. Although R.A. 9497 effectively transfers most of DOTC functions concerning the airport sector to CAAP, DOTC temporarily retains its role as IA on airport PPP projects. This is due to CAAP's inadequate experience in PPP projects as per DOTC's assessment.

DOTC, however, has already undertaken two airport PPP projects, NAIA Terminal 3 and Caticlan. Although the NAIA Terminal 3 project is laden with controversies, the Caticlan CAOT project remains free of legal problems. From these two projects, DOTC has gained sufficient experience and strengthened its capability as IA of airport PPP projects. CAAP, on the other hand, is also increasing its participation in these types of projects which commenced with its involvement as co-implementer with DOTC on the Caticlan CAOT project. From these experiences in airport PPPs, recommendations on how to improve the current regulatory framework and existing legislative foundation for PPP project are provided in Section 1.4.4(3).

(3) Analysis of PPP Framework and Requirement of Airport Sector

During the study activities which included capacity development for PPP institutional improvement, and based on these activities, the JICA study team formulated PPP framework for future airport projects, particularly the local area airport.

The capital city, Metro Manila, and the second largest city in terms of population, Cebu, are highly attractive as locations for airport PPP projects for the private sector. These cities do not seem to exhibit strong protest from residents or problems with access facilities. In this chapter, the JICA study team analyzes the PPP framework based on the typical requirements of local airports in the Philippines.

a) Airport Capacity

The proposed private sector involvement should be, as a minimum requirement, on airports classified as either International or Principal Class 1. Several airports in the Philippines classified as either International or Principal Class 1 have passenger traffic that exceeds more than 1 million passengers annually.

The two main international gateways to the Philippines are NAIA in Metro Manila and MCIA in Cebu. In NAIA, more than 27.1 million passengers passed thru its four terminal buildings in 2010. As for

MCIA, roughly 5.4 million passengers passed thru its airport in 2010. The other main international airports in the country are Davao, Kalibo, Puerto Princesa and Clark (DMIA).

The annual passenger traffic in CY 2010 for some Principal Class 1 airports in the country is listed in Table 9.4-4. The airports in Bacolod and Iloilo are good examples of newly constructed airports that show dramatic increase of passenger traffic demand after its completion in 2007. These new airports replaced the existing capacity-restrained airports. The annual passenger traffic for Iloilo Airport jumped to 1,581,304 passengers in 2010 from only 864,403 in 2006 while the traffic in Bacolod airport almost doubled to 1,223,491 in 2010 from only 665,144 passengers in 2006.

Table 9.4-4 Principal Class 1 Airports with Annual Passenger Traffic Exceeding 500,000

Airport	Airport Classification	2010 Passenger Volume
Iloilo	Principal Class 1	1,581,304
Cagayan de Oro	Principal Class 1	1,301,502
Bacolod	Principal Class 1	1,223,491
Tacloban	Principal Class 1	859,938
Caticlan	Principal Class 1 (recently upgraded from Principal Class 2)	623,545
Tagbilaran	Principal Class 1	573,299

Source: JICA Study Team based on CAAP

b) Scope of Work

The tendency of the private sector is to aim for "low risk and high return" on any of their investments naturally. The JICA study team's recommendation, in order to enhance private sector involvement, is to have the terminal area including aircraft parking on airside and terminal building operation as minimum scope for the private sector.

The objective of the separation of the airside and landside functions/facilities is to entice involvement in the airport business by the private sector. If possible, the private sector should widen the scope of works to include management of all airport services including air navigation/air traffic control, but excluding C.I.Q. facilities and aviation security which must remain with the government. Increasing private sector participation in airport services will result to less interface problems between the private and public sector especially during operation and maintenance stages.

c) PPP Modality

In the BOT Law, there are several variants[2] of PPP modality such as BOT, BT, BOO, BLT, BTO, CAO, DOT, ROT, BOO. In general, JICA study team recommends application of the BTO, BOO and

2 Section 1.3- Definition of Terms, Implementing Rules and Regulations of R.A. No. 7718

BOT scheme on airport infrastructure projects.

The newly constructed airports of Bacolod and Iloilo have increased the passenger terminal fees to PHP 200 in 2008. These airports continue to experience increase in passenger traffic for the past years. Studying these airports' financial structure and current financial standing might provide the study team vital information that can help in establishing the type of PPP modality that is suitable for future airport projects.

In future projects, private sector will be encouraged to partake in more airport services due to higher combined revenues from traditional airport services and the income from property development. This increase in private sector equity and participation will consequently provide the private more options to choose from on types of PPP modality.

CHAPTER 10 WATER SUPPLY SECTOR

10.1 Sector Characteristics

10.1.1 General Characteristics

A water supply system, from water treatment to distribution network, is compact within an area/city as the cost of transmission is higher, unlike power supply projects covering large distances through long distance transmission lines. Accordingly, the population covered by a water supply service ranges from just a thousand beneficiaries in rural areas to millions in a capital city depending on the size of the city being serviced.

As a basic human need (BHN), water supply service should cover all beneficiaries, irrespective of whether they are poor or rich. This is different from other revenue generating projects (i.e. toll roads and urban railways) whose users are confined to people who want to use the services.

As water is essential for human life, and huge investment is needed for start up, the service has been generally managed by the public sector. In rural areas where the service efficiency is lower, the initial construction cost is subsidized by the government in many countries. In this case, the tariff level tends to be set lower as reflecting the lower income level in the area. Hence, the service revenue covers O&M cost only, and the initial capital cost cannot be recovered. Accordingly, the preferred areas for water supply PPP projects, in which the high profitability and efficiency are needed, would be urban areas.

Unlike the PPP projects in other infrastructure sectors, PPP projects in the water supply sector should be created as improvements to the existing services. To introduce the PPP scheme into the existing services, usually the projects take the form of two modes. One is the (1) "Concession or Lease Contract Project" in which the operation and maintenance rights is transferred from existing public sector side to the private sector during the contract period. The other is the (2) "Bulk Water Supply Project" applying BOT or BTO scheme in which the private sector assumes the responsibility for delivering raw water (or treated water) to service providers from newly-constructed intake facilities.

A water supply system is mainly composed of (1) water intake, (2) water treatment plant, (3) transmission facility, and (4) distribution network. The "Concession or Lease Project" is a combination of water treatment plant, transmission facility and distribution network. The "Bulk Water Supply Project" is comprised of water intake and water treatment plant, as shown in Figure 10.1-1 below.

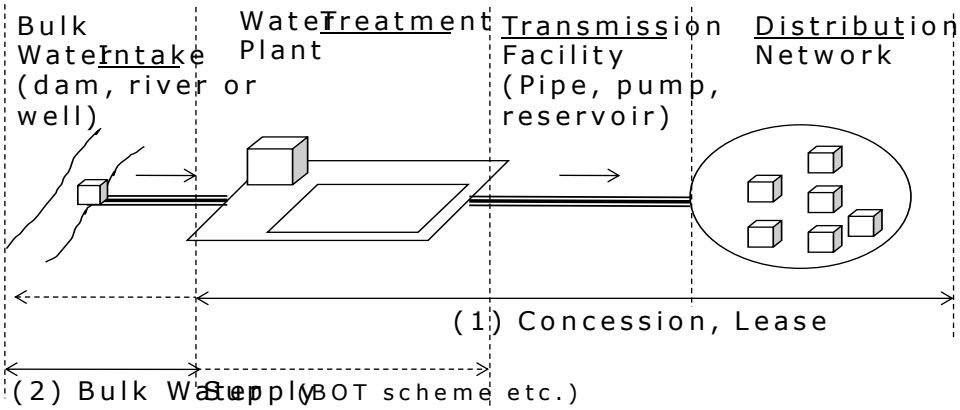


Figure 10.1-1 Facility and PPP Modality in Water Supply Sector

In the Philippines, a concession scheme was adopted in Metro Manila in 1997, and this scheme is often called "privatization". In adopting this concession scheme, the private sector is required to invest on facilities for continuous service expansion and rehabilitation. The monitoring and control of the huge investment cost on facilities becomes a key factor in achieving the optimum service implementation.

10.1.2 Current Situation of the Sector in the Philippines

(1) Four Types of Water Supply Providers (WSPs) Exist

There are currently four types of water supply providers in the Philippines. These are i) the concessionaires in Metro Manila, ii) Water Districts (WD), (3) the Local Government Units (LGUs), and (4) the small private companies and NGOs (CPC grantees). Each of these is managed through their own mandate.

Concessionaires in Metro Manila

The concessionaires in Metro Manila, namely the Manila Water Company Inc. (MWCI) and Maynilad Water Services Inc. (MWSI) are the two major private proponents in the Philippines. The total population served by these two concessionaires is more than 12 million. Both MWCI and MWSI supply water services based on the concession agreement between MWSS and the concessionaires.

After the services based on the concession agreement started, the concessionaires gained the necessary working knowledge and technique in the provision of water supply services. MWCI is trying to expand its business to other local cities in the Philippines as well as in foreign countries, such as India and Vietnam.

Water Districts (WDs)

The WDs supply water to households in larger cities by the use of piped water connections (known as Level III water supply system), except for Metro Manila and other cities managed by the private entities. The total number of WDs is 831 according to the official data from the Local Water Utilities Administration (LWUA). The WDs are initially considered quasi-private entities but were later on declared as government-owned and controlled corporations (GOCCs) on the grounds that these

companies are managed as independent corporations without any subsidy.

WDs are formally established only after they receive LWUA's Certificate of Conformance (CC). This CC entitles the WDs access to loans from LWUA without any collateral but with the requirement that WDs install a duly constituted Board and Management.

LGUs

LGUs provide water services in rural areas under the Department of the Interior and Local Government (DILG) in the provincial and municipal levels. The total number of services provided by LGUs is more than 4,800[1], and these services are small compared to those run by the WDs. Many services run by LGUs are dependent on subsidies from the local government as well as from other donor countries to finance and implement their water supply projects.

Currently, data from the water supply sector run by LGUs are neither collected nor monitored by any national department.

Certificate of Public Convenience (CPCs) Grantees

CPC grantees are recipients of certificates issued solely by the NWRB. These are mainly small private companies or NGOs. The CPC permits them to operate and maintain waterworks supply services and impose penalties for violations of the rules and regulations.

Table 10.1-1 below shows the population served by different water service providers, the estimated coverage ratio, estimated number of business utilities, and the average number of population per service facility.

Table 10.1-1 Comparative Services of Four Water Supply Providers (WSPs)

Parameters	Metro Manila	Water Districts (WDs) (2009)	Local Government Units (LGUs)	CPC Grantees
Service Population	12.11 million *	16.29 million ***	11.87 million *	1.95 million **
Coverage Ratio	87% ***	88% ***	85% ***	n/a
Number of Business Utility	2	831 *	4,809 ****	476*
Average Service Population / Utility	6.066 million	19,600	2,500	4,100
Regulator	MWSS	LWUA (deputized by NRWB)	NRWB/Council of LGUs	NRWB

Notes:
(1) * Figures from Philippine Road Map Second Edition, end of 2009, served population, tariff setting, regulatory institute
(2) ** Document of Water and Sanitation Conference (LWUA, May 2010)
(3) *** Medium-Term Development Plan of 2001–2004
(4) **** Figures2004
Figures from Philippine Road Map First Edition, Copyright 2009Source: JICA Study Team

[1] The number includes the services run by LGUs, RWSA (Rural Water Service Associations) and BWSAs (Barangay Water Service Associations). The clarification of the exact number is still in the process conducted by DILG.

In the absence of a common data log on the number of water service providers, the figures were taken from different sources such as the First and Second Editions of the Philippine Water Supply Sector Roadmap (2009), and other figures from the Annual Reports of MWSI and MWCI.

As indicated in the table above, the service coverage in Metro Manila, serving 12 million people, is outstanding. In contrast, the service population run by WD is smaller, averaging 19,600 only. With regards to the sector roadmap, only 56 WDs have more than 10,000 service connections. The service scale of LGUs is far smaller, estimated to be around 2,500 people. In comparison with the size of Japanese WSPs, which serves 55,000 people in average (120 million people, 2,152 WPSs), the services run by WDs and LGUs are considered to be significantly small

(2) Absence of Unified Regulator at National Level

The control of water supply service by WDs, LGUs, and private entities are conducted fragmentally by the different agencies. The tariff level of WSPs is controlled by these regulators. There is no single/main regulator which controls the whole water supply sector in the Philippines.

In addition, there are no pro-active PPP units specifically assigned with formulating PPP projects in either LWUA or NWRB. Furthermore, the lessons learnt from the past PPP projects are not shared among the stakeholders. This situation makes it difficult to promote a consistent sector policy in the Philippines including PPP promotion.

Figure 10.1-2 below shows the existing regulators corresponding to the current Water Supply Providers.

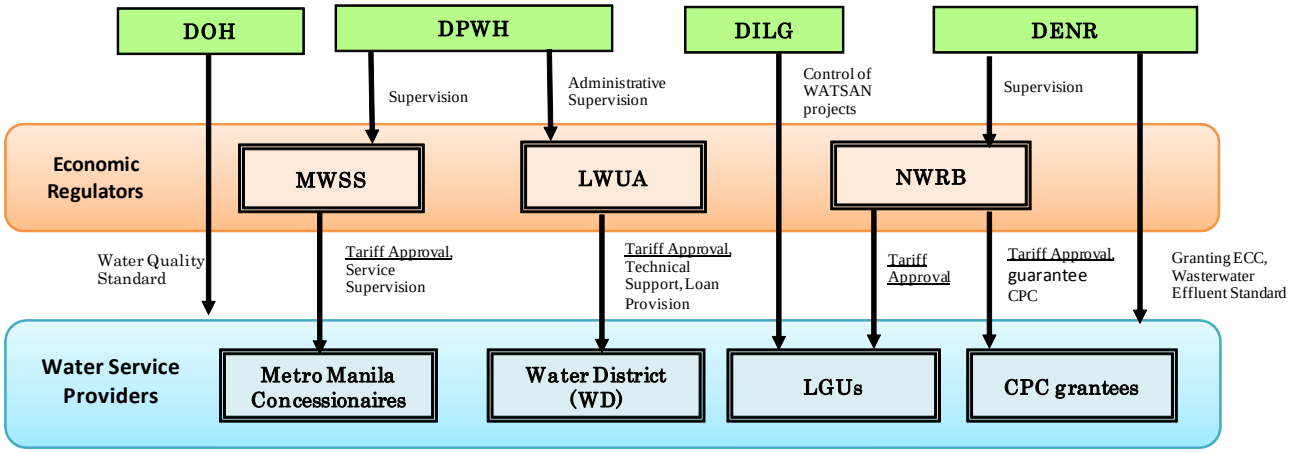


Figure 10.1-2 Relationship between Regulators and Government Agencies

The mandate and functions of regulators and government agencies are indicated below.

a) Regulators

The Metropolitan Waterworks and Sewerage System (MWSS) is the former managing agency for water supply and sewerage in Metro Manila but is presently monitoring and controlling the services provided by the two concessionaires after the concession period started. Several service indicators are monitored to achieve the service targets indicated in the Concession Contract mainly by the

MWSS-CO (Corporate Office, 120 staff members, Appendix G-1). Also, the tariff setting is regulated by MWSS-RO (Regulatory Office, 60 staff members, Appendix G-2) based on the tariff rebasing procedure held between MWSS and the concessionaires every five years. MWSS is now under the umbrella of the Department of Public Works and Highways (DPWH).

The Local Water Utilities Administration (LWUA) was established to support the services of WDs. It provides technical support to WDs from the F/S (Feasibility Study) phase to O&M phase upon the request of WDs. It also extends loans to WDs and LGUs, and also approves the water tariff of the WDs in place of NWRB. LWUA had a total of 550 employees performing various duties and functions as indicated in Appendix G-3. LWUA is headed by an administrator, supported by a senior deputy administrator. There are three deputy administrators responsible for administration, finance, and area operations. There is no single unit or division assigned in LWUA that handles PPP Projects. LWUA is now under the umbrella of the DPWH.

The National Water Resources Board (NWRB) is the only national regulatory body in the areas of water resources and economic regulations. Its functions and duties include (1) supervision and control of all waterworks utilities and their franchises and other properties; (2) regulation and setting of water rates to be charged to waterworks operators. In addition, NWRB grants Certificates of Public Convenience (CPCs) to operators of waterworks systems for operations and maintenance of waterworks supply services and imposes penalties for violations of rules and regulations. It also regulates and sets water rates to be charged by waterworks operators except those under the jurisdiction of other agencies.The NWRB had 90 staff members (Appendix G-4) and is headed by an executive director, a deputy executive director, and five major divisions manned by managers. The five divisions are the following: (1) policy and program, (2) water rights, (3) water utilities, (4) monitoring and evaluation, and (5) the administration and finance divisions. There is no single unit or division in NWRB that handles PPP projects. The NWRB is under the administrative supervision of the Department of Environment and Natural Resources (DENR), as an attached agency.

The creation of the Water Regulatory Commission (WRC) has been recommended by World Bank and NEDA since 1998. The purpose of the WRC is to consolidate all water regulatory powers, currently housed in several agencies such as LWUA, NWRB and MWSS, under one authority. Owing to the difficulty of coordination among these agencies, the plan has not been achieved yet.

b) Government Agencies

Water supply service is influenced by government agencies such as the Department of Interior and Local Government (DILG), the Department of Health (DOH), and the Department of Environment and Natural Resources (DENR).

DILG (Department of the Interior and Local Government) is responsible for the overall capacity building and financing of local governments. In particular, for the water supply and sanitation sector, DILG created the Project Management Office (PMO) for Water Supply and Sanitation which coordinates the programs involving the local governments. The PMO is responsible for the monitoring of water and sanitation projects entrusted by reliable agencies like the World Bank, ADB, JICA and etc.

DILG has an extension office in every province and municipality throughout the country, responsible

as the monitoring arm of the DILG Head Office. The staff members in the DILG Water Supply and Sanitation Unit (WSSU) carry out the physical monitoring works of the water and sanitation (WATSAN) projects in the central Head Office. WSSU has 15 staff members. There is no section under this unit that handles PPP projects.

DENR issues Environmental Compliance Certificate (ECC) for environmentally-critical projects, such as dams, wells, etc. DENR also checks the wastewater effluent standards.

DOH (Department of Health) sets and enforces the quality standards for drinking water, as mandated by the Code on Sanitation of the Philippines.

NEDA (National Economic and Development Authority) coordinates the preparation of the national development plan and investment programs. It formulates and monitors the policies, programs and projects.

(3) Low Tariff Level

The water service providers are implementing their own tariff models in accordance with their operational considerations. The outline of tariff principle including average tariff is indicated in Table 10.1-2 below:

Table 10.1-2 Tariff Setting Principles, Average Tariff, and Tariff Approval Authority

	Metro Manila Concession	Water Districts (WDs) (2009)	Local Government Units (LGUs)	CPC Grantees**
Tariff Setting Principle	Full cost recovery	Full cost recovery, based on the Guidelines	For operations and maintenance (subsidized for capital investment)	For operations and maintenance
Average Tariff for first 10 m^3 (PHP/m^3)	15.14 (MWSI-West) 11.57 (MWCI-East)	17.3 *	No Data	No Data
Average Tariff for from 10 to 20 m^3 (PHP/m^3)	16.60 (MWSI-West) 12.76 (MWCI-East)	18.3 *	No Data	No Data
Average Tariff from 20 to 30 m^3 (PHP/m^3)	22.15 (MWSI-West) 17.31 (MWCI-East)	19.3 *	No Data	No Data
Tariff Guidelines	Rate rebasing every five years considering capital investment cost, Tariff adjustment every year by CPI and exchange rate.	Not more than 5% of the average salary of the LIG or not more than the current charges.	Adopting 3% ~5% of average salary (recommended by WHO)	Adopting 3% ~5% of average salary (recommended by WHO)
Tariff Approval Authority	MWSS	LWUA	Council of LGU/RWSA	NWRB

* From LWUA Website, charges apply only for a ½ inch residential connection.

** VAT (Value Added Tax) is not included in the tariff rate.

Source: JICA Study Team

The detailed information about tariff setting made in each WSP is given below. In the case of Metro Manila concessions, the full cost recovery is applied to cover the capital investment and O&M costs.

On the other hand, in other services managed by WDs and LGUs, the tariff level is set lower and subsidy is often granted especially to the capital investment cost.

a) Concessionaires in Metro Manila

MWSS-RO (Regulatory Office) determines the tariff based on full cost recovery including the sewerage services' cost. Tariff is determined by two methods. First one is the automatic formula adjustment for CPI rate and exchange rate every year, and second one is the tariff rebasing procedure conducted every five years. The future business plan of concessionaires including CAPEX plan for the previous and next five years are considered for setting the tariff rate under the tariff rebasing procedure.

The present tariff rates for residential users (as of September 2011) are shown in the above Table 10.1-2. The present tariff rates for residential users of the two concessionaires in Metro Manila are apparently lower than the average tariff for WDs.

b) WD (Water District)

In the case of WDs, the consideration for economic situations of connected households is clearly mentioned in the guideline for tariff setting issued by LWUA. Any tariff increases are subject to public hearings and WD must secure the approval of LWUA. In addition, any tariff increase is limited to 60% of current charges. Per LWUA Manual on Water Rates, the tariff must be affordable to low income groups (LIG) and the minimum charge for 1/2" residential connection should not exceed 5% of the average income of the LIG in the service area. The average water tariff for a domestic connection is around PHP 17.3 per cubic meter for the first ten cubic meters per month.

Basically, WD is being managed to be financially independent, although they receive partial subsidies for the capital construction costs from the central and local government.

c) LGU (Local Government Unit)

For water supply services run by LGUs, the water tariff are calculated and controlled by the LGU Council or the local barangay council who are members of the water users association. The tariff structure for LGUs and other private systems are not following any standard protocols but basically following the basic social charges of almost 3% ~ 5% of the average household income of the users. The said criterion is known as the "5 % rule" and used globally as recommended by many donor agencies. Influenced by political interruption, the appropriate tariff increase is often not permitted.

The accounting system of the water supply service is integrated into the whole account of the LGU, hence, the financial condition of the service is unclear, and subsidy is easily granted when necessary.

d) CPCs Grantees

The details of tariff setting of CPC are not clear as data is not being collected by any agency.

10.2 PPP Project Overview

This sub-chapter provides a brief overview of past PPP projects and modalities in the water supply sector in the Philippines and discusses the trends and issues for PPP project promotion.

10.2.1 History of the Past PPP Projects

Since the 1990s, the water supply service was mainly managed by a public body except for France and the U.K. In France, there has been extensive experience in managing water supply service by lease contract. In the U.K., the water service providers were privatized in 1987, led by the strong political leadership of then-Prime Minister Thatcher. In the 1990s, the PPP projects in water sector in developing countries started as a means to resolving the lack of capital investment under public management, and achieving a better service efficiency.

In the Philippines, the water and sewerage concessions in Metro Manila in 1997 was one of the earliest and biggest challenges in the developing countries.

The outline including applied legal framework for past PPP projects conducted in the Philippines is shown in Table 10.2-1. Out of 14 past PPP projects (which the JICA study team has recognized), the project cost of concession in Metro Manila, US$7.5 billion, is outstanding, while the rest of these projects are all less than US$100 million.

Table 10.2-1 Past PPP Projects including Manila Concession

No.	Year	Project Name	Project Cost	PPP Modality	Applied Law	Implementation Agency
1	1997	Metro Manila Concession of Water Supply and Sewerage, East area	**US$2,940 million**	Concession (25 years)	Water Crisis Act	Manila Water Company, East
		West area (second concession in 2006)	**US$4,536 million** **(US$504 million)**			Maynilad Water Services, West (second concession in 2006)
2	1997	Subic Bay Water and Sewerage	US$88 million	Concession (30 years)	BOT Law (JV)	Subic Water JV DMCI + Cascal + SBMA + Olongapo City
3	2000	Clark Water Supply and Sewerage	US$55 million	Concession (25 years)	BOT (CD)	Clark Water Corporation (CWC)
4	2000	Bohol Water Supply System	US$14.4 million	Concession (Permanent)	BOT (JV)	Bohol Water Utilities, Inc. (BWUI)
5	2000	Magdalena Laguna Water System	US$2 million	DBL(Lease, 15 years)	-	Bayan Water Services Inc. JV Benpres Holdings and Montgometry
6	2002	Kalilangan, Bukidnon	Small scale	DBL(Lease, 15 years)	-	-
7	2002	Lantapan, Bukidnon	Small scale	DBL(Lease, 15 years)	-	-
8 *	2007	Cagayan de Oro City Water District (CDCWD)	PHP 1,730 million	Bulk Water Supply, 25 years (40,000 m^3/day)	GPRA	Rio Verde Water Consortium, Inc.
9 *	2007	Legazpi City Water District (LCWD)	PHP 300 million	Bulk Water Supply (20,000 m^3/day)	GPRA	Philippine Hydro Inc.
10	2009	Boracay Island Water Company	US$27 million	Concession (25 years)	JV Guideline	BIWC JV with MWCI + PTA (Philippine Tourism Authority)
11	2009	Laguna AAA Water Corporation (LAWC)	US$ 50 million	Concession (25 years)	JV Guideline	JV LAWC + Prov. Gov. of Laguna
12 *	2010	Metro Cebu Water District (MCWD)	PHP 13 million	Bulk Water Supply, 10 years (3,500m^3/day)	GPRA	Philippine Water Resources Inc.
13 *	2011 (under tendering)	Metro Iloilo Water District (MIWD)	PHP 1,360 million	Bulk Water Supply, 10 years (30,000m^3/day)	GPRA	(under tendering)
14	2011 (under negotiation)	Northern Waterworks and Rivers of Cebu, Inc. (NWRC)	-	Bulk Water Supply (Design and Implementation)	JV Guideline	MWCI + Vicsal Inc. + Stateland Inc.

Note : The above list does not necessarily include all the PPP projects in the Philippines.
* Draft report of "Status Report on Philippines Water Supply Sector" Kasamatsu, 2011
Source: JICA Study Team

The abovementioned PPP projects are categorized into four groups as shown in Figure 10.2-1 and the characteristics of each group is explained below.

PPP in the water sector started out as a government-led initiative in the 1990's through the use of the Built-Operate-Transfer (BOT) law. However, in later years, other legal frameworks like the Joint Venture (JV) Guidelines and Government Procurement Reform Act (GPRA) have been applied to projects led by private entities.

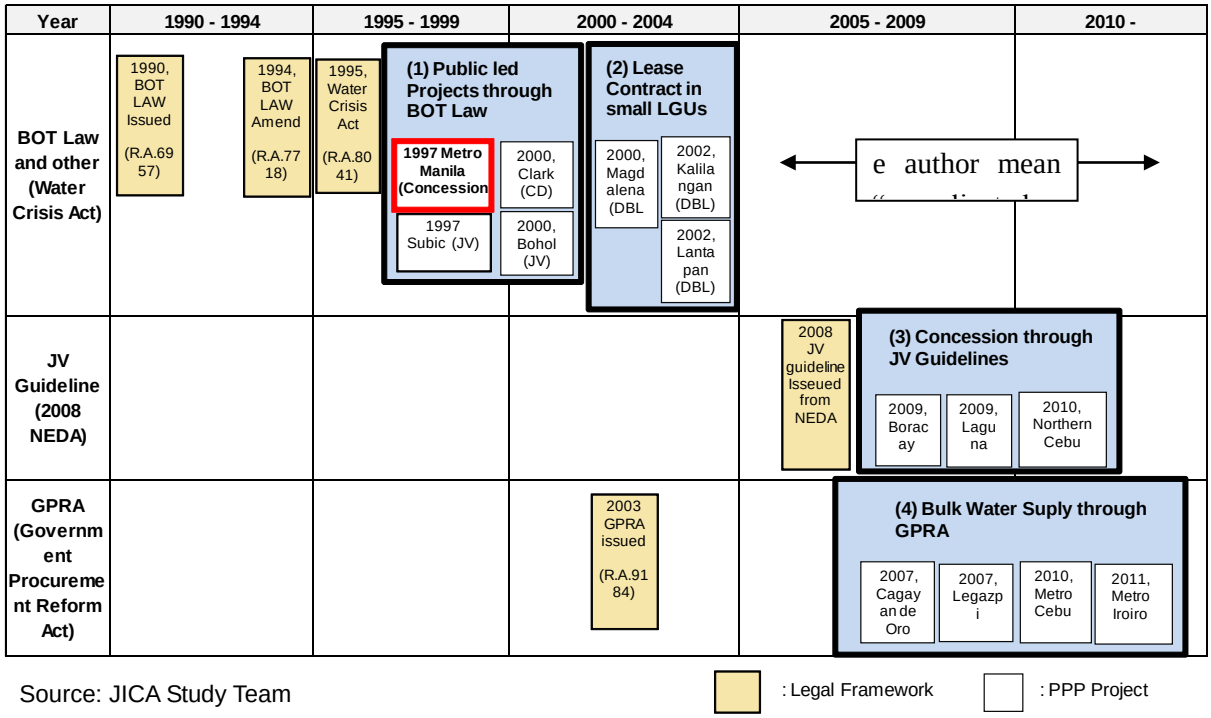


Figure 10.2-1 Brief History of PPP Projects in the Philippines

(1) Public-led Projects Through BOT Law and Water Crisis Act in 90's (Project numbers 1-4)

In the 90's, the first challenge of PPP was encountered including the two concessions in Metro Manila. There are several other concession and JV projects in urban areas implemented legally through BOT Law, such as Subic Bay, Clark and Bohol Water Supply Projects. These projects were implemented through the strong leadership of then-President Ramos with support from DPWH and MWSS. In terms of project size, the Metro Manila concession is an extraordinarily huge project.

The next largest cities in the Philippines, Cebu and Davao, are expected to follow the concession modality of Metro Manila as the profitability of the project tends to be higher with respect to economies of scale; however, the concession project is not yet implemented for these cities.

The main reason for not introducing PPP is the lack of political leadership in coordinating with the numerous stakeholders including the existing employees of WDs and LGUs.

The PPP Center, which manages the projects through BOT Law, announced the next possible project in the water supply sector as the "Development of Water Sources in Metro Manila". The MWSS, as the responsible organization, is waiting for the result of an ongoing study undertaken by a World Bank team to evaluate the most effective water source, and the other project formation procedure is not progressing. Other projects are listed as "possible PPP projects for medium-term" though the procedures are pending at present.

(2) Design-Build-Lease (DBL) Contract in Small-Scale LGUs (Project numbers 5-7)

After the first trial, World Bank attempted the Design-Build-Lease (DBL) -type of projects in small rural areas as their pilot projects. The World Bank provided concession loans to newly constructed facilities, and prepared the tender documents and draft contracts. As a result, only three contracts out of around twenty projects were signed by private entities, as the project size is not big enough to attract private companies.

From the abovementioned experience, it is implied that the private sector is not sufficiently incentivized to embark into the smaller projects in rural cities with only the provision of concessional loans. It means this kind of project needs more government support (subsidy or guarantee) or incentives.

(3) Concession Projects Through JV Guidelines (Project numbers 10, 11, 14)

After the JV Guidelines was issued in 2008 from NEDA, several JVs with both private and public sectors were created to expand and operate the water supply service through concession contracts for around 25 years. As the capacity of WDs or LGUs is not enough, the formulation of these PPP projects was mainly led by private companies. The standard procedure on JV Guidelines is shorter and easier, so the private companies preferred to apply this framework rather than BOT Law.

As for the JV for the water supply system in Boracay Island (Project number 10), even though the operation started only two years ago, the connection number increased sharply, and the construction plan of WWTP was presented for improving the surrounding environment. The JV company, "Boracay Island Water Company", succeeded in obtaining the acceptance of concessional loan of the Philippine Water Revolving Fund (PWRF) from DBP, and the service management is going quite well by taking advantage of private financing and their wide knowledge.

In terms of the JV guidelines itself, it is criticized in terms of its low transparency, the limited participation of regulators during the project formulation phase, and unspecified allowable maximum rate of return of the JV company. These issues are some of the main reasons for the proposal to amend the present PPP related Laws.

(4) The Bulk Water Supply Projects Conducted Through GPRA (Project numbers 8, 9, 12, 13)

For the bulk water supply projects which do not need tariff collection from users, the service is defined as one of service procurement, and GPRA is applied as the legal framework.

The capacity of each WSP is relatively poor, hence the formulation of these past projects has been led by the private sector. The procedure of the GPRA enacted in 2003 is simpler than BOT Law. Hence, private companies prefer the GPRA to BOT Law.

Previous bulk water supply projects started successfully in several WDs. However, flexible tariff adjustment is not permitted for projects that utilized the GPRA framework (please refer to Chapter 10.2.2). Hence, there is a possibility that the private sector cannot recover the capital cost if the external financial situation worsened during the contract period of around 10–15 years.

10.2.2 Adopted Legal Framework

(1) Adopted PPP Modality and Legal Framework

The relationship between PPP modality and legal framework is shown in the table below.

BOT Law, JV Guidelines and GPRA are applied in past projects. In terms of concession modality, both BOT Law and JV Guidelines are applied depending on the operational scheme. For bulk water supply project, GPRA has been applied as the legal framework.

Table 10.2-2 Applied PPP Modality and Legal Framework in the Past PPP Projects

PPP modality	Past Projects *	Applied Law	Contract Period
Concession	(1)Metro Manila, (2)Subic, (3)Clark, (4)Bohol	BOT Law (Water Crisis Act)	Around 25 years
	(10)Boracay, (11)Laguna, (14)Cebu	JV Guidelines	
Lease (Affermage)	(5)Magdalena, (6)Kalilangan, (7)Lantapan	Not known	Around 15 years
Bulk water supply (intake, WTP)	(8)Cagayan de Oro, (9)Legazpi, (12)Metro Cebu, (13)Metro Iloilo	GPRA (Government Procurement Reform Act)	10 years – 15 years

* Number indicated in the column corresponds to the number in the Table 10.2-1.

Source: JICA Study Team

(2) Comparison of Adopted Legal Frameworks

The adopted legal framework is compared in the Table 10.2-3. The detailed contents of the respective Laws are explained in the chapter 2.

Table 10.2-3 Comparison of the Different Legal Frameworks for PPP Projects

	BOT Law	JV Guidelines	GPRA
Enacted Year	**1995**	**2008**	**2003**
Overall Procedure Duration	**250-400 days**	**75-165 days**	**200 days**
Contract Approval	**NEDA-ICC** (if the cost is more than PHP 300 million)	Head of Agency	**Government Procurement Policy Board** (if the cost is more than PHP 500 million)
Ownership	Stays with Government	Allow take-over by private sector; divestiture is encouraged	Transfer of ownership from private to public of procured goods
Term	Generally, long term	Generally, short term	Generally, short term
Fees	Fees may be adjustable in accordance with **predetermined parametric formulas**	No prescribed fees	**Fixed fees.** Attached to ABC(approved budget for the contract)
Price Escalation	Allow price escalation	-	Prohibits price escalation
Incentives	**Provides incentives for large capital investments**	No incentives	Prohibits incentives
Income of Public Sector	Fee	Income / **Dividends**	None

Source: Knowing PPP, BOT and JV a Legal Annotation (Alberto C. Agra, 2011)

For projects implemented through the GPRA framework, the Government Procurement Policy Board

(GPPB) is in charge of monitoring the project, and it is under the umbrella of Department of Budget and Management (DBM). The participation of NEDA is limited to checking the contract documents if the project is prepared using this framework.

Regarding the GPRA, there are several limits in terms of flexibility of the long-term service agreement as it was originally created for short-term procurement contracts. Price escalation and other forms of price adjustments are not permitted, and the private sector needs to shoulder higher risks.

Furthermore, the transparency of projects undertaken through JV Guidelines is lower as the approval of contract and NEDA-ICC clearance are not needed. Also the rate of return is not limited whereas the BOT Law specifies a 12% maximum (refer to Table 2.1-1 for more details), the service company can make excessive profits, and it may result in the exploitation of users.

10.2.3 Lessons Learnt from the Concession in Metro Manila

In this chapter, water supply and sewerage service projects in Metro Manila operating under the concession scheme are evaluated, and several problems and benefits of these PPP projects are revealed. The projects were considered successful because the overall service performance continues to improve, and tariff remains at an acceptable level.

(1) Brief History of Metro Manila Concession

Before the concession started, state-owned Metropolitan Waterworks and Sewerage System (MWSS) was operating the water and sewerage service in Metro Manila. MWSS provided water for an average of 16 hours per day to two-thirds of its coverage area. The MWSS was not financially independent, and relied heavily on government subsidy. To improve this situation, then-President Ramos pushed the Philippine Congress to pass Republic Act No. 8041, the National Water Crisis Act of 1995. To implement the National Water Crisis Act of 1995, President Ramos then issued Executive Order 286 (December 6, 1995) and Executive Order No. 311 (March 20, 1996) which enabled MWSS to enter into arrangements, resulting in the involvement of the private sector in any or all of the segments, operations and/or facilities of the MWSS.

In order to enhance its competitiveness, the service area was divided into two zones, the East and West, and the service rights were awarded to different concessionaires. The bidders who proposed the two lowest tariffs were awarded the service rights.

The concession agreements (one for the East Zone and another for the West Zone) for water and sewerage service in Metro Manila were signed in 1997. The service operation was handed over to the concessionaires for 25 years from MWSS to Manila Water Company Inc. (MWCI, east zone, Ayala Corporation Group) and Maynilad Water Services Inc. (MWSI, west zone, Lopez-French Suez Group).

After the concession started, MWSI (West Zone) nearly went bankrupt in 2002 because of the low tariff rate and the doubled concession fee brought about by the depreciation of the Philippine peso against the US dollar. MWSI and MWSS went through a long arbitration process. Afterwards, the dispute between the GoP and MWSI was resolved by the company was filed under corporate rehabilitation law, and the parties entered into a Debt and Capital Restructuring Agreement (DCRA). The service was handed back to MWSS in 2005 and MWSS awarded the West Zone concession to the

Joint Venture of Metro Pacific Investment Corporation (MPIC) and DMCI Holdings in 2007.

In contrast, the financial condition of MWCI (East Zone) improved especially after the year 2002 because of an increase in revenue arising from tariff rate increase and supply area expansion. Afterwards, MWCI became a publicly-listed company in 2005.

(2) Improvement of Service Performance

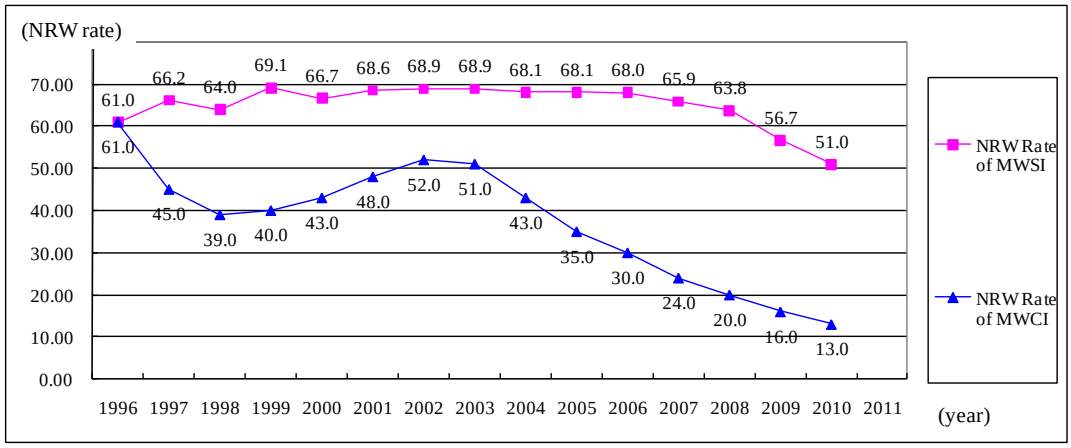
From the technical aspect, the service level of water supply improved rapidly because of private management. The data on the number of service connections and Non-Revenue-Water (NRW) rate is indicated in Figure 10.2-2.

The report on "Public-Private Partnerships for Urban Water Utilities (World Bank, 2009)", which analyzed 36 long-term water concession projects in developing countries, mentioned the merit of PPP projects as shown in the increase in service connections and coverage ratio in most of these successful projects. Nevertheless, the report concluded that the NRW rate is not necessarily reduced by private operators.

During the first five years of private operations, the number of service connections increased by around 30% in both areas by utilizing the sufficient budget of the private companies. Generally, the rapid increase in the number of service connections is the result of private sector involvement in water supply sector, and this is true for the two Metro Manila concessions.

Regarding the pro-poor policy, the two concessionaires started their service expansion programs in economically-depressed areas called "Tubig Para Sa Barangay (Water for Depressed Communities, MWCI)" and "Bayan Tubig Program (MWSI)". Through these programs, the household service connections increased by more than 150,000 in the poverty-stricken areas as of July 2003. People in the economically-depressed areas were able to procure cheaper water instead of buying water from private water vendors. In addition, the community was able to participate in service maintenance; therefore the water service itself became even more sustainable.

The NRW rate improved rapidly from 52% in 2002 to 13% in 2010 in the East Zone as shown in the figure below. This resulted from the huge investment in pipe facilities made by MWCI from 2002 to 2010. During the interview with the officials of MWSS-RO, they mentioned the methodology of utilizing penalty/reward incentives through the tariff rebasing procedure to control concessionaires' work. The latest NRW rate proved that the said regulation method has been functioning quite well in the East Zone. The similar improvement is expected in the west zone and other future PPP projects driven by the sophisticated tariff regulation method.



Source: MWSS as of Dec. 2010

Figure 10.2-2 Non-Revenue Water (NRW) Rate of Metro Manila (%)

(3) Failures in Tendering and Contract Document Preparation

During the preparation phase of the draft concession contract and tender procedure, International Finance Corporation (IFC) fully supported the GoP and MWSS. However, numerous problems emerged soon after the beginning of the concession services in 1997. This implies that preparation of appropriate project is quite difficult especially for a concession scheme.

The MWSI almost went bankrupt after the year 2002. Basically, oversights in the bidding design and Concession Agreement (CA) conditions are the main reasons for the financial downfall of MWSI.

i) As the bidding winner was selected based on the proposed tariff rate, the bidders proposed excessively low tariff rates to win the bidding. The tariff rates of the winning bids for the two areas were PHP 2.32/m^3 (east) and PHP 4.96/m^3 (west), which were only 26% and 56% of the existing tariff at PHP 8.78/m^3. As a result, the two concessionaires suffered from low revenue during the first few years of operations.

ii) In the CA, the debt service requirements of MWSS (US$900 million) were given to two concessionaires, and they are obliged to repay the said debt by concession fee every year. The allocation of the said foreign debt between the west and east service providers was set at 9:1 ratio. The MWSS determined the allocation ratio by considering the portion of the loan amount spent in each area, though the burden of the west zone seems irrationally high when compared with the served population ratio of 6:4 at that time.

iii) In 1997~98, the currency value of Philippine peso depreciated by half against the US dollar because of the Asian Economic Crisis. The concession fee amount doubled as the concession fee denomination was set in foreign currency. On the contrary, the revenue amount remained constant as the foreign exchange rate factor was not included in the tariff adjustment formula.

Based on the above evaluation, several recommendations can be extracted for future projects as indicated below:

- When it comes to bidding, technical proposal should be considered, as well as the proposed tariff

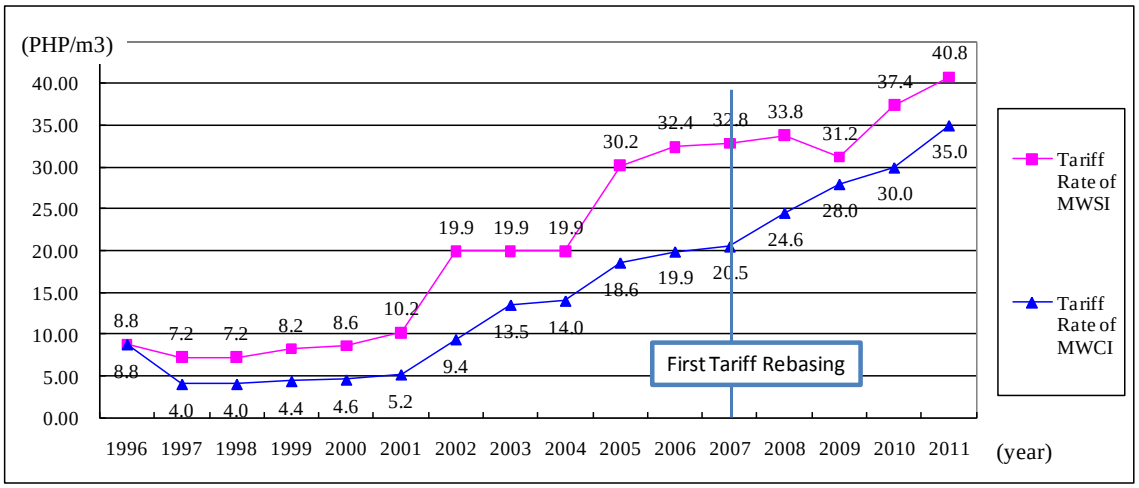
rate to avoid excessively low tariff bidding.

- Terms and conditions of the CA (e.g., debt allotment ratio) should be decided based on the detailed evaluation of the project profitability (PPP F/S, etc.).
- If the impact on the project profitability is critical, the exchange rate factor should be included in the tariff adjustment formula to reduce the exchange rate risk.

(4) Increased Profitability by Flexible Tariff Regulation after 2002

MWCI was able to make its service financially stable and was successful in becoming a publicly listed company in 2005. After evaluating the financial conditions and the tariff change, it is determined that the flexible tariff setting contributed most to the financial recovery of the concessionaires.

Initially, sharp tariff increase was not permitted for the first ten years; however, MWSS-RO allowed the tariff increase after the year 2002 in consideration of the financial downturn of both concessionaires. The detail of all-in water tariff increase of each concessionaire is shown in the figure below.



*All-in water tariff is calculated by including the whole tariff components of MWSI and MWCI, such as basic charge, currency exchange rate adjustment, foreign currency differential adjustment (FCDA), environmental charge, prepayment adjustment, value added tax (12%), and payment incentive.

Source: MWSS as of Dec. 2010 (unit: PHP/m^3)

Figure 10.2-3 All-In Water Tariff for Metro Manila

Supported by the continuous tariff increase, MWCI has been making a decent profit ever since the start of the fiscal year of 2002, and the company was successful in becoming a publicly-listed company in 2005. Afterwards, it even started investing in water service projects in foreign countries (Vietnam, India, etc.) and other areas in the Philippines.

If MWSS-RO had not permitted the tariff increase during the early period, MWCI might have suffered from a lower revenue amount, and would not have been able to improve their service performance including NRW ratio. Therefore, in terms of service sustainability, the tariff increase was

the right decision.

10.3 PPP Project Risk in Water Supply Sector

(1) Risk Identification

Representatives from both the regulator (MWSS) and from the two concessionaires (MWCI and MWSI) attended the analysis workshop conducted by the Study Team. The project case for the risk analysis was a bulk water supply project with application of the legal framework of the BOT Law.

As the water demand increases in Metro Manila, MWSS is planning to extend the raw water source provision in the service area in the near future. They are waiting for the final recommendation from a World Bank study of the best effective water source out of several alternatives. The result of the risk analysis can contribute to the design and preparation of the project contract and risk mitigation. The particular details and conditions, such as the amount and quality of water to be treated, raw water source, and service fee were not defined.

The number of risks are identified according to each risk category as summarized in Table 10.3.1 below. The whole detail is indicated in Appendix G-5.

Table 10.3-1 Number of Identified Risks in Each Risk Category

Project Phase	Number of identified risks
(1) Design Risk	9
(2) Land Acquisition Risk	4
(3) Construction Risk	11
(4) Demand and Revenue Risk	4
(5) Operation and Maintenance Risk	16
(6) Political and Legislatives Risks	11
(7) Economic and Financial Risk	10
Total	65

Source: JICA Study Team

(2) High Impact Risk

From the identified risks enumerated above, several risks were defined as high impact risks considering the probability of occurrence and the effect on profitability. Some of the major risks which require further risk mitigation and/or transfer analysis include (see more detail in the Appendix G-5):

- Delay in securing water rights;
- Failure or delay in securing ECC (Environmental Clearance Certificate);
- Incorrect technical/environmental assumptions at design stage;
- Delay in land acquisition;
- Interference from third parties (e.g., protesters and NGOs);
- Insufficient amount of raw water;
- Occurrence of Force Majeure;
- Unexpected climate change;
- Penalty for service stoppage (influence to industry, water scarcity)

The discussion focused on the following issues.

- *Capacity of private entities*

During the discussion, the representatives from the private sector seems capable of managing several design, construction and financial risks which they have already handled, manipulated and/or experienced in the current concession contract.

The private entities paid more attention to the risks which the government side can only mitigate or compensate to a loss, for example, delay of "Water Rights" or "ECC", and occurrence of Force Majeure or unexpected climate change. The clear and detailed definition should be specified for proper allocation of these risks in the contract document for a clearer understanding of both parties.

- *Revenue Risk*

In addition, the attendees noted the importance of revenue conditions, such as price adjustment formula and guarantee of buying water. In case the BOT Law is applied (neither JV Guidelines nor GPRA) to the project, the tariff adjustment formula can be adopted similarly as the present concession contract in Metro Manila where the exchange rate risk and other extraordinary risks are mostly mitigated. Based on their experience, the adoption of a simple and automatic calculation is desirable to avoid any long-term negotiation between the regulator and the concessionaires.

- *Feasibility Study (F/S) Risk*

Normally, the technical condition risk should be taken by the private sector as stipulated in the contract even if the feasibility study or the project document is not well prepared. Hence, the quality and veracity of the study results are keenly evaluated by the private sector.

(3) Findings from Risk Workshop on PPP Projects

In conclusion, the study team perceived that the private companies have sufficient knowledge in handling and managing the project risks from the technical, financial and legal aspects as a part of the project implementation entity. Their past experiences of more than ten years and broad human connections make it possible to formulate projects in any area in the Philippines as long as the investment circumstances allows it.

In contrast, from interviews with public institutions such as LWUA, DILG and MWSS, the Study Team learnt that there is no specific team, group, or ad-hoc committee which is in-charge of PPP projects, and the information on projects are not sufficiently shared among the government institutions. In conclusion, the training and institutional support for the government regulatory body is necessary to bridge the gap of knowledge between private and public entities.

10.4 Constraints on PPP Project Promotion

Through the previous evaluation, the following items are considered as the constraints on PPP project promotion in the water supply sector.

(1) Poor Government Initiative

In consideration of the past PPP projects, several private companies are ready to embark on these profitable projects, and are capable of managing the legal procedure of appropriate document preparation and risk allocation. The current financial situation which enables the private companies to borrow enough funds is also favorable to the private sector.

In contrast, government initiative for PPP promotion in the sector is lacking. In the sector roadmap "Philippine Water Supply Sector Roadmap (2010)", which describes the outline of sector development plan until 2025, there is no mention of any concrete policy or target for promoting PPP. Several regulators operate projects separately following their own mandates and their strategy is not integrated on the national level.

NWRB is obliged to monitor and regulate the PPP projects as well as all the other water supply projects, though with only 90 staff members, the agency is not large enough to monitor the services. It is revealed that there are no specific teams or groups in charge of PPP projects in LWUA and DILG, and both institutes do not have the detailed information on past PPP projects implemented by WDs and LGUs. MWSS has the extensive knowledge and experience in regulating private companies in Metro Manila, though the agency is only obliged to regulate within the service areas. This implies that the PPP Project Monitoring System is not functioning well.

Considering the past experiences (including Metro Manila) without any guidelines or support from an experienced regulator, the preparation of tender documents and sample contract is quite difficult for WSPs. However, there is no special guideline for PPP projects in the sector or a typical model template for the concession contract and JV agreement. With regards to the best PPP practices of the LGU or WD, information management largely depends on support from international donors because government organizations do not take the lead in disseminating information to WSPs.

(2) Poor Profitability of Water Supply Service in Rural Areas

- **Lower tariff level**

The tariff levels of WDs and LGUs were kept low in consideration of the paying capacity of the poor residents. It is common that the tariff rate will cover only the O&M costs, and is not large enough to cover the capital investment cost for service expansion. WD is basically managed financially independent as a GOCC, though they sometimes receive subsidy from the central and local government units. The situations of WSPs run by LGUs are even worse, as their financial statement is prepared into one local account. Owing to this, the financial condition of the service is not clearly evaluated, and the service is easily subsidized by the account of LGU.

- **Size of water service is too small to conduct the projects effectively**

In general, higher project efficiency is achieved by larger-sized projects. Several performance indicators of service efficiency such as the staff numbers per 1,000 connections and the production cost per 1 m^3 improves in proportion to the project size increase.

As stated before, water services are divided into very small projects in the Philippines. The average service population is estimated to be only around 19,500 for WDs and 2,500 for LGUs. In addition, the WD and LGU services are under the regulation of different agencies, which then makes it difficult

to increase the project size in the country.

(3) Difficulty in Selecting Appropriate PPP Framework

The PPP Center, which coordinates national infrastructure PPP projects, is expected to give advice for the appropriate project design, financial measures and PPP modality. However, in case the project is formulated through JV Guidelines and GPRA, the responsibility of NEDA can be limited to checking of the contract documents, and in such cases, the original mandate of the PPP Center is not applicable.

Moreover, in consideration of the current situation at the PPP Center and related agencies, none of them has a special team for promoting PPP projects, and the past information is not collected or evaluated. Also, there are no other projects which used the BOT law after the year 2000, and the practical knowledge for project formation is retained only by several persons. This current situation makes it difficult to choose the appropriate PPP framework to successfully implement future PPP projects.

10.5 Recommendation for Further PPP Promotion

As a result of the in-depth evaluation and analysis of the present situation, PPP projects should be promoted through the following recommendations:

(1) Acceleration of PPP formulation in urban areas by government initiative
(2) Improvement of financial management level based on the long-term strategy
(3) Appropriate PPP scheme selection

The details of the recommendations are discussed below:

(1) Acceleration of PPP formulation by Government Initiative (In Urban Areas)

The result of the concession projects in Metro Manila is mostly satisfactory as the service level and access was improved and the tariff is set at an acceptable level. The PPP projects should be continued in the big urban cities where the financial condition is much healthier than the rural cities.

a) Committee in charge of PPP promotion should be established

A special committee or group for PPP promotion should be established with representatives from LWUA, DILG, NRWB, MWSS and PPP Center (NEDA). LWUA has more staff available and it has the tariff setting and technical assistance capability. Furthermore, more possible projects will be formulated in larger WDs. Hence, it is recommended that LWUA takes leadership of the committee.

First and foremost, the information on PPP projects should be disseminated among the members. LWUA needs to collect the information about the PPP projects conducted by WDs. And similarly, NWRB or DILG needs to collect information about JV and PPP projects implemented by LGUs. Afterwards, PPP project policies should be discussed and integrated among these agencies based on the long term plan.

In case the WRC, the national integrated regulatory body, is formulated in the future as recommended by World Bank, the role of the committee should be handed over to WRC for the regulation of PPP projects.

b) Publication of sample documents and guidelines

The special committee needs to prepare the necessary documents for promoting PPP projects. The preparation of these documents contributes to reducing the documentary work of WSP during the project formulation period. The document includes the following:

(i) Guidelines of PPP project formulation and project implementation in water supply sector;
(ii) Introduction of the best practices adopted on projects managed by both WDs and LGUs;
(iii) Sample tender documents/contract for concession, lease and bulk water supply modalities. The contents should correspond to each legal framework (BOT Law, JV guidelines, and GPRA); and,
(iv) In house training kit for the government organizations and WSPs

(2) Improvement of Financial Efficiency in Rural Areas

After the large-scale urban cities, the financially healthier WDs will be the next target for PPP project implementation. At present, efforts for improving the financial conditions are made continuously in any WSPs supported by international donors and government. The acceleration of the said activities for improving the project profitability is expected to attract the private sector participation in the management of the services.

a) Achieve the appropriate tariff level

For all kinds of PPP modalities, the tariff level should be set adequately high to make the financial condition of WSPs healthy. The basic principle of full cost recovery should be well shared among users through seminars or education programs so that the income can cover both the O&M and capital investment costs.

b) Increase the project size

The project size and service efficiency are directly inter-related in the water supply sector. The project size should be made larger for achieving the effective management.

The first measure is to amalgamate several WSPs into one. The size of WDs and LGUs are generally smaller than that of the other countries, and there might be significant inefficiencies in management.

In addition, the following measures should be considered to increase the project size during the project design phase.

- Bundling several projects (integrating several small-scale PPP projects),
- Formulation of large-scale bulk water supply projects which provide water to multiple WSPs

(3) Appropriate PPP Framework Selection

Following the large urban cities, the financially healthier WSPs will be the secondary target for PPP projects. The efficiency and profitability of these projects can be lower, and several measures should be taken to make the PPP projects more attractive to private companies.

a) Establishment of subsidy system for PPP projects

Especially in rural areas, government support provision is needed to make the projects more attractive

during the construction and O&M stages. Some of the subsidies applied on several past projects around the world are shown below:

- ***Subsidy for capital cost***

Concessions with public subsidies for investment are implemented in order to have higher profitability in Colombia (PME program), Ecuador (Guayaquil) and Argentina (Cordoba and Salta). Capital cost of distribution network in a specific area is subsidized for small-scale service in Cambodia.

- ***Subsidy during O&M phase***

In Senegal and Ivory Coast, connections in the poorest areas were provided free of charge, adopted as one measure of a pro-poor scheme.

The impact of subsidy for capital costs is similar to the hybrid scheme adopted in the other infrastructure sectors where huge capital investment is subsidized by the public side and only O&M is managed by the private sector. The fund source is provided mainly by the central government based on the long-term PPP promotion plan.

The subsidy during the O&M phase is often linked to the pro-poor scheme as the regulator can select which user group will receive the subsidy. The regulator needs to consider how the subsidy affects the profit of the private company and users, and has to choose the best effective method.

b) Incentivize private companies to apply BOT law rather than JV guidelines or GPRA

The history of past PPP projects revealed that the projects outside Metro Manila are led by the private sector. As mentioned in Chapter 2.3.2, BOT law is differentiated as it has the advantage of tax exemption, and allowable government contribution on investment of up to 50% (for solicited projects). Interestingly, the private companies preferred the simpler legal procedures of the JV Guidelines or GPRA more than the BOT Law to avoid procedural delays.

Now being considered as an amendment of BOT law, the incentives for private companies should be enhanced to overcome the merits of JV Guidelines and GPRA which has low transparency. Also, the unnecessary procedures required for approval should be omitted to create a legal process in BOT Law that is faster and more efficient.

c) The adoption of Lease Contract (or Management Contract) should be considered

In order to introduce the concession contract, strong political leadership is needed because the institutional restructuring of the existing water provider is inevitable which will raise opposition from existing employees. Also, the establishment of a new individual regulatory body is needed in the Philippines where a national-level regulatory body does not exist.

In considering the above difficulties, the application of other alternatives of PPP modality, such as lease (affermage) contract or management contract should be considered.

The objective of adopting a lease contract is more focused in improving the service efficiency. The public side remains holding the role of major investment, and a regulatory role of private entities becomes relatively simple.

The characteristics of typical PPP modalities are summarized below:

- (1) Concession: Public sector remains the owner of the facility. The private sector is required to operate, maintain, manage, construct and rehabilitate the system in a specific area during the contract period. Tariff collection is handled by the private sector. More importantly, the operator is responsible for all the capital investment. A concession contract is typically valid for 25-30 years so that the private entity will have sufficient time to recover the capital investment and appropriate return. The longer term contract complicates the bidding process and contract design.

- (2) Lease (Affermage): Private sector is in charge of O&M of facilities typically for a period of 10 – 15 years. The public sector manages the financial aspect of the new/existing facility investment. The O&M service fee is paid for the O&M service provided by the private entity. The revenue of the private sector varies depending on the chosen modality. The revenue comes from the lease charge for lease contracts, and the tariff collected by users for affermage contracts. The sophisticated regulatory framework is not required for lease (affermage) modality since the public sector handles the facility investment, and contract period is relatively shorter.

- (3) Management Contract: Management contract expands the services to be contracted out to include some or all of the operations and management of the public service. The daily management control and authority is assigned to the private partner or contractor. The contract duration is usually from 2 to 5 years. The revenue is paid by the fixed fee with some performance incentives.

Table 10.5-1 General PPP Modality Applied to Water Supply Service

PPP Modality	Asset Owner	Facility Investment during O&M phase	Financing	O&M	Revenue of Private Sector	Facility	Typical Contract Period
(1) Concession	Public/Private	**Private**	**Private**	**Private**	**Collected tariff from users**	Whole facility	Around 25 - 30 years
(2)Lease (Affermage)	Public	Public	Public	**Private**	**Collected tariff from users, and (i) pays lease fee (Lease) (ii) retains fee based on the volume of water sold (Affermage)**	Whole facility	Around 10 - 15 years
(3)Management Contract	Public	Public	Public	**Private**	Service Fee	Whole or partial facility	Around 2 - 5 years

* The above conditions and definitions do not necessarily correspond to past projects implemented in the Philippines.

Source: JICA Study Team

CHAPTER 11 ENERGY SECTOR

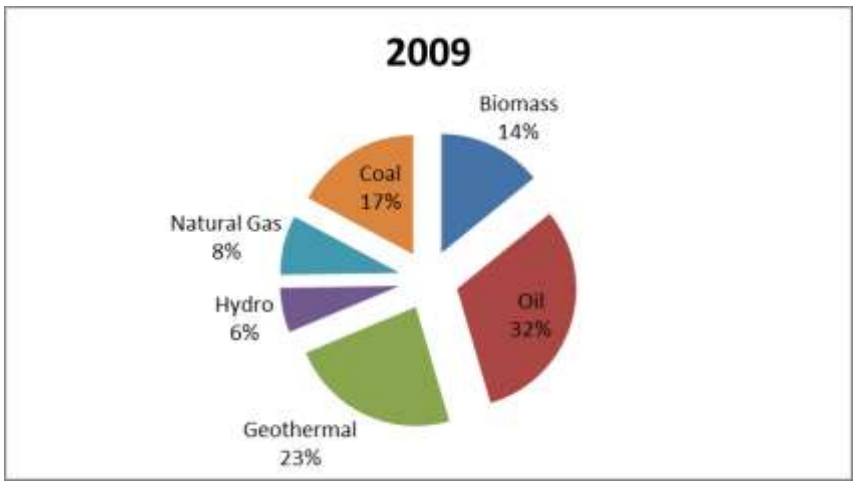
11.1 Sector Characteristics

The Philippine energy sector is divided into the following major industries:

- Oil and Gas Industry
- Electric Power Industry
- Renewable Energy Industry
- Energy Efficiency and Conservation

(1) Energy Diversification and Self-sufficiency

Oil remains the Philippines' main source of energy. However, the country has steadily reduced its dependence on imported oil since the mid¬1990s, when it accounted for more than one-half of the country's energy use. In 2009, oil made up around one-third of the Philippine energy consumption. The decline in the importance of oil reflects a substantial increase in the use of coal and natural gas, which, as combined, now account for about one-quarter of the national energy consumption, compared with less than one-tenth in the mid-1990s.



Source: DOE

Figure 11.1-1 Energy Mix Diagram 2009

The transport sector remains the biggest user of oil, accounting for 65.03% of the total oil requirement in 2009. The main thrust of the transport sector is to increase use of alternative fuels and emerging technologies.

Table 11.1-1 Oil Utilization Situation 2009

	Million BBls	Percent Share
Transport	67.5	65.03
Industry	10.0	9.63
Residential	9.8	9.44
Power	8.3	8.00
Commercial	6.7	6.45
Agriculture	1.5	1.45
Total	**103.8**	**100.00**

Source: DOE

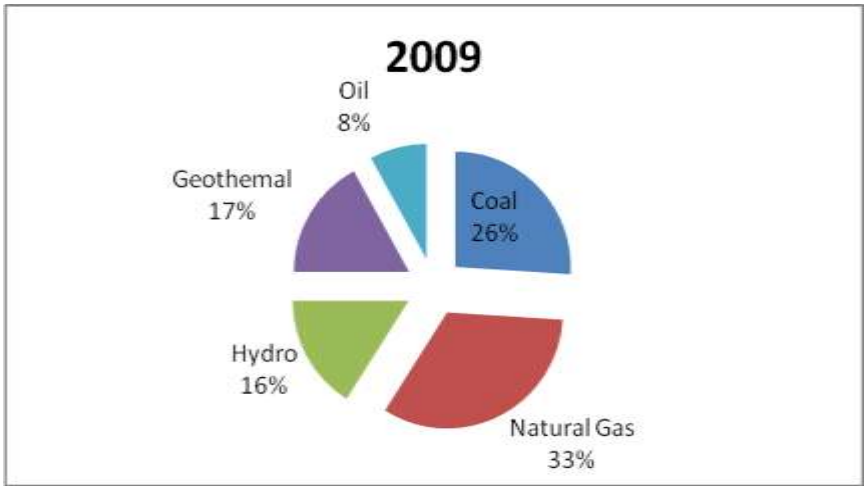
The target reduction of imported oil dependence in the transport industry depends on the acceptability of using alternative fuels.[1]

With the proposed extension of the natural gas pipeline from Batangas to Manila (BatMan 1 and 2 projects), the Natural Gas Vehicle Program for Public Transport (NGVPPT) will pave the way for more reduction in imported oil requirement in the transport industry.

BatMan 1 and 2 is considered a huge capital intensive project while the NGVPPT, aside from the huge capital requirement, is a multi-sectoral collaboration; the DOE should encourage active private participation and should lead to the formulation of an effective PPP scheme in the sector.

The demand for petroleum and related products in the power sector was low, around 8% of energy used in the power sector in 2009, mainly owing to the global recession and an associated decline in world trade, which led to lower demand for generated power. The main energy sources of power generation were natural gas and coal which constituted 33% and 26% of energy used in the power sector in 2009. The demand for oil in the power sector is likely to remain weaker compared to other sources of energy, such as coal and natural gas. The continuous increase in the international price of crude oil will put an additional downward trend on the demand for oil.

[1] Alternative fuels are substantially non-petroleum, which is consumed to provide energy to power an engine and yield energy security and environmental benefits: Natural gas (compressed or liquid), mixtures containing _% or more by volume of alcohol fuel including ethanol and methanol, biodiesel (coco-biodiesel or coco-methyl ester), electricity (electric vehicle, hybrid vehicle), hydrogen, coal-derived liquid fuels, and fuels derived from biological materials.



Source: DOE

Figure 11.1-2 Fuel Diversification in Power

Although coal-fired power plants continue to attract criticisms from environmental groups, the government is favoring the use of coal. Several new coal-fired plants are expected to become operational in the period of 2010 to 2020, and the government will have to use more domestic coal if it is to achieve its target of reducing the country's dependence on imports.

Owing to an expansion of coal production at the Semirara Mines[2] in the Visayas and new mines in Mindanao, the Philippines will reduce the volume of coal that it imports even as it makes greater use of the fuel to generate electricity.

Positive trends in the development of local energy sources indicate the diminishing need for importation of oil and coal as seen during the period from 2009 to 2010 and it is very possible that the 60% energy self-sufficiency may be attained soon. Government efforts must be focused on encouraging private initiative and the creation of a win-win industrial environment for the government, the private sector, and the public in general.

(2) Private Sector's Intervention in the Industry

Power Industry

The onset of the power crisis in the early 1990's paved the way for the massive entry of independent power producers (IPPs). The build-operate-transfer (BOT) scheme was mostly resorted to by the implementing agencies to overcome the power crisis. IPPs had two options of selling electricity. One is to sell electricity to distribution utility companies (DU) or sell electricity to NPC based on a power purchase agreement (PPA). The latter is known as the "take or pay" in which NPC is required to buy the minimum capacity of electric supply.

[2] Semirara Mines is a surface open cut mining of thermal coal from its Panian mine on Semirara Island, in the Antique Province. It covers an area of 55 square kilometers and is located 350 km south of Manila.

The RA 9136 or the Electric Power Industry Reform Act (EPIRA) was enacted in 2001 in order to restructure the power industry including the privatization of the National Power Corporation (NPC) and the National Transmission Corporation (TransCo). The Power Sector Assets and Liability Management (PSALM) is responsible for taking ownership of all existing generation assets, liabilities, real estate assets and all other disposal assets of the NPC. PSALM shall privatize and dispose these assets with the objective of liquidating all NPC financial obligations. EPIRA mandated the privatization of TransCo through an outright sale or management of concession contract.

In the course of power sector reform based on EPIRA, the Philippine Wholesale Electricity Spot Market (WESM) administered by the Philippine Electricity Market Corporation was established. The emergence of WESM where their members (distributors, generation companies, IPP administrator, bulk consumers) sell or purchase generated electricity at market price will make the industry more competitive with the emergence of many market players.

Natural Gas Industry

The intervention of the private sector into natural gas supply projects is absolutely required because of the large scale of the projects in terms of technology and capital. The Philippine National Oil Corporation (PNOC) is a holding company (GOCC) under which the PNOC-EC executes oil/gas exploration projects based on contracts in favor of the government. Government and private entities usually utilize the Joint Venture (JV) model scheme. The PNOC-EC bids out an area identified with mining potential for exploration and select a winner offering the best financial, technical, manpower and equipment proposal. For example, in the case of the Malampaya Deep Water Gas-to-Power Project, Chevron Malampaya LLC and the PNOC-EC entered into a contract for natural gas exploration, and Chevron has a 45% stake while the PNOC-EC retained a 10% stake.

The pattern of energy use in the country is likely to shift from conventionally oil-dominated consumption to energy diversification using coal and natural gas. The proposed extension of the natural gas pipeline from Batangas to Manila and re-gas plants for imported liquidized gas will be the principal energy development project for economic growth in the country. Main consumers of natural gas are the transport sector and power industry. The private sector's participation in the combined project of gas pipeline with LNG centers (re-gas plant) will be absolutely necessary but the huge capital cost appears to lower project profitability causing the discouragement of the private sector's participation in the project.

11.2 Evolution of PPP in the Sector

(1) BOT (Existing IPPs)

The first BOT agreement for an IPP was made in 1988 and since then 68 BOT contracts were entered into by the Philippine government. Out of the 68 BOT contracts, 22 were signed during the power crisis from 1991 to 1993. Nevertheless, Executive Order 215 allowed Distribution Utilities (DU) and large power users to own power generating plants. Furthermore, the NPC continued contracting with new IPPs, although the World Bank gave the government a warning message that an oversupply of electricity might be coming. The credibility of the IPP-BOT setup was then eroded due to an oversupply of electricity.

The Inter-Agency Commission (IAC) was created during the promulgation of EPIRA (2001) to check IPP contracts made then. IAC investigated 35 IPP contacts based on the BOT scheme and renegotiated with 20 IPPs whose contracts were judged to be defective. Since the NPC was requested to purchase fixed or minimum electricity supply from IPPs, the renegotiation was successful to curtail part of an oversupply of electricity, resulting in savings of up to US$2.95 billion, equivalent to US$0.098/kWh. The IPPs whose contracts were judged to be defective finally agreed to limit their capacity claim in the "take or pay" scheme of their contracts.

The emergence of WESM made the IPP-BOT an outdated scheme since many generation companies (direct WESM members) directly sell electricity to purchasers (distribution companies, bulk consumers and wholesale agents). The "take or pay" scheme is no longer sustainable since PSALM needs to sell the NPC's generation assets in order to settle the debts of the state-owned power firm (NPC).

(2) Concession Agreement

The EPIRA mandated the privatization of the National Transmission Corporation (Transco) through outright sale or management concession contract. Transco is mandated to monitor the concessionaires' compliance with the terms and conditions of the concession agreement for operation and maintenance of transmission lines. The National Grid Corporation of the Philippines was given a franchise for operation in November 2008 and won the competitive bidding and started with the O&M works in January 2009.

Transco's nationwide network consists of 20,236 circuit kilometers (combined length of transmission and sub-transmission lines) and their capacity was reported to be 24,607 mega-volt amperes.

(3) Preference to JV Agreements rather than BOT

The PNOC, being a GOCC, is mandated to generate income from its business dealings. It is using the JV modal scheme in its project development and implementation. Technical capability and the sound financial status of PNOC made it capable to function effectively on its own.

The BOT modal scheme is primarily implemented due to lack of government funds to construct infrastructure and development projects necessary for economic growth and development. The BOT scheme taps the private sector to finance these projects. By way of incentives, the BOT scheme encourages the private sector to provide financial assistance to keep the government from spending its scarce resources.

In the case of PNOC, a BOT scheme may not be preferred as the GOCC, as a profit-making body, will start earning project revenue after the contract finishes.

(4) Pro-Poor Initiative

With the onset of Renewable Energy (RE) rural electrification initiatives, the DOE made a service contract with AMORE Winrock (Winrock International as a non-profit entity that works with people in the US and around the world) in order to implement the rural electrification project called "Alliance for Mindanao Off-Grid Renewable Energy". The DOE provided grant fund to the implementer that operates the project located in Mindanao Island. Winrock International, financed by USAID, has been assisting the implementer in the operation and maintenance of the project.

From the private-side point of view, the following are some salient points contributing to the difficulty in implementing the project.

a) Challenge of financing: Banks are less likely to provide loan to the project due to lack of loan qualification of the beneficiaries. Although a micro-finance would be a possible source of fund because no guarantee is required, the beneficiary is not capable of settling such a loan and repaying the balance.

b) The rural electrification in the off-grid system is not profitable at all so it hardly entices the private sector to participate in such a non-profitable project.

At the moment, the pro-poor approach to PPP rural electrification projects is not financially viable. Perhaps on-grid projects using renewable energy may be candidates for PPP projects if the project is managed under FIT (Feed-In-Tariff) law.

11.3 Natural Gas Industry Development

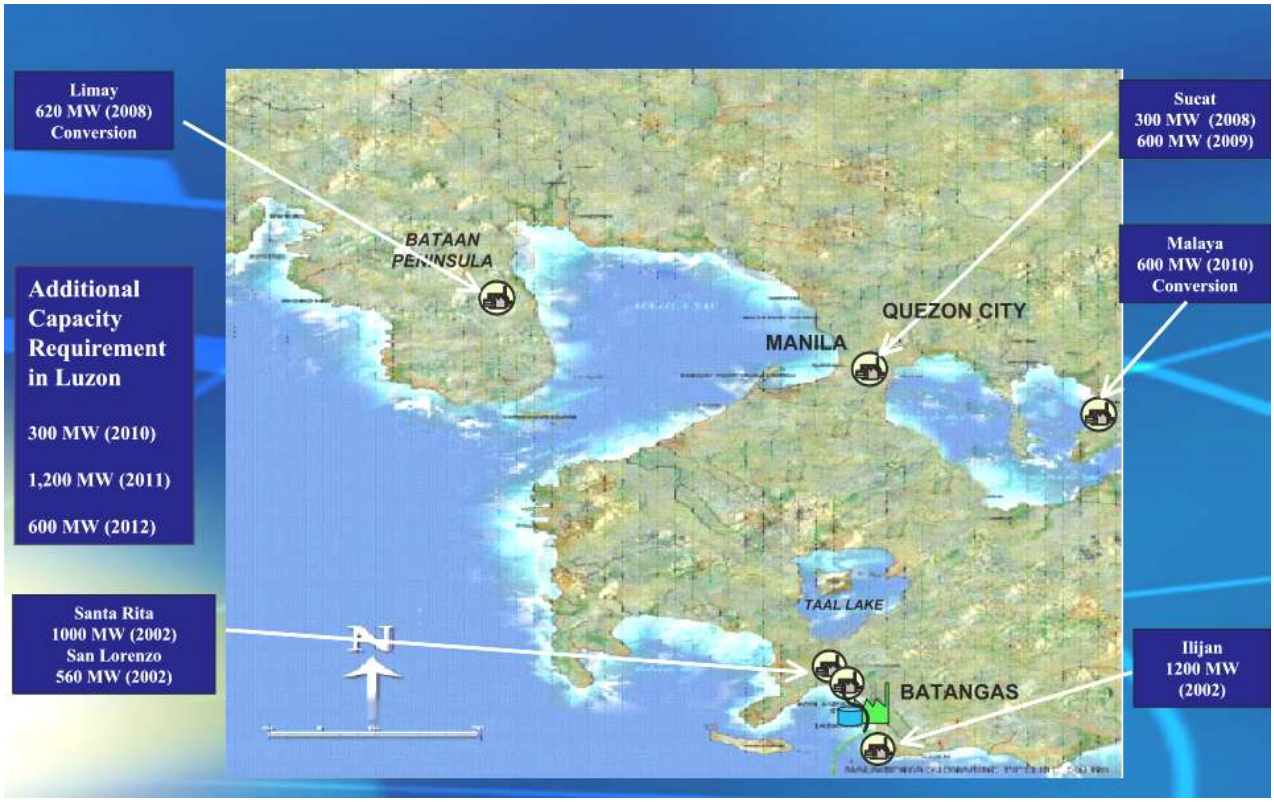
(1) Government Initiatives

There are existing laws and policies which enable natural gas to be extensively used for the country's economic development. Executive Order No.66 designated the DOE as the leading agency in the development of the Philippine natural gas industry. The Natural Gas Vehicle Program for Public Transport encourages the transport sector to use natural gas. The Board of Investment under the Ministry of Trade and Industry gives investors numerous incentives, such as, i) tax holidays for new projects (4-6 years), ii) duty free importation of capital equipment, iii) additional tax reduction for necessary infrastructure projects, and iv) employment of foreigners.

(2) Potential Market

Power Generation

The gas-fired power plants started with three power plants: i) San Lorenzo Power Plant (560 MW, operating since 2002), Sta.Rita Power Plant (1,000MW, operating since 2002) and Ilijan Power Plant (1,200MW, operating since 2002) in Batangas. These power plants use natural gas supplied from the onshore gas plant (operating 2001) where gas transported through an undersea pipeline from Malampaya is processed. These gas-fired power plants further filled the new capacity requirements by 2008 including the conversion of the 900-MW Sucat (Manila), 600-MW Malaya (Quezon City) and 600-MW Limay (Bataan Peninsula) power plants. Natural gas shares the largest or 33% of fuel consumed by power plants in 2009, as shown in Figure 11.1-2. The planned natural gas pipeline projects from Batangas to Manila (BatMan 1) and from Bataan to Manila (BatMan 2) are expected to augment power generation for base loads in the Metropolitan Manila area. The location of gas-fired power plants is shown in Figure 11.3.1.



Source: DOE

Figure 11.3-1 Location of Gas-Fired Power Plants

Industrial and Residential Demand

There are over 20 industrial parks located along the Batangas-Manila corridor. Bulk consumers using small gas-turbine engines could be potential users of natural gas. Gas as clean energy will be increasingly utilized for heating/cooling and cooking in commercial and residential areas. Gas may potentially replace LPG as cooking fuel.

Transport

The DOTC has been promoting the Natural Gas Vehicle Program for Public Transport. It already provided nearly 1,300 public transport vehicles in the Metropolitan Manila area by 2003. The same program was also extended to the neighboring cities to further promote clean gas-fired vehicles.

(3) Supply of Natural Gas

Domestic Resource

The Philippine Malampaya gas field is reported to have a reserve estimate of 2.5 to 4.5 TCF and is expected to last until 2022. The existing three power plants (San Lorenzo, Sta.Rita and Ilijan) located onshore of Batangas are supplied from the Malampaya gas field through the onshore gas plant. This gas plant is reported to have additional supply capacity of nearly 500 MW in terms of power generation. Although a DOE paper (The Philippine Natural Gas Industry) says that the country has

about 25 TCF of natural gas in undiscovered resources in 16 petroleum basins, this could require tremendous investment cost. Eventually, the DOE has to consider imported natural gas for potential gas market.

Imported Natural Gas

There are two importation options. One is liquefied natural gas (LNG) transported from Brunei, Indonesia and Malaysia. The other is natural gas through pipeline interconnection with the Trans-ASEAN Gas Pipeline. The first option needs LNG vessels and permanently-moored floating storage re-gasification units that re-gas liquefied natural gas. The feasibility study of the Trans-ASEAN Gas Pipeline was studied by the ASEAN Energy Management and Training Center and the European Union. The Philippine government reviewed the Study and plans the construction of an interconnection pipeline from Palawan Island to East Natuna-Sabah (Malaysia). Nevertheless the planned interconnection pipeline appears to be ambitious, having a length of 1,540 kilometers with a diameter of 42 inches. In short, the short-term plan of imported gas could be the first option which will require the construction of energy terminals or floating storage that re-gas liquefied natural gas transported by LNG vessels.

(4) Gas Pipeline Projects

In order to cope with a growing demand for natural gas in the Metropolitan Manila area, the DOE has an extensive plan composed of the following gas pipeline projects:

a) From Batangas to Manila with a length of 80-100 kilometers (BatMan 1)

b) From Bataan to Manila with a length of 130-150 kilometers (BatMan 2)

c) From Bataan to Cavite with a length of 40 kilometers (Bat Cave)

d) LNG terminals in Bataan and Batangas

e) Conversion of thermal power plants to gas-fired power plants

The DOE's plan appears to be dynamic, needing huge capital investment. The government has never implemented such an extensive gas pipeline project on the ground so far. The PNOC will be responsible for the gas pipeline projects as the implementing agency. Nevertheless, it is just a holding GOCC without project implementation experience. The following issues are to be taken into account for implementation of gas pipeline projects:

a) **Demarcation of concession**

A gas supply concession would be determined based on the routes of the planned gas pipeline. For instance, a concessionaire of BatMan 1 re-gases imported liquefied gas at the LNG terminal in Batangas and sells gas through the pipeline to consumers such as the existing Sucat and Malaya power generation plants and a number of economic zones such as the Laguna Techno Park.

b) **Project contractual arrangement**

At present, the PNOC does not have a franchise company specializing in gas pipeline projects so the prevailing JV is not applicable to the gas pipeline projects. The gas pipeline project including LNG

terminals could be entirely built by the private sector having their own funds, technology and risk management knowhow. The appropriate contractual arrangement would be the Built-Operate-Transfer scheme under which a Special Purpose Company is to be established. The PNOC may be a contracting agency. The private investor to an SPC will definitely be an experienced foreign company. In this regard, unsolicited proposal applied to the JV scheme will not be appropriate so PPP project processing based on solicited proposals could be pursued.

c) **Tariff**

The end-user price of gas is linked to the price of alternative fuels substituted by natural gas. The rationale is that consumers should not pay more for gas than for alternative fuels. For instance, the end-users (gas-fired power plants such as Sucat and Malaya converted from the oil-fired ones) expect that the price of gas is cheaper than that of oil. End-users are offered a discount in relation to replacement cost as compensation for conversion cost and as an incentive to attract customers.

The problem is that the gas price is sensitive to the replacement cost in Manila and thus, on the fluctuations in the world market price. When the world oil price starts to go on the downward trend, the end-user price of gas should also be on the same path. A gas supplier would then face the risk that costs will not be recovered by revenue. Total cost of gas supply service consists of i) cost of purchase, ii) transportation, iii) operation and maintenance, iv) depreciation, v) tax, and vi) allowed return. If the sales price is lower than the break-even price at investor's expected rate of return, lasts for a long time, the project's viability would not be sustained. One major issue is the extent of the guarantee that the government can offer to a concessionaire once revenue risk caused by the lower price occurs.

d) **Financing structure**

The gas pipeline project including an LNG terminal would cost hundreds of millions of US Dollars. The financing sources of the gas pipeline project are as follows: i) equity from sponsors, ii) cash flow from operation, iii) loan from sponsors, iv) sponsors and government bonds, v) commercial loans from banks, and vi) loans from government financial institutions, and bilateral investment facility through government financial institutions. Suppose an equity-debt ratio is 20/80, the debt finance portion is preferably a loan with concessional interest. Otherwise, the Weighted Average Cost of Capital (WACC) for the project: 80% debt at the average interest rate + 20% equity with a required return on equity, tends to be high. It would result in a higher hurdle internal rate of return (IRR).

If a sponsor is a large company able to extend a sizable amount of concessional loan to a project company, the WACC could be kept low. Nevertheless, such a loan would not be expected in gas pipeline projects in developing countries. There could be a need for long-term concessional loans from foreign donors (i.e., funds from private development windows of bilateral donors or multilateral international organizations - ADB, WB) in order to reduce financial cost.

e) **Risk management**

Right-of-Way (ROW)

A compressed gas pipeline will proceed from the compressor station inside the LNG center to end-consumers in Manila. The alignment of the compressed gas pipeline will proceed primarily along national roads and maybe cross under the existing expressways and the railroad. The least cost route

penetrating into the residential and commercial areas should not be selected to avoid a time-consuming adjustment for route selection. In short, the ROW for the gas pipeline installation appears to be physically easier than that for road construction usually needing relocation and resettlement of affected residents.

The public sector is primarily responsible for the ROW acquisition. The PNOC will be the agency responsible for the ROW for the gas pipeline installation but it has no previous experience on pipeline projects on the ground. PNOC currently has franchise companies in the fields of exploration, alternative fuels, shipping and transportation, management, and renewable energy. The PNOC Alternative Fuels Corporation may be the right organization for the gas pipeline business, including the ROW.

The ROW cost for the gas pipeline installation is comprised of the purchase cost of land along pipeline route. The PPP Center announced that advanced expenditure on ROW by a concessionaire would be spelled out in the project contract. The government then repays the advanced expenditure on the ROW to a concessionaire by ensuring that the IA (the PNOC) will have the budget allocation for the ROW. This is considered as the most appropriate method to avoid the delays in construction.

An alarming social issue in ROW acquisition is the trend wherein business opportunists anticipate the ROW project and pre-emptively buy land where the ROW will pass thereby causing land price to increase. In this regard, the government should ban speculative land purchasing. Otherwise, the government will be forced to purchase the land at a higher price.

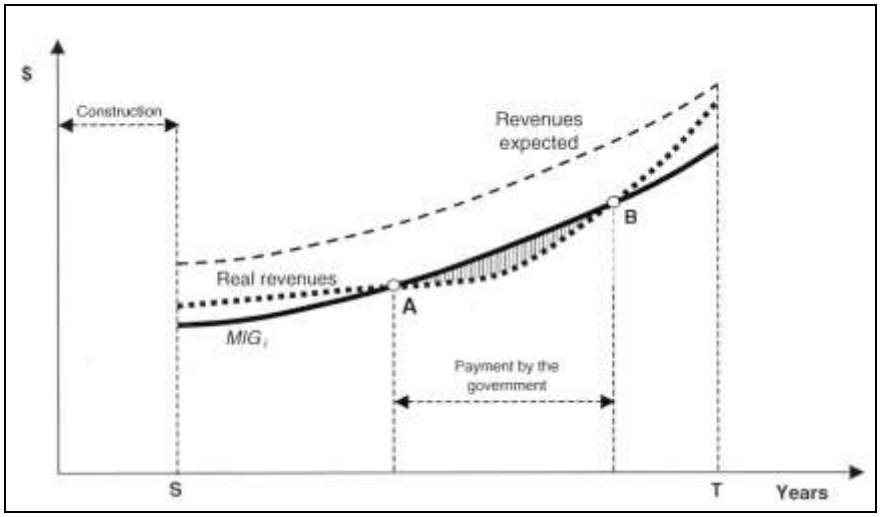
Demand Risk Sharing

The selling price of gas to end-users is linked to the price of alternative fuels substituted by natural gas. A big consumer (i.e. industrial/power generation) receives a gas price discount to compensate for the required storage facilities provided the worldwide oil prices are reduced. The net revenue earned by a concessionaire (a pipeline company) will be reduced due to a decrease in gas price and an increase in transportation cost caused by demand reduction.

A revenue risk guarantee is often discussed in order to entice the private sector to participate in PPP projects. Both the government and a concessionaire may add a pre-agreed parametric formula for the government guarantee for revenue risk in a project contract.

Demand Risk Sharing: Minimum Income Guarantee (MIG)

Revenue generating projects mainly depend on both the evolution of the economy and the potential competition of parallel facilities; in case of natural gas, alternative fuels. The government thus regards minimum income guarantee (MIG) not only as a way of cushioning economic fluctuations but also as a way of protecting a concessionaire from the effects of potential competitors on revenue generation of the concession. Suppose the government defines MIG as 80% of the investment and O&M costs at present value, the annual MIG line during the concession contract period can be estimated based on the discount rate and growth of gas demand. The reason why 80% of the project investment is chosen is that the portion of debt finance in the equity-debt ratio is assumed to be 80%.



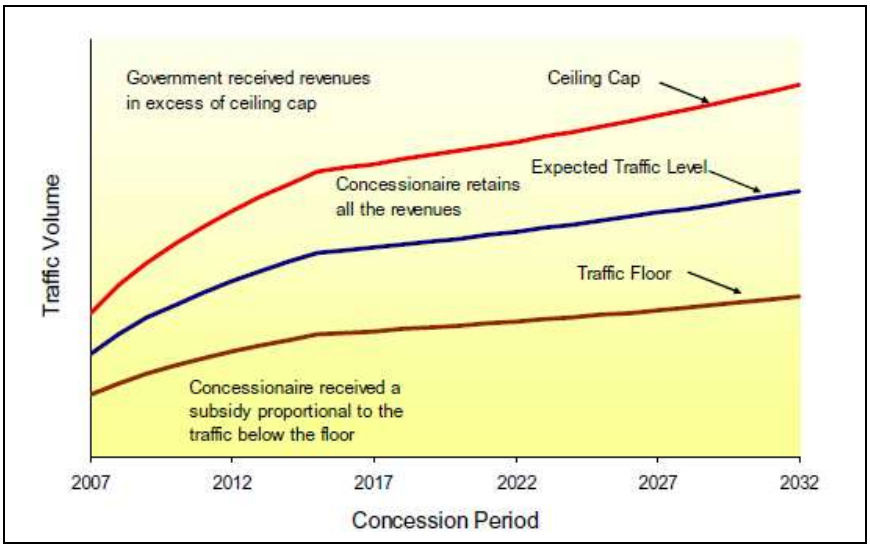
Source: Minimum income guarantee in transportation infrastructure (Chile)

Figure 11.3-2 Minimum Income Guarantee Line

As shown in Figure 11.3-2, the government has to pay to a concessionaire in the period between A and B. The concessionaire should share with the government part of the extra revenues obtained, in case the concessionaire gains more income than the forecast revenues.

Demand Risk Sharing: Cap and floor

A cap and floor is another model for demand risk sharing. Figure 11.3-3 shows the ceiling cap and floor for toll road projects.



Source: Valuing Government Guarantees in Toll Road Projects

Figure 11.3-3 Floor and Ceiling Guarantee Model

Above the ceiling cap, the government receives the excess revenues while the concessionaire

receives subsidy proportional to the traffic volume below the traffic floor.

Whichever model (MIG, Cap and Floor) is to be adopted, the government is constrained by limited fiscal resources. The government fears that the implementation of two models can possibly bear risks that will turn out to be too large in the future. That fear is more than reasonable since the demand growth of natural gas and GDP growth are strongly interconnected with each other. Contingent liabilities can be defined as the level of government exposure stemming from a contractual clause (a guarantee, insurance) that entails commitments by the government. In the Philippines, the Department of Budget is preparing budgetary provisions necessary for coverage of expected future payments.

f) Applicability of hybrid system-based financing options

The gas supply project is largely divided into an LNG terminal with compressed natural gas refueling station and a gas pipeline. The former will be financed by investors' equity and commercial loans. The primary concern would be how to finance the huge investment cost for a gas pipeline with a very long length (nearly 100 km for BatMan 1). In this respect, hybrid system-based financing options need to be taken into account. As introduced in Chapter 5, ODA channeling through GFIs or PIPFF would be used to finance the lower civil works (gas pipeline) while commercial loans or PSIF channeling through PIFF can be used to finance the upper facility (LNG terminal). GFIs providing short-term loans with a 10-year maturity period would make an SPC bear the high financial costs so the PIPFF providing the long-term financing terms will definitely be the more appropriate financing option. Therefore, PIPFF needs to be urgently studied and established.

Part III.
Recommendations

CHAPTER 12 ESTABLISHMENT OF PPP FINANCIAL INSTITUTIONS TO BE RECOMMENDED

There are two critical financial issues surrounding current PPP Framework. One is that government subsidy is set at ad hoc basis, which often leads to its overpayment and therefore it should be well managed to sustain the Fund itself as well as to enhance financial viability of the project to invite private participants. The other is the unavailability of long-term loan with low interest rate. Although there is enough liquidity in the market but the borrowing cost from the market are kept still high reflecting the risk contained in the project. Maturity period is rather limited in the market for the same reasons. To tackle the above two issues, we propose to establish two public financial facilities of which features are described in the following.

(1) Viability Gap Fund (VGF)

1) VGF is an unprogrammed amount appropriated annually to provide incremental support to PPP projects of line agencies, local governments and GOCC's.
2) VGF provides subsidy for construction cost other than land acquisition. However, if it is not possible under current Philippine conditions to exclude right of way cost from the VGF, then government needs to identify separately the amount allocated for ROW. The maximum amount of the subsidy to be granted from VGF should be decided – 30% of the project cost is desirable but if ROW is included, this may go up to 50% as stipulated in BOT Law.
3) Management of the VGF may alternatively be: (a) by an inter-agency committee, with representation from NEDA, DoF, PPP Center and DBM, or (b) lodged in a particular agency, e.g., NEDA or DoF.
4) The sources of VGF would be from GOP and donors in the form of grant and/or concessional loan.
5) Contracts for PPP projects would be awarded on the basis of the lowest VGF.
6) Total needed fund amount of VGF per year could be calculated as US 400 million, assuming to provide subsidy with 20% of project cost for ten infrastructure projects of which average project cost is US 200 million.

USD 200 million x 20% x 10 projects =USD 400 million (=JPY 30 billion)

(2) Philippines Infrastructure Public Financial Facility (PIPFF)

1) The purpose of the PIPFF is to provide long-term, fixed-cost affordable financing that will help bring down the debt service burden of the project and reduce the need for government VGF and/or increase the number of important infrastructure projects for Philippine development.
2) It will preferably be lodged in an existing public financial institution to be identified to provide long-term and concessional loan. It can either be structured “on-book” of the financial institution or off-book, as a trust fund (with the national government as

trustor).

3) Funding to PPP projects would be provided as co-financing with primarily local private funders on a 50:50 basis, with the latter doing the due diligence and credit evaluation. Selection criteria, approval guidelines and lending terms will be agreed upon among the Philippine government, concerned institution/s, and development partners
4) On-lending terms may include such features that lower the financing burden such as—preferential fixed long term rates, early maturities being taken by local financiers while PIPFF will take later maturities.
5) PIPFF will provide a flexible, quick disbursing component in traditional Yen ODA package which normally requires longer processing time) that can provide staple long term financing to support PPP projects more swiftly, and within full control of Philippine authorities under the agreed lending guidelines of the program.
6) Total needed amount of PIPFF per year could be calculated eighty (80) % of the original project cost, which is the remaining balance after deduction of subsidy through VGF, is to be divided into 7 to 3 as Debt/Equity ratio. Then, the debt is to be equally co-financed by private banks and public financial institutions, which would make the PIPFF loan 28% of the project cost as below.

   (100% - 20%) x 70% x 1/2 = 28(%)

   And if PIPFF could finance 10 projects with its average project cost is US$ 200 mil, annual needed fund would be US$560 million as below calculation.

   US$ 200 million x 10 projects x 28% = US$ 560 million (=JPY42 billion)

(3) Policy Issues to be Decided by GoP in Advance

In order to establish the two above mentioned institutions, VGF and PIPFF, and also for the two to function efficiently, GoP needs to elaborate and then define policies on the following;

1) Adoption by NEDA Cabinet level of PPP policies that encourage line agencies and private investors to undertake PPP projects, particularly in cases where the projects have revenue streams, and partial cost recovery potentials.

2) Adoption of clearer guidelines to identify PPP projects. An example of this (see Figure 5.3-1), proposed by the DPWH Secretary, simply classifies projects based on their economic and financial rates of returns (EIRR, FIRR).

3) Adoption of clear government policy at the highest level, i.e., NEDA Cabinet, on appropriate tariff levels at the sector level, and tariff formula for individual projects prior to such projects being bidded out.

4) Identification of land acquisition (ROW) cost, which ideally should be made by government out of its own budget.

5) Adoption of a short list of major strategically important PPP projects, say no more than 10, at NEDA Cabinet level, that will be provided priority attention of the

national government in terms of provision of government support, speed and focus in implementation for the remainder of the administration's term (i.e,. up to 2016).

(4) Expected JICA's contribution for the Two Institutions

In line with the policy of Japanese government, JICA is ready to support PPP infrastructure projects by extending ODA loan and PSIF as described below.

1) <u>ODA Yen Loan</u>

- In addition to direct lending to a project, JICA could provide ODA loan to public institutions like VGF (an account of government itself) and PIPFF (a public financial entity). For PIPFF, ODA loan could be extended through GOP or directly with the guaranty of GOP.

- Terms of the ODA loan (2011) was annual interest rate of 1.4% with maturity period of 30 years with 10 years grace period, which would be enough concessional in comparison with expected lending condition of PIPFF. ODA loan to VGF is deemed to be simply budget support to which GOP is responsible for the repayment.

2) <u>PSIF</u>

- Private Sector Investment and Finance is a renewed financial facility which would invest and/or lend to private companies and private projects in developing countries. PSIF could finance to the financial facilities to promote development as well. Eventually PSIF's finance to VGF and PIPFF is not appropriate due to that its finance cost is higher than ODA loan, instead PSIF could do to PIFF as well as private projects and PPP project.

- Terms and conditions of PSIF finance would be similar with them of IFC and Private Sector Operations Department of ADB, which would be decided in considering the nature and features of the projects. The most concessional terms would be less than ODA loan. PSIF could participate in the equity of the projects with expectation of certain dividend.

(5) Merits of Establishment of VGF and PIPFF

1) The VGF framework described above provides a more deliberate and systematic process in allocating resources than current ad hoc practice driven by agency budget requests. By having a lump sum, it also provides greater flexibility and efficiency in use of budget resources by allowing allocation and reallocation depending on which projects are most ready.

2) Such a framework can help attract additional resources from development partners, especially bilateral funding sources, and help address envisioned long-term constraint for infrastructure financing. Creating a lump sum VGF pool funded by ODA support, can sway bilateral official funders to a quick disbursing mode of assistance, diversifying from traditional project linked ODA with lengthy processing time.

3) Both the VGF and PIPFF facilities will help bring down the user charges for PPP projects, and improve their economic and commercial viability, and public acceptance, esp. large

strategically important ones.

4) For the PIPFF, use of the GFI's borrowing authority/ties to provide off-budget support in the form of long-term loans will help relieve national government budget constraints as this reduces the required VGF. Moreover, through co-financing with the private sector, the PIPFF attracts additional resources, risk sharing and quality assurance, and thus high confidence of financial viability and full recovery.

(6) Proposed TA for establishment of VGF and PIPFF

To accelerate PPP and also to keep sustainability of PPP system in the Philippines, the establishment of the two public financial institutions would be highly recommended. However, these would not be newly established, would be lodged in existing GFIs. To materialize the proposal of the establishment of the two institutions, it would be appropriate to provide technical assistance to undertake basic study to cover mainly;

1) The government position/policy on particularly, budget balance, debt situation foreign exchange and guarantee.
2) Market situation on particularly market liquidity condition, banks' prudential situation and banks' capability to make due diligence of PPP projects.
3) Preparing long list of the priority projects (clarification of project cost and financial cost)
4) Study of funding sources for both facilities
5) Preparing of "Concept Paper" of both facilities

CHAPTER 13 PROPOSED TECHNICAL ASSISTANCE FOR INSTITUTIONAL AND CAPACITY BUILDING

13.1 Current PPP Activities and Issues

Most countries initially lack the institutions and institutional capacity required to organize, manage, and implement a PPP project. The country of the Philippines under currently acceleration of PPP definitely needs capacity development of the public sector's officials in the area of PPP project preparation. The key institutional agencies and programs to support PPP projects are:

- PPP Center,
- PPP units inside IAs
- Capacity building for PPP Center and IAs

(1) PPP Center

The PPP Center was established in 2010 as the point of coordination, quality control, accountability, and information across a range of sectors. The PPP Center is interpreted as the organ to control and facilitate PPP projects formulation in line with the PPP project processing. The PPP process starts from project preparation to contract award and implementation. The PPP Center has a wide area of duties namely;

a) Advisory services to IAs with respect to PPP feasibility study at the project preparation stage,
b) Capacity building of staff members of IAs with respect to a),
c) Assist IAs in complying with the requirements during the project and contract evaluation,
d) Assist IAs in the preparation of bid documents,
e) Assist IAs in the evaluation of bids, and
f) Project monitoring after contract award & implementation.

The Center currently has about 50 staff members with four (4) departments under the executive director; i) Project Development Service, ii) PDMF Service, iii) Project Formulation and Evaluation Service, and iv) Capacity Building and Knowledge Management Service. The Project Development Service evaluates a number of candidate PPP projects at the project preparation stage. The PDMF Service selects the projects to be funded by PDMF at the project preparation stage. The Project Formulation and Evaluation Service conducts the development of model contracts and bid documents for LGU PPP projects, participates in amendments to the BOT Law and its IRR, and prepares the PDMF guideline. The Capacity Development and Knowledge Management Service conducts training workshops for LGUs and IAs and prepares various PPP-related manuals and brochures.
The issues on the current performance of the Center are summarized as follows:

Advisory Services to IAs
There appears to be almost no advisory services to IAs about PPP project feasibility studies. Such advisory services include legal, project implementation structure, PPP finance, financial analysis and

risk sharing. The so-called PPP F/S requires comprehensive expertise. At present, most of the officials working for IAs and the Center do not have any relevant expertise in preparing a PPP feasibility study report. The Center has not taken any measures to cope with this issue so far. The short-term employment of professional consultants from outside would be the possible solution to this issue though it would cost the Center too much because of the high salaries of consultants.

PDMF Service

The Center selected ten (10) projects for PDMF application on approval basis in FY 2011. At the end of 2011 fiscal year, a few projects have been approved. The projects for PDMF application are those administered by the Department of Health and the Department of Agriculture. A total amount of PHP 300 million was earmarked for PDMF, but this amount is not large enough to fund feasibility studies of infrastructure development projects. AusAid currently co-finances PDMF to improve the utilization of PDMF, but its contribution is not at a sufficient level to mobilize international resource persons.

Model Contracts and Bid Documents

The Center has so far demonstrated and developed model contracts and bid documents primarily for LGUs. There appears to be limited relationship between the Center and the IAs, particularly the IAs responsible for infrastructure development. Perhaps the Center's capability in this field is still at the development stage and is not acknowledged by the IAs. DOF is engaged in the preparation of model contracts for the NAIA Expressway Project financed by JICA. This can be attributed to the ambiguous division of labor among the government agencies or poor coordination between the DOF and NEDA which is administering the Center.

Capacity Building

The Center's activities in the area of capacity building are in the dissemination of PPP policy, PPP project processing, and tools such as monitoring formats. The Center has established initial coordination with IAs and LGUs through the dissemination of PPP projects information. So far the Center has conducted training workshops/briefings for the Department of Agriculture (DA), the Department of Interior and Local Government (DILG) and the Light Rail Transit Authority (LRTA). Nevertheless these activities are conducted separately due to the lack of a medium-term strategy for strengthening the capacity of IAs and The Center, so that they turn out as ad hoc activities. Activities for capacity building for the 2012 rollout should be strategically planned and implemented.

(2) Implementing Agencies (IAs)

In the course of PPP project processing, concerned departments of planning, bid evaluation and procurement inside IAs are deeply involved in their respective works. At present, IAs except the DPWH, have not organized PPP units to handle project preparation, bid documents preparation and evaluation, and procurement of PPP projects. A PPP unit to be set up inside IAs is supposed to be a special unit across a range of departments, consisting of a number of experts with the different backgrounds in order to manage works in line with PPP project processing. PPP units inside IAs will have to closely coordinate with the PPP Center. Unless PPP units are established inside IAs, it would be difficult to promote PPP projects. In particular, staff members of a PPP unit need to be capable of promoting PPP projects through business case studies and evaluating PPP feasibility studies

conducted by private consultants.

(3) Capacity Development Program

The technical assistance from ADB and CIDA covers six (6) programs out of which strengthening capacity of the PPP Center contains i) training of trainers (TOT) for staff members who will train the government officials working for IAs with respect to standardized PPP documents and appropriate contractual mechanism, ii) preparation of a manual on selection of PPP project preparation consultants, and iii) development of a PPP management information system. This TA is primarily oriented to the department of Capacity Building & Knowledge Management Service.

The PPP Center announced the CY 2012 Thrusts and Priorities as follows:

- Capacitate PPP stakeholders in the PPP project process
- Build and sustain collaborative linkages with institutions and organizations pursuing PPP programs
- Management and utilization of PPP Center resources

The TA from ADB and CIDA basically contributes to the "CY2012 Thrusts and Priorities" of the Center's slogan.

Nevertheless the technical assistance from ADB does not include strengthening of advisory services to IAs with respect to PPP project preparation. Institutional improvement for PPP promotion needs the simultaneous strengthening of the capacity of both the PPP Center and PPP units inside IAs. Unfortunately the only IA having a PPP unit is DPWH at this moment. A PPP unit inside the IA is thus the necessary component for institutional improvement of PPP promotion. As stated before, training programs to IAs should have been conducted based on the NEDA/Center's strategy for PPP promotion. After the Study, the concerned parties should review the Road Map for PPP Acceleration and take a prompt action for the establishment of PPP units inside the major IAs.

13.2 Proposed JICA's Technical Assistance

Bearing current activities and capacity development programs in mind, the Study Team made a final field activity during February 1 to 9 in 2012 in order to make clear approach and scope of works for the coming JICA's technical assistance. The Study Team visited ADB, the PPP Center, DOTC and NEDA, and exchanged viewpoints about the JICA's technical assistance.

(1) Project Module

The proposed JICA's technical assistance for capacity development is comprised of "the module for supports for PPP project preparation and "the module for capacity and network building. The module for supports for project preparation aims to strengthen capacities of staff members of PPP units in the area of the PPP project preparation. What is badly needed is improvement of their knowledge and skills to prepare PPP projects in line with PPP process at the preparation stage. The supports for PPP project preparation will cover:

a) PPP candidate project selection by IAs
b) Business case studies and PPP F/S
c) Preparation of documents to be submitted to NEDA

The module for supports for project preparation will help staff members of PPP units prepare PPP projects by themselves.

The module for capacity and network building primarily assists staff members of PPP units in building capacity of them in the necessary expertise such as PPP finance, financial analysis, risk analysis and so on. The module also aims at network building between the PPP Center and PPP units. This module will cover:

a) Development of sector-specific guideline/manuals for PPP project promotion
b) Review and development of the current PPP project procedure,
c) Strengthening of PPP network between the Centre and IAs
d) PPP trainings for engineering, financial, risk, VFM and market analyses

(2) Outline of JICA's Technical Assistance

The technical assistance for capacity building will take the form of a technical cooperation project in which various capacity development activities will be practiced. The outline of such a technical cooperation is as follows:

a) Targets

Targets are staff members of PPP units inside IAs (i.e. DOTC, DPWH) implementing infrastructure development projects.

b) Duration of technical cooperation

Technical cooperation is expected to start after the Study, from 2012 to 2014. The three years from 2012 to 2014 correspond to different stages; Trials, Review & Learning and Standardization as shown in the Road Map.

c) Sponsor

JICA having experienced a number of technical cooperation for capacity building is clearly the appropriate donor agency conducting such a technical cooperation. JICA now implements a similar technical cooperation in Indonesia.

d) Goal

The goal is for IAs to be able to plan, process and implement PPP Projects, and the PPP Center to assist the IAs in conducting their respective works in line with PPP project processing.

(3) Scope of Works

Supports for Project Preparation

To begin with, there need criteria to distinguish public expenditure projects and PPP ones. Then the supports for project preparation start with i)"development of PPP project selection criteria" for PPP candidate project selection, ii)approach and study items including project modality/scheme decision for business case study and PPP F/S, and iii)preparation of documents for application to NEDA. IAs are entirely responsible for PPP processing at preparation stage so that supports for project preparation is primarily oriented to staff members of PPP units inside IAs. PPP candidate project selection is made by IAs so that they must improve their knowledge for selection criteria. PPP units are also liable for preparation of TOR for business case study and PPP F/S and evaluation of those reports. The TA's supports would focus on strengthening capacity of staff members of PPP units with respect to how to prepare request for proposal (TOR) and how to evaluate both business case study and F/S through model projects. Documents for application to NEDA will be standardized so as to transparent criteria/way to be used for a NEDA approval. The flow of PPP processing with the TA's supports at the project preparation stage is shown in Figure 13.1.

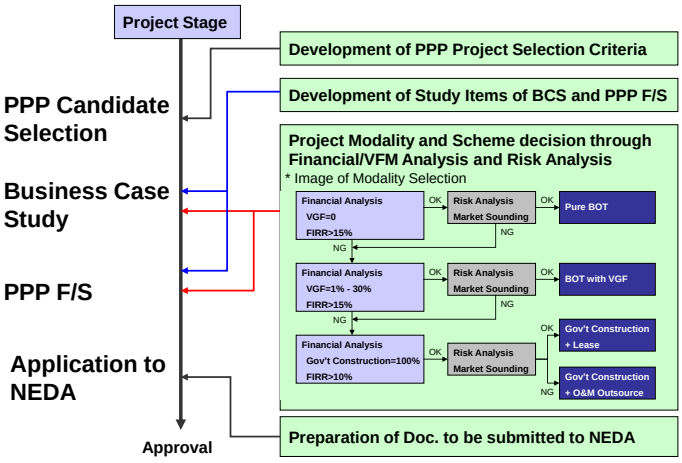


Figure 13.1 Supports for Project Preparation

Both terms of business case study and PPP F/S are quite new so that the two studies should be made clear in terms of purpose and contents. The primal purpose of a business case study is to make clear PPP option (i.e. BOT, BOO, etc) decided by PPP units. The process to determine appropriate modality is illustrated inside a box shown in Figure 13.1, but actual determination of PPP option would be made case by case. The supports for project preparation will assist PPP units in PPP project formulation including PPP modality based on primarily on-the-job training through model projects. The outline of business case study and F/S is shown in Table 13.1.

Table 13.1 Business Case Study and PPP F/S

	Business Case Study (BCS)	PPP F/S
Purpose	Decision-Making on Adoption of PPP Option by IA and LGUs	- Getting Approval by NEDA - Preparatory Works For Bid Documents Preparation
Key Study Items	- Project Outline (Scope of Works of Private Proponent) - Project Modality - Preliminary Demand Forecast - Rough Cost Estimation - Budgetary Constraints - Basic Risk Analysis - Project Schedule	- Finalization of **Business Case** - Full Demand Forecast - Outline Design - **Project Modality/Scheme** - **Detailed Financial Analysis** - **Detailed Risk Analysis** - **Market Sounding** - Implementing Organization and Schedule

*** Underlined items are differences from Ordinal ODA F/S**

Capacity and Network Building

The Figure 13.2 shows necessary skills to be improved. They are i) PPP project selection, ii) engineering analysis, iii) financial analysis, iv) risk analysis, v) VFM analysis, and vi) market sounding. The means of improvement would take the form of guideline/manual, in-house training and on-the-job training. In the course of TA, the module for capacity building needs optimal mix of training methods, given time schedule of model projects and capability of staff members of PPP units.

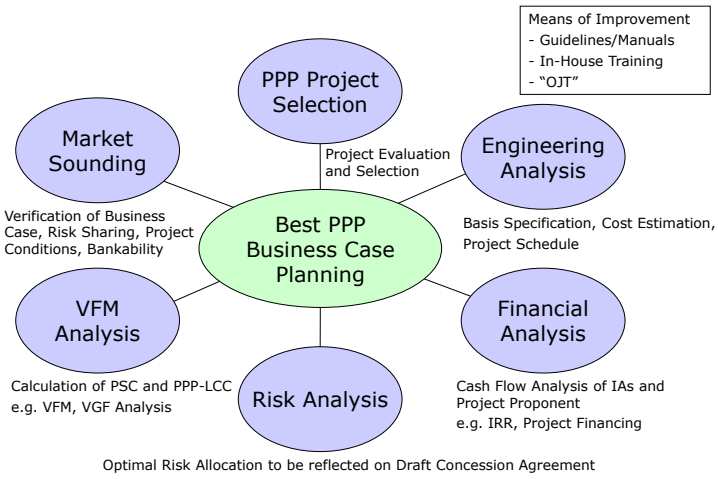


Figure 13.2 Improvement of Necessary Skills

The network building primarily focuses on the linkage between the PPP Center and PPP units in IAs. One PPP unit is comprised of around 10 staff members out of which 7 staff members come from IA. The remaining 3 members are from the PPP Center. Interaction between a PPP unit and the PPP Center would be project-based communication, non project-based communication and personnel exchange. In the course of TA, the JICA technical cooperation staff members are placed in both IAs and the PPP Center so that they can assist two stakeholders in network building. The image of PPP network building is illustrated in Figure 13.3.

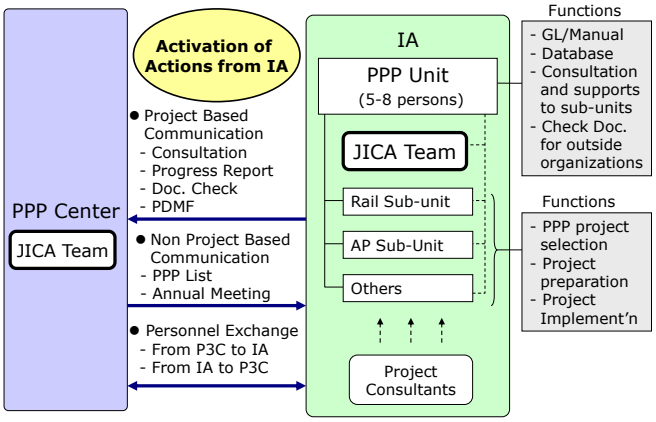


Figure 13.3 PPP Network Building

A P P E N D I X

APPENDIX A: WORKSHOP PROGRAMS

Appendix A-1:

1st Public-Private Partnership Cooperation Workshop Program

1. Date: 15 April, 2011
2. Time: 8:30~13:30 (Registration: 8:00~)
3. Venue: Mahogany Room, Mandarin Oriental Hotel in Makati
4. Program:

Time	Agenda	
8:00-8:30	Registration	
8:30-9:00	**Opening**	Mr. Tada
	Welcome Remark	Mr. Susumu Ito Senior Representative, JICA
	Keynote Speech	Ms. Cosette Canilao Deputy Executive Director PPP Center
9:00-10:30	Session 1: JICA Study Team Presentation & Discussion ***"Government Roles in PPP Framework"***	Moderator: Mr. Bernardo
	1-1 Selection of PPP Projects 1-2 Desirable Financing Schemes for PPP Projects 1-3 Financing Support from Japan 1-4 JICA's Possible Contribution for PPP Framework in the Philippines	Mr. Sunagawa (Mr. Sasaki)
10:30-10:45	Coffee break	
10:45-12:20	Session 2: JICA Study Team Presentation & Discussion ***"Risk Management"***	Moderator: Mr. Bernardo
	2-1 Generally Accepted Methodology	Mr. Yamashita
	2-2 Sector-wise Discussion- Toll Road Sector	Mr. Kiuchi
	2-3 Sector-wise Discussion-Other Sectors (Urban Railway, Airport, Water Supply, Energy)	Messrs Kudo, Fukayama, Tada, and Murakami
12:20-12:30	Closing Remark	Mr. Tada
12:30-13:30	Lunch	

Appendix A-2:

2nd Public-Private Partnership Cooperation Workshop Program

1. Date: 25th August, 2011
2. Time: 9:00-13:00 (Registration: 8:30-)
3. Venue: Crowne Plaza Manila Galleria (Room: Ruby B)
4. Program:

Time	Agenda	Speaker
8:30-9:00	Registration	
9:00-9:20	**Opening**	Mr. Munenori Tada
	Welcome Remark	Mr. Susumu Ito Senior Representative, JICA
	Keynote Speech	Mr. Rolando G. Tungpalan Deputy Director-General, NEDA
9:20-10:50	**Plenary Session:** **Current State of PPP Framework and Its Direction**	Moderator: Mr. Romeo L. Bernardo
	1-1 Current State of PPP Framework	PPP Center (to be nominated)
	1-2 Financial Scheme a) Evolution of Financial Scheme b) Expected Support from JICA	DOF (to be nominated) Mr. Makoto Sunagawa
	1-3 PPP Projects Selection Procedure and Criteria	Mr. Jin Sasaki
	1-4 Road Map of PPP Project Facilitation	
10:50-11:05	Coffee break	
11:05-12:05	**Breakout Session: Sector Discussion ***	

	MRT/LRT	**Toll Road**	**Airport**	**Water**
Theme 1	Demand Risk and Subsidy			
Theme 2	Effective use of profit from land development	Issues regarding Toll Road PPP projects	Is Airport suitable for PPP?	Possibility of PPP projects outside of Metro Manila

12:05-12:15	**Closing Remark**	Mr. Tada
12:15-13:00	Lunch	

Appendix A-3:

Roundtable on Public-Private Partnership Cooperation (3rd Workshop): ~"What to do to accelerate PPP in the Philippines"~

1. Date: 06 December 2011
2. Time: 8:30~13:30 (Registration: 8:00~)
3. Venue: Manila AB Function Room, Makati Shangri-La
4. Program:

Time	Agenda	
8:30-9:00	Registration	
9:00-9:20	**Opening**	Mr. Munenori Tada
	Keynote Speech	Mr. Rolando G. Tungpalan Deputy Director-General, NEDA
9:20-10:30	***Session 1*** **Proposed Financial Scheme (i.e. Hybrid) for PPP Promotion and Expected JICA's Contribution**	Moderator: Mr. Romeo L. Bernardo [speaker] Mr. Makoto Sunagawa
10:30-10:45	Coffee Break	
10:45-11:55	***Session 2*** **Proposed PPP Projects Processing and Implementation**	Moderator: Mr. Romeo L. Bernardo Mr. Makoto Sunagawa [speakers] Mr. Jin Sasaki Mr. Takashi Yajima
11:55-12:00	Closing Remarks	
12:00-13:00	Lunch	

Appendix A-4: Mini-Workshop Text of Risk Analysis

Japan International Cooperation Agency (JICA)

Public-Private Partnership Mini Workshop

Risk Management

April 2011

KRI International Corp.
CTI Engineering International Co.,Ltd.
Mitsubishi Research Institute, Inc.

Public-Private Partnership Mini Workshop

(1) Introduction
(1)-a) Why do we concern "Risk"?

Definition:

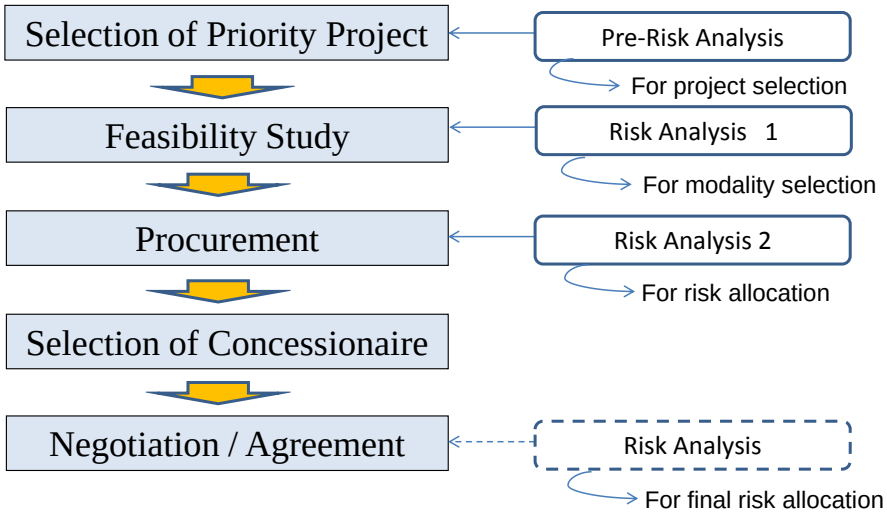
All the event, which might occur during project period such as accidents, demand changes, disasters, and price increase, cannot be predicted at the beginning of project. Once these event become tangible, these might affect an income and expenditure of projects.

"Risk" is the chance of an event occurring which would cause actual project circumstances to differ from those assumed when forecasting project benefit and costs.

Source: Risk Allocation and Contractual Issues, Partnership Victoria.

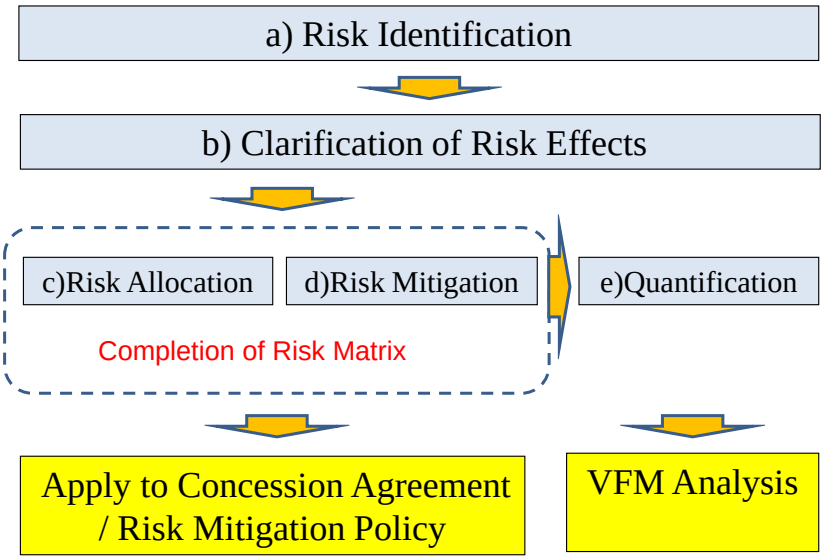
Public-Private Partnership Mini Workshop

(1)-b) When the Risk Analysis would be Conducted in PPP process



Public-Private Partnership Mini Workshop

(2) Methodology
(2)-a) Procedure of "Risk Analysis" (Example)



Public-Private Partnership Mini Workshop

(2)-a) Risk Identification

◆Risk identification is the work to list up all the risks which might occur during a PPP project period.

✓ This work can be done by participants in Risk Workshop coordinated by PPP expert (other participants would be public officers, engineers, financial advisors, lawyers, staff from insurance company etc.)

◆ Brain Storming

✓ In Risk Workshop, the participants can do brain storming on a certain subject.

◆ Statistical Data & Interview

✓ Risk can be identified by using statistical data such as the historical number of accident by types of construction.

✓ Interview to specialist or risk manager who joined similar project before.

Public-Private Partnership Mini Workshop

(2)-a) Risk Identification

Major Risks of PPP Infrastructure Project

i. Demand Risk
- Demand risk is caused by various aspects (eg. In toll road project, demand risk might be realized by the delay of construction of other network roads, which might be caused by delay of land acquisition)

ii. Delay in ROW Delivery
- Usually it takes time to acquire land. In some cases, land owner care about history of the land more than the price.

iii. Delay of Commencement of Servicing
- Delay of construction might be caused by delay of in ROW delivery, delay of financial clause, etc.

iv. Financial Risk
- Delay of financial close is caused by various aspects (eg. delay in ROW delivery, delay of agreement on toll rates, etc.)

v. Political Risk
- Regulation might be changed in future.

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(2)-b) Clarification of Risk Effect

◆ Since it is not efficient to fully analyze all risks identified, only risks which might have high effects could be selected by the following P-I Method for further analysis.

Example of P-I Method

			Impact(Magnitude)		
			Low	Middle	High
			1	4	9
Probability	Low	1	1	4	9
	Middle	2	2	8	18
	High	3	3	12	27

Probability
Low: Very low possibility
Middle: There is a possibility
High: High possibility

Impact (Magnitude)
Low: Impact is small
Middle: Cost increase
High: Very severe cost increase

(2)-c) Risk Allocation

Risk should be allocated to the party who can manage the risk better.

◆Only the risks that private sectors can manage should be transferred to the private sector

◆The judgment should be made based on the following two criteria:

- ✓ Risk Controllability
- ✓ Bankability

◆Too much transfer to private sector makes the project be failed

(2)-c) Risk Allocation

Methods for risk allocation:

- ◆Refer to model / existing concession agreements
- ◆Benchmark other section's or country's experiences
- ◆ Inter-ministerial discussions
- ◆ Market sounding / Public hearing

9

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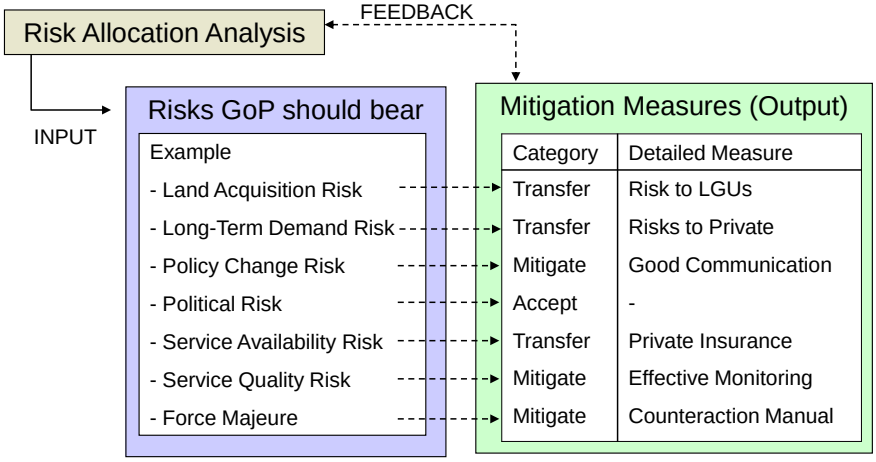
(2)-d) Risk Mitigation

◆ How to find out mitigation measures?

✓ The measures can be classified as "Transfer", "Mitigation", and "Acceptance"

✓ Analysis is made "from the viewpoint of Contracting Agency"



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(2)-e) Quantification

◆ Risk quantification is required to calculate VFM

◆ How to calculate Risk Cost?

> Risk Cost = "Probability of Risk Occurrence" x "Risk Magnitude if it Occurs"

Example:

The probability of delay of construction is 10% and risk magnitude is 50 billion Peso.

10% x 50 billion Peso. = 5 billion Peso = Risk Cost

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(2)-f) Risk Matrix (Tool of Risk Analysis)

◆ The output of (2) a)-d) of Risk Analysis shall be categorized into Risk Matrix.

◆ Risk Matrix is utilized for drafting a concession agreement, formulating risk mitigation policy, and quantifying risks.

Risk Matrix

Risks	Outline of Risks & its Impact	Probability of Risk Occurrence	Risk Magnitude if it Occurs	Risk Mitigation Measures	Risk Allocation	
					Public	Private
Delay in ROW delivery (Example)	Causes a)Delay in financial closure. b)Prolong construction period and completion of construction	High	High	Early start of ROW acquisition soon after the project is approved by NEDA-ICC	●	

Public-Private Partnership Mini Workshop

APPENDIX B: LEGAL ISSUES

Appendix B-1 Comparison Between Current BOT Law and Proposed Amendments

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
1		Short title	(BOT Law)	(BOT Law)	1. Short Title. – This Act shall be known as the "Public-Private Partnership (PPP) Act".	1. Short Title. – This Act shall be known as the "Public-Private Partnership (PPP) Act".	1. Short Title. – This Act shall be known as the "Public-Private Partnership (PPP) Act".
2	1	Declaration of Policy	SEC. 1. Declaration of Policy. - It is the declared policy of the State to recognize the indispensable role of the private sector as the main engine for national growth and development and provide the most appropriate incentives to mobilize private resources for the purpose of financing the construction, operation and maintenance of infrastructure and development projects normally financed and undertaken by the Government. Such incentives, aside from financial incentives as provided by law, shall include providing a climate of minimum government regulations and procedures and specific government undertakings in support of the private sector.	No Change	2. Declaration of Policy. – It is hereby declared the policy of the State to recognize the indispensable role of the private sector as the main engine for national growth and development and create an enabling environment for public-private partnership (PPP) projects, or private-sector investment in public infrastructure for the efficient provision of public services. The State affirms open and competitive bidding as the central tenet of government procurement in securing private investment in public infrastructure and services. The State also recognizes the long-term nature of private investment in infrastructure and services and the need to mitigate the associated risks by ensuring that the validity and enforceability of contracts are respected through the due process of law.	No Change	No Change
3	2(a)	Definition (Private sector infrastructure or development projects)	SEC. 2. Definition of Terms. - The following terms used in this Act shall have the meanings stated below (a) Private sector infrastructure or development projects - The general description of infrastructure or development projects normally financed and operated by the public sector but which will now be wholly or partly implemented by the private sector, including but not limited to, power plants, highways, ports, airports, canals, dams, hydropower projects, water supply, irrigation, telecommunications, railroads and	No Change	No Change	Second Paragraph Provided, finally, That projects which would have difficulty in sourcing funds may be financed partly from direct government appropriations and/or from Official Development Assistance (ODA) of foreign governments or institutions ~~not exceeding fifty percent (50%) of the project cost, and the balance to be provided by the project proponent.~~	g) Infrastructure or Development Projects The general description of Infrastructure or development projects normally financed and operated by the public sector but which will now be wholly or partly implemented by the private sector, includes, but are not limited to, power plants; highways, ports, airports, canals, dams, hydropower projects, water supply, irrigation, telecommunications, railroads and railways, transport systems, land reclamation projects,

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			railways, transport systems, land reclamation projects, industrial estates or townships, housing, government buildings, tourism projects, markets, slaughterhouses, warehouses, solid waste management, information technology networks and database infrastructure, education and health facilities, sewerage, drainage, dredging, and other infrastructure and development projects as may be authorized by the appropriate agency/LGU pursuant to this Act. Such projects shall be undertaken through contractual arrangements as defined hereunder and such other variations as may be approved by the President of the Philippines. "For the construction stage of these infrastructure projects, the project proponent may obtain financing from foreign and/or domestic sources and/or engage the services of a foreign and/or Filipino contractor: Provided, That, in case an infrastructure or a development facility's operation requires a public utility franchise, the facility operator must be a Filipino or if a corporation, it must be duly registered with the Securities and Exchange Commission and owned up to at least sixty percent (60%) by Filipinos: Provided, further, That in the case of foreign contractors, Filipino labor shall be employed or hired in the different phases of construction where Filipino skills are available: Provided, finally, That projects which would have difficulty in sourcing funds may be financed partly from direct government appropriations and/or from Official Development Assistance (ODA) of foreign governments or institutions not exceeding fifty percent (50%) of the project cost, and the balance to				industrial estates or townships, housing, government buildings, tourism projects, markets, slaughterhouses, warehouses, solid waste management, information technology networks and database infrastructure, education and health facilities, sewerage, drainage, dredging, and other infrastructure and development projects as may be authorized by the appropriate IMPLEMENTING AGENCY pursuant to this Act. Such projects shall be undertaken THROUGH THE PPP ARRANGEMENT as defined hereunder and such other variations AS MAY BE DEFINED IN THE IMPLEMENTING RULES AND REGULATIONS (IRR) OF THIS ACT. For the construction stage of these infrastructure projects, the project proponent may obtain financing from foreign and/or domestic sources and/or engage the services of a foreign and/or Filipino contractor: Provided, That, in the case of foreign contractors, Filipino labor shall be employed or hired in the different phases of construction where Filipino skills are available: Provided, finally, That projects which would have difficulty in sourcing funds may be financed partly from direct government appropriations and/or from Official Development Assistance (ODA) of foreign governments or institutions SUBJECT TO APPLICABLE LAWS.

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			be provided by the project proponent.				
4		Definition (PPP)	Non	Non	Non	"A contractual agreement between a government agency and a private entity wherein the latter shall engage in the financing, designing, building, ~~implementing and~~ operating, and maintaining infrastructure facilities and services, among others, that are usually provided by the public sector. The private entity earns a return through either user fees, payments from the government, or both. ~~It embodies the optimal risk allocation between the parties that minimizes cost while realizing the project developmental objectives. The project shall be structured in such a way that the private sector gets a reasonable rate of return from its project contribution. Project financing shall be applied and government support/subsidy shall be extended when necessary. No PPP arrangement of any kind shall exceed the period of fifty (50) years for its operation by the private entity. Defined hereunder, and others which may be defined in the IRR, are the different PPP arrangements."~~	J) Public-Private Partnership A contractual agreement between the public sector and the private sector wherein the latter shall engage in the financing, designing, building, operating, and/or maintaining infrastructure or development projects, among others, that are usually provided by the public sector. The private sector earns a return through either user fees or payments from the government, or both. Without limiting the variations as maybe defined in the IRR of this act, PPP projects may be implemented through any of the following contractual arrangements:
5	2(b)	Definition (BOT)	(b) Build-operate-and-transfer - A contractual arrangement whereby the project proponent undertakes the construction, including financing, of a given infrastructure facility, and the operation maintenance thereof. The project proponent operates the facility over a fixed term during which it is allowed to charge facility users appropriate tolls, fees, rentals, and charges not exceeding those proposed in its bid or as negotiated and incorporated in the contract to enable the project proponent to recover its investment, and	No Change	No Change	First Paragraph A contractual arrangement whereby the project proponent undertakes the construction, including financing, of a given infrastructure facility, and the operation and maintenance thereof. The project proponent operates the facility over a fixed term during which it is allowed to charge facility users appropriate tolls, fees, rentals, and charges not exceeding these proposed in its bid or as negotiated and incorporated in the contract to	First Paragraph (i) Build-operate-transfer A contractual arrangement whereby the project proponent undertakes the construction, including financing, of a given infrastructure facility, and the operation and maintenance thereof. The project proponent operates the facility over a COOPERATION PERIOD ~~fixed term~~ during which it is allowed to charge facility users appropriate tolls, fees, rentals, and charges not exceeding those proposed in

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			operating and maintenance expenses in the project. The project proponent transfers the facility to the government agency or local government unit concerned at the end of the fixed term which shall not exceed fifty (50) years: Provided, That in case of an infrastructure or development facility whose operation requires a public utility franchise, the proponent must be Filipino or, if a corporation, must be duly registered with the Securities and Exchange Commission and owned up to at least sixty percent (60%) by Filipinos. The build-operate-and-transfer shall include a supply-and-operate situation which is a contractual arrangement whereby the supplier of equipment and machinery for a given infrastructure facility, if the interest of the Government so requires, operates the facility providing in the process technology transfer and training to Filipino nationals.			enable the project proponent to recover its investment, and operating and maintenance expenses in the project. The project proponent transfers the facility to the government agency or local government unit concerned at the end of the concession period. ~~Provided, That in case of an infrastructure or development facility whose operation requires a public utility franchise, the proponent must be Filipino or, if a corporation, must be duly registered with the Securities and Exchange Commission and owned up to at least sixty percent [60%] by Filipinos.~~	its bid or as negotiated and incorporated in the contract to enable the project proponent to recover its investment, and operating and maintenance expenses in the project. The project proponent transfers the facility to the ~~government agency or local government~~ unit concerned IMPLEMENTING AGENCY at the end of the COOPERATION PERIOD ~~fixed term~~ which shall not exceed fifty [50] years: ~~Provided, That in case of an infrastructure or development facility whose operation requires a public utility franchise, the proponent must be Filipino or, if a corporation, must be duly registered with the Securities and Exchange Commission and owned up to at least sixty percent [60%] by Filipinos.~~
6	2(c)	Definition (BT)	(c) Build-and-transfer - A contractual arrangement whereby the project proponent undertakes the financing and construction of a given infrastructure or development facility and after its completion turns it over to the government agency or local government unit concerned, which shall pay the proponent on an agreed schedule its total investments expended on the project, plus a reasonable rate of return thereon. This arrangement may be employed in the construction of any infrastructure or development project, including critical facilities which, for security or strategic reasons, must be operated directly by the Government.	No Change	No Change	No Change	(ii) Build-and-transfer A contractual arrangement whereby the project proponent undertakes the financing and construction of a given infrastructure or development facility and after its completion turns it over to the ~~government agency or local government unit~~ concerned IMPLEMENTING AGENCY, which shall pay the proponent on an agreed schedule its total investments expended on the project, plus a reasonable rate of return thereon. This arrangement may be employed in the construction of any infrastructure or development project, including critical facilities which, for security or strategic reasons, must be operated directly by the

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
							Government.
7	2(d)	Definition (BOO)	(d) Build-own-and-operate - A contractual arrangement whereby a project proponent is authorized to finance, construct, own, operate and maintain an infrastructure or development facility from which the proponent is allowed to recover its total investment, operating and maintenance costs plus a reasonable return thereon by collecting tolls, fees, rentals or other charges from facility users: Provided, That all such projects, upon recommendation of the Investment Coordination Committee (ICC) of the National Economic and Development Authority (NEDA), shall be approved by the President of the Philippines. Under this project, the proponent which owns the assets of the facility may assign its operation and maintenance to a facility operator.	No Change	No Change	No Change	(iii) Build-own-and-operateA contractual arrangement whereby a project proponent is authorized to finance, construct, own, operate and maintain an infrastructure or development facility from which the proponent is allowed to recover its total investment, operating and maintenance costs plus a reasonable return thereon by collecting tolls, fees, rentals or other charges from facility users: Provided, That all such projects, upon recommendation of the Investment Coordination Committee ~~of the National Economic and Development Authority [NEDA]~~, shall be approved by the President of the Philippines. ~~Under this project, the project proponent who owns the assets of the facility may assign its operation and maintenance to a facility operator.~~
8	2(e)	Definition (BLT)	(e) Build-lease-and-transfer - A contractual arrangement whereby a project proponent is authorized to finance and construct an infrastructure or development facility and upon its completion turns it over to the government agency or local government unit concerned on a lease arrangement for a fixed period after which ownership of the facility is automatically transferred to the government agency or local government unit concerned.	No Change	No Change	No Change	(iv) Build-lease-and-transfer A contractual arrangement whereby a project proponent is authorized to finance and construct an infrastructure or development facility and upon its completion turns it over to the IMPLEMENTING AGENCY ~~government agency or local government unit~~ concerned on a lease arrangement for a ~~fixed~~ COOPERATION period after which ownership of the facility is automatically transferred to the IMPLEMENTING AGENCY.
9	2(f)	Definition (BTO)	(f) Build-transfer-and-operate - A contractual arrangement whereby the public sector contracts out the building of an infrastructure facility to a private entity such that the contractor builds the facility on a turn-key basis, assuming cost overrun, delay and specified performance risks.	No Change	No Change	No Change	(v) Build-transfer-and-operate. A contractual arrangement whereby the IMPLEMENTING AGENCY contracts out the CONSTRUCTION of an infrastructure facility to THE PROJECT PROPONENT. THE PROJECT PROPONENT builds the facility on a turn-key basis,

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			Once the facility is commissioned satisfactorily, title is transferred to the implementing agency/LGU. The private entity, however, operates the facility on behalf of the implementing agency/LGU under an agreement.				assuming cost overrun, delay and specified performance risks. Once the facility is commissioned satisfactorily, title is transferred to the IMPLEMENTING AGENCY ~~implementing agency~~. THE PROJECT PROPONENT, however, operates the facility on behalf of the IMPLEMENTING AGENCY ~~implementing agency~~ under an agreement.
10	2(g)	Definition (CAO)	(g) Contract-add-and-operate - A contractual arrangement whereby the project proponent adds to an existing infrastructure facility which it is renting from the government. It operates the expanded project over an agreed franchise period. There may, or may not be, a transfer arrangement in regard to the facility.	No Change	No Change	No Change	(vii) Contract-add-and-operate A contractual arrangement whereby the project proponent adds to an existing infrastructure facility which it is renting from the government. It operates the expanded project over and agreed COOPERATION PERIOD ~~franchise period~~. There may, or may not be, a transfer arrangement in regard to the facility
11	2(h)	Definition (DOT)	(h) Develop-operate-and-transfer - A contractual arrangement whereby favorable conditions external to a new infrastructure project which is to be built by a private project proponent are integrated into the arrangement by giving that entity the right to develop adjoining property, and thus, enjoy some of the benefits the investment creates such as higher property or rent values.	No Change	No Change	No Change	No Change
12	2(i)	Definition (ROT)	(i) Rehabilitate-operate-and-transfer - A contractual arrangement whereby an existing facility is turned over to the private sector to refurbish, operate and maintain for a franchise period, at the expiry of which the legal title to the facility is turned over to the government. The term is also used to describe the purchase of an existing facility from abroad, importing, refurbishing, erecting and consuming it within the host	No Change	No Change	No Change	(xi) Rehabilitate-operate-and-transfer A contractual arrangement whereby an existing facility is turned over to the private sector to refurbish, IMPROVE, operate and maintain for a COOPERATION PERIOD ~~franchise period~~, at the expiry of which the legal title to the facility is turned over to the government. The term is also used to describe the purchase of

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			country.				an existing facility from abroad, importing, refurbishing, erecting and consuming it within the host country.
13	2(j)	Definition (ROO)	(j) Rehabilitate-own-and-operate - A contractual arrangement whereby an existing facility is turned over to the private sector to refurbish and operate with no time limitation imposed on ownership. As long as the operator is not in violation of its franchise, it can continue to operate the facility in perpetuity.	No Change	No Change	No Change	(xii) Rehabilitate-own-and-operate. A contractual arrangement whereby an existing facility is turned over to the private sector to refurbish, IMPROVE and operate with no time limitation imposed on ownership. As long as the operator is not in violation of its franchise, it can continue to operate the facility in perpetuity.
14		Definition (Concession)	Non	Non	3-K. Concession – A contractual arrangement whereby the proponent undertakes the financing and construction of a new facility and/or rehabilitation of an existing facility after the turnover thereof by the Agency/LGU, and includes the operation, maintenance, management, and improvement, if any, of the facility for a fixed term during which the project proponent generally provides service directly to facility users and is allowed to charge and collect the approved tolls, fees, tariffs, rentals, or charges. The Agency/LGU may receive a concession or franchise fee during the term of the contract and/or other consideration for the transfer, operation, or use of any facility. There may or may not be a transfer arrangement for the facility after the concession period has ended.	PPP Center, through electronic mail dated 04 August 2011, provided the following definitions:(Concession, JV, Management Contract) 'Concession – a contractual arrangement whereby the financing and construction of a new facility and/or rehabilitation of an existing infrastructure or development facility is undertaken by the project proponent, and includes the operation, maintenance, management and improvement, if any, of the facility for a fixed term during which the project proponent generally provides service directly to facility users and is allowed to charge and collect the approved tolls, fees, tariffs, rentals or charges. The agency/LGU may receive a concession or franchise fee during the term of the contract and/or other consideration for the transfer, operation or use of any facility. There may or may not be a transfer arrangement for the facility after the concession period has ended.	(vi) Concession A contractual arrangement whereby the financing and construction of a new infrastructure or development facility and/or rehabilitation of an existing one is undertaken by the project proponent, and includes the operation, maintenance, management and improvement, if any, of the facility for a cooperation period during which the project proponent generally provides service directly to facility users and is allowed to charge and collect the approved tolls, fees, tariffs, rentals or charges. In this arrangement, the implementing agency receives a concession or franchise fee during the cooperation period.
15		Definition (JV)	Non	Non	3-L. Joint Venture – A contractual arrangement whereby the project proponent and the Agency/LGU contribute assets or other legal	Joint Venture (JV) – a contractual arrangement whereby the project proponent and the agency/LGU contribute money/capital, services, assets	(lx) joint venture A contractual arrangement whereby the project proponent and the implementing agency

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
					consideration and share risks to jointly undertake the financing (up to the extent allowed under this Act), construction, rehabilitation, and/or operation, maintenance, and management of a new and/or existing facility. It involves a community or pooling of interests in the performance of the service, function, business, or activity, with each party having a right to direct and govern the policy in connection therewith subject to the agreement by the parties. In this modality, the equity contribution of the government (Agency/LGU) shall be entitled pari passu to the same rate of profit or return on investment as the private equity.	(including equipment, land or intellectual property), or a combination of any or all of the foregoing or other legal consideration and share risks to jointly undertake the financing, construction, rehabilitation, and/or operation, maintenance and management of a new and/or existing infrastructure or development facility. It involves a community or pooling of interests in the performance of the service, function, business or activity, with each party having a right to direct and govern the policy in connection therewith, and with a view to sharing both profits and losses, subject to agreement by the parties. At the end of the agreement, the ownership of the investment activity may be transferred to the private sector under competitive market conditions. A JV agreement may be implemented in the form of a JV company or contractual JV.	contributes money/capital, services, assets (including equipment, land or intellectual property), or a combination of any or all of the foregoing or other legal consideration and share risks to jointly undertake the financing, construction, rehabilitation, and/or existing infrastructure or development facility. It involves a community or pooling of interests in the performance of the service, function, business or activity, with each party having a right to direct and govern the policy in connection therewith, and with a view to sharing both profits and losses, subject to agreement by the parties. At the end of the agreement, the ownership of the investment activity may be transferred to the project proponent under competitive market conditions.
16		Definition (Management/Service Contract)	Non	Non	3-M. Management or Service Contract – A contractual arrangement involving the management or provision by the project proponent of operation and maintenance or related services for a limited period to an existing infrastructure or development facility owned or operated by the Agency/LGU. The proponent may collect tolls/fees/rentals and charges which shall be turned over to the government and shall be compensated in the form of a performance-based management or service fee during the contract term.	Management Contract – a contractual arrangement involving the management and/or provision by the project proponent of operation and maintenance and/or related services such as acquisition or provision and upgrading of equipment, systems and other items related to operation and maintenance, to an existing infrastructure or development facility owned or operated by the agency/LGU. The project proponent may collect tolls/fees/rentals and charges which shall be turned over to the government and shall be compensated in the form	(X) management contract A contractual arrangement involving the provision by the project proponent of operation and maintenance, and related services to an existing infrastructure or development facility owned by the implementing agency. The proponent shall undertake the acquisition or provision and upgrading of equipment, systems and other items related to operation and maintenance. The project proponent may collect tolls/fees/rentals and charges which shall be turned over to the implementing agency and shall be compensated in the form of a performance-based management or service fee during the cooperation period.

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
17		Definition (Lease/Affermage)	Non	Non	3-N. Lease or Affermage – A contractual arrangement providing for operation, maintenance, and management services by the project proponent including working capital and/or improvements to an existing infrastructure or development facility leased by said proponent from the Agency/LGU for a fixed term. The project proponent pays the Agency/LGU a rental fee and receives the approved tolls, fees, rentals or charges from facility users. It may or may not have a purchase option at the end of the lease period. If such arrangement constitutes financing leasing under special laws, it shall be approved by the concerned government agencies in accordance with said laws.	Non	Non
18	2(k)	Definition (Project proponent)	(k) Project proponent - The private sector entity which shall have contractual responsibility for the project and which shall have an adequate financial base to implement said project consisting of equity and firm commitments from reputable financial institutions to provide, upon award, sufficient credit lines to cover the total estimated cost of the project.	No Change	No Change	The following sentences were added. In case of an infrastructure or development facility whose operation requires a public utility franchise and the project proponent will also be the facility operator, the project proponent must be Filipino or, if a corporation, must be duly registered with the Securities and Exchange Commission and owned up to at least sixty percent (60%) by Filipinos.	No change except Sec. No. from 2k) to 2i)
19	2(l)	Definition (Contractor)	(l) Contractor - Any entity accredited under the Philippine laws which may or may not be the project proponent and which shall undertake the actual construction and/or supply of equipment for the project.	No Change	No Change	No Change	No change except Sec. No. from 2l) to 2a)
20	2(m)	Definition (Facility Operator)	(m) Facility operator - A company registered with the Securities and Exchange Commission, which may or may not be the project proponent, and which is	No Change	No Change	No Change	No change except Sec.No. from 2m) to 2c)

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			responsible for all aspects of operation and maintenance of the infrastructure or development facility, including but not limited to the collection of tolls, fees, rentals or charges from facility users: Provided, That in case the facility requires a public utility franchise, the facility operator shall be Filipino or at least sixty per centum (60%) owned by Filipino.				
21	2(n)	Definition (Direct government gurantee)	(n) Direct government guarantee - An agreement whereby the government or any of its agencies or local government units assume responsibility for the repayment of debt directly incurred by the project proponent in implementing the project in case of a loan default.	No Change	3-R. Government Guarantee – includes (1) any agreement whereby the government or any of its agencies or local government units assume responsibility for the repayment of debt directly incurred by the project proponent in implementing the project in case of a loan default; (2) credit enhancements, which may include, but are not limited to, government guarantees on the performance, or the obligation of the Agency/LGU under its contract with the Project Proponent; (3) any agreement whereby the Government or any of its Agencies/LGUs assumes full or partial responsibility for or assists in maintaining the financial standing of the project proponent or project company in order that the project proponent/company avoid undertakes to assume responsibility for the performance of the Agency's/LGU's obligations under the contractual arrangement including the payment of monetary obligations, in case of default."	(3) of HB4151-2 changed as follows (3) any agreement whereby the Government or any of its Agencies/LGUs assumes full or partial responsibility for or assists in maintaining the financial standing of the project proponent or project company in order that the project proponent/company avoid undertakes to assume responsibility for the performance of the Agency's/LGU's obligations under the contractual arrangement ~~including the payment of monetary obligations~~, in case of default."	d)~~Diret~~ Government Guarantee Refers to any agreement whereby the national government or any of its implementing agencies assume responsibility for the repayment of debt directly incurred by the project proponent in implementing the project in case of a loan default.
22	2(o)	Definition (Reasonable rate of return)	"(o) Reasonable rate of return on investments and operating and maintenance cost - The rate of return that reflects the prevailing cost of capital in the domestic and international markets: Provided, That in case of negotiated	No Change	No Change	"(o) ~~Reasonable~~ rate of return of the project ~~on investments and operating and maintenance cost~~ The rate of return that reflects the prevailing cost of capital of the project in the domestic and international markets: Provided,	I) ~~Reasonable~~ Rate of return ~~of the project on investments and operating and maintenance cost~~ The rate of return that reflects the prevailing cost of capital OF THE PROJECT in the domestic and international markets:

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			contracts, such rate of return shall be determined by ICC of NEDA prior to the negotiation and/or call for proposals: Provided, further, That for negotiated contracts for public utility projects which are monopolies, the rate of return on rate base shall be determined by existing laws, which in no case shall exceed twelve per centum (12%).			That in case of negotiated contracts, such rate of return shall be determined by ICC of NEDA prior to the negotiation and/or call for proposals: Provided, further, That for negotiated contracts for public utility projects which are monopolies, the rate of return on rate base shall be determined by existing laws, which in no case shall exceed twelve per centum (12%).	Provided, That in case of negotiated contracts, such rate of return shall be determined by the Investment Coordination Committee ~~of NEDA~~ prior to the negotiation and/or call for proposals: Provided, further, That for ~~negotiated contracts for public utility~~ projects which are NATURAL monopolies, the rate of return on rate base shall be determined y existing laws, which in no case shall exceed twelve per centum (12%).
23	2(p)	Definition (Constructio n)	(p) Construction - Refers to new construction, rehabilitation, improvement, expansion, alteration and related works and activities including the necessary supply of equipment, materials, labor and services and related items.	No Change		No Change	No change except Sec. No. from 2p) to 2b)
24		Definition (Implementi ng Agency)	Non	Non	Non	Refers to any government agency or local government unit whose mandate requires them to provide infrastructure or development projects. Every infrastructure project undertaken under the provisions of this Act shall be in accordance with the plans, specifications, standards, and costs approved by the concerned government agency and shall be under the supervision of the said agency or local government unit in the case of local projects.	Refers to the department, bureau, office, instrumentality, commission, or authority of the national government, including government-owned or controlled corporations (goccs), or local government unit which undertakes an infrastructure or development project in accordance with this act.
25		Definition (Franchise)	Non	Non	Non	Refers to a certificate, permit or other form of authorization required to be obtained by a facility operator from a Regulator prior to operating a public utility project.	Non
26		Definition (Public Utility)	Non	Non	Non	Includes a business or service engaged in regularly supplying the public with some commodity or service of public consequence which includes public services as defined in the	K) public utility A business or service engaged in regularly supplying the public with some commodity or service of public consequence as defined in the public service act

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						Public Service Act (CA 146, as amended).	(commonwealth act no. 146, as amended).
		Definition (Government Undertakings)	Non	Non	Non	Non	E) government undertakings Refers to any form of contribution and/or support which the national government or the implementing agency may extend to a project proponent.
		Definition (Project Development and Monitoring Facility(PDMF))	Non	Non	Non	Non	H) project development and monitoring facility (PDMF) A revolving fund to be used for the preparation of pre-feasibility study, feasibility study and transaction documents of public private partnership (ppp) projects.
		Project proponent	Non	Non	Non	Non	i) Project proponent The private sector entity which shall have contractual responsibility for the project and which shall have an adequate financial base to implement said project consisting of equity and firm commitments from reputable financial institutions to provide, upon award, sufficient credit lines to cover the total estimated cost of the project.
27		Private delivery of public infrastructure and / or services	Non	Non	Non	Non	Non
28	3	Private Initiative in Infrastructure	SEC. 3. Private Initiative in Infrastructure. - All government infrastructure agencies, including government-owned and-controlled corporations (GOCC) and local government units (LGUs) are hereby authorized to enter into contract with any duly pre-qualified project proponent for the financing, construction, operation and maintenance of any financially viable infrastructure or development facility through any of the projects authorized in this Act. Said agencies, when entering into such contracts, are enjoined to	No Change	No Change	No Change	Any department, bureau, office, instrumentality, commission or authority of the national government, including goccs, or local government unit authorized by law or their respective charters to contract for or undertake infrastructure or development projects may enter into PPPs with a duly pre-qualified project proponent in accordance with this act. When entering into ppps, the public sector is enjoined to solicit the expertise of individuals, groups, or

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			solicit the expertise of individuals, groups, or corporations in the private sector who have extensive experience in undertaking infrastructure or development projects.				corporations in the private sector who have extensive experience in undertaking infrastructure or development projects.
29	4	Priority Projects	SEC. 4. Priority Projects. - All concerned government agencies, including government-owned and-controlled corporations and local government units, shall include in their development programs those priority projects that may be financed, constructed, operated and maintained by the private sector under the provisions of this Act. It shall be the duty of all concerned government agencies to give wide publicity to all projects eligible for financing under this Act, including publication in national and, where applicable, international newspapers of general circulation once every six (6) months and official notification of project proponents registered with them. The list of all such national projects must be part of the development programs of the agencies concerned. The list of projects costing up to Three hundred million pesos (P300,000,000) shall be submitted to ICC of NEDA for its approval and to the NEDA Board for projects costing more than Three hundred million pesos (P300,000,000). The list of projects submitted to ICC of the NEDA Board shall be acted upon within thirty (30) working days. The list of local projects to be implemented by the local government units concerned shall be submitted, for confirmation, to the municipal development council for projects costing up to Twenty million pesos; those costing above Twenty up to Fifty million pesos, to the provincial development	No Change	5. Priority Projects. – All concerned government agencies, including government-owned and controlled corporations and local government units, shall include in their development programs those priority projects that may be financed, constructed, operated and maintained by the private sector under the provisions of this Act. It shall be the duty of all concerned government agencies to give wide publicity to all projects eligible for financing under this Act, including publication in national and. Where applicable, international newspapers of general circulation once every six(6) months and official notification of project proponents registered with them. Further, the implementing agency/LGU shall draw an indicative timeline or schedule for the bidding out of the short-listed PPP projects upon which the said agency /LGU shall be held accountable. The list of all such projects must be part of the development programs of the agencies concerned. The list of projects and the concomitant proposals shall be submitted to the appropriate approving authority (NEDA Board, NEDA ICC, Regional Development Council, City Development Council, Provincial Development Council, Municipal Development Council) depending on the levels of approval based on project costs as provided in the implementing rules and regulations of this Act.	Priority Projects and Approving Bodies. All concerned government agencies or LGUs are tasked to prepare their infrastructure or development programs and to identify specific priority projects that may be financed, constructed, operated and maintained by the private sector through the PPP arrangements authorized under this Act and to submit such list for its approval to the NEDA-ICC. The list of priority projects shall be consistent with the Philippine Development Plan (PDP), and Provincial Development and Physical Framework Plan (PDPFP). The Public Investment Program (PIP) and the Comprehensive and Integrated Infrastructure Program (CIIP) shall be deemed as the list of national priority projects and the Provincial Development Investment Programs (PDIPS)/Local Development Investment Programs (LDIPS) shall be deemed as the list of local priority projects. The PIP, CIIP and PDIP/LDIP shall be updated periodically. The updated list of priority projects, local and national, shall be submitted to the PPP center for information and for posting in the PPP center website. The list of all such projects must be part of the development programs of the agencies concerned. Project proposals	Priority Projects and Approving Bodies. All concerned government agencies or lgus are tasked to prepare their infrastructure or development programs and to identify specific priority projects that may be financed, constructed, operated and maintained by the private sector through the ppp arrangements authorized under this act. The list of priority projects shall be consistent with the Philippine Development Plan (PDP), and Provincial Development and Physical Framework Plan (PDPFP), and shall be submitted to the appropriate approving body as provided in the IRR of this act. The Public Investment Program (PIP) and the Comprehensive and Integrated Infrastructure Program (CUP) shall be deemed as the list of national priority projects, and the Provincial Development Investment Programs (PDIPs) Local Development Investment Programs (LDIPs) shall be deemed as the list of local priority projects. The PIP, CUP and PDIP/LDIP shall be updated periodically. The updated list of priority projects, local and national, shall be submitted to the PPP Center for information. The list of all such projects must be part of the development programs of the agencies concerned. Project proposals under this list shall be submitted to the appropriate approving authority; depending on project

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			council; those costing up to Fifty million, to the city development council; above Fifty million up to Two hundred million pesos, to the regional development councils; and those above Two hundred million pesos, to ICC of NEDA.			under this list shall be submitted to the appropriate approving authority, that is, the NEDA Board, the NEDA ICC, the Regional Development Council, the City Development Council, the Provincial Development Council, the Municipal Development Council, depending on project costs as provided in the implementing rules and regulations of this Act.	costs as provided in the IRR of this act. In recognition of the limited funding for the conduct of a feasibility study (F/S) for these priority projects, a private sector may undertake the F/S of priority PPP projects, the cost of which may later on be reimbursed once such project is approved and has a winning bidder.
30		Implementing, monitoring and auditing functions	Non	Non	Non	Non	Non
31		Project Development Facility	Non	Non	5-A. Project Development Facility. – The Public-Private-Partnership (PPP) Center of the NEDA shall establish and administer a trust fund to be known as the Project Development Facility (PDF). The PDF shall be tapped by LGUs and government agencies which have no financial capacity to prepare a project proposal, which includes the conduct of pre-feasibility and feasibility studies of PPP projects. The start-up money for the PDF will come from the existing appropriations of the Project Development and Monitoring Fund under Executive Order and, thereafter, such amount as may be needed shall be included in the General Appropriations Act or where feasible, grants from donors of official development assistance (ODA); contributions, grants, or other funds from government-owned and controlled corporations, LGUs, development partners, and private sector institutions subject to existing laws, rules and regulations.		
32	4-A	Unsolicited	SEC. 4-A. Unsolicited Proposals. -	4-A Unsolicited Proposal. -	5-B. Unsolicited Proposals. –	Unsolicited proposals for	Sec. 4-a. Unsolicited proposals.

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		Proposal	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 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.	Unsolicited proposals for projects may be submitted. The government agency, GOCC or local government unit concerned may either;(1) Use the unsolicited proposal as the basis for Public Bidding as provided in Section 5 of this Act. If a final award to a winning bidder is made on the basis of the unsolicited proposal within one (1) year from the submission thereof, as determined by NEDA, the original proponent of the unsolicited proposal may be reimbursed for costs incurred in its preparation, including, but not limited to, the cost of any feasibility studies undertaken, Provided: such reimbursement : (1) shall be in an amount to be determined by NEDA, but not exceeding three percent (3%) of the total project cost, excluding any project costs which will be borne by the government, such as, but not limited to, the cost of Right-of-Way acquisitions; and (2) shall be paid in full by the winning bidder as a requirement for the award of the project;	Unsolicited proposals for projects may be submitted. The government agency, GOCC or local government unit concerned may either: (1) Use the unsolicited proposal as the basis for Public Bidding as provided in Section 6 of this Act. If a final award to a winning bidder is made on the basis of the unsolicited proposal within one (1) year from the submission thereof, as determined by NEDA-ICC, the original proponent of the unsolicited proposal used for competitive bidding may be reimbursed for costs incurred in its preparation, including, but not limited to, the cost of any feasibility studies undertaken, Provided; such reimbursement: (a) shall be in an amount to be determined by NEDA-ICC, but not exceeding three percent (3%) of the total project cost, excluding any project costs which will be borne by the government, such as, but not limited to, the cost of Right-of-Way acquisitions; and(b) shall be paid in full by the winning bidder as a requirement for the award of the project;(2) Accept the unsolicited proposal on a negotiated basis: Provided, That, all the following conditions are met: (a) such projects are not part of the list of priority projects in the Philippine Development Plan, the corollary Public Investment Program, other subsidiary sectoral and agency plans, and the local development plan and corollary/subsidiary plans of the LGU concerned; (b) at anytime, no government guarantee as defined in Section 3-R, subsidy or equity or any form of payment or security from government, or any form of government undertaking including, but not	projects may be submitted. The government agency, GOCC or local government unit concerned may either:(1) Use the unsolicited proposal as the basis for Public Bidding as provided in Section 5 of this Act. If a final award to a winning bidder is made on the basis of the unsolicited proposal within one (1) year from the submission thereof, as determined by ~~NEDA~~ THE IMPLEMENTING AGENCY (IA), the original proponent of the unsolicited proposal may be reimbursed for costs incurred in its preparation, including, but not limited to, the cost of any feasibility studies undertaken, Provided: such reimbursement : (1) shall be in an amount to be determined by ~~NEDA~~ THE IA, but not exceeding three percent (3%) of the total project cost, excluding any project costs which will be borne by the government, such as, but not limited to, the cost of Right-of-Way acquisitions; and (2) shall be paid in full by the winning bidder as a requirement for the award of the project;	- Unsolicited proposals may be submitted for infrastructure or development projects not included in the list of priority projects prepared pursuant to section 4. the implementing agency may either:(1) use the unsolicited proposal as the basis for public bidding as provided in section 5 of this act. If a final award to a winning bidder is made on the basis of the unsolicited proposal within one (1) year from the submission thereof, as determined by the implementing agency, the original proponent of the unsolicited proposal may be reimbursed for costs incurred in its preparation, including, but not limited to, the cost of any feasibility studies under taken, provided: such reimbursement:(1) shall be in an amount to be determined by the implementing agency, but not exceeding three percent (3%) of the total project cost, excluding any project costs which will be borne by the government, such as, but not limited to, the cost of right-of-way acquisitions; and (2) shall be paid in full by the winning bidder as a requirement for the a ward of the project;

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					limited to, cost sharing and credit enhancements, is required as provided in the immediately succeeding section, and		
				(2) Accept the unsolicited proposal on a negotiated basis: Provided, That, all the following conditions are met: (1) such projects involve a new concept in technology and/or are not part of the list of priority projects, (2) no direct government guarantee, subsidy or equity or any form of payment or security from the government is required as provided in the immediately succeeding section, and (3) the government agency or local government unit has invited by 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 to be determined by NEDA, but not to exceed one (1) year: Provided, further, That in the event another proponent submits a proposal lower in price, the original proponent shall have the right to match that price within thirty (30) working days; or (3) Reject the proposal.	(3) the government agency or LGU has invited by 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 to be determined by NEDA-ICC, but not to exceed one (1) year; Provided, further, that in the event another proponent submits within 180 days (6 months) but not to exceed one (1) year a more superior counter proposal with favorable terms that is likewise more advantageous for the government and accepted by approving authority, the original proponent would have no recourse to match. The other conditions for considering an unsolicited proposal are as follows: a)The government agency or LGU has notified in writing the approving authority and the PPP Center upon receipt of the proposal; b)The head of the government agency or head of the LGU has conducted an assessment and has certified in writing to the approving authority that it is capable of conducting all proceedings relating to the proposal; c) The head of the government agency or LGU certifies in writing that the proposed project serves the public interest; d) The proposal complies with such other requirements for unsolicited proposals as may be prescribed in the Implementing Rules and Regulations (IRR) ; e) The proponent has at the	(2) Accept the unsolicited proposal on a negotiated basis: Provided, That, all the following conditions are met: (1) such projects involve a new concept in technology and/or are not part of the list of priority projects, (2) no direct government guarantee, subsidy or equity or any form of payment or security from the government is required as provided in the immediately succeeding section, and (3) the government agency or local government unit has invited by 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 to be determined by NEDA, but not to exceed one (1) year: Provided, further, That in the event another proponent submits a proposal lower in price, the original proponent shall have the right to match that price within thirty (30) working days; or (3) Reject the proposal.	(2) accept the unsolicited proposal on a negotiated basis: provided, that, all the following conditions are met: (i) such projects are not part of the list of priority projects; and (ii) the implementing agency has invited by publication, for three (3) consecutive weeks, in a newspaper of general circulation, comparative or competitive proposals and no other superior proposal is received for a period to be determined by the implementing agency for a minimum period of four (4) months but not to exceed twelve (12) months: provided, further, that in the event another proponent submits a superior proposal, the original proponent shall have the right to improve on said proposal within a period to be determined by the implementing agency for a minimum of thirty (30) working days but not to exceed sixty (60) working days. (3) reject the proposal.

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					outset indicated its costs for developing the proposal in its submission to the concerned government instrumentality; and f) Disclosure of project costs and benefits shall include the proposed user charges for the infrastructure facility or service. (3) Reject the proposal.		
33	4-B	Prohibition Against Gov. Guarantees	Prescribed in Sec. 4-A	4-B Prohibition Against Government Guarantees or Payments. - Notwithstanding any agreement to the contrary, the project proponent of an unsolicited proposal accepted by the government on a negotiated basis in accordance with Section 4-A(2) above shall not, at anytime, be entitled to any form of payment or security from the government, including, but not limited to, cost sharing, credit enhancement, direct or indirect government guarantee, subsidy or equity.	5-C. Prohibition Against Government Guarantees or Payments. -Notwithstanding any agreement to the contrary, the project proponent of an unsolicited proposal accepted by the government on a negotiated basis in accordance with Sect. 5-B(2) above shall not, at anytime, be entitled to any form of payment or security from the government, including, but not limited to, cost sharing, credit enhancement, direct or indirect government guarantee, subsidy or equity.		Section 4-b. Prohibition Against Government Guarantees and Payments. Notwithstanding any agreement to the contrary, the project proponent of an unsolicited proposal accepted by the implementing agency as basis for public bidding or on a negotiated basis shall not, at anytime be entitled to government guarantee, subsidy, equity or any other government undertaking including cost sharing and credit enhancement.
34	5	Public Bidding	SEC. 5. Public Bidding of Projects. - Upon approval of the projects mentioned in Section 4 of this Act, the head of the infrastructure agency or local government unit concerned shall forthwith cause to be published, once every week for three (3) consecutive weeks, in at least two (2) newspapers of general circulation and in at least one (1) local newspaper which is circulated in the region, province, city or municipality in which the project is to be constructed, a notice inviting all prospective infrastructure or development project proponents to participate in a competitive public bidding for the projects so approved. In the case of a build-operate-and-transfer arrangement, the contract shall be awarded to the bidder who, having satisfied the minimum financial, technical, organizational and legal standards required by this Act, has	No Change	Second paragraph shall be replaced as follows. '[In the case of a build-operate-and-transfer arrangement,] The contract shall be awarded to the bidder who, having satisfied the minimum financial, technical, organizational and legal standards required by this Act, has submitted the lowest bid and most favorable terms for the project, based on the present value of its proposed tolls, fees, rentals and charges over a fixed term for the facility to be constructed, rehabilitated, operated and maintained according to the prescribed minimum design and performance standards, plans and specifications. For this purpose, the winning project proponent under any of the modes or contractual arrangements identified in this	~~In the case of a build-operate-and-transfer arrangement,~~ The contract shall be awarded to the bidder who, having satisfied the minimum financial, technical, organizational and legal standards required by this act, has submitted the lowest bid and most favorable terms for the project, based on the present value of its proposed tolls, fees, rentals and charges over a fixed term for the facility to be constructed, rehabilitated, operated and maintained according to the prescribed minimum design and performance standards, plans and specifications. For this purpose, the winning project proponent under any of the modes or contractual arrangements identified in this act shall be automatically granted by the appropriate	SECTION 5. Public Bidding of Projects. Upon approval of the priority projects mentioned in Section 4 of this Act, the head of the Implementing Agency shall forthwith cause to be published, once every week for three (3) consecutive weeks, in at least two (2) newspapers of general circulation and in at least one (1) local newspaper which is circulated in the region, province, city or municipality in which the project is to be constructed, a notice inviting all prospective infrastructure or development project proponents to participate in a competitive public bidding for the projects so approved. In the case of a build operate and transfer arrangement, The contract shall be awarded to the bidder who, having satisfied the minimum financial, technical,

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			submitted the lowest bid and most favorable terms for the project, based on the present value of its proposed tolls, fees, rentals and charges over a fixed term for the facility to be constructed, rehabilitated, operated and maintained according to the prescribed minimum design and performance standards, plans and specifications. For this purpose, the winning project proponent shall be automatically granted by the appropriate agency the franchise to operate and maintain the facility, including the collection of tolls, fees, rentals, and charges in accordance with Section 5 hereof. "In the case of build-and-transfer or build-lease-and-transfer arrangement, the contract shall be awarded to the lowest complying bidder based on the present value of its proposed schedule of amortization payments for the facility to be constructed according to the prescribed minimum design and performance standards, plans, and specifications: Provided, however, That a Filipino contractor who submits an equally advantageous bid with exactly the same price and technical specifications as those of a foreign contractor shall be given preference. "In all cases, a consortium that participates in a bid must present proof that the members of the consortium have bound themselves jointly and severally to assume responsibility for any project. The withdrawal of any member of the consortium prior to the implementation of the project could be a ground for the cancellation of the contract. "The public bidding must be conducted under a two-envelope/two-stage system: the first envelope to contain the technical proposal and the second envelope to contain the		Act shall be automatically granted by the appropriate agency the franchise to operate and maintain the facility, including the collection of tolls, fees, rentals, and charges in accordance with Section 6 hereof.	agency the franchise, permit, license, operating certificate, as the case may be, to operate and maintain the facility, including the collection of tolls, fees, rentals, and charges.	organizational and legal standards required by this act, has submitted the lowest bid most favorable bids and terms for the project, based on the present value of its proposed tolls, fees, rentals and charges, AMONG OTHERS, over a COOPERATION PERIOD fixed term for the facility to be constructed, rehabilitated, operated and maintained according to the prescribed minimum design and performance standards, plans and specifications. For this purpose, the winning bidder is automatically granted by the appropriate regulating body the franchise to operate and maintain the facility, including the collection of tolls, fees, rentals, and charges AS INDICATED IN THE CONTRACT. THE WINNING BIDDER SHALL LIKEWISE BE ISSUED, UPON COMPLIANCE WITH THE APPROPRIATE REQUIREMENTS, SUCH PERMITS, LICENSE, CERTIFICATES, OR OTHER SIMILAR AUTHORIZATIONS NECESSARY FOR THE CONDUCT OF ITS BUSINESS BY THE CONCERNED ISSUING GOVERNMENTAL ENTITY. In the case of build-and-transfer or build-lease-and-transfer arrangement, the contract shall be awarded to the lowest complying bidder based on the present value of its proposed schedule of amortization payments for the facility to be constructed according to the prescribed minimum design and performance standards, plans, and specifications: Provided, however, That a Filipino contractor who submits an equally advantageous bid with

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			financial proposal. The procedures for this system shall be outlined in the implementing rules and regulations of this Act. A copy of each contract involving a project entered into under this Act shall forthwith be submitted to Congress for its information."				exactly the same price and technical specifications as those of a foreign contractor shall be given preference. In all cases, a consortium that participates in a bid must present proof that the members of the consortium have bound themselves jointly and severally to assume responsibility for any project. The withdrawal of any member of the consortium prior to the implementation of the project could be a ground for the cancellation of the contract. The public bidding must be conducted under a two-envelope/two-stage system: the first envelope to contain the technical proposal and the second envelope to contain the financial proposal. The procedures for this system shall be outlined in the IRR of this Act. A copy of each contract involving a project entered into under this Act shall forthwith be submitted to Congress for its information.
35	5-A	Direct Negotiation of Contract	SEC. 5-A. Direct Negotiation of Contracts. - Direct negotiation shall be resorted to when there is only one complying bidder left as defined hereunder: (a) If, after advertisement, only one contractor applies for pre-qualification and it meets the pre-qualification requirements, after which it is required to submit a bid/proposal which is subsequently found by the agency/local government unit (LGU) to be complying. (b) If, after advertisement, more than one contractor applied for pre-qualification but only one meets the pre-qualification requirements, after which it submits bid/proposal which is found by the agency/LGU to be complying. (c) If, after pre-qualification of	No Change	No Change	No Change	Delete

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			more than one contractor, only one submits a bid which is found by the agency/LGU to be complying. (d) If, after pre-qualification, more than one contractor submit bids but only one is found by the agency/LGU to be complying: Provided, That any of the disqualified prospective bidder may appeal the decision of the implementing agency's/LGU's Pre-qualification Bids and Awards Committee within fifteen (15) working days to the head of the agency, in case of national projects; to the Department of the Interior and Local Government (DILG), in case of local projects from the date the disqualification was made known to the disqualified bidder: Provided, furthermore, That the implementing agency concerned or DILG should act on the appeal within forty-five (45) working days from receipt thereof.				
36	6	Payment Scheme	SEC. 6. Repayment Scheme. - For the financing, construction, operation and maintenance of any infrastructure project undertaken through the Build-Operate-and-Transfer arrangement or any of its variations pursuant to the provisions of this Act, the project proponent shall be repaid by authorizing it to charge and collect reasonable tolls, fees, and rentals for the use of the project facility not exceeding those incorporated in the contract and, where applicable, the proponent may likewise be repaid in the form of a share in the revenue of the project or other non-monetary payments, such as, but not limited to, the grant of a portion or percentage of the reclaimed land, subject to the constitutional requirements with respect to the ownership of land: Provided, That for negotiated contracts, and for projects which	No Change	No Change	No Change	For the financing, construction, operation and maintenance of any infrastructure project undertaken through ~~the Build-Operate and Transfer arrangement~~ PPP ARRANGEMENT or any of its variations pursuant to the provisions of this Act, the project proponent shall be repaid by authorizing it to charge and collect reasonable tolls, fees, and rentals for the use of the project facility not exceeding those incorporated in the contract and, where applicable, the proponent may likewise be repaid in the form of a share in the revenue of the project or other non-monetary payments, such as, but not limited to, the grant of a portion or percentage of the reclaimed land, subject to the constitutional requirements with respect to the ownership of land: Provided, That ~~for~~

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			have been granted a natural monopoly or where the public has no access to alternative facilities, the appropriate government regulatory bodies, shall approve the tolls, fees, rentals, and charges based on a reasonable rate of return: Provided, further, That the imposition and collection of tolls, fees, rentals, and charges shall be for a fixed term as proposed in the bid and incorporated in the contract but in no case shall this term exceed fifty (50) years: Provided, furthermore, That the tolls, fees, rentals, and charges may be subject to adjustment during the life of the contract, based on a predetermined formula using official price indices and included in the instructions to bidders and in the contract: Provided, also, That all tolls, fees, rentals, and charges and adjustments thereof shall take into account the reasonableness of said rates to the end-users of private sector-built infrastructure: Provided, finally, That during the lifetime of the franchise, the project proponent shall undertake the necessary maintenance and repair of the facility in accordance with standards prescribed in the bidding documents and in the contract. In the case of a Build-and-Transfer arrangement, the repayment scheme is to be effected through amortization payments by the government agency or local government unit concerned to the project proponent according to the scheme proposed in the bid and incorporated in the contract.				~~negotiated contracts, and~~ for projects which have been granted a natural monopoly ~~or where the public has no access to alternative facilities~~, the appropriate government regulatory bodies, shall approve the tolls, fees, rentals, and charges based on a ~~reasonable~~ rate of return WHICH IN NO CASE SHALL EXCEED TWELVE PERCENT (12%): Provided, further, That the imposition and collection of tolls, fees, rentals, and charges shall be for a COOPERATION PERIOD ~~fixed term~~ as proposed in the bid and incorporated in the contract but in no case shall this term exceed fifty (50) years: Provided, furthermore, That the tolls, fees, rentals, and charges may be subject to adjustment during the COOPERATION PERIOD ~~life of the contract~~, based on a predetermined formula using official price indices and included in the instructions to bidders and in the contract: Provided, also, That all tolls, fees, rentals, and charges and adjustments thereof shall take into account the reasonableness of said rates to the end-users of private sector-built infrastructure: Provided, finally, That during the COOPERATION PERIOD ~~lifetime of the franchise~~, the project proponent shall undertake the necessary maintenance and repair of the facility in accordance with standards prescribed in the bidding documents and in the contract. In the case of a Build-and-Transfer arrangement, the repayment scheme is to be affected through amortization payments by the IMPLEMENTING AGENCY ~~government agency or local~~

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
							~~government unit concerned~~ to the project proponent according to the scheme proposed in the bid and incorporated in the contract.
37	7	Contract Termination	SEC. 7. Contract Termination. - In the event that a project is revoked, cancelled or terminated by the Government through no fault of the project proponent or by mutual agreement, the Government shall compensate the said project proponent for its actual expenses incurred in the project plus a reasonable rate of return thereon not exceeding that stated in the contract as of the date of such revocation, cancellation or termination: Provided, That the interest of the Government in these instances shall be duly insured with the Government Service Insurance System (GSIS) or any other insurance entity duly accredited by the Office of the Insurance Commissioner: Provided, finally, That the cost of the insurance coverage shall be included in the terms and conditions of the bidding referred to above. In the event that the government defaults on certain major obligations in the contract and such failure is not remediable or if remediable shall remain unremedied for an unreasonable length of time, the project proponent/contractor may, by prior notice to the concerned national government agency or local government unit specifying the turn-over date, terminate the contract. The project proponent/contractor shall be reasonably compensated by the Government of equivalent or proportionate contract cost as defined in the contract.			Section 7. Contract Termination – In the event that a project is revoked, cancelled or terminated by the Government through no fault of the project proponent or by mutual agreement, the Government shall compensate the said project proponent for its actual expenses incurred in the project plus a reasonable rate of return thereon not exceeding that stated in the contract as of the date of such revocation, cancellation or termination: Provided, That the interest of the Government in these instances shall be duly insured with the Government Service Insurance System (GSIS) or any other insurance entity duly accredited by the Office of the Insurance Commissioner: Provided, finally, That the cost of insurance coverage shall be included in the terms and conditions of the bidding referred to above. In the event that the government defaults on certain major obligations in the contract and such failure is not remediable or if remediable shall remain unremedied for an unreasonable length of time, the project proponent/contractor may, by prior notice to the concerned national government agency or local government unit specifying the turn-over date, terminate the contract. The project proponent/contractor shall be reasonably compensated by the Government of equivalent or proportionate contract cost as defined in the contract. For contracts involving transfer of ownership of the facility to the	THE CONTRACT SHALL PROVIDE A COMPENSATION MECHANISM in the event that the project is revoked, canceled or terminated by the Government through no fault of the project proponent or by mutual agreement IN THE ABSENCE OF SUCH PROVISION, THE COMPENSATION SHALL BE BASED ON ~~for~~ the actual expenses incurred by the project proponent in the project plus a ~~reasonable~~ rate of return ~~thereon not exceeding that stated in the contract as of the date of such revocation, cancellation or termination: Provided, That the interest of the Government in these instances shall be duly insured with the Government Service Insurance System or any other insurance entity duly accredited by the Office of the Insurance Commissioner:~~ Provided, finally, That the cost of the insurance coverage shall be included in the terms and conditions of the bidding referred to above. In the event that the government defaults on certain major obligations in the contract and such failure is not remediable or if remediable shall remain unremedied WITHIN A REASONABLE ~~for an unreasonable~~ length of time AS DEFINED IN THE CONTRACT, the project proponent may, by prior notice to the concerned IMPLEMENTING AGENCY national ~~government agency or local government unit~~ specifying the turn-over date, terminate the contract. The project

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
						implementing agency, the Government shall have the right to take over the facility or existing works in progress upon revocation, cancellation or termination of the contract due to default of project proponent. In the event of take-over, the Government shall pay the project proponent the reasonable value of the facility as may be provided in the contract.	proponent/contractor shall be ENTITLED TO REASONABLE COMPENSATION FROM ~~reasonably compensated by~~ the Government ~~of equivalent or proportionate contract cost~~ as defined in the contract. FOR CONTRACTS WHICH INVOLVE TRANSFER OF OWNERSHIP OF A FACILITY TO THE IMPLEMENTING AGENCY WHICH ARE TERMINATED PRIOR TO THEIR TRANSFER TO GOVERNMENT, THE GOVERNMENT SHALL HAVE THE RIGHT TO TAKE OVER THE FACILITY OR EXISTING WORKS IN PROGRESS UPON REVOCATION, CANCELLATION OR TERMINATION OF THE CONTRACT DUE TO DEFAULT OF PROJECT PROPONENT. IN THE EVENT OF TAKE-OVER, THE GOVERNMENT MAY PAY THE PROJECT PROPONENT REASONABLE COMPENSATION FOR THE VALUE OF THE FACILITY AS MAY BE PROVIDED IN THE CONTRA CT. THE GOVERNMENT'S RIGHT TO TAKE-OVER SHALL NOT IMPAIR THE RIGHTS OF THIRD PERSONS HA VING INTEREST IN THE FINANCING OF THE PROJECT, SUCH AS LENDERS AND CREDITORS.
38		Contracts & Public Disclosure, Penalty	Non		Sec. 6-B. Contracts and Public Disclosure; Penalty for Non-Compliance. – Copies of all contracts concluded under this Act shall be the responsibility of the government agency or LGU. The said government agency or LGU is required to forward a copy of the signed agreement to the Public-Private-Partnership (PPP) Center and the NEDA for records purposes and to		

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
					Congress for its information. In case of failure to submit a copy of the perfected and signed contract to the PPP Center and to Congress within 30 working days from signing thereof, the head of the concerned government agency or LGU shall be penalized with the administrative penalty of suspension from office for a period of six (6) months. The grant of access to the signed agreements by the public shall be the responsibility of the government agency, LGU or the PPP Center. Levels of public disclosure concerning public documents shall be subject to existing laws or rules and regulations. Universal and encompassing confidentiality clauses in any PPP contract executed by the government or any of its instrumentalities are hereby prohibited.		
39		Validity of contracts	Non	Non	Non	Non	Non
40		Accession/Divestiture	Non	Non	8. Accession/Divestiture. –Subject to the approval of the Approving Body upon due diligence and recommendation by the Head of Agency/LGU, a project proponent may divest or accede its ownership and/or rights to a project provided that, the divestiture or accession shall be after the holding or lock-in period which shall be determined by the Agency/LGU and indicated in the contract, and provided that, the new project proponent has equal or better qualifications as with the previous project proponent. A divestment/accession made in violation of this Act shall be a ground for disqualification of the proponent or cancellation of the contract, as the case may be, and forfeiture of the proponent's	Section xxx. Accession/Divestiture Subject to the approval of the approving body upon due diligence and recommendation by the head of implementing agency/LGU, a project proponent may divest or accede its ownership, rights, or interest to a project provided that, the divestiture or accession shall be after a holding or lock-in period, which should be not less than five (5) years and which shall be determined by the implementing agency/LGU or as indicated in the contract, and provided that, the new project proponent has equal or better qualifications as with the previous project proponent. A divestment/accession made in	Section xxx Accession/Divestiture. Subject to the approval of the approving body upon due diligence and recommendation by the head of the implementing agency, a project proponent may divest or accede its ownership, rights, or interest to a project provided that, the divestiture or accession shall be after a holding or lock-in period which shall be determined by the implementing agency or as indicated in the contract, and provided that, the new project proponent has equal or better qualifications as with the previous project proponent. A divestment/accession made in violation of this section shall be

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
					bid or performance security. The Agency/LGU shall inform in writing the PPP Center the change in ownership for monitoring purposes."	violation of this section shall be a ground for disqualification of the proponent or cancellation of the contract, as the case may be, and forfeiture of the proponent's bid or performance security. The implementing agency/LGU shall inform in writing the PPP Center the change in ownership for monitoring purposes.	a ground for disqualification of the proponent or cancellation of the contract, as the case may be, and forfeiture of the proponent's bid or performance security. The implementing agency shall inform in writing the PPP Center the change in ownership for monitoring purposes.
41	8	Regulatory Boards	SEC. 8. Regulatory Boards. - The Toll Regulatory Board which was created by Presidential Decree No. 1112 is hereby attached to the Department of Public Works and Highways with the Secretary of Public Works and Highways as Chairman.	No Change	10-A. Prohibition on PPP contracting by Regulatory Agencies. All regulatory agencies shall be prohibited from being a party to PPP contracts."	Regulatory Boards.The appropriate government regulatory bodies, shall approve the tolls, fees, rentals, and charges based on a reasonable rate of return.In absence of an appropriate regulatory body, the NEDA-ICC approved parameters and terms based on a reasonable rate of return shall be adopted.	~~The Toll Regulatory Board which was created by Presidential Decree No. 1112 is hereby attached to the Department of Public Works and Highways with the Secretary of Public Works and Highways as Chairman.~~THE APPROPRIATE GOVERNMENT REGULATORY BODIES SHALL APPROVE THE TOLLS, FEES, RENTALS, AND CHARGES.IN THE ABSENCE OF AN APPROPRIATE REGULATORY BODY, THE INVESTMENT COORDINATION COMMITTEE APPROVED PARAMETERS AND TERMS SHALL BE ADOPTED.
42	9	Project Supervision	SEC. 9. Project Supervision. - Every infrastructure project undertaken under the provisions of this Act shall be in accordance with the plans, specifications, standards, and costs approved by the concerned government agency and shall be under the supervision of the said agency or local government unit in the case of local projects.	No Change	Non	Non	Non
43	10	Investment Incentives	SEC. 10. Investment Incentives. - Among other incentives, projects in excess of One billion pesos (P1,000,000,000) shall be entitled to incentives as provided by the Omnibus Investment Code, upon registration with the Board of Investments.	No Change	No Change	Among other incentives, PPP projects ~~in excess of One billion pesos (P1,000,000,000)~~ shall be entitled to incentives as provided by the Omnibus Investment Code, upon registration with the Board of Investments.	Among other incentives, PPP projects ~~in excess of One billion pesos (P 1,000,000,000)~~ shall be entitled to incentives as provided by the Omnibus Investment Code, upon registration with the Board of Investments.
44		Project of	Non	10-A Projects of national	Non	Section xxx. Projects of National	Section xxx

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		National Significance		Significance. - Upon the certification and recommendation of NEDA, the President may classify certain projects undertaken under this Act as Projects of National Significance, which shall be entitled to the following incentives: a. All real properties which are actually and directly used for the project shall be exempt from any and all real property taxes levied under Republic Act No.7160 b. The total of all local taxes imposed by a province, city ormunicipality in Metro Manila pursuant to Republic Act No. 7160 on the project proponent shall not exceed fifty percent (50%) of one percent (1%) of gross sales or receipts of the preceding calendar year; c. The necessary business permits, including any renewals thereof, shall be deemed to have been automatically granted or issued to the winning project proponent upon tender of the required taxes and fees to the appropriate local government unit. For purposes of this section, in order for a project to qualify as a Project of National Significance, the following conditions must occur: 1. The total cost of the project is at least PhP 5 billion_____. 00 and 2. The project is located in or affects at least two(2) provinces.		Significance Upon the certification and recommendation of NEDA, the President may classify certain projects undertaken under this Act as Projects of National Significance, which shall be entitled to the following incentives: a. All real properties which are actually and directly used for the project shall be exempt from any and all real property taxes levied under Republic Act No. 7160; b. The total of all local taxes imposed by a province, city or municipality in Metro Manila pursuant to Republic Act No. 7160 on the project proponent shall not exceed fifty percent (50%) of one percent (1%) of gross sales or receipts of the preceding calendar year; c. The necessary business permits, including any renewals thereof, shall be deemed to have been automatically granted or issued to the winning project proponent upon tender of the required taxes and fees to the appropriate local government unit. For purposes of this section, in order for a project to qualify as a Project of national Significance, the following conditions must occur: 1. The total cost of the project is at least PHP 5 Billion; and 2. The project is located in or affects at least two (2) projects.	Projects of National Significance. As determined by investment coordination committee, certain projects may be identified as having national significance and for such reason be entitled to the following incentives: A. All real properties which are actually and directly used for the project shall be exempt from any and all real property taxes levied under republic act no. 7160; B. The total of all local taxes imposed by a province, city or municipality in metro manila pursuant to republic act no. 7160 on the project proponent shall not exceed fifty percent (50%) of one percent (1%) of gross sales or receipts of the proceeding calendar year; C. The necessary business permits, including any renewals thereof, shall be deemed to have been automatically granted or issued to the winning project proponent upon tender of the required taxes and fees to the appropriate local government unit.
		Acquisition of Right of Way, Site or Location	Non	Non	Non	Non	Section 11. Acquisition Of Right-Of- Way, Site Or Location. Whenever it is necessary for

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
							PPP projects to acquire real property for the right-of-way, site or location through expropriation, the appropriate implementing agency shall initiate the expropriation proceedings before the proper court in accordance with republic act no. 8974; provided, that for issuance of a writ of possession, the implementing agency shall pay the property owner the amount equivalent to at least the sum of: (1) two hundred percent (200%) of the value of the property based on the current relevant zonal valuation of the Bureau of Internal Revenue (BIR); and (2) the value of the improvements and/or structures. Upon compliance with the applicable guidelines for expropriation proceedings, the court shall issue within ten (10) working days the order to take possession of the property and start the implementation of the project.
45	11	IRR	SEC. 11. Implementing Rules and Regulations. - A committee composed of one (1) representative from the Department of Public Works and Highways (DPWH), the Department of Transportation and Communications (DOTC), the Department of Energy (DOE), the Department of Environment and National Resources (DENR), the Department of Agriculture (DA), the Department of Trade and Industry (DTI), the Department of Finance (DOF), the Department of Interior and Local Government (DILG), the National Economic and Development Authority (NEDA), the Coordinating Council of the Philippine Assistance Program (CCPAP), and other concerned government agencies shall, within	No Change	"Section 14. Implementing Rules and Regulations. –A committee composed of one (1) representative each from the National Economic and Development Authority (NEDA), the Public-Private Partnership Center (PPP Center); the Department of Public Works and Highways (DPWH), the Department of Finance (DOF); the Department of Transport and Communications (DOTC); the Department of Interior and Local Government (DILG), the Department of Energy (DOE), the Department of Trade and Industry (DTI); the Department of Budget and Management (DBM); the Office of the President (OP), Office of the Solicitor-General (OSG), and	A committee composed of one (1) representative from the NEDA, the DBM, the DOF, the DTI, the OP, the DILG, the ~~COA~~ DOE the OSG, the OGCC, the DPWH, the DOTC, the DENR, the PPP Center, and other concerned government agencies shall, within sixty (60) days from the effectivity of this act, formulate and prescribe, after public hearing and publication as required by law, the implementing rules and regulations (IRR) in order to carry out the provisions of this act in the most expeditious manner. The IRR shall cover, among others, the project approval process, the bidding procedure,	A Committee composed of one (1) representative each from ~~the DPWH, the DOTC, the DOE,~~ the Department of Environment and Natural Resources, ~~the DA,~~ the Department of Trade and Industries, the Department of Finance, the Department of Interior and Local Government, the National Economic Development Authority, the ~~CCPAP~~ PPP CENTER, THE DEPARTMENT OF BUDGET MANAGEMENT, THE OFFICE OF THE PRESIDENT, AND THE DEPARTMENT OF JUSTICE ~~and other concerned government agencies~~ shall within sixty [60] days from the effectivity of this Act, formulate and prescribe, after public hearing and publication as

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			sixty (60) days from the effectivity of this Act, formulate and prescribe, after public hearing and publication as required by law, the implementing rules and regulations including, among others, the criteria and guidelines for evaluation of bid proposals, list of financial incentives and arrangements that the Government may provide for the project, in order to carry out the provisions of this Act in the most expeditious manner. "The Chairman of this committee shall be appointed by the President of the Philippines from its members. "From time to time the Committee may conduct, formulate and prescribe after due public hearing and publication, amendments to the implementing rules and regulations, consistent with the provisions of this Act.		the Office of Government Corporate Counsel (OGCC), two (2) representatives from duly accredited organizations representing the private Philippine construction industry, and one (1) representative of financial sector associations, and shall formulate, after public hearing and publication as required by law, the IRR, including, among others, the criteria and guidelines for evaluation of bid proposals, provisions to subject the facility collections to audit by the Commission on Audit, and other conditions for the cancellation of contracts, in order to carry out the provisions of this Act. The IRR shall be promulgated within sixty (60) days after the effectivity of this Act. The Chairman of this committee shall be appointed by the President of the Republic of the Philippines.	list of financial incentives and arrangements that the government may provide for the project. The chairman of this committee shall be the Secretary of Socio-Economic Planning. From time to time the Committee may conduct, formulate and prescribe after due public hearing and publication, amendments to the implementing rules and regulations, consistent with the provisions of this Act.	required by law, the IRR ~~including, among others, the criteria and guidelines for evaluation of bid proposals, list of financial incentives and arrangements that the Government may provide for the project,~~ of this Act in order to carry out its provisions in the most expeditious manner. THE IRR SHALL COVER, AMONG OTHERS, THE PROJECT APPROVAL PROCESS, THE BIDDING PROCEDURE, LIST OF FINANCIAL INCENTIVES AND ARRANGEMENTS THAT THE GOVERNMENT MAY PROVIDE FOR THE PROJECT. ~~The Chairman of this committee shall be appointed by the President of the Philippines from its members.~~ THE CHAIRMAN OF THIS COMMITTEE SHALL BE THE SECRETARY OF SOCIOECONOMIC PLANNING. From time to time the Committee may conduct, formulate and prescribe after due public hearing and publication, amendments to the IRR, consistent with the provisions of this Act.
46		Prohibition on the Issuance of Temporary Restraining Orders	Non	11 Prohibition on the Issuance of Temporary Restraining Orders, Preliminary Injunctions and Preliminary Mandatory Injunctions.- No court, except the Supreme Court, shall issue any temporary restraining order preliminary injunction or preliminary mandatory injunction against the government, or any of its subdivisions, officials or any person or intity, whether public or private, acting under the government's direction, to restrain, prohibit or compel the following acts with regard to Projects of national Significance under the immediately	Delete	Section xxx. Prohibition on the Issuance of Temporary Restraining Orders, Preliminary Injunctions and Preliminary Mandatory Injunctions.No court, except the Supreme Court, shall issue any of temporary restraining order, preliminary injunction, or preliminary mandatory injunction against the government, or any of its subdivisions, officials or any person or entity, whether public or private, acting under the government's direction, to restrain, prohibit or compel the following acts with regard to Projects of National Significance	Section xxxProhibition on the Issuance of Temporary Restraining Orders, Preliminary Injunctions And Preliminary Mandatory Injunctions.No court, except the supreme court, shall issue any of temporary restraining order, preliminary injunction, or preliminary mandatory injunction against the government, or any of its subdivisions, officials or any person or entity, whether public or private, acting under the government's direction, to restrain, prohibit or compel the following acts under the immediately preceding

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
				preceding section:a. Acquisition, clearance and development of the right-of-way and/or site or location;b. Bidding or awarding;c. Commencement, prosecution, execution, implementation and operation;d. Termination or rescission of the contract; and e. The undertaking or authorization of any other lawful activity necessary or in connection with the execution or implementation of the project.This prohibition shall apply in all cases, disputes or controversies instituted by a private party, including, but not limited to, cases filed by bidders or those claiming to have rights through such bidders involving projects of national significance. This prohibition shall not apply when the matter is of extreme urgency involving a constitutional issue, such that unless a temporary restraining order is issued, gave injustice and irresparable injury will arise. The applicant shall file a bond, in an amount to be fixed by the court, which bond shall accrue in favor of the government if the court should finally decide that the applicant was not entitled to the relief sought.Any temporary restraining order, preliminary injunction or preliminary mandatory injunction issued in violation of this section is void and of no force and effect.		under the immediately preceding section:a. Acquisition, clearance and development of the right-of-way and/or site or location;b. Bidding or awarding;c. Commencement, prosecution, execution, implementation and operation;d. Termination or rescission of the contract; ande. The undertaking or authorization of any other lawful activity necessary or in connection with the execution or implementation of the project.This prohibition shall apply in all cases, disputes or controversies instituted by a private party, including, but not limited to, cases filed by bidders or those claiming to have rights through such bidders involving projects of national significance. This prohibition shall not apply when the matter is of extreme urgency involving a constitutional issue, such that unless a temporary restraining order is issued, grave injustice and irreparable injury will arise. The applicant shall file a bond, in an amount to be fixed by the court, which bond shall accrue in favor of the government if the court should finally decide that the applicant was not entitled to the relief sought.Any temporary restraining order, preliminary injunction, or preliminary mandatory injunction issued in violation of this section is void and of no force and effect.	section:A. Acquisition, clearance and development of the right-of-way and/or site or location; B. Bidding or awarding; C. Commencement, prosecution, execution, implementation and operation; D. Termination or rescission of the contract; and E. The undertaking or authorization of any other lawful activity necessary or in connection with the execution or implementation of the project.This prohibition shall apply in all cases, disputes or controversies instituted by a private party, including, but not limited to, cases filed by bidders or those claiming to have rights through such bidders. This prohibition shall not apply when the matter is of extreme urgency involving a constitutional issue, such that unless a temporary restraining order is issued, grave injustice and irreparable injury will arise.Any temporary restraining order, preliminary injunction, or preliminary mandatory injunction issued in violation of this section is void and of no force and effect.
47	12	Coodination and Monitoring of Projects	SEC. 12. Coordination and Monitoring of Projects. - The Coordinating Council of the Philippine Assistance Program (CCPAP) shall be responsible for the coordination and monitoring of projects implemented under this Act. Regional development councils and local government units shall	Non	Non	Non	SECTION 14. Coordination and Monitoring of Projects. PUBLIC-PRIVATE PARTNERSHIP CENTER. ~~The Coordinating Council of the Philippine Assistance Program [CCPAP] shall~~ The PPP CENTER be responsible for the coordination and monitoring of

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
			periodically submit to CCPAP information on the status of said projects. At the end of every calendar year, the CCPAP shall report to the President and to Congress on the progress of all projects implemented under this Act.				projects implemented under this Act. THE PPP CENTER SHALL ADMINISTER THE PROJECT DEVELOPMENT AND MONITORING FACILITY (PDMF). A PDMF BOARD SHALL BE CREATED TO PROVIDE THE OVERALL POLICY DIRECTION FOR THE UTILIZATION OF THE PDMF. ~~Regional development councils and local government units shall periodically submit to CCPAP, information on the status of said projects.~~ ~~At the end of every calendar year, the CCPAP shall report to the President and to Congress on the progress of all projects implemented under this Act.~~
48		Tax Regime for PPP projects	Non	Non	12-A. Tax Regime for PPP Projects – Any provision of existing laws, rules and regulations to the contrary notwithstanding, no taxes, local and national, shall be imposed on approved PPP project proponents. In lieu of paying taxes, five percent (5%) of the gross income earned by project proponents shall be remitted to the national government. This five percent (5%) shall be shared and distributed as follows: i) Three percent (3%) to the national government; ii) Two percent (2%) to the local government units affected by the PPP project and allocated similar to Section 285 Chapter 1 Title III of R.A. 7160 or "Local Government Code of 1991", as follows: a. Provinces – Twenty-three percent (23%); b. Cities – Twenty-three percent (23%);	Non	Non

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
					c. Municipalities – Thirty-four percent (34%); and d. Barangays – Twenty percent (20%). In cases of PPP projects covering more than one province/city/municipality/ barangay, the share of the concerned LGU shall be based on the following criteria: population, land area, and equal sharing, similar to the Local Government Code. The renewal of the necessary business permits shall be deemed to have been automatically granted or issued to the winning project proponent upon tender of stated aforementioned levy of five percent (5%) of the gross income earned by project proponents."		
49		Creation of PPP Center	Non	Non	13. Creation of the Public-Private Partnership Center (PPPC). Pursuant to the declared policy under this Act, it is hereby created the Public-Private Partnership Center (PPPC), as an attached unit of NEDA, which shall have the following functions and responsibilities: a) In consultation with the NEDA, identify from the priority lists of all government instrumentalities, agencies, and LGUs the short list that can be undertaken specifically through the PPP modality. b) Provide and if necessary assist the implementing agency/LGU source the necessary technical expertise and assistance for the pinpointed shortlist of 20 projects that can be undertaken under the PPP mode. c) Ensure a pipeline of projects from the short-list of PPP recommended for implementation with the	Creation of the Public-Private Partnership Center (PPP Center). Pursuant to the declared policy under this act, it is hereby created the Public-Private Partnership Center (PPP Center), as an attached unit of NEDA. The PPP Center shall be responsible for the coordination and monitoring of projects implemented under this act. Regional development councils and local government units shall periodically submit to PPP Center on the status of said projects.	Non

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
					concomitant business case or feasibility studies as is necessary. d) Recommend plans, policies and implementation guidelines related to PPP in consultation with appropriate oversight committees, implementing agencies, LGUs and the private sectors. e) Assist the implementing agency/LGU in drawing up the indicative timeline or schedule for the bidding out of the short-listed PPP projects upon which the said agency/LGU shall be held accountable. f) Manage the Project Development Facility as provided in Section 5-A of this Act. g) Monitor and facilitate the implementation of the priority PPP Programs and Projects of the agencies/LGUs which shall be formulated by respective agencies/LGUS in coordination with the NEDA Secretariat. h) Prepare reports on the implementation of the PPP programs and projects of the government for submission to the President and the Congress at the end of each year. i) Serve as a centralized depository of all PPP contracts forged by all instrumentalities of government. As a centralized depository, the PPP Center shall maintain an Integrated Projects Bank to serve as an interactive database of all current and past projects. Institutions at all levels of government shall have on-line access with access levels depending on the guidelines set in the IRR of this Act. Citizens can access, download and query the website on the full list of current and past projects. j) Perform such other functions as may be necessary to achieve		

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
					the objectives and purposes of this Act. Each major infrastructure development department or local government unit shall establish PPP units in their respective agency/LGU, specifically tasked with project proposal preparation and monitoring, and assigned the responsibility of coordinating with the PPP Center.”		
50		Special Fund	Non	Special Fund. - A Special Fund is hereby created to defray the cost of compensation to project proponents which enter into BOT contracts, concession agreements or other contractual agreements with any national government agency or GOCC pursuant to the provisions of Republic Act No. 6957, as amended, in the event that the government agency or GOCC fails to comply, or is prevented from complying, with its obligations under the aforementioned contracts or agreements as a result of any act of another agency or branch of government: Provided, no compensation shall be paid out of the Special Fund if the contract or agreement has been determined to be unlawful or unconstitutional by a final judgment of a court of competent jurisdiction.For the initial year of implementation of this Act, the sum of _____pesos(PhP _____.00) is hereby appropriated for the [Sepcial Fund] and charged against [source]. Thereafter, the [Special Fund] may be replenished or increased by such amount as may be deemed necessary in the General Appropreations Act.	Delete	Section xxx. Special Fund.A Special Fund is hereby created to defray the cost of compensation to project proponents which enter into BOT contracts, concession agreements or other contractual agreements with any national government agency or GOCC pursuant to the provisions of Republic Act No. 6957, as amended, in the event that the government agency or GOCC fails to comply, or is prevented from complying, with its obligations under the aforementioned contracts or agreements as a result of any act of another agency or branch of government; Provided, no compensation shall be paid out of the Special Fund if the contract or agreement has been determined to be unlawful or unconstitutional by a final judgment of a court of competent jurisdiction.For the initial year of implementation of this Act, the sum of _____ pesos (PhP ___.00) is hereby appropriated for the [Special Fund] and charged against [source]. Thereafter, the [Special Fund] may be replenished or increased by such amount as may be deemed necessary in the General Appropriations Act.	Non
		Appropriation for PPP	Non	Non	Non	Non	Section 12.

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
		Projects					The congress shall automatically appropriate the necessary amount out of any funds in the national treasury not otherwise appropriated, to cover: (1) payment of costs relating to the implementation of multi year projects which are issued multi-year obligational authorities by the department of budget management in accordance with applicable guidelines and procedures; and (2) payment of liabilities, penalties, and interests incurred by the implementing agency, as and when they shall become due, in the event that the implementing agency fails to comply, or is prevented from complying, with its obligations under the aforementioned contracts or agreements as a result of any act of another agency or branch of government.
51		Liability	Non	Non	Non	Non	Non
52		Repealing/Separability/Effectivity Clause	SEC. 15. Sections 11, 12 and 13 of the same Act are hereby renumbered as Sections 13, 14 and 15respectively. SEC. 16. Repealing Clause. - All laws or parts of any law inconsistent with the provisions of this Act are hereby repealed or modified accordingly. SEC. 17. Separability Clause. - If any provision of this Act is held invalid, the other provisions not affected thereby shall continue in operation. SEC. 18. Effectivity Clause. - This Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.	Repealing Clause. - All laws or parts of any law, including Pepublic Act Nos. 7160 and 8975, orders, rules and regulations or parts thereof inconsistent with the provisions of this Act are hereby repealed or amended accordingly. Separability Clause. - If any provision of this Act is held invalid, the other provisions not affected thereby shall continue in operation. Effectivity Clause. - This Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.	Repealing Clause. – All laws or parts of any law, including Republic Act Nos.7160 and 8975, Executive Orders 109 (s. 2002), 109-A (s. 2003), 423 (s. 2005), and 645 (s. 2007), rules and regulations or parts thereof inconsistent with the provisions of this Act are hereby repealed or modified accordingly. Separability Clause. – If any provision or part of this Act is held invalid, the other provisions not affected thereby shall continue in operation. Effectivity Clause. – This Act shall take effect fifteen (15) days after its publication in the official Gazette or in two (2) national newspapers of general circulation.	Repealing Clause. All laws or parts of any law inconsistent with the provisions of this Act are hereby repealed or modified accordingly. Separability Clause. If any provision of this Act is held invalid, the other provisions not affected thereby shall continue in operation. Effectivity. This Act shall take effect fifteen (15) days after its publication in at least two (2) newspapers of general circulation.	Section 13. Repealing Clause. All laws or parts of any law, including republic act nos. 7160 and 8975, orders, rules and regulations or parts thereof inconsistent with the provisions of this act are hereby repealed or amended accordingly. Section 14. Separability Clause. If any provision of this Act is held invalid, the other provisions not affected thereby shall continue in operation. Section 15. Effectivity. This Act shall take effect fifteen

Ref. No	BOT Law Sec.	Subject	Current BOT Law	HB4151-1 (February 2011 Original)	HB4151-2 (as of April 2011)	HB4151-3 (as of August 2011)	HB4151-4 (as of September 2011)
							(15) days after its publication in at least two (2) newspapers of general circulation.

Ref. No.	BOT Law Sec.		HB759	HB4919
1		Short title	(BOT Law)	Title: An Act Enhancing The Public-Private Partnership in the Infrastructure Development of the Philippines
2	1	Declaration of Policy	No Change	SEC. 2. Declaration of Policy – It is hereby the policy of the state to: a. Recognize the indispensable role of the private sector as the main engine for the national growth and development; b. Create an enabling environment for public-private partnership (PPP) projects, that is, private sector investment in public infrastructure for efficient provision of public services; c. Recognize the long term nature of private investment in infrastructure and services and to mitigate the associated risks by ensuring that the validity and enforceability of contracts are respected through the due process law; d. Encourage private investment in public infrastructure and/or public services that: (i) Yields value for money for the state by allocating risks to the party best able to manage them; (ii) Is affordable in light of overall budgetary sustainability, forward commitment in relation to public expenditure and the potential returns on private sector investment; (iii) Maxims the benefits of private sector efficiency, expertise, flexibility and innovation; (iv) Is financially viable; and (v) Is desired in light economic and social benefits and costs; e. Ensure a consistent approach among government agencies at both national and local levels in the adjudication, design, assessment, solicitation and management of projects; and f. Build capacity of government agencies and local government units, hereinafter referred to as LGUs to avail themselves of investment opportunities.
3	2(a)	Definition (Private sector infrastructure or development projects)	No Change	No Definition Clause
4		Definition (PPP)	Non	No Definition Clause
5	2(b)	Definition (BOT)	No Change	a. Build-Operate-and-Transfer (BOT). A contractual arrangement whereby the project proponent undertakes the construction, including financing of a given infrastructure facility and the operation and maintenance thereof. The project proponent operates the facility over the fixed term during which it is allowed to charge facility users appropriate tolls, fees, rentals and charges not exceeding those proposed in its bid or as negotiated and incorporated in the contract to enable the project proponent to recover its investment, and operating and maintenance expenses in the project. The project proponent transfers the facility to the government agency or LGU concerned at the end of the fixed term which shall not exceed 50 years: Provided, that in case of an infrastructure or development facility the operation of which requires a public utility franchise, the proponent must be a Filipino, of if a corporation, must be duly registered with the SEC and owned up to at least 60% by Filipinos. The BOT shall include a supply-and-operate situation, which is contractual arrangement whereby the supplier of equipment and machinery for a given infrastructure facility, if the interest of government so requires, operates the facility in the process provide technology transfer and training to Filipino nationals.
6	2(c)	Definition (BT)	No Change	b. Build-and-transfer (BT). A contractual arrangement whereby the project proponent undertakes the financing and construction of a given infrastructure or development facility and after its completion turns it over to the government agency or LGU concerned which shall pay the proponent on an agreed schedule its total investments expended on the projects, plus a reasonable rate of return thereon. This arrangement may be employed in the construction of nay infrastructure or development project, including critical facilities which, for security or strategic reasons, must be operated directly by government.
7	2(d)	Definition (BOO)	No Change	c. Build-own-and-operate (BOO). A contractual arrangement whereby a project proponent is authorized to finance, construct, own, operate and maintain an infrastructure or development facility from which the proponent is allowed to recover its total investment, operating and maintenance costs plus reasonable return thereon by collecting tolls, fees, rentals or other chargers from the facility users: Provided, that all such projects, upon recommendation of ICC, shall be approved by the President of the Philippines as chair of the NEDA Board. Under this project, the proponent that owns the assets of the facility may assign its operation and maintenance to a facility operator.
8	2(e)	Definition (BLT)	No Change	d. Build-lease-and-transfer (BLT). A contractual arrangement whereby a project proponent is authorized to finance and

Ref. No.	BOT Law Sec.		HB759	HB4919
				construct an infrastructure or development facility and, upon its completion, turns it over to the government agency or LGU concerned on a lease arrangement for a fixed period after which ownership of the facility is automatically transferred to the government agency or LGU concerned.
9	2(f)	Definition (BTO)	No Change	e. Build-transfer-and-operate (BTO). A contractual arrangement whereby the public sector contracts out the building of an infrastructure facility to a private entity such that the contractor builds the facility on a turn-key basis, assuming cost overrun, delay and specified performance risks. Once the facility is commissioned satisfactorily, title is transferred to the implementing agency. The private entity, however, operates the facility on behalf of the implementing agency under an arrangement.
10	2(g)	Definition (CAO)	No Change	f. Contract-add-and-operate (CAO). A contractual arrangement whereby the project proponent adds to an existing infrastructure facility which it is renting from the government. It operates the expanded project over an agreed franchise period. There may or may not be a transfer arrangement in regard to the facility.
11	2(h)	Definition (DOT)	No Change	g. Development-operate-and-transfer (DOT). A contractual arrangement whereby favorable conditions external to a new infrastructure project, which is to be built for a private project proponent, are integrated into the arrangement by giving that entity the right to develop adjoining property, and thus, enjoy some of the benefits the investment creates such as higher property or rent values.
12	2(i)	Definition (ROT)	No Change	h. Rehabilitate-operate-and-transfer (ROT). A contractual arrangement whereby an existing facility is turned over to the private sector to refurbish, operate and maintain for a franchise period, at the expiry of which the legal title to the facility is turned over to the government. The term is also used to describe the purchase of an existing facility from abroad, importing, refurbishing, erecting and consuming it within the host country.
13	2(j)	Definition (ROO)	No Change	i. Rehabilitate-own-and-operate (ROO). A contractual arrangement whereby an existing facility is turned over to the private sector to refurbish and operate with no time limitation imposed on ownership. As long as the operator is not in violation of its franchise, it can continue to operate the facility in perpetually.
14		Definition (Concession)	Non	No Definition Clause
15		Definition (JV)	Non	No Definition Clause
16		Definition (Management/Service Contract)	Non	No Definition Clause
17		Definition (Lease/Affermage)	Non	No Definition Clause
18	2(k)	Definition (Project proponent)	No Change	No Definition Clause
19	2(l)	Definition (Contractor)	No Change	No Definition Clause
20	2(m)	Definition (Facility Operator)	No Change	No Definition Clause
21	2(n)	Definition (Direct government guarantee)	No Change	No Definition Clause
22	2(o)	Definition (Reasonable rate of return)	No Change	No Definition Clause
23	2(p)	Definition (Construction)	No Change	No Definition Clause
24		Definition (Implementing Agency)	Non	No Definition Clause
25		Definition (Franchise)	Non	No Definition Clause
26		Definition	Non	No Definition Clause

Ref. No.	BOT Law Sec.		HB759	HB4919
		(Public Utility)		
		Definition (Government Undertakings)	Non	No Definition Clause
		Definition (Project Development and Monitoring Facility(PDMF))	Non	No Definition Clause
		Project proponent	Non	No Definition Clause
27		Private delivery of public infrastructure and / or services	Non	SEC. 4. Private delivery of public infrastructure and/or services 1. Any government agency or LGU may contract with the private sector for the delivery of public infrastructure and/or services in any of the following areas:a. Energy, including oil and gas;b. Transport, including railways, roads, tunnels, bridges, ports, canals, channels, airports, pipelines;c. Water, including water storage and wastewater;d. Communications;e. Information technology;f. Education;g. Health;h. Tourism;i. Culture, sports and leisure facilities;j. Government buildings, industrial estates and townships and housing;k. Markets, warehouses and slaughter houses'l. Any other area as may be prescribed.2. Contractual arrangements that may be utilized for the purpose of projects contemplated in Section 3 shall be determined during the negotiations between the government agency or LGU, on one hand, and the private sector, on the other. 3. For the purpose of this sector and subsequent reference in the following sectors, "Prescribed" means prescribed in the IRR issued in terms of this Act, except as otherwise indicated.
28	3	Private Initiative in Infrastructure	No Change	SEC. 5. Project preparations 1. Each government agency or LGU shall within its areas of responsibility prepare a project for approval by the approving authority mentioned in Section 6 of this Act. 2. Prior to preparing a project for approval, the head of the concerned government agency or LGU shall review or assess the following: a. The risks associated with the proposed project taking into account the various methods for sharing these risks; and b. The economic and financial feasibility of the proposed project, including a comparison of the costs and benefits of implementing the project in terms of this Act with the costs of implementation in another form. 3. A government agency or LGU that lacks the capacity to prepare a project in the manner prescribed (including the pre-bidding, bidding and contract management stages of the project) can tap the Project Development Facility (PDF). The PDF will provide the fund, the start-up capital of which shall come from the national government budget or grants from donors of the ODA. In the case of a government agency, the PDF shall be appropriated within its budget or grants from donors of the ODA. In the case of a government agency, the PDF shall be appropriated within its budget ceiling, to enable the government agency to solicit assistance or expert advice as necessary. In the interest of sustainability, the winning bidder for a PPP project shall be required to compensate for the cost that the government agency expended in developing its proposal. In the case of LGU, the DOF shall act as custodian of the PDF and the winning bidder for the LGU-initiated PPP project shall likewise compensate the cost expended in developing proposal. In the event that resources from the PDF are expended in developing the proposals in developing the required assistance within the prescribed period, the government agency or LGU shall report to the ICC and NEDA Board, respectively.
29	4	Priority Projects	No Change	SEC. 6 Approving Authority - The NEDA shall issue the necessary rules and regulations for the effective implementation of this Act. To this end, the NEDA Board, through the ICC, shall request national agencies and LGU's to submit program reports of PPP Projects: 1. A national agency that has identified and prepared a project in the manner specified in Section 5 shall: a. Be required to endorse through the head of the government agency, the project proposal and contract to the ICC. This endorsement shall server as the first pass approval for the project and draft contract. All government agencies are required to review technical, legal, financial, economic and social implications of the project and approve the same prior to endorsement to the ICC; b. Submit projects of major national importance with a contract value above an amount as may be prescribed, to the NEDA Board of approval; all other projects to the ICC approval;

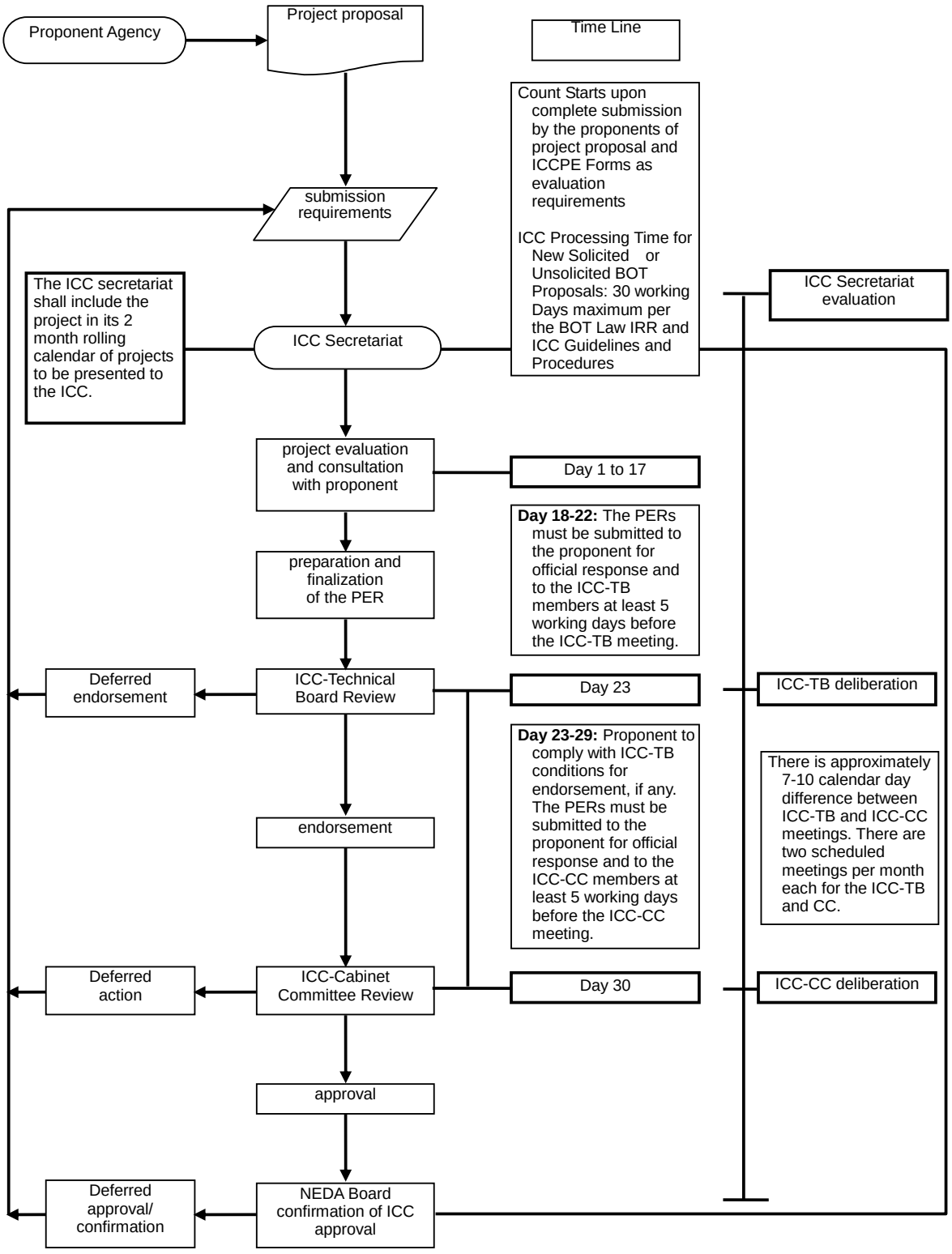
Ref. No.	BOT Law Sec.		HB759	HB4919
				2. All local government PPP projects shall be approved following the provisions of the LG Code
30		Implementing, monitoring and auditing functions	Non	SEC. 7. Implementing, monitoring and auditing functions - 1. A government agency or LGU that has secured approval for a project in the manner provided in Section 6 of this act shall be responsible for the implementation, management and supervision of the project. Regular monitoring reports shall be submitted to the ICC for its information. 2. Regular auditing shall likewise be conducted following COA guidelines. Reports may be required from the respective government agency, LGU or COA as deemed necessary.
31		Project Development Facility	No Change	No Clause
32	4-A	Unsolicited Proposal	-Unsolicited proposal for projects may be accepted by any government agency or local government unit (on a negotiated basis) which shall be forwared to the BOT authority for appropriate action within 15 working days upon receipt thereof: 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: Provided, further, that the unsolicited proposal shall be subject to open comparative or competitive tender process. A period of 45 to 120 days may be prescribed for the preparation of comparative or competitive proposals. (and	1. Competitive bidding procedures shall apply to all projects for which private investment is solicited in terms of this Act. 2. Under exceptional cases, government agencies may resort to direct negotiations under such conditions prescribed in Section 53 of RA 9184. LGUs may resort to direct negotiations under conditions prescribed in the LGC and/or RA9184 as may be applicable. Such conditions shall include a requirement that the government agency or LGU must give public notice in the prescribed manner of :a. The intention to enter into direct negotiations:b. The conclusion of negotiations to enter into a contract through direct negotiations; andc. The salient terms of the contract to be concluded.3. A government agency may only entertain an unsolicited proposal provided that such proposal is not contained in its prioritized projects in the MTPIP. In the case of LGUs, an unsolicited proposal may be entertained provided it does not appear in the local government plan of the LGU concerned.In addition, the unsolicited proposal to be acceptable is subject to other conditions as follows:a. The government agency or LGU has notified in writing the approving authority within 7 working days of the receipt of the proposal;b. The head of the government agency or head of LGU has conducted assessment as contemplated in Section 5 (2) and has certified in writing to the approving authority that is capable of conducting all proceedings relating to the proposal;c. The head of the government agency or LGU certified in writing that the proposed project serves the public interest;d. The proposal does not entail the provision of any form of government guarantee, subsidy or undertaking as may be prescribed;
			(3) the government agency or LGU has invited by publication, for 3 consecutive weeks, in a newspaper of general circulation, comparative or competitive proposals and no other proposal is received for a period of 60 working days:) Provided, further, That in the event (another proponent submits a local price proposal, the original proponent shall have the right to make that price within 30 working days.) That the contract is awarded to a challenger which submits a lower price proposal, the former shall reimburse the actual development cost expended by the original proposal on the project which shall be disclosed during the comparative or competitive tender process.	e. The proposal complies with such requirements for unsolicited proposals as may be prescribed; and f. The proponent has indicated its costs for developing the proposal in the prescribed manner. 4. Notwithstanding compliance by any government agency or LGU with the provisions of subsection 3, Section 8 of this act, the ICC may direct a government agency or LGU not to proceed with tis consideration of an unsolicited proposal until such time as the latter satisfies the approving authority that: a. It has access to adequate resources to properly assess the proposal, to conduct the evaluation of comparative proposals, to conduct negotiations and to oversee implementation; and b. The proposal meets such requirements related to the public interest as may be prescribed. 5. All unsolicited proposals shall be subject to comparative proposals, after approval by the approving authority, in the manner as may be prescribed. 6. A government agency or LGU may, during its negotiation and before issuing a request for comparative proposals, negotiate with the proponent that the latter be compensated for the cost of developing the proposal and to submit the proposal to competitive bidding procedures. The government agency or LGU shall introduce, as part of the bidding conditions, a requirement that the winning bidder (if not the original proponent) reimburse the original proponent for its cost in developing the proposal or for such amount as the government agency or LGU and the proponent may agree beforehand in writing. 7. Non-compliance with the provision of subsection 3 hereof shall be ground for declaring a contract null and void.
33	4-B	Prohibition Against Gov. Guarantees	No Change	Included in previouse provision
34	5	Public Bidding	No Change	Included in previouse provision
35	5-A	Direct Negotiation of Contract	No Change	Included in previouse provision
36	6	Payment Scheme	No Change	No Clause
37	7	Contract Termination		SEC. 11. Contract Termination – In the event that a project is revoked, cancelled or terminated by the government through no fault of the project proponent or mutual agreement, the project proponent shall be compensated by the

Ref. No.	BOT Law Sec.		HB759	HB4919
				government as provided for in the contractual agreement. In case where the government defaults on certain major obligations in the contract and such failure is not remediable of if remediable, shall remain unremedied for an unreasonable length of time, the project proponent may, by prior notice to the concerned government agency or LGU, specifying the turn-over date, terminate the contract. The private proponent shall likewise be compensated by the government according to the provisions of the contractual agreement.
38		Contracts & Public Disclosure, Penalty	No Change	SEC. 9. Contract and public disclosure 1. Reproduction of copies of all contracts concluded in terms of this Act shall be the responsibility of the government agency or LGU. The said government agency or LGU is required to forward a copy of the signed agreement to the ICC for record purposes. 2. The grant of access to the signed agreements by the public shall be the responsibility of the government agency or LGU.
39		Validity of contracts	Non	Validity of contracts – No party shall in any proceedings before any court allege the invalidity of any contract concluded under this Act on the grounds on non-compliance with the provision of this Act or its IRR after a period of 90 days has elapsed from the date of publication of the approval of the government-procured project in the Official Gazette.
40		Accession/Divestiture	Non	Non
41	8	Regulatory Boards	No Change	Non
42	9	Project Supervision	No Change	.
43	10	Investment Incentives	No Change	SEC. 12. Investment promotion – There shall be established a BOT Center to be attached as a unit to the DTI to be known as the PPC which shall have the following responsibilities: a. Promote and market the government's private-sector investment program, including the formulation and implementation of a promotion and marketing plan, providing service as an information center for investors/developers as well as for government agencies; b. Participate in the technical working group (TWG) that may be established by the IRR Committee; c. Perform business development and investment related activities in support of the other functions and mandate of the DTI; and d. Perform such other functions as may be prescribed under the IRR.
44		Project of National Significance	Non	Non
		Acquisition of Right of Way, Site or Location	Non	Non
45	11	IRR	No Change	SEC. 14. Implementing Rules and Regulations - 1. The IRR issued by virtue of RA 6957, as amended by RA 7718, shall remain in full force and effect until repealed. 2. The IRR committee may, subject to the approval of the NEDA Board and after conducting public consultations and publication as required by law, issue the IRR to provide for the implementation of this Act in the most expeditious manner. The committee may, as needed, update such IRR from time to time. 3. Without limiting the generality of the foregoing, the IRR may provide for: a. Contractual arrangements and repayment schemes that may be entered into under this Act; b. Areas in which private investment may be solicited; c. Institutional arrangements for bid management; d. Manner of preparation and content documents, including clarifications and pre-bid conferences; e. Qualifications or proponents, contractors, bidders and facility operators; f. Procedures for competitive bidding; g. Procedures for direct negotiation; h. Procedures for unsolicited proposals; i. Contract negotiation and award;

Ref. No.	BOT Law Sec.		HB759	HB4919
				j. Contract approval and implementation; k. Investment incentives, government guarantees, support and undertaking; l. Contract management, coordination, monitoring and auditing; m. The powers, functions and duties of concerned agencies; n. Any other matter required for the expeditious implementation of this Act. 4. For the purposes of this section, "committee" means a committee created by the President comprising one representative each from the following: a. DPWH b. DOTC c. DOE d. DTI e. DOF f. DILG g. NEDA h. DBM andi. OP
46		Prohibition on the Issuance of Temporary Restraining Orders	Non	Non
47	12	Coordination and Monitoring of Projects	Non	
48		Tax Regime for PPP projects	Non	Non
49		Creation of PPP Center	Non	Non
50		Special Fund	No Change	
		Appropriation for PPP Projects	Non	Non
51		Liability	Non	Liability – In accordance with Section 38, Chapter 9 of the Administrative Code of 1987, the head of the government agency shall not be held liable for acts done in the performance of his official duties, to undertake the purposes of implementing this Act or its IRR unless there is a clear showing of bad faith, malice or gross negligence.
52		Repealing/Separability/Effectivity Clause	Non	Repealing Clause – Any law, particularly RA 6957 as amended by RA 7718, PDs, Eos, regules and regulations contrary to or inconsistent with this Act are hereby repealed or modified accordingly.

APPENDIX C: REVIEW OF PPP PROJECT PROCEDURE

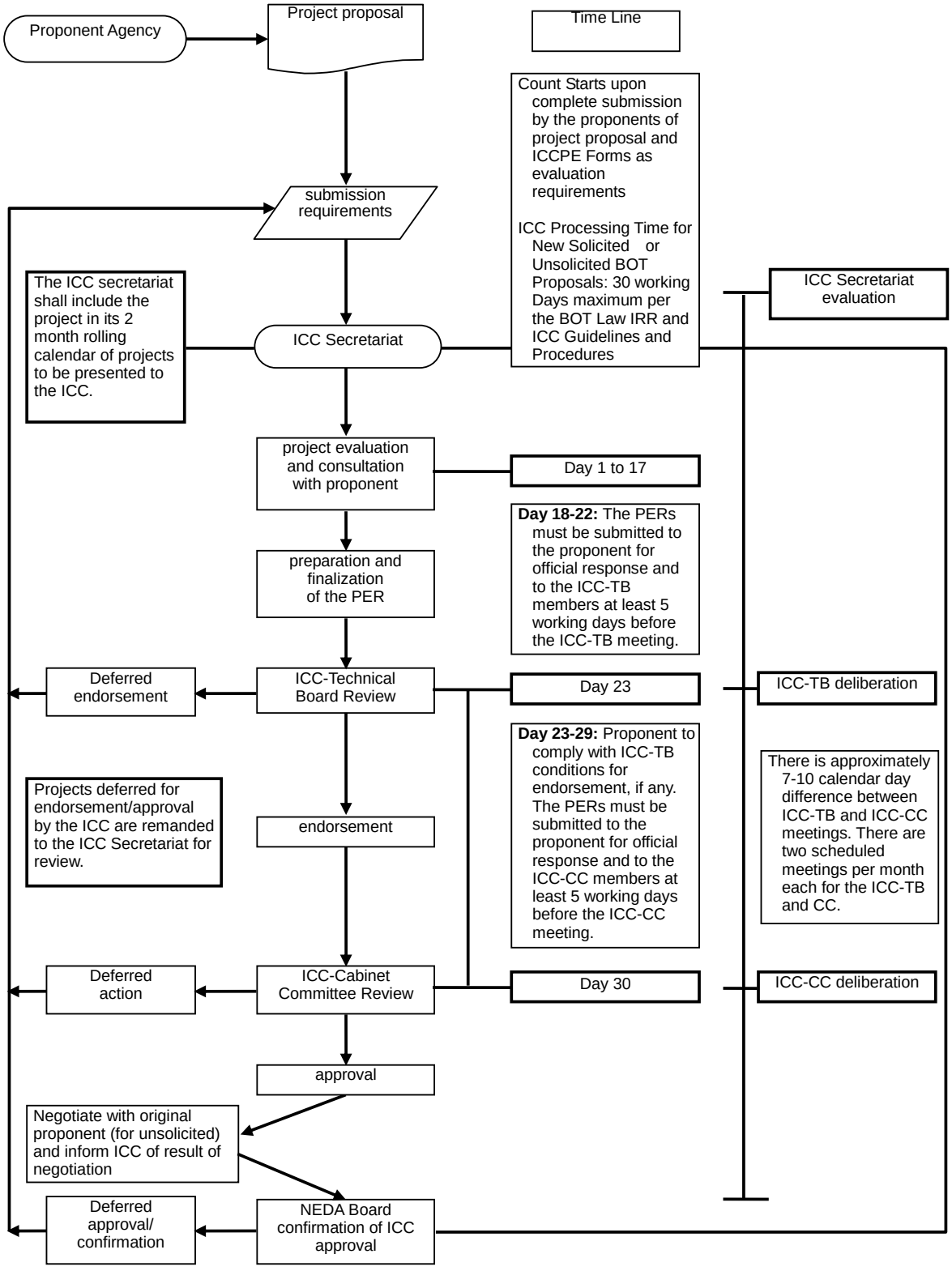
Appendix C-1: Detailed Project Selection Procedure



* Where applicable

Source: National Economic and Development Authority

Figure C-1 Detailed Project Selection Procedure for Solicited Projects



* Where applicable

Source: National Economic and Development Authority

Figure C-2 Detailed Project Selection Procedure for Unsolicited Projects

Appendix C-2: NEDA ICC PER (Project Evaluation Report) Format

A. Project's Historical Background

This section provides the milestones in project processing including highlights of previous ICC decision, where applicable, and the difficulties in securing ICC requisites.

B. Project's Sectoral Program Context

This section presents the following:

1. Brief overview of sector targets, existing programs and Sectoral gaps based on existing master plans/Sectoral programs;
2. How the proposed project addresses the needs, priorities and objectives of the sector;
3. The linkage of the proposal with other initiatives in the sector as well as related projects in other sectors.

C. Project's Regional and Spatial Context

This section indicates the geographical coverage of the proposed project and its linkage with other projects within the region and across the country. For area-specific projects, justification for the choice of area/s should be clearly stated. This may include, as annexes, location map and other relevant technical diagrams.

D. Objective

This section states the problems that the project is designed to address. It may also state the extent to which the projects intend to address the identified targets/gaps both spatially and sectorally. This should include, as annex, the validated project logical framework.

E. Project Description

This section presents the project's configuration and scope of works particularly a brief description of the components, the location and the areas of service/influence. This should clearly indicate the outputs of the project.

F. Project Cost and Financing

This section indicates the total cost (investment and operations and maintenance) broken down annually and by the following:

1. Activity and by project component;
2. Source (foreign and domestic funding); and,
3. Foreign and Peso cost requirements through the implementation period.

This section should also provide the source, financing terms and conditions including the computation of the grant element of the external financing source. It should also include the base year for costs and the exchange rate used, with appropriate referencing. In addition, the choice of financing source should be clearly justified, i.e., a comparative analysis of financing alternatives.

G. Institutional Arrangements

This section describes the institutional arrangements and cites the technical and financial capacity and/or absorptive capacity of the implementing agents.

H. Implementation Schedule

This section presents the work program of the project, i.e.., scheduled start and completion of project implementation.

I. Technical/Market/Environmental Evaluation

This section provides the results of the technical analysis on the selection of alternatives

(advantages/ disadvantages), which have been identified to achieve the objectives of the project, as validated by the Secretariat. The analysis should include the appropriateness of proposed interventions that considers factors such as specific of the project. Also, the analysis should include a review of the environmental impact of the proposed project design.

J. Financial Analysis

The financial analysis should determine the financial sustainability of the project and its overall success. This section contains the following:

1. Assumptions in estimating the financial indicators;
2. Financial indicators from the following perspectives: a total investment, equity/owner and, where warranted, budgetary. The indicators include financial internal rate of return (FIRR), weighted average cost of capital (WACC), net presenta value (NPV) and benefit-cost ratio (BCR) and
3. Sensitivity analysis using the following scenarios:
   Case I: Increase in projected costs by 10% or 20%
   Case II: Decrease in revenues by 10% and 20%
   Case IIII: Combination of Cases I and II
4. Other measures of financial viability such as , but not limited to, cost effectiveness.

K. Economic Analysis

The objective of economic evaluation is to ascertain the project's desirability in terms of its net contribution to the economic and social welfare of the country as a whole. This section contains the following:

1. Assumptions in estimating the economic indicators;
2. Economic indicators: economic internal rate of return (EIRR), weighted average cost of capital (WACC), net present value (NPV) and benefit-cost ratio (BCR); an
3. Sensitivity analysis using the following scenarios:
   Case I: Increase in projected costs by 10% or 20%
   Case II: Decrease in revenues by 10% and 20%
   Case IIII: Combination of Cases I and II

L. Social Analysis

Social Analysis is conducted to determine if a project is responsive to national objectives of poverty reduction, employment generation and income redistribution. This section identifies the target beneciaries and affected groups, and the project's social impact on these groups. This may also include a discussion on social dimensions such as gender and socio-political issues involved.

M. Issues

This section highlights the issues that may hamper the implementation of the project, e.g., inconsistencies with existing laws, policies, guidelines and procedures. It also presents a summary of substantive adverse findings on the overall evaluation of the project as well as pending ICC requisite documents.

N. Recommendation

This presents the recommendation of the Secretariat regarding the project including the conditional ties, if any.

* In reviewing ongoing projects, the above-cited PER format will be adopted but note limited to (refer to PMS Manual on Project Monitoring). On the other hand, the PER format for BOT projects includes other elements (i.e., formation on parametric formula, tariff setting, risk sharing, among others).

Source: NEDA Internal Document

APPENDIX D: ROAD MAP FOR ACCELERATION OF PPP

Appendix D-1: Outline of ADB Capacity Development Program

The followings are the outline of Capacity Development Program Financed by ADB, CIDA and AusAid.

Outline of ADB Capacity Development Program

Outputs	Activities		Target Mileston			Notes
			2011	2012	2013	
Output 1: Strengthened PPP enabling framework	1.1.	Coordinate preparation (by Q3 2011) of and help realize a time-bound action plan to implement measures included in the PPP enabling framework improvement road map developed under ADB support (by Q4 2012).				
	1.2.	Develop and/or draft amendments to PPP policies, guidelines, and fiscal rules, and sector PPP plans submitted (by Q4 2011).				
	1.3.	Draft amendments to PPP-related legal and regulatory framework (by Q1 2012).				
	1.4.	Conduct study of risk-sharing mechanisms that can be implemented in the Philippines (by Q4 2011).				
	1.5.	Draft rules and regulations on fiscal impact, viability gap financing, and risk-sharing mechanisms (by Q1 2012).				
	1.6.	1.6. Analyze and draft required legal acts for streamlining the government's PPP institutional set-up (by Q4 2011). (?)				
	1.7.	Draft strategic environment assessment and safeguard policy for PPPs (by Q2 2012).				
	1.8.	Draft strategic gender equality policy and analysis guidelines (by Q2 2012).				
Output 2:Strengthened capacity of the PPP Center	2.1.	Conduct workshops and on-the-job trainings for the PPP Center staff in various aspects of PPP policies and projects, including training of PPP Center staff and units responsible for environmental, gender, and resettlement issues (by Q4 2011).				
	2.2.	Facilitate and advise PPP Center on establishing twinning partnerships (?) with its counterparts abroad (by Q2 2012)				
	2.3.	Prepare standardized PPP documents, toolkits, and sector-specific guidelines to cover risk-sharing arrangements, appropriate contractual mechanisms for use by line departments and other agencies (by				
	2.4.	Prepare a manual on selection of PPP project preparation consultants (by Q4 2012).				
	2.5.	Update PPP Center website structure and design (by Q4 2011).				
	2.6.	Develop PPP management information system, including relevant sex-disaggregated information (by Q2 2013).				
Output 3: Institutionalized PPP best practices	3.1.	Conduct training of PPP-engaged staff of line departments and agencies in various PPP aspects, including on environmental risk analysis and gender responsiveness issues (by Q2 2012)				
	3.2.	Conduct analysis of successes and failures in PPPs at the national and local level and suggest optimal institutionalization of PPP best practices at the national and local government levels (by Q3 2012).				

Source: ADB

Outline of ADB Capacity Development Program (Continued)

Outputs	Activities		Target Mileston			Notes
			2011	2012	2013	
Output 4: Established long-term financing and risk guarantee mechanisms	4.1.	Assess options for setting up a guarantee fund to cover risks that are not offered by the market (by Q3 2011).				
	4.2.	Develop regulatory and other measures for establishing long-term infrastructure investment financing and risk guarantee mechanisms (by Q4 2011).				
	4.3.	Conduct initial capacity building of the established financing and guarantee mechanisms and develop its/their institutional and HR development strategies (by Q2 2012)				
Output 5: Well-structured bankable PPP projects developed	5.1.	Develop recommendations to improve governance and sustainability of PDMF (by Q4 2011).				
	5.2.	5.2 For PDMF-approved projects, prepare (i) project feasibility studies and PPP options, including environmental and social/gender safeguards considerations (and, if needed, development of plans on mitigating and managing environmental and social and gender risks and impact); (ii) financial analyses/modeling and project structuring; (iii) bidding documents and draft contracts; and (iv) support throughout the bidding process and contract negotiations (by Q2 2013).				

Source: ADB

APPENDIX E: URBAN RAILWAY SECTOR

Appendix E-1: Legal Aspects and Recent Situations in Tariff Setting

Legal Aspects

Under Executive Order No. 176 dated Nov. 11, 1999, the LRTA was placed under the overall supervision of the DOTC. Under Section 2 of the EO, the DOTC was tasked with the "overall supervision over PNR, LRTA and the planning, coordination and implementation of all rail-based transportation systems, programs and projects. The DOTC shall report to the President any development which could hamper the government's program for the upgrading, modernization and development of rail transport services."

As for the LTFRB, which is part of the DOTC, its powers include to "determine, prescribe, approve and periodically review and adjust reasonable fares, rates and other related charges, relative to the operation of public land transportation services provided by motorized vehicles;" It also has the power/function to "coordinate and cooperate with other government agencies and entities concerned with any aspect involving public land transportation with the end in view of effecting continuing improvement of such services; and perform such other functions and duties as may be provided by law, or as may be necessary, or proper or incidental to the purposes and objectives of the Department (DOTC)."

In connection with the mention of "Board of Transportation" in Section 4(13) of EO 603 (LRTA Charter) on the fare-setting power of LRTA which states as follows: "To determine the fares payable by persons travelling on the light rail system, in consultation with the Board of Transportation"; under the 1978 Administrative Code, the Board of Transportation was a specialized regulatory board of the Ministry of Public Works, Transportation and Communications. The functions of the Board of Transportation included: "to determine, fix or prescribe fares, charges or rates pertinent to the operation of public land and water transportation facilities and services, except where fares , charges or rates are established by international bodies or organizations of which the Philippines is a member, or by other bodies recognized by the Philippines as proper arbiters of those fares, charges or rates;" and "coordinate and cooperate with other government agencies or entities involved in land and water transportation to improve the transportation service in the country."

Executive Order No. 1011 was issued on March 20, 1985 abolishing the Board of Transportation and establishing the Land Transportation Commission (a new agency under the Ministry of Transportation and Commission") which took over the functions of the Board of Transportation. The functions of the Land Transportation Commission include: "to determine, prescribe and approve, and periodically review and adjust, reasonable fares, rates and other related charges relative to the operation of public land transportation services provided by motorized vehicles;" and " to coordinate and cooperate with other government agencies and other entities concerned with any aspect involving public land transportation services and private vehicles." Also, under Section 12 of EO 1011, series of 1985, the Land Transportation Commission was also given authority over public transportation services or systems that operate on railways, such as railroads and light rail transit systems with respect to systems operated by Government, it also assumed authority to determine their rates.

When the Ministry of Transportation and Commission was reorganized by Executive Order No. 125 series of 1987, as amended, the Land Transportation Commission was abolished and its functions absorbed by the Department. Then Executive Order No. 202, series of 1987, was issued creating in the DOTC the LTFRB. Similar to those of the Board of Transportation and the Land Transportation Commission, the functions of the LTFRB include: "to determine, prescribe and approve, and periodically review and adjust, reasonable fares, rates and other related charges relative to the operation of public land transportation services provided by motorized vehicles ;"[Section 5(c), EO 202] and " to coordinate and cooperate with other government agencies and other entities concerned with any aspect involving public land transportation services with the end in view of effecting continuing improvement of such services." [Section 5(l), EO 202].

It follows therefore that for purposes of consulting the "Board of Transportation" necessary under the charter of the LRTA for fare-setting, the "Board of Transportation" is now the LTFRB which has assumed some of the Board of Transportation's former functions including fare-setting for public land transportation services (particularly by motor vehicles) and coordination with other government agencies with respect to public land transportation services.

Recent Tariff Settings for LRT-1, LRT-2, and MRT-3

In October 2010, the Philippines government reported the study on the fare restructuring for the LRT and MRT in Metro Manila. The Department of Transportation and Communications commissioned this study, ultimately recommending a proposed fare adjustment or fare increase for the three lines. Although the fare increase was scheduled to be implemented last March 2011, it was deferred due to strong public opposition.

Recently, the DOTC Secretary Mar Roxas emphasized that there is no definite time table for the implementation of the fare increase. According to him, even though the train fare increase is long overdue (they were last adjusted in 2002), the president has agreed to defer the implementation of the fare hike in order to ease the burden on the riding public. He also said it is only a matter of time, and that the need to implement the long-overdue and approved increase must be done in order to reduce the subsidies given to sustain MRT/ LRT operations as well as to free up resources to upgrade its old trains and facilities. Regarding this point, the table below shows the subsidy levels per passenger for each of the LRT lines.

Table B-1: Government Subsidy Level by Line per Passenger

	2010			2011 (forecast)		
	Annual Ridership, million	Full-Cost Fare	Gov't Subsidy	Annual Ridership, million	Full-Cost Fare	Gov't Subsidy
LRT 1	160.81	35.77	21.57	177.51	47.36	33.16
LRT 2	64.56	60.75	47.24	67.14	59.08	45.57
MRT 3	153.70	60.03	47.73	155.73	64.38	52.08
Total Subsidy, ₱ Billion			**13.85**			**17.06**

Source: DOTC Fare Restructuring Executive Report, Oct. 2010

One argument that the government is using for the fare hike is that comparatively speaking, the current fare on the MRT/LRT is cheaper than those of buses. "MRT is cheaper than bus. It's cheaper and faster. I think it's reasonable to raise rates since the service is fast and efficient," DOTC Sec. Roxas told reporters. Regarding this point, The table below shows the average and end-to-end fare comparisons between the different modes of transportation.

Table B-2: Comparison of Average Passenger Fares, Per Passenger

	Ave Trip Length, km	LRT	Jeepney	Metro Bus (Regular)	Metro Bus (Air-con)	AUV/FX
LRT 1	8.00*	**14.20**	11.20	14.55	17.60	20.00
LRT 2	8.08	**13.51**	11.31	14.70	17.78	20.00
MRT 3	8.61	**12.30**	12.05	15.68	18.94	20.00
Average	8.25	**13.35**	11.55	15.01	18.15	20.00

Source: DOTC Fare Restructuring Executive Report, Oct. 2010

Table B-3: Comparison of LRT End-to-End Passenger Fares, Per Passenger

	LRT Line Length, km	LRT	Jeepney	Metro Bus (Regular)	Metro Bus (Air-con)	AUV/FX
LRT 1	13.96	**15.00**	19.54	25.58	30.71	40.00
LRT 2	12.49	**15.00**	17.49	22.86	27.48	40.00
MRT 3	16.50	**15.00**	23.10	30.28	36.30	40.00

Source: DOTC Fare Restructuring Executive Report, Oct. 2010

*Note: Data for LRT 1 (fares and distance) do not include the newly opened Balintawak and Roosevelt Stations

Likewise, President Aquino acknowledged that it is unfair for the entire nation to pay for the subsidy for the MRT and LRT operations that benefits only the people of Metro Manila. The savings in reduced subsidy will then be used in other mass transport projects in other highly urbanized places like Cebu, Davao, etc.

Sec. Roxas also added that the government will use the taxpayers' money in executing development programs in other provinces instead of merely subsidizing train fares of passengers in Metro Manila.

However, the Senate is currently debating on the approved fare hike, with a number of senators voicing their opposition to the impending fare increase. Senators Manny Villar, Joker Arroyo and Ralph Recto filed Senate Resolution 602, expressing deferment of the implementation to increase the fares of LRT/MRT and toll fess in the country's expressways. They branded the planned increase as "anti-poor" since around 70% of those who will be affected by the increase earn less than P10,000 a month. Instead of increasing the fares, the senators, through the resolution, recommended the following: for the LRTA and the MRT3 to generate more revenues by adding two railway systems and increase its non-rail revenues; reduce operating expenses; separate government agency that operates the two railway systems from the agency that regulates it; and make suitable steps to increase or improve the efficiency in the operations of the two railways. A majority of senators are now backing the resolution.

Senator Recto added that it is not true that taxpayers in the provinces are bearing the burden of

subsidizing train fares for Metro Manila residents as claimed by President Aquino and Sec. Roxas. He explained that it is Metro Manila that is subsidizing the provinces through other government programs like the Conditional Cash Transfer (CCT) Program. Also, tax collections from Metro Manila are higher than in the provinces and it is the NCR taxpayers who are subsidizing other government services in other regions that they don't avail of themselves.

Appendix E-2: Present Railway Network in Metro Manila

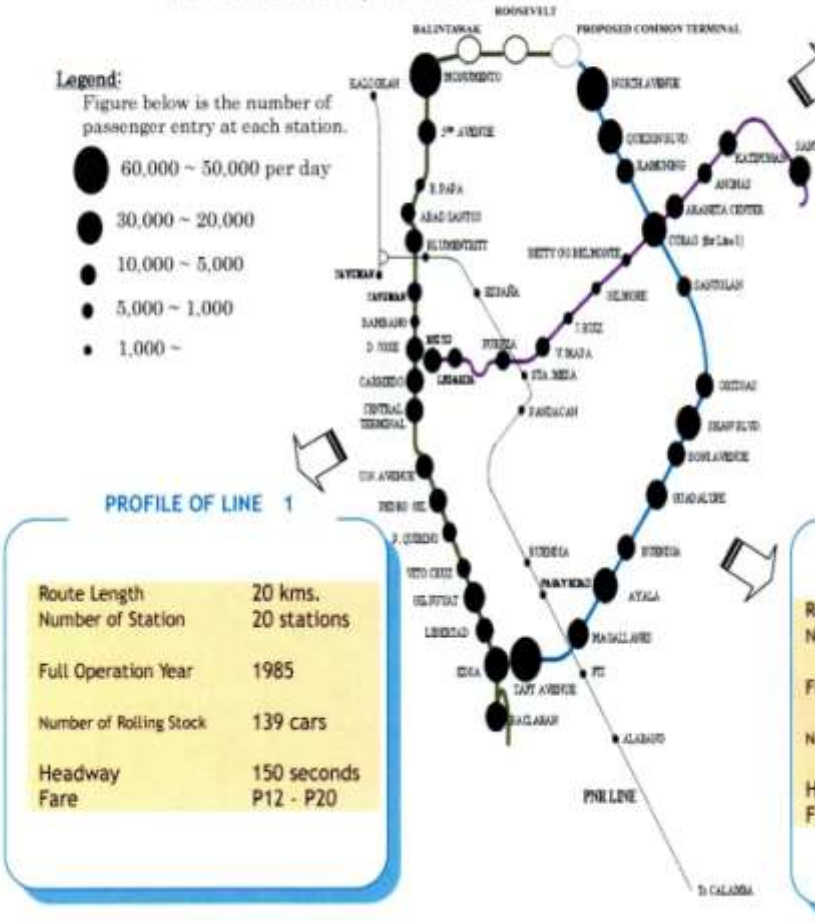
Present Railway Network in Metro Manila

APRIL 2011

Ridership

	Annual (in Millions)	Per day (in Thousands)
Line 1	156	427
Line 2	63	173
Line 3	153	419
Total	372	1019

Note: Annual ridership is as of 2010.



PROFILE OF LINE 1

Route Length	20 kms.
Number of Station	20 stations
Full Operation Year	1985
Number of Rolling Stock	139 cars
Headway	150 seconds
Fare	P12 - P20

PROFILE OF LINE 2

Route Length	14 km
Number of Station	11 stations
Full Operation Year	2004
Number of Rolling Stock	72 cars
Headway	300 seconds
Fare	P12 - P15

PROFILE OF LINE 3

Route Length	17 km
Number of Station	13 stations
Full Operation Year	2000
Number of Rolling Stock	73 cars
Headway	180 seconds
Fare	P10 - P15

Appendix E-3: Workshop

It is important for the Government officials to obtain the capacities of the PPP skills. One of the methods of the capacity building is to conduct an effective workshop. The following is an example of a workshop.

On August 25th, 2011, the workshop for the study on Institutional Improvement for the PPP in the Philippines was held in Manila. In this workshop, there were breakout sessions including the urban railway sector (MRT/LRT).

27 participants took part in the MRT/LRT discussion including Mr. Tungpalan, Deputy Director-General of NEDA, and Mr. Esguerra, Assistant Secretary for Planning, DOTC. Main topics discussed are as follows:

- Common theme: "Demand Risk and Subsidy"

In the discussion, Mr. Tungpalan stressed the importance of identifying and evaluating risks. Also, Mr. Esguerra pointed out the necessity of the transparent process in tariff regulation, as well as the effective use of Viability Gap Support. A special focus of the discussion was on the tariff, which is normally kept a very low level by the government. Mr. Esguerra indicated that the tariff should be set properly by the government in advance based on the passengers' willingness-to-pay and the price elasticity of demand. Mr.Tungpalan agreed with this point, saying that the tariff should be set by the government rather than by the bid. Furthermore, the participants from financial institutions such as ADB and IFC mentioned that it is crucial for the government to clarify the objectives of each PPP project and to prioritize the potential projects. They also stressed the importance of showing appropriate financial packages including financial support by the government.

- Specific Theme "Effective use of profit from land development"

Many participants are interested in the usage of the profit from land developments along the railway as a source of the railway investments. This point, which is indicated by Dr. Yajima, is basically new to most of the participants from the Philippines. Although it is difficult to just copy this Japanese traditional method to the railway development in the Philippines, the basic idea seems to be applicable, because recently, land development is on-going in the Philippines, and the idea of using the profit as a new source for railway investment is actually being examined. Through such active discussions, the participants came to share the understanding that it is important to find new sources of cash in-flow for future urban railway projects in the Philippines.

Appendix E-4: Capacity Building in Railway Sector

D-4.1 Capacity Building

In the urban railway sector, four risk workshops were (or are to be) arranged in order to enhance capacity building for risk analysis of the concerned government agencies . The participants are from the DOTC and the LRTA. It is also important to invite participants from the other agencies (PPP Center, NEDA, etc.) and the private sector (EPC contractors, O&M service providers, etc.). However, as the PPP projects are not yet well-established in the urban railway sector, priority was given to the line agencies (DOTC and LRTA) directly involved at this time. Instead, information obtained from interviews with the other agencies and the private sector will be fully utilized in the discussions during the risk workshops for the line agencies.

Though the risk matrix is based on urban railway systems in general, it is better to focus on a specific project when analyzing risks because the project types are diverse in urban railway sector (i.e. new alignment, extension of existing line, O&M, and introduction of fare collection system). In this regard, the "LRT-1 South Extension Project" was set as the target project for discussion.

Table B-4: Risk Workshops for the Urban Railway Sector

	Date	Contents	Place
1	06 May 10:00-12:00	Presentation of a draft risk matrix by JICA Study team	DOTC
2	11 May 14:00-15:00	Discussion about risk identification	LRTA
3	23 August 15:00-17:00	-Discussion about risk allocation/mitigation -Presentation of Japanese experiences regarding the coordination of land development and railway development	LRTA

Source: JICA study team

D-4.2 Attendance Lists of the Risk Workshops

RISK WORKSHOP 1 FOR URBAN RAILWAY SECTOR

Date: 2011/5/6
Place: Department of Transportation and Communications (DOTC)
Office of Director for Planning, 6th Floor

	NAME	ORGANIZATION
1.	Rafael Peñafiel	DOTC / Rail
2.	Joel Magbanua	DOTC / Rail
3.	Grace Magbanua	DOTC / Rail
4.	Eleanore Domingo	LRTA
5.	Arnel Bellen	LRTA
6.	Allan Arquiza	LRTA
7.	Takashi Shimada	JICA / DOTC Expert
8.	Takashi Yajima	JICA Study Team
9.	Takeshi Fukayama	JICA Study Team
10.	Takeshi Murakami	JICA Study Team
11.	Harold Francisco	JICA Study Team
12.	Patricia Ty	LBT
13.	Shanee Sia	LBT

RISK WORKSHOP 2 FOR URBAN RAILWAY SECTOR

Date: 2011 年 5 月 11 日
Time: 2:00 PM - 3:00 PM
Place: LRTA Boardroom, Administration Building
Aurora Boulevard, Pasay City

	NAME	ORGANIZATION
1.	Joel R. Magbanua	DOTC
2.	Arnel B. Bellen	LRTA
3.	Celwyn C. Astronomia	LRTA
4.	Allan Arquiza	LRTA
5.	Takeshi Fukayama	JICA Study Team
6.	Harold Francisco	JICA Study Team

RISK WORKSHOP 3 FOR URBAN RAILWAY SECTOR

Date: 2011/8/23
Time: 3:00 PM - 5:00 PM
Place: LRT-2 Boardroom, Marcos Highway
Santolan, Pasig City

	NAME	ORGANIZATION
1.	Takashi Yajima	JICA Study Team
2.	Takeshi Fukayama	JICA Study Team
3.	Harold Francisco	JICA Study Team
4.	Rafael Penafiel	DOTC/Rail
5.	Arnel B. Bellen	LRTA
6.	Allan Arquiza	LRTA
7.	Antonio R. Laigo Jr.	LRTA
8.	Claro T. Domingo	LRTA
9.	Joel R. Magbanua	DOTC/Rail
10.	Malou Liscano	LRTA/Finance Dept.

D-4.3 Minutes of the Risk Workshops

Minutes of Discussion: Risk Workshop 1	
Date & Time:	May 06, 2011 10:00 AM
Place:	DOTC Rail Planning Division – 6th Flr, Columbia Tower, Ortigas Ave.
Purpose and/or Agenda:	Risk Workshop 1 for Rail Sector
Attendance:	Interviewee: - Joel Magbanua – Division Chief – DOTC Rail Planning - Rafael Penafiel – DOTC Rail Planning - Grace Magbanua – DOTC Rail Planning - Takashi Shimada – JICA/DOTC Expert - Eleanore Domingo – Manager – LRTA Planning Department - Arnel Bellen – LRTA - Allan Arquiza - LRTA Study Team: - Takashi Yajima – Rail Sector Specialist - Takeshi Fukayama – Rail Sector Expert – MRI - Takeshi Murakami – Water Sector Specialist - Patricia Ty – Senior Associate – LBT

	- Shanee Sia – Consultant - LBT - Harold Francisco – Consultant

Main Discussion Points:

1. Introduction by Mr. Fukayama of the Study Agenda

2. Brief introduction of Attendees

3. Overview of the Scope of Study and Outline of Risk Workshop by Mr. Fukayama

4. Ms. Domingo requested/recommended that we include Quantification of Risks in our discussion / workshop
   4.1. They had a previous discussion with DOF and NEDA regarding the quantification of risks for dealing with contingent liabilities for Gov't. Projects in terms of value for money for the govt.

5. Brief overview of PPP Cooperation Workshop 1 – Urban Railway Sector
   5.1. Slide 3 – Risks Observed
      5.1.1. Technical Problem observed from personally riding LRT 1 – vibration and noise
      5.1.2. Line 1 – with ballast, Line 3 – combination
      5.1.3. May need better grinding and adjusting
      5.1.4. Mr. Yajima's observation/opinion may be there is mismatch between technology and demand
      5.1.5. Better to replace totally but very expensive, need to have a balance or other options

6. Risk Matrix discussion
   6.1. Risk no. 4 Incorrect Financial Analysis has high risk and high probability
      6.1.1. Assumed fare is always higher than what is implemented
      6.1.2. There is deliberate padding in order to pass NEDA approval
      6.1.3. For MRT 7 – there is a provision in the contract if gov't. does not implement agreed fare, the gov't will pay for the difference.
      6.1.4. For setting fares – Fare Policy Committe composed of representatives from diff. agencies (NEDA, DOTC, LRTA, LTFRB, PNR, etc.)
      6.1.5. Fare Policy Committee recommends to LRTA Board who then pass it on to DOTC then DOTC to NEDA Board for approval
      6.1.6. Because of political intervention, Office of the President has final say.
      6.1.7. New Policy currently in effect – MRT/LRT Fare should be a little lower than Aircon Bus fare
   6.2. Add newly identified risk - Delay in Approval high risk and probability
   6.3. Add newly identified risk - Fault in Bidding Package Design

6.4. Add newly identified risk - Incorrect provision of as built plan from Implementing Agencies (for relocation of existing utilities)

6.5. Risk no. 21 – Problems with subcontractor should be high probability and high impact and also it is connected to Risk no. 26 – Completion Risk.

6.6. Risk no. 25 – Interference from third parties should be low probability and impact– This is taken cared of by RDC (Regional Dev't. Council) –RDC deliberations are held with all affected sectors before project start to resolve diputes.

6.7. Risk no. 26 – Completion risk should be low probability

6.8. Add newly identified risk – Force Majeure during construction

6.9. Risk no. 35 – Service stop risk can have many contributing factors (improper maintenance, lack of spare parts, obsolescence etc.)

6.10. Risk no. 36 – Terrorist attack should have medium probability because of current world situation.

6.11. Separate Risk no. 38 into two – Breach of Contract and Cancellation of Contract

6.12. Breach of Contract has high probability, Cancellation of contract has low probability and impact.

6.13. Add newly identified risk – Change in Government Administration

6.14. Not much risk on Feasibility Study Stage, Risk is high during Project Approval Stage

6.15. Main problem for LRT Line 1 South Extension Project is Risk no. 3 because the project has passed through many different modalities during the preparation and approval process.

7. Requested a copy of the concession agreement / contract for MRT 3 and MRT 7 from Mr. Joel Magbanua but was told that DOTC does not normally give those out. However, he told us that maybe we can request a copy of a summary or main points of the aforementioned contracts from Mr. Penafiel and they will see if they can accommodate our request.

8. Meeting end

Minutes of Discussion: Risk Workshop 2	
Date & Time:	May 11, 2011 2:00-3:00 PM
Place:	LRTA Boardroom, LRTA Compound, Aurora Blvd., Pasay City
Purpose and/or Agenda:	Risk Workshop 2 for Rail Sector
Attendance:	Interviewee: - Joel Magbanua – Division Chief – DOTC Rail Planning - Celwyn C. Astronomia – LRTA - Arnel Bellen – LRTA - Allan Arquiza - LRTA Study Team: - Takeshi Fukayama – Rail Sector Expert – MRI

	- Harold Francisco – Consultant

Main Discussion Points:

1. Introduction by Mr. Fukayama of the Study Agenda and announcement of succeeding Risk Workshops in August.

2. Brief introduction of Mr. Fukayama for the benefit of new attendee (Mr. Celwyn Astronomia) to the Risk Workshop

3. Overview of the Scope of Study and Outline of Risk Workshop by Mr. Fukayama

4. Overview of Risk Analysis for Urban Railway sector (Document 2).

5. Risk Matrix discussion (Identification of Risks)
   - 5.1. Add newly identified risk – "Risk for a smaller number of interested bidders because of large amount of investment needed for projects" – low probability and low impact based on previous experience (13 interested bidders for O & M for LRT 1 and MRT 3 according to Mr. Magbanua)
   - 5.2. Clarification requested by LRTA/DOTC regarding Risk no. 16 – Matching error among sub-systems
     - 5.2.1. Example given is in the case of LRT 1 – mismatch between wheel and rail
     - 5.2.2. Consequence of matching error/mismatch is higher life cycle cost or higher maintenance cost
   - 5.3. Clarification on Risk no. 17 – Innovation
     - 5.3.1. Innovation is not encouraged because new technology will result in higher cost therefore higher bid but in order to win bidding, the bidder must give lowest bid.
     - 5.3.2. This results in the use of outdated technology in the bid proposals in order to keep the bid lower.
   - 5.4. Added newly identified risk – relocation of utilities. Probability and impact both high.
   - 5.5. For Construction Stage - add risk – incorrect geotechnical assumptions. Probability is low and impact is high.
   - 5.6. Add newly identified risk – delay in delivery of materials. Probability and impact both high.
   - 5.7. Add newly identified risk – provision for continuing O & M by investing new input (i.e. capital investment) for system upgrade. Probability and impact both high.
   - 5.8. Risk no. 45 – Breach of Contract – probability to be changed to low and impact to high as requested by Mr. Joel Magbanua.
   - 5.9. Risk no. 46 - Cancellation of contract – impact changed to high.
   - 5.10. Add newly identified risk – taxation risk. Probability and impact both medium.

6. Information regarding LRT Line1 South Extension Project

6.1. This coming July, SYSTRA expected to pass the complete program study to DOTC.

6.2. SYSTRA study just a validation of the 3? Previous studies already done by SNC Lavalin, IFC World Bank and R2 JV.

7. Meeting end

Minutes of Discussion: Risk Workshop 3	
Date & Time:	August 23, 2011 3:00-5:00 PM
Place:	LRT-2 Conference Room, Marcos Highway, Santolan, Pasig City
Purpose and/or Agenda:	Risk Workshop 3 for Rail Sector
Attendance:	Interviewee: - Joel Magbanua – Division Chief – DOTC Rail Planning - Rafael Penafiel – Asst. Division Chief - DOTC Rail Planning - Antonio Laigo Jr. – LRTA - Malou Liscano – LRTA Finance Dept. - Claro Domingo – LRTA - Arnel Bellen – LRTA - Allan Arquiza - LRTA Study Team: - Dr. Takashi Yajima – Senior Engineer, JICA Study Team - Takeshi Fukayama – Rail Sector Expert – MRI - Harold Francisco – Consultant

Main Discussion Points:

1. Introduction by Mr. Fukayama of the Study Agenda

2. Risk Matrix discussion (Mitigation measures)

2.1. All risks for DOTC should be shared with LRTA – accdg. to DOTC

2.2. Risk 1 – OD means origin demand
– example would be possible development on or near Manuyo Uno Station

2.3. Risk 2 – there are 3 planned intermodal stations along Line 1 extension : Dr. Santos, Manuyo Uno, Zapote/Niog

2.4. Risk 4 – All PPP even abroad were also not successful, only one in Korea successful

2.5. Risk 8 – System enhancement to existing Line 1 should match the extension

2.6. Risk 12 – mitigate by acquiring ROW in advance

2.7. Risk 21 – budget already allocated/included in the Project cost

- Problem is unreliable info regarding location of utilities
- As-built plans are obligatory/required from contractors but in reality hard to implement
- Database of utilities in Japan

2.8. Risk 39 – change incompliance to non-compliance, add mitigation measure "proper selection of O&M contractor

2.9. Risk 48 – add "/ Management" to risk Change in government

2.10. Risk 48 – change probability from L to H and change mitigation measure from "no way" to continuation of program shared vision/aligned vision

2.11. Risk 60 comments –

2.11.1. MRT 7 tariff rated already set in contract

2.11.2. LRT 1, LRT 2, MRT 3 tariff set by TRB/Board, etc.

2.12. Risk 62 – to be elaborated later by Fukayama-san

2.13. Risk 69 – change mitigation measure to "strict procurement process"

2.14. Risk 70 - change mitigation measure to "strict procurement process by the main contractor"

3. Dr. Yajima's presentation

3.1. PPP difficult for rail – cost-match

3.1.1. Big investment cost but low fares

3.1.2. Subsidy required but government has no money

3.1.3. ODA preferable

3.1.4. But there is a gov't. ceiling on ODA

3.1.5. Gov't. must find third source of revenue

3.1.6. Earmark a portion for feasibility studies

3.2. In Japan:

3.2.1. MOC – Transit Law
- Monorail
- Rubber-tyred transport
- LRT (Tranvia)

3.2.2. MOT – Rail Law
- MRT (private)
- PNR

3.3. Slide 2-2: Reinvestment of gained dev. benefit is very important – sustainable process

3.4. Slide 2-3: Dual directional transportation demand – creating two-way traffic

3.5. Corruption in Japan and the Philippines – Dr. Yajima's impression

3.5.1. There is also some corruption in Japan but not very big compared to the Philippines

3.5.2. 30 years ago corruption in the Philippines is worse, today seems much improved (in terms of small time, not sure on big time corruption)

3.6. Slide 2-6: Hankyu Co. land development: developed low density suburban land

3.7. Slide 2-7: No time limit on franchise/license for exclusive rail operation, only requirement is that development must be started within 10 years otherwise exclusive license will be revoked

3.8. Budget for Projects

3.8.1. ODA – requires approval from NEDA

3.8.2. NEDA – approval on a per project basis

3.8.3. IAs – providing priority lists

4. MRT 7 Project
   4.1. Revenue sharing and deficit neutrality provisions in concession agreement were included for approval purposes only.
   4.2. Both are difficult to implement in reality

5. Local government conflict regarding taxes on rail/stations
   5.1. Revise BOT Law
   5.2. Revise Local Government Code
   5.3. Put cap on the amount that of tax that local government can collect

6. Meeting concluded

D-4.4 Risk Matrix

BASED ON GENERAL RAILWAY SYSTEMS --ANALYSIS FOCUS ON LRT-1 SOUTH EXTENSION														
No	**Sector Characte-ristics**	**Risks**	**Proba-bility**	**Impact**	**Mitigation Measures**	**Risk Allocation**							**Comment**
						Public			**Private**				
						DOTC	**LRTA**	**LGU**	**SPV**	**Insurance**	**EPC**	**O & M**	
		(1) Project Preparation Stage											
1	**Large investment**	Incorrect demand forecast	H	H	-Using proper data based on adequate OD survey. -Using proper mode-conversion rate as one of the most crucial parameters. -Proper milestone setting in demand forecast based on the stage of development along the line.	*	*						Example: possible devt. on or near Manuyo Uno Station
2	**Network effect**	Poor network integration of route (including incorrect location of stations)	H	H	-FS should be based on demand forecast and technical investigation in order to avoid interference from stakeholders. -Considering short time transfer between lines and other transportation modes.	*	*						3 intermodal stations along LRT 1 South Extension: Dr. Santos, Manuyo I, Zapote/Talaba
3	**External effect**	Lack of TOD (Transit-Oriented Development) aspects / lack of internalization of developing effects	H	H	-Apply coordinated policy among railway and urban development. -Set agreement condition which includes a cash flow from the land development side to the railway side.	*	*		*				
4	**Large investment**	Inadequate modality selection (ODA/PPP/Government procurement)	H	H	-Transparent criteria and process for project selection. -Proper scheme setting based on previous PPP experiences in the Philippines and the other countries.	*	*						all ppp in asia not successful except for Seoul Line 9
5	**Large investment**	Incorrect financial analysis (revenue/cost forecast)	H	H	Using proper unit rates of revenue and cost.				*				Together with #1, the govt agencies tend to bloat their forecasts deliberately when they submit to NEDA for approval.

6		Delay in schedule of planning/ approval	H	H	-Proper process management. -Understanding of economic losses caused by the project delay.	*	*****						
7		Faults in environmental impact analysis	L	M	Proper review of environmental impact analysis.	*	*****						
		(2) Bidding Stage											
8	**Complex system**	Incorrect selection of tender package	H	H	-Transparent process for tender package selection. -Using risk analysis. -Consideration should be made to prevent matching error among sub-systems in the future.	*	*****						system enhancement to existing LRT Line 1 to match extension
9		Delay in bidding process/contract negotiation/approval of contract	H	H	Setting transparent process and criteria.	*	*****						
10		Faults in tender specification	M	H	Make use of previous experiences across the sector.	*	*****						
11		Smaller number of bidders because of large amount of investment	L	L	Make use of previous experiences across the sector.	*	*****						
		(3)ROW Acquisition Stage											
12		Delay in land acquisition	H	H	-Timely budget allocation for land acquisition. -Constructing road and railway together. (Road as a ROW.) -Extension of the period of contract.	*	*****						
13		Delay in resettlement	H	H	Adequate consultations with settlers at the early stage.	*	*****						
14		Claims and protest from settlers due to land acquisition	H	H	Adequate consultations with settlers at the early stage.	*	*****						

		(４)Detailed Engineering Design Stage											
15	**Complex system**	Overdesign/underdesign (selection of light rail or heavy rail etc)	H	H	-Plan upgrading of the design in accordance to the stage of demand level in the future. -Apply life-cycle-cost concept. -Employment of outside technical experts.				*				MRT 3 stations are designed for 4-car trains but presently servicing 3-car trains
16		Design change due to government requirement	M	M	Proper FS.	*	*						
17	**Complex system**	Matching error among sub-systems	H	H	-Proper FS using latest technological standard. -Integrated planning among different lines.	*	*		*				Resulting in higher lifetime cycle costs
18		Use of outdated technology	H	H	-Apply life-cycle-cost concept. -Using appropriate technology suitable for local conditions.				*				
19		Incorrect geotechnical assumptions at design stage based on the information provided by government	H	H	Proper investigation.	*	*						
20		Incorrect provision of as-built plans for the utilities	H	H	Build database for utilities.	*	*						
21		Utilities relocation	H	H	Require contractor/s to provide accurate as-built plans before being paid	*	*						govt. funding - already included in project cost - problem is location of utilities - as-built plans required from contractors but difficult to implement - database of utilities in Japan
		(５) Construction Stage (including EPC)											
22		Cost increase due to contractor failure	M	M	Find proper contractors based on their experiences.				*		*		

23		Cost increase due to change in safety requirements	M	M	Cost coverage by the government.	*	*						
24		Cost increase due to change in environmental regulation	M	M	Cost coverage by the government.	*	*						
25		Problems with quality of labor, materials, and performance criteria	M	M	Apply quality control and technical expertise in the procurement.				*		*		
26	**Complex system**	Problems with sub-contractor	H	H	Find proper sub-contractors based on their experiences.				*		*		Risk allocation for the main contractors, but will still cause delay in the whole project.
27		Defect liability	M	M	Coverage by insurance.					*			
28		Labor Problems	M	M	Apply safety instructions.						*		
29		Death or injuries on site	M	M	Apply safety instructions.						*		
30		Interference from third parties, e.g. protesters and NGOs	L	L	Treatment by the government.	*	*						
31		Completion risk with regard to not meeting specifications and design requirements	L	H	Apply quality control and technical expertise in the construction.				*		*		
32		Completion risk with regard to delay of construction	M	H	Apply process control and technical expertise in the construction.				*		*		
33		Force majeure (Natural disasters, political embargos, riot, wars, invasions and civil disturbance)	M	M	-Coverage by insurance. -Support by the government.	*	*			*			
34		Incorrect geotechnical assumptions resulting in variation orders during construction	L	H	Proper investigation.	*	*						
35		Delay in delivery of materials	H	H	-Apply quality control and technical expertise in the procurement. -Participation of trading company in the proponent.				*		*		

		(６) Operation and Maintenance Stage											
36	**Large investment**	Demand fluctuation	H	H	-Selection of proper PPP modality. -Reliable demand analysis by the bidder -Introduction of minimum revenue guarantee. -Adjust fare.	*	*		*				
37		Labor/Operation /Import cost increase	M	M	-Contingency setting. -Foreign exchange hedging.							*	
38		Change in level of services required by the government	M	M	Payment by the government.	*	*						
39		Non-compliance with operation and maintenance requirements by private sector (clear requirements and specifications of services described in the contract)	L	M	- Proper selection of O&M contractor	*	*					*	penalty is already set by DOTC upon contract signing
40		Negative environmental impact due to operation error	L	M	Regulation and inspection by the government.							*	
41		Unexpected rehabilitation required	L	H	Adequate maintenance to prevent the unexpected rehabilitation.				*			*	
42		Unsatisfied Service Level	H	H	Monitoring by the government.							*	
43	**O&M capability**	Accident	L	H	-Apply safety instructions. -Proper maintenance of rolling stocks and facilities.							*	
44	**O&M capability**	Service stop risk	H	H	Look for other contractor.				*			*	
45	**O&M capability**	Obsolescence of spare parts	H	H	Consideration of procurement of parts at EPC stage							*	
46		Terrorist attack	M	H	Support by the government.	*	*						
47		Force majeure (Natural disasters, political embargos, riot, wars, invasions and civil disturbance)	M	M	-Coverage by insurance. -Support by the government.	*	*						

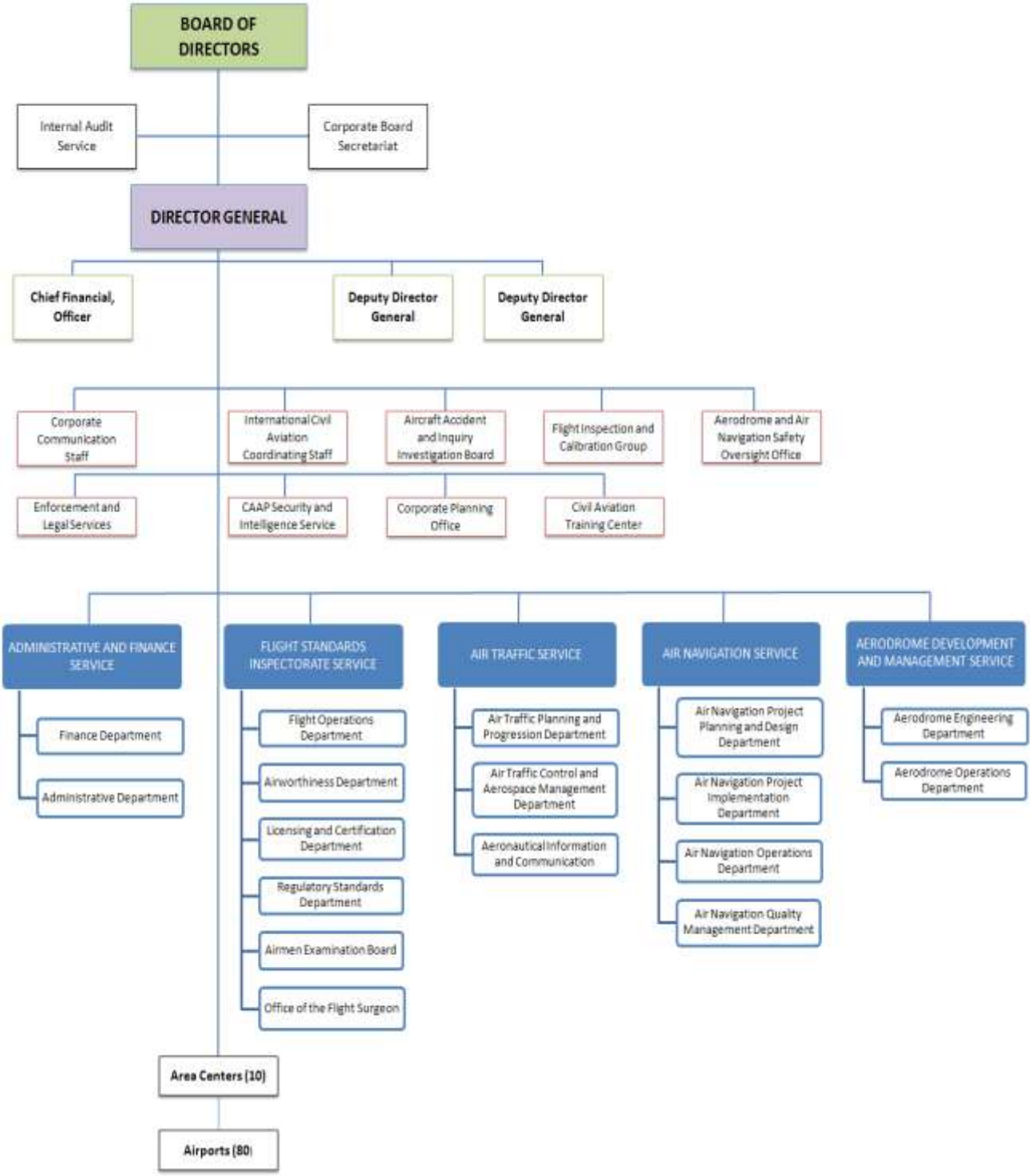
47		Necessary system upgrade for continuing O&M	H	H	Long-term planning for capital expenditure.	*	*						
		(7) Political and Legislatives Risks											
48		Change in government/management	~~L~~H	H	- Continuation of program of previous administration - Shared vision/aligned vision								
49		Deterioration of local political stability and security	L	L	Support by the national government.	*	*						
50		Breach of the contract	L	H	Support by the national government.	*	*						
51		Cancelation of the contract	L	H	Support by the national government.	*	*						
52		Expropriation of project facilities by the government	L	L	Support by the national government.	*	*						
53		Strengthening the environmental policy and regulation	M	M	Support by the national government.	*	*						
54		Change of associated laws and strengthening of related regulations	M	M	-Support by the national government. -Extension of the period of the contract.	*	*						
55		Change of general business laws and regulations	M	M	-Support by the national government. -Extension of the period of the contract.	*	*						
56		Slow and delay in decision making, licensing and approvals by the government	H	M	-Support by the national government. -Extension of the period of the contract.	*	*						
57		Cancel licensing and approvals given by the government	M	M	Transparent process of the government.	*	*						
58		Coordination failure among the government organizations	L	M	Transparent process of the government.	*	*						
59		Government inability to meet its contractual obligations	M	M	Transparent process of the government.	*	*						

60	**Low level tariff**	Regulation for tariff (lower level setting)	H	H	-Set agreement that the government secures the difference between the agreed tariff and the approved tariffs. -Transparent process of regulating tariffs. -Setting formula of the regulation (compensating cost and an adequate profit). -Implicit policy in the level of tariff as compared to other modes. (e.g. Tariff of railway is set lower than bus.) -Investigation of passenger willingness-to-pay.	*	*						- MRT 7 tariff rate already set in the contract - MRT/LRT tariff set by board
61	**Low level tariff**	failure to implement the tariff rate increase (from the parametric formula in the contract)	H	H	-Set agreement that the government secures the difference between the agreed tariff and the approved tariffs. -Transparent process of regulating tariffs. -Setting formula of the regulation (compensating cost and an adequate profit). -Investigation of passenger willingness-to-pay.	*	*						
		(8) Economic and Financial Risk											
62		Capital transaction restriction	M	M	Support by the national government.	*	*						The risk that the transfer of the capital to abroad is restricted by the government
63		Construction cost movement and material cost movement due to currency fluctuation (exchange rate)	M	M	-Approval of increased tariff settings. -Foreign exchange contract. -Government payment in dollars.	*	*						
64		Imported operational equipment and material cost movement due to currency fluctuation (exchange rate)	M	M	-Approval of increased tariff settings. -Foreign exchange contract. -Government payment in dollars.	*	*						
65		Finance cost increase due to currency fluctuation (exchange rate)	M	M	-Approval of increased tariff settings. -Foreign exchange contract. -Government payment in dollars.	*	*						
66		Interest rate fluctuation	M	M	Fixed interest rate coverage by insurance.					*			
67		Construction cost increase due to inflation	M	M	Approval of increased tariff settings.	*	*						

68		Operational and maintenance cost increase due to inflation	M	M	Approval of increased tariff settings.	*	*						
69		Insolvency of members of consortium	M	M	Strict procurement process	*	*****						
70		Insolvency of subcontractors	M	M	Strict procurement process by the main contractor				*				MRT 7 – DOTC involved in the pre-qualification of sub-contractors for MRT 7
71		Taxation Risk	M	M	-Support by the national government. -Extension of the period of the contract.	*	*****						

APPENDIX F: AIRPORT SECTOR

Appendix F-1: Organization Chart of CAAP



Appendix F-2: Minutes of Discussion- Sector Workshops

F-2.1: 1st Sector Workshop

Date & Time:	July 26, 2011, 2:00 p.m.
Place:	DOTC Columbia Tower, 16/F
genda:	DOTC and CAAP Mini-workshop on "PPP Capacity Development focused on Risk Management"
Attendance:	- DOTC - Zenaida Bautista-Biteng, Paul Emerson M. Pasion, Engr. Gill Pamatmat, Babe Z. Cabana, Margarito delas Armas, Gina E. Rodriguez - CAAP – Gil Macapagal, Alexander Abag Study Team: - Shuichi Kudo, Nelson Alvarez (JICA Team)

<Main Discussion Points>

1. JICA provided background on the project with emphasis on this objective: "To discuss Technical Assistance for capacity development of concerned public agencies" .

2. JICA discussed the following items: (a) Objectives; (b) Schedule; (c) Risk Management; (d) Airport Sectoral characteristics; (e) Lessons Learned; (f) Risk Matrix; and (g) PPP Scenarios.

3. Discussion on how to fill-up the Risk Matrix followed. JICA demonstrated how it is done by accomplishing several items on the Risk Matrix.

4. The group discussed some Project Development Risks such as incorrect traffic demand forecasts. DOTC explained that they normally hire consultants to prepare traffic demand forecasts or feasibility studies. They further explained that responsibility of the consultant ends when DOTC accepts or issues approval of the report. There is no means for DOTC to hold the consultant responsible for the traffic forecast after the report has been approved by DOTC.

5. DOTC cited the Puerto Princesa Airport project where the traffic forecast is higher than forecasted. The risk posed by underestimating the forecast is that the capacity of the facility will be breached earlier than the forecast. This situation might require upgrade or expansion of the facility just after a few years of operation. JICA stated that there should be guidelines on traffic appraisal. DOTC stated that the consultant decides on which methodology to adopt for traffic appraisal. JICA also mentioned that there are numerous factors that impact traffic demand which are under government control, such as government policies and network plans, forcing the private proponent to require guarantee on the forecasted traffic demand.

6. JICA stated that one mitigation measure for the risk due to incorrect traffic demand forecast is for the government to share traffic survey data collected from different consultants.

7. DOTC and CAAP participants are assigned to fill-up the Matrix form based on the three scenarios presented by JICA. The results will be submitted and discussed in the next mini-workshop.

8. JICA requested that in the 'Mitigation Measures' column, workshop participants can cite current government policies, regulations, directives, etc. that address the identified risk. They can also cite problems or issues encountered on previous or on-going projects. DOTC is requested to bring the supporting documents/references, such as regulations, project reports, in the next mini-workshop.

F-2.2: 2nd Sector Workshop

Date & Time:	August 9, 2011, 2:00 p.m.
Place:	DOTC Columbia Tower, 16/F (Asec. Esguerra's Office)
Attendance:	Interviewee: - Ma. Filipinas Cabana, Margarito delas Armas, Raul Glorioso, Gill Pamatmat, Natividad Sansolis, Gina Rodriguez, Gil Macapagal (DOTC and CAAP) Study Team: - Shuichi Kudo, Koichi Yamashita, Nelson Alvarez, Catherine Gonzales and Shane Sia (JICA Team)

<Main Discussion Points>

1. Each item of the Risk Matrix-Airport Sector was discussed with DOTC and CAAP personnel. The discussion ended until item 47 (**Please see attached Risk Matrix Form**). Due to time limitation, the discussion just concentrated on identification of Probability, Impact and Mitigation Measures for each risk item, midway thru the mini-workshop. The discussion will be continued on the next mini-workshop scheduled on Aug. 16, 2011.

2. DOTC requested for the JICA-accomplished Airport Sector Risk Matrix Form. JICA agreed to send this by email. This matrix form will then serve as reference for next week's mini-workshop which will cover items 48 to 68.

F-2.3: 3rd Sector Workshop

Date & Time:	August 16, 2011, 2:00 p.m.
Place:	Crowne Plaza
Attendance:	Interviewee: - Ma. Filipinas Cabana, Raul Glorioso, Gill Pamatmat, Gina Rodriguez, Gil Macapagal, Zenaida Bautista-Biteng (DOTC and CAAP) Study Team: - Shuichi Kudo, Koichi Yamashita, Nelson Alvarez, Catherine Gonzales and Shane Sia (JICA Team)

<Main Discussion Points>

1. The group discussed items 48 to 68 of the Risk matrix. Please refer to the attached Risk Matrix.

2. JICA Study Team will update the risk matrix based on the discussions and will email to the participants the updated version. JICA also stated that the risk matrix will be accomplished for the three scenarios which were discussed in previous meetings.

3. DOTC will also review the Risk Matrix and inform JICA of their comments.

4. The two parties have agreed to have another mini-workshop on August 23, 2011 to wrap-up the discussions.

F-2.4: 4th Sector Workshop

Date & Time:	August 16, 2011, 2:00 p.m.
Place:	DOTC 16th Floor
Agenda:	Wrap-up discussion of the Risk Matrix
Attendance:	Interviewee: - Ma. Filipinas Cabana, Raul Glorioso, Gill Pamatmat, Gina Rodriguez, Gil Macapagal, Zenaida Bautista-Biteng, Manny delas Armas, Naty Sansolis Study Team: - Shuichi Kudo, Nelson Alvarez (JICA Team)

<Main Discussion Points>

1. The group reviewed all the items in the Risk Matrix. Please refer to the attached revised Risk Matrix.

2. DOTC will also review the Risk Matrix and inform JICA if they still have comments.

3. The two parties have agreed to have another mini-workshop if there are still issues that needed to be resolved. DOTC has to inform JICA if it is still necessary to have another mini-workshop.

4. JICA clarified some items on the presentation materials of the Airport sector for the 2nd Workshop in Crowne Plaza, Ortigas Center, Pasig.

-2.5: 5th Sector Workshop

Date & Time:	September 1, 2011, 2:00 p.m.
Place:	DOTC 16th Floor
Agenda:	Discussion on the Risk Matrix for the three cases of airport service allocation
Attendance:	Interviewee: - Ma. Filipinas Cabana, Gill Pamatmat, Manny delas Armas, Naty Sansolis Study Team: - Shuichi Kudo, Nelson Alvarez (JICA Team)

<Main Discussion Points>

1. The group discussed the three cases of airport service/component allocation and accomplished the Risk Matrix for each case. Please refer to the attached revised Risk Matrix.

2. The three cases discussed are as follows:

AREA	Case 1	Case 2	Case 3
Air Traffic Control/Air Navigation	Public	Public	Public
Aircraft ground operation (Runway, Taxiway)	Private	Public	Public
Terminal Area	Private	Private	Public
-Apron	Private	Private	Public
-Passenger Building	Private	Private	Private
-Carpark	Private	Private	Public
Cargo Area	Private	Private	Public
-Apron	Private	Private	Public
-Cargo Building	Private	Private	Private
-Forwarder Handling Area	Private	Private	Public
C.I.Q., Aviation Security	Public	Public	Public

Attached also is the more detailed version of the above Table.

		Case-1	Case-2	Case-3
1	Type	Domestic All	Local International	Urban International
2	Location	Rural	Rural	Urban
3	Airport Category	Principal 2	Principal 1	International Airport
4	Scheme/Type	BOT	BOT	BOT
5	Scope of Work	All airport facility excluding Land Acquisition	Only Pax and Cargo Terminal Area including concession	Only Pax and Cargo Terminal Building including concession
6	ROW	GOP	GOP	GOP
7	Earthworks	SPV	GOP(Initial earthworks)	GOP
8	Airside Civil Works	SPV	Only Terminal Area	Only Pax and Cargo Building area
	R/W, T/W A/P Pavement			
	Storm Drainage			
	Utilities (water, power, sewage)			

9	Airside building work	SPV	Only Terminal Area	Only Pax and Cargo Building
	Passenger			
	Control Tower			
	Administration			
	Fire Station			
10	Passenger Terminal	SPV	SPV	SPV
	Facility			
	Equipment			
	*see #18, 19, 20			
11	Cargo Terminal	SPV	SPV	SPV
	Facility			
	Equipment			
	*see #18, 19, 20			
12	Landside Civil Works	SPV	GOP excluding Terminal Area	GOP excluding Terminal Area
	Curb side road pavement			
	Storm drainage			
13	Landside building work	SPV	GOP excluding Terminal Area	GOP excluding Terminal Area
14	Parking	SPV	SPV	SPV
15	Access road (internal)	SPV	SPV(surrounding Terminal Area) and GOP	GOP
16	Air navigation	SPV (Equipment and facility) and GOP	GOP	GOP
17	Air Traffic Control	GOP	GOP	GOP
18	Aviation Security	GOP	GOP	GOP
19	Customs, Immigration Quarantine (CIQ)	GOP	GOP	GOP
20	Rescue and Fire Fighting (RFF)	GOP	GOP	GOP
21	Police	GOP	GOP	GOP
22	Candidate Airport	Caticlan Airport	New Bohol Airport	New Manila Airport

Appendix F-3: Risk Matrix (Sample of Scenario-2)

Scenario-2: Local International - Terminal AREA by SPC

	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
	Project Development Risks											
1	Incorrect traffic demand forecast due to insufficient/incorrect data or assumptions	L	**H**	GOP should provide data to the private proponent. GOP should provide criteria on the qualifications of the proponent's consultant and 'post-qualify' these consultants upon submittal of proposal. Entry of LCC or another airline company that impacts passenger demand has not been considered in previous feasibility studies. It is recommended to take into account these future plans by both public and private sector in traffic demand forecasting.		*						
2	Non-standardized procedures for economic assessment of benefits, traffic appraisal	L	L	GOP should provide parameters and methodologies needed in assessment/appraisal to the private proponent.		*						
3	Incorrect financial analysis	L	**L**	Thorough review by the GOP of the financial proposal. GOP should provide criteria on the qualifications of the proponent's consultant and 'post-qualify' these consultants upon submittal of proposal.		*						
4	GOP's disapproval of proposed project by the proponent (for unsolicited proposals only)	**L**	L	*(The private proponent has no means to recover the project development cost for unsolicited proposals.)*								
5	Lack of standardized project evaluation methods that takes into account Whole Life Cycle(WLC) cost of the project	**L**	**L**	GOP should promote the use of WLC in evaluation of projects especially for those proposals with different technologies, operation and maintenance schemes.	*	*						

	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
	Design Risk											
6	Incorrect specifications on tender documents	L	L	Require DOTC to provide a remedy or compensation to SPC. GOP improves selection criteria for consultants and require highly qualified consultants.		*						
7	Innovation	L	L	Link and consolidate Design, Construction and Operation, as much as possible, as one package during Tender stage to encourage application of the private sector's advanced know-how and innovation.		*						
8	Design contractor's errors	L	M	SPC will include provisions in the design contract requiring the SPC to provide remedial measures or pay damages. SPC will select highly qualified consultants.					*			
9	Design change due to Government requirement	L	M	If GOP requests for changes in the design from SPC, if it results to increase in cost GOP should cover the cost increase.		*						
10	Design changes due to interface issues between facilities provided by the private sector and the government	L	M	Interface issues between facilities provided by private and government may result to design modifications. GOP has to shoulder the additional cost due these interface problems.		*						

	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
11	Unverified geotechnical information at design stage based on the information provided by DOTC	L	M	DOTC provides the necessary geotechnical information and must clarify if the data is preliminary or final. SPC must verify the geotechnical data, especially if data given by DOTC is preliminary.		*			*			
12	Delay in approval procedure leads to increasing costs	H	M	Government must provide assistance in the processing of permits/issuance of licenses	*	*			*			
13	Non-compliance to Government Regulations	M	M	SPC must strictly follow government regulation on airport design		*			*			
	Land Acquisition Risk											
14	Delay in land acquisition	**H**	**H**	- Adequate consultations with settlers at the early stages - Timely budget allocation - The process of land acquisition complies with related laws		*		*				
15	Delay in resettlement	**M**	H			*		*				
16	Claims and protest from settlers due to land acquisition	**L**	M	Creation of Inter-agency Committee that will prepare and implement Land Acquisition Resettlement Plan; Strict implementation of existing related laws		*		*				
	Construction Risk											
17	Completion risk due to non-compliance with specifications and design requirements	L	**H**	Penalties are imposed by GOP for each day of delay.					*			
18	Completion risk due to delay in construction	**H**	H	Penalties are imposed by GOP for each day of delay. ~~Incentive given by GOP if project is completed ahead of schedule.~~		*			*			

	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
19	Cost increase due to interface problems	L	M	The government approves all the drawings, specifications before construction stage. Additional cost arising from any major revisions due to interface problems must be shouldered by the government. Also, designate a single project management group to oversee works of SPC and GOP.		*						
20	Cost increase due to contractor failure	M	H	SPC will provide a fixed lump sum amount. SPC applies a prequalification criteria that ensures selection of highly qualified contractors. GOP strictly monitors the cost throughout the project duration.					*			
21	Cost increase due to change in safety requirements	**L**	M	SPC must include provision for this in the CA. GOP must provide compensation to the SPC to cover the additional expense due to the changes.		*			*			
22	Cost increase due to change in environmental regulation	**M**	M			*			*			
23	Problems with quality of labor, materials, and performance criteria	**H**	**H**	Strict implementation of quality control measures by SPC, and monitoring by GOP. ~~Penalties are imposed if necessary.~~		*			*			
~~24~~	~~Problems with subcontractor~~	~~H~~	~~H~~	~~Impose penalties to the subcontractor in case of delays or substandard work~~		*		*	*			
25	Defect liability	M	M	GOP must require SPC to provide insurance coverage for defects over the agreed liability period		*			*			
25-A	Proposed deviations by SPC have been rejected by the GOP, SPC adopts original plan	M	M	SPC shall not be responsible for any defects/negative impact arising from adopting the original plan.								
25-B	Proposed deviations by GOP have been adopted by SPC	M	M	SPC shall not be responsible for any defects/negative impact arising from adopting the deviations proposed by GRP.								

	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
26	Adverse weather condition	L	M	- DOTC pays for some extent of cost increase due to adverse weather conditions, considered as force majeure - SPC purchases applicable insurance or considers certain number of off-days annually to account for inclement weather					*			
27	Interference from third parties, e.g. protesters and NGOs	**H**	**H**	- DOTC conducts public awareness campaign, implement land acquisition in good manner and enforce itself and private sector to meet environmental requirements - DOTC or LGU to handle this issue if it occurs		*		*				
28	Security problems from rebels/terrorists	L	M	*(Note: Most locations for International airports are in urban areas, the probability of risk occurrence for this particular risk is low in highly urbanized areas).*Conduct site-assessment and provide additional security if necessary.		*						
29-A	Inaccessible site, airport location far from city center	L	M	Should be coordinated with DPWH(or LGU), the government agency in-charge of road construction		*		*				
29-B	Lack of Access Road	L	M	SPC coordinates with DPWH (or LGU), to plan and arrange construction of road access. Clearly state in the CA the group responsible in providing the road access.								
30	Unforeseen Utilities Relocation (Utilities include underground water pipes, overhead transmission lines, buried pipes containing cables, etc)	**L**	**L**	GOP undertakes relocation of utilities and this must be clearly stated in the CA. Any delays from utility relocation works should not be considered as delay in the construction schedule and penalties will not be imposed on SPC due to these delays.		*		*	*			

	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
	Traffic Demand and Revenue Risk											
31	Traffic volume is lower than expected	H	H	GOP must provide to the private sector traffic data essential in the verification of the traffic forecast.	*	*			*			
32	Adverse effect of charge/ tariff increase on traffic demand	L	L	GOP must provide to the private sector traffic data essential in the verification of the traffic forecast.	*	*			*			
33-A	Improvements on other competing airports which result to reduced traffic	L	L	GOP must provide guarantee to the SPC that development of new or expansion of existing airports will not reduce the viability of the SPC-managed airport over the contract duration.	*	*			*			
33-B	Competition from other transport modes which results to reduced traffic	L	L	GOP must provide guarantee to the SPC that development of and policies on competing transport modes will not reduce the viability of the SPC-managed airport over the contract duration.	*	*			*			
33-C	Construction or Upgrade of a competing airport terminal that will impact traffic on the SPC-managed terminal	L	L	The GOP must grant SPC exclusive right to operate airport terminal over a specified location.	*	*			*			
34	Change of network development plan	L	L	GOP must provide to the private sector traffic data essential in the verification of the traffic forecast.		*			*			
35	National policy of air transport strategic plan as well as ASEAN	L	L	GOP must provide to the private sector traffic data essential in the verification of the traffic forecast.		*						
36	Nonpayment by users	L	M	SPC requests for advance payment or deposits, if possible from users/lessees.		*			*			

	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
	Operation and Maintenance Risk											
37	Labor cost increase	L	L	SPC develops a business plan that takes into account labor cost increases.					*	*		
38	Operation cost increase	M	M	SPC develops a business plan that takes into account operations cost increases.					*	*	*	
39	Import cost increase	M	M	SPC develops a business plan that takes into account import cost increases.					*	*		
40	Change in level of services required by the government/ DOTC	L	M	If GOP requests for change in level of service, and this results to additional cost on the part of SPC, the GOP must provide the corresponding compensation to SPC.		*						
41	Demand decrease and cost increase due to unexpected changes in weather conditions	L	M	SPC must obtain insurance coverage. GOP provides coverage for those not covered by insurance.		*			*			
42	Non-compliance by the SPC with operation and maintenance requirements	M	M	SPC must be penalized for non-compliance. GOP must strictly monitor the operational and maintenance activities of SPC. GOP has to improve its regulatory functions thru capacity building and institutional improvement.					*			
42-A	Failure of SPC to operate the Terminal over a specified duration	M	M	GOP shall take over the operations in the occurrence of such failure.								
43	Interface problems between areas operated and managed by the SPC, government and other service providers	M	M	Clear delineation of responsibilities between SPC and GOP in the CA.		*	*		*	*	*	
44	Negative environmental impact due to operation	L	L	SPC's responsibility should be clearly stated in the CA.					*			

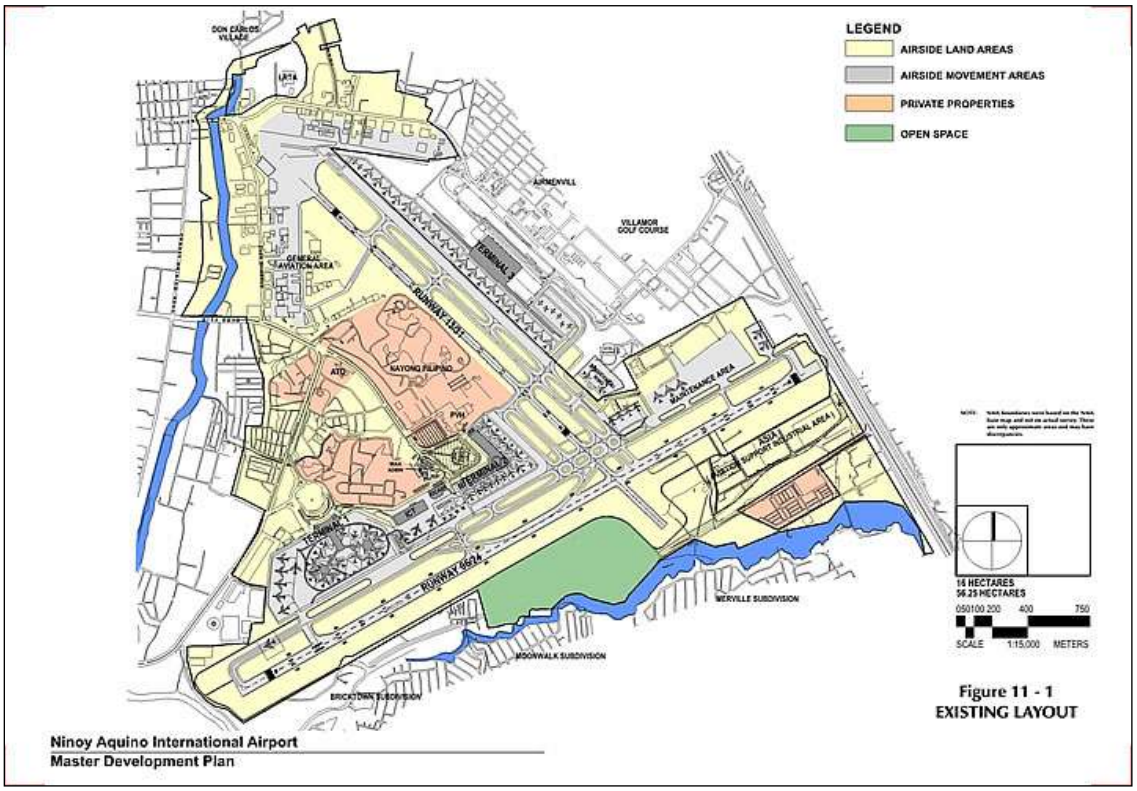
	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
44-A	Non-compliance with environmental requirements and mitigation measures specified in ECC (excluding force majeure)	M	M	SPC shall be responsible for compliance.					*			
45	SPC assumes maintenance of government-owned or operated equipment essential in maintaining the required level of service at the airport	M	M	The delineation of responsibilities between SPC and GOP must be clearly stated in the CA.		*			*			
45-A	(For certain cases where there is an existing terminal whose operations will be affected or replaced by the new terminal) Carry-over of current contracts or agreements for certain services and operations on the existing terminal to the new terminal.	M	M	These services shall not be carried over to the new terminal.		*						
	Airport sector/ Common Risk											
46-A	Air Traffic Services (CNS/ATM) and other services/activities outside of SPC's control that may create disruption in SPC's airport operations	M	M	Close and timely coordination between GOPand SPC is needed to minimize disruption in airport operational activities.		*						
46-B	Aircraft Operation failure	L	M	Parties involved must obtain insurance coverage for these types of failure.					*	*		
47	Changes in the conditions/assumptions applied in the Concessionaire's business plan	M	M	SPC must provide sufficient allowance in the business plan.		*			*			

	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
	Political and Legislatives Risks											
48	Deterioration of regional political stability and security	L	L	The private sector will be entitled to terminate the contract if the government defaults.	*	*						
49	Breach or cancellation of the contract by the government	L	L	The private sector will be entitled to terminate the contract if the government defaults.	*	*						
50	Expropriation	L	L	DOTC will be entitled to terminate the contract if the private sector defaults.		*			*			
51	Strengthening of the environmental policy and regulation	L	M	GOP will give compensation to SPC.	*	*						
52	Change of associated laws and strengthening of related regulations	L	M	GOP will give compensation to SPC.	*	*						
53	Change of general business laws and regulations	L	M	GOP will give compensation to SPC.	*	*						
54	Time-consuming procedures and delays in decision making, licensing and approval by the government	H	H	Depending on the approvals required, DOTC will provide compensation		*		*	*			
55	Cancellation of licensing and approvals given by the government	M	M	Depending on the approvals required, DOTC will provide compensation	*	*						
56	Coordination failure between DOTC and the government organizations	H	M	Developing clearer and more efficient procedures for inter-agency coordination and project monitoring	*	*						

	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
57	Inability of the Government to meet its contractual obligations	L	M	GOP commits to provide necessary guarantee in order to compensate the defaults of the contractual obligation	*	*						
58	Non-approval of the project by the general public	M	M	Strictly follow the requirements in securing an Environmental Compliance Certificate. The EIA procedure includes public consultations on the development of the airport.		*						
	Economic and Financial Risk											
59	Capital transaction restriction	M	M	Private sector is free capital transaction restriction, such as currency convertability, for operation.		*						
60	Exchange rate risks	H	M		*	*			*			
61	Construction and materials cost fluctuations due to currency fluctuation	H	M	- DOTC bears the cost increase due to currency fluctuation after a certain point. - Private sector bears a certain amount/ percentage in order to provide an incentive to minimize the risk.	*	*			*			
62	Imported operational equipment and material cost movement due to currency fluctuation	M	M		*	*			*			
63	Finance cost increase due to currency fluctuation	H	M	- SPC and DOTC prioritize local currency financing rather than foreign currency financing. - Use insurance or guarantee from multilateral or bilateral institutions.					*			

	Risks	Probability	Impact	Mitigation Measures	Risk Allocation							
					Public				Private			
					NEDA/ DOF	DOTC/ CAAP	C.I.Q.S.	LGU	SPC	Airline	Cargo	
64	Interest rate fluctuation	M	M	Introduce fixed rate loan and/ or interest rate swaps to mitigate interest rate fluctuation.					*			
65	Construction cost increase due to inflation	H	M						*			
66	Operational and maintenance cost increase due to inflation	M	M	Automatic tariff adjustment mechanism is introduced and additionally stipulated in the public law.					*			
	Other Risks											
67	Force majeure (Natural disasters, political embargos, riot, wars, invasions and civil disturbance)	M	M	GOP to compensate private sector if it happens	*	*						
68	Insolvency of subcontractors, or members of consortium	M	M	DOTC carefully examines financial positions of bidders in PPP bidding stage.					*			

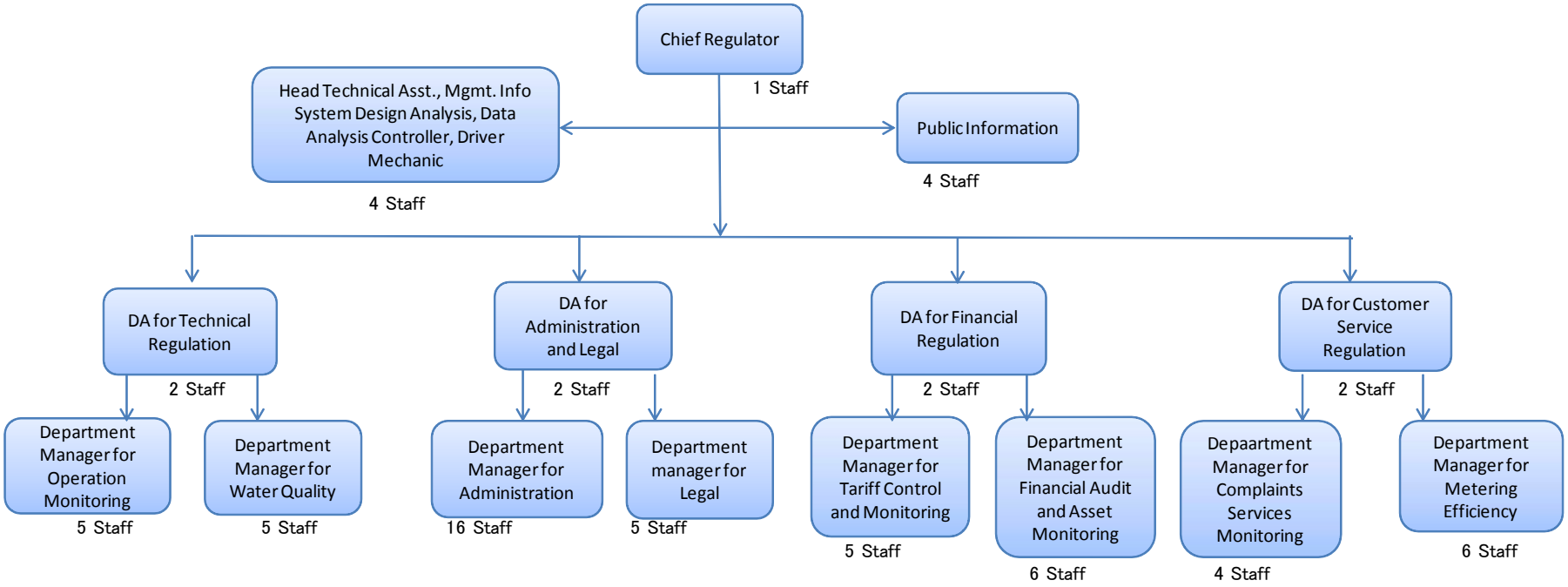
Appendix F-4: Ninoy Aquino International Airport Master Plan



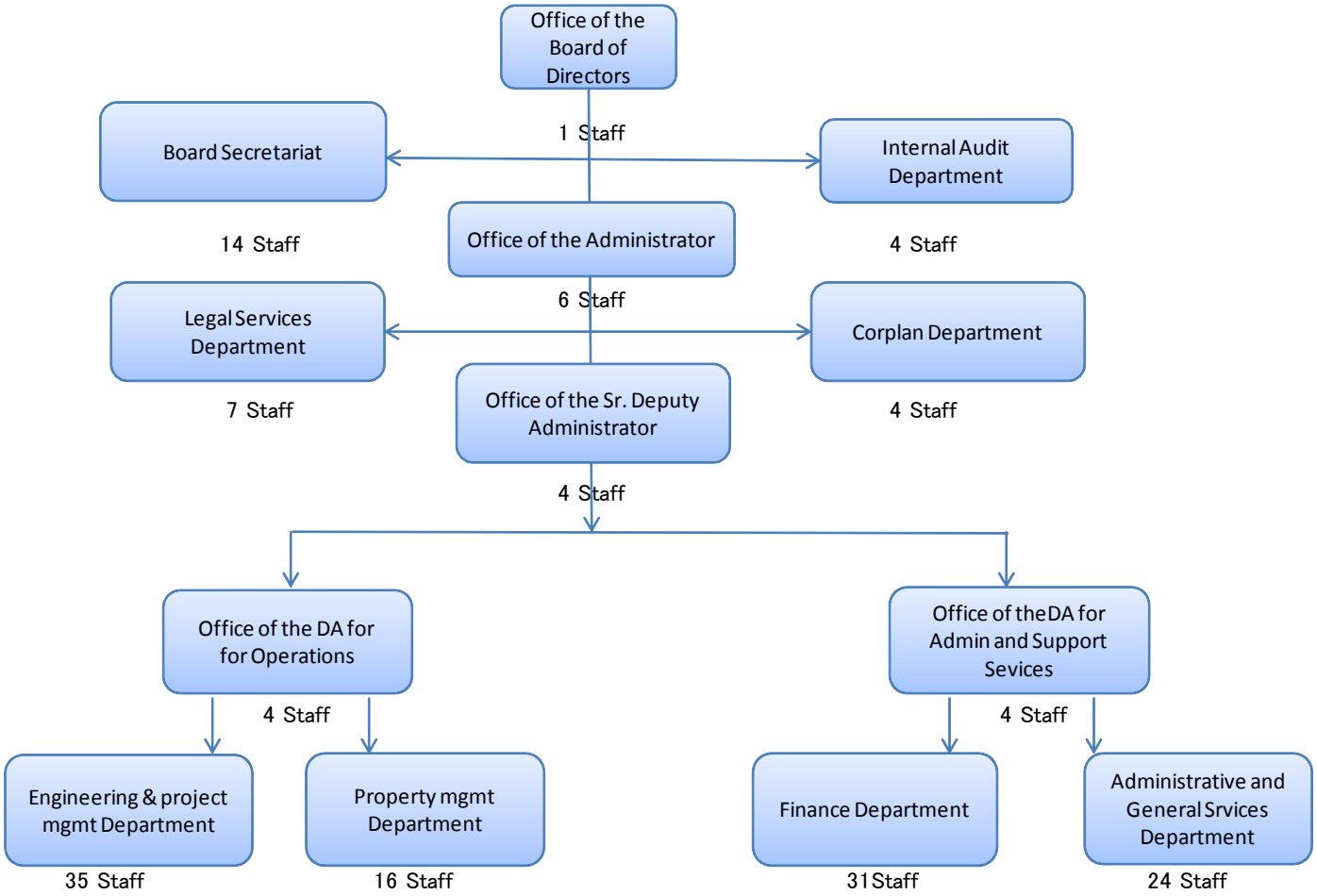
Source: MIAA Home page

APPENDIX G: WATER SUPPLY SECTOR

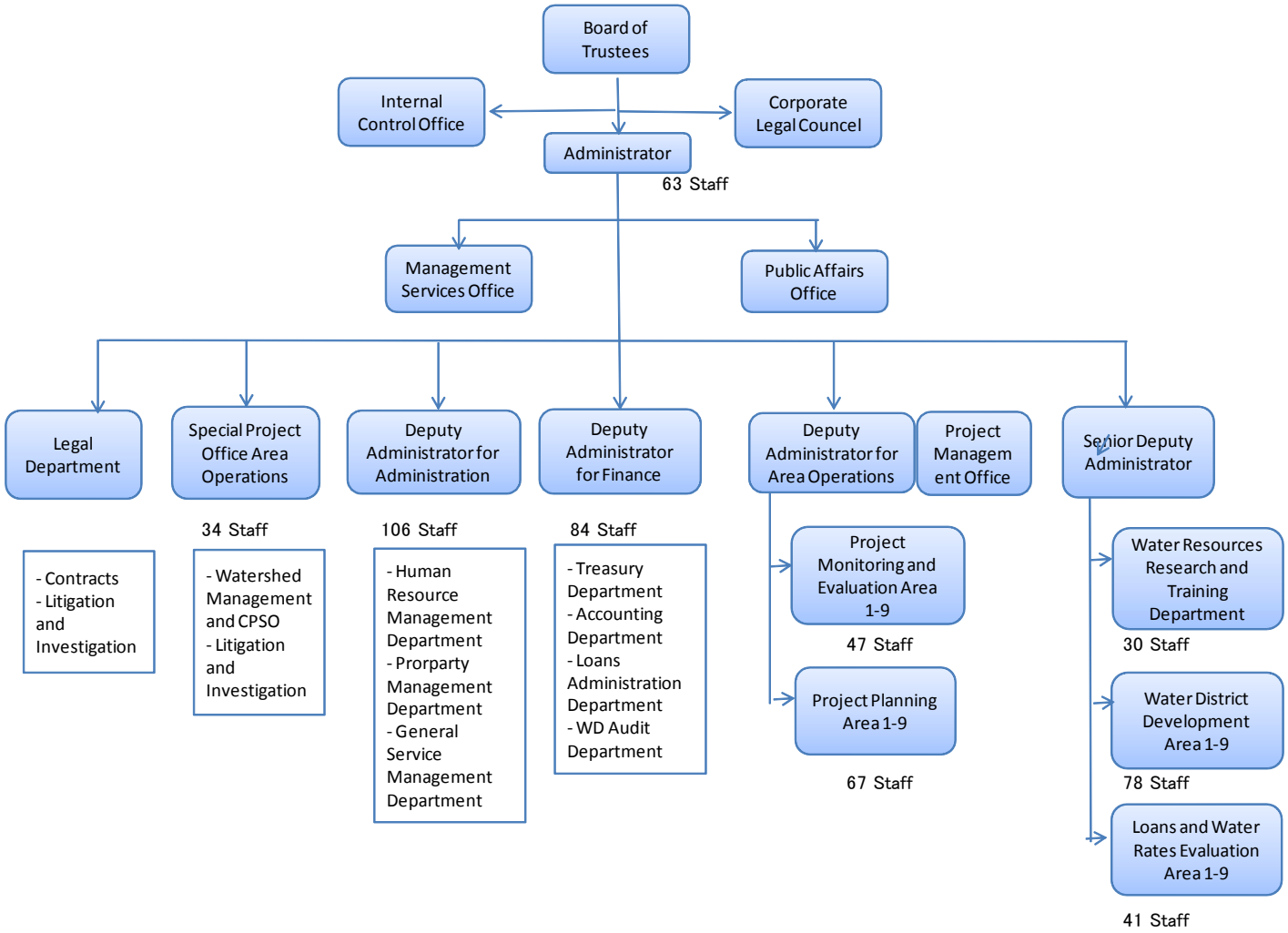
Appendix G-1: Organizational Chart of MWSS Regulatory Office (69 Staff)



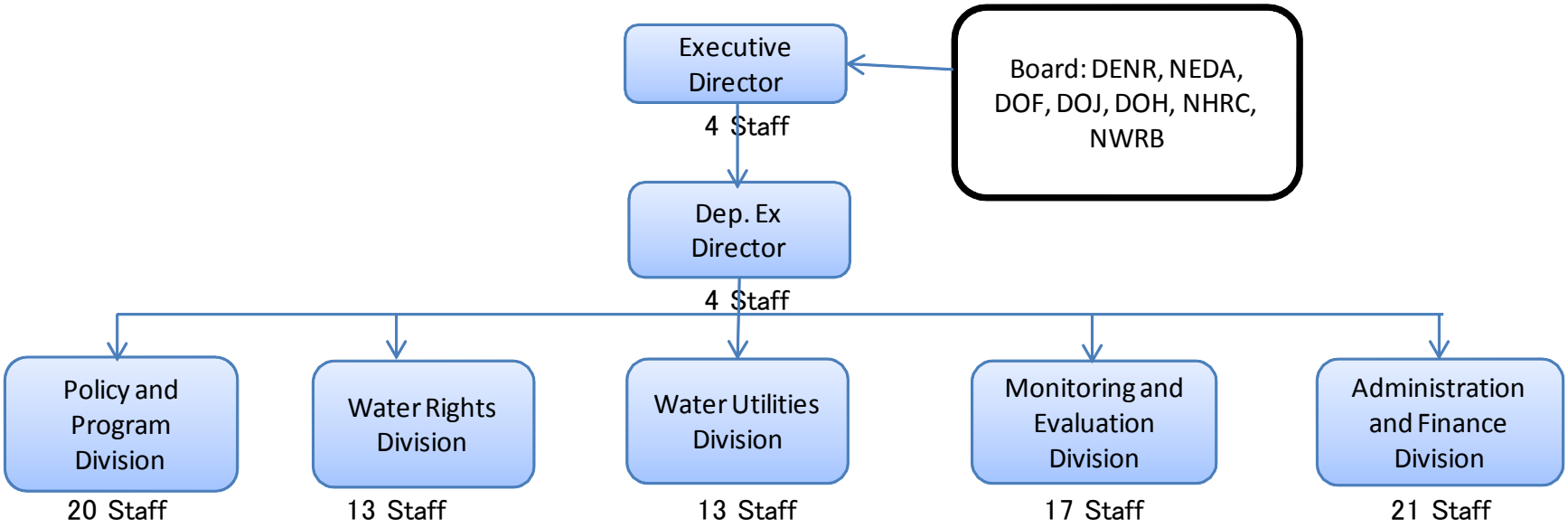
Appendix G-2: Organizational Chart of MWSS Corporate Office (154 Staff)



Appendix G-3: Organizational Chart of LWUA (Local Water Utilities Administration) (550 Staff)



Appendix G-4: Organizational Chart of NWRB (National Water Resources Board) (92 Staff)



Appendix G-5: Risk Matrix (Water Supply Sector, Bulk Water Supply Project)

JICA	Risks	Probability	Impact	Mitigation Measures	Risk Allocation						
					Public		Private				Comment
					MWSS	GOP	SPV	Insurance	Constructor	Operator	
	(1) Design Risk										
1	Delay in securing water right	H	H	MWSS should obtain the Water Right to avoid the disputes	*						
2	Failure or delay in securing ECC (Environmental Compliance Certificate)	H	H	MWSS to exert their best effort to assisist the proponent in acquisition of ECC			*				
3	Faults in tender specification	M	M	Select the qualified consultant. Checking system. Require MWSS to provide a remedy or compensate a SPV.	*						
4	Procedure or Scheme Failure (lack of Innovation, motivation for private entity)	M	M	Linking and consolidating design, construction and operation as much as possible, as one package when MWSS considers to tender in order to encourage the private sector to apply their advanced know-how and innovate skills.	*						
5	Design contractor fault (Over design, under design)	M	M	SPV will include provisions in the design contract requiring a SPV to provide a remedy or pay damages.			*	*			
6	Design change due to Government requirement	M	M	If GOP asks for a SPV to change design, GOP covers the cost increase.	*						
7	Incorrect geotechnical/hydrogical/social environmental assumptions at design stage based on the information provided by MWSS	L	H	MWSS provides necessary information on geotechnical data in order to support design work. The private sector to verify ,validate and check the correctness of the data provided	*		*				
8	Delay in approval procedure leads to increasing costs	M	M		*						
9	Follow Government Regulation	M	M	SPV needs to follow government regulation on water supply designing			*				
	(2) Land Acquisition Risk										
10	Delay in land acquisition	H	H	- Adequate consultations with settlers from the early stage - Timely budget allocation - The process of land acquisition complies with related laws - Proper information campaign	*		*				
11	Delay in resettlement	H	H		*		*				
12	Claims and protest from settlers due to land acquisition	H	H		*		*				
13	Land Contamination	L	L		*		?				

JICA	Risks	Probability	Impact	Mitigation Measures	Risk Allocation						Comment
					Public		Private				
					MWSS	GOP	SPV	Insurance	Constructor	Operator	
	(3) Construction Risk										
14	Cost increase due to contractor failure	M	M	Tariff Design			*		(*)		
15	Cost increase due to change in safety requirements	M	M	Tariff Design	*						
16	Cost increase due to change in environmental regulation	M	M		(*)						
17	Problems with quality of labor, materials, and performance criteria	M	M				*		(*)		
18	Problems with sub contractor	M	M				*				
19	Defect liability	M	M				*				
20	Labor Problems	M	M	Good relationship with employees			*				
21	Death or injuries on site	M	M	The private sector insures workers accident insurance SPV purchases applicable insurance			*				
22	Interference from third parties, e.g. protesters and NGOs	H	H	- MWSS conducts public awareness campaign, implement land acquisition in good manner and enforce itself and private sector to meet environmental requirements - MWSS to handle this issue if it occurs, and willsupport the proponent in relocation process	*		*				
23	Completion risk with regard to not meeting specifications and design requirements	H	H	Strict supervision and monitoring of MWSS during implementation/construction	(*)		(*)		*		
24	Completion risk with regard to delay of construction	M	H		(*)		(*)		*		
	(4) Demand and Revenue Risk										
25	Insufficient Law Water Amount	H	H	Needs comprehensive study of the source, or will provide high capacity facility llike additional reservoir	*		*				
26	Low treatment amount caused by O&M	L	M				*		(*)		
27	Delayed payment by concessionairs	L	H	MWSS to enforce strictly the Concession agreement	*						
28	Delay of Concession Fee form 2 private companies	L	H		*						

JICA	Risks	Probability	Impact	Mitigation Measures	Risk Allocation						
					Public		Private				Comment
					MWSS	GOP	SPV	Insurance	Constructor	Operator	
	(5) Operation and Maintenance Risk										
29	Labor/Operation /Import cost increase	M	M	Tariff Design			*				
30	Change in level of services required by the government/ MWSS	L	M		*	*	*				
31	Supply cost increase due to unexpected climate condition	M	H	comprehensive design review, enhancement and upgrading of process system,			*	*			
32	Non compliance with operation and maintenance requirements by private sector (clear requirements and specifications of services described in the contract)	L	M				*				
33	Negative environmental impact due to operation error	L	M				*				
34	Unsatisfied Service Level (water quality and quantity)	L	M				*				
35	Poor Water Quality (by severe weather condition)	H	H	Additional enhancement and upgrading of facilities with due compensation	(*)		*				
36	Safety (Occurrence of Water Borne Disease)	L	H				*	*		(*)	
37	Service stop risk (influence to industry, water scarecity)	L	H	Implementation of penalties and sanction to proponent			*				
38	Tarrif and charges Adjustment Failure (MWSS fails to implement GOP approval for bulk water	H	H	MWSS commitment to implement the approval, GOP letter of support	*		*				
39	Take-and-pay at contracted volume	L	H	Water purvhase agreement with concessionaires	*						
40	Equipment Meintenance (cost increase, facility breakdown, insufficient capacity)	H	L	Operational efficiency of private sector			*				
41	Sludge Discard	L	L				*				
42	Insufficient Regulation (monitoring capacity, service indicator check)	L	M	GOP participation	*	*					
43	Transfer termination procedure (Failure of facility)	L	M		*		*				
44	Transfer termination procedure (Procedure Delay)	L	M		*		*				

JICA	Risks	Probability	Impact	Mitigation Measures	Risk Allocation						
					Public		Private				Comment
					MWSS	GOP	SPV	Insurance	Constructor	Operator	
	(6) Political and Legislatives Risks										
45	Deterioration of regional political stability and security	L	L	The private sector will be entitled to terminate the contract if the government defaults.	*						
46	Breach or cancellation of the contract	L	L	The private sector will be entitled to terminate the contract if the government defaults.	*						
47	Expropriation	L	L	MWSS wil be entitled to terminate the contract if the private sector defaults.			*				
48	Strengthening the environmental policy and regulation	M	M	Tariff adjustment, (Compensation from MWSS)	*						
49	Change of associated laws and strengthening of related regulations	M	M	Tariff adjustment, (Compensation from MWSS)	*						
50	Change of general business laws and regulations	M	M	Tariff adjustment, (Compensation from MWSS)	*						
51	Slow and delay in decision making, licensing and approvals by the government	H	M	MWSS to support in the acquisition of necessary license and permits Depending on the approvals required, Application of automatic tariff adjustment for rapid decision	*	*	*				
52	Cancel licensing and approvals given by the government	M	M	Depending on the approvals required, Tariff adjustment		(*)	*				
53	Coordination failure between MWSS and the government organizations	L	M	Devpeloping cleare, efficient and aviation network.	(*)	(*)	*				
54	Government inability to meet its contractual obligations	M	M	GOP commits to provide necessary (indirect) guarantee in order to compensate the defaults of the contractual oblication	(*)	(*)	*				
55	Social opposition of users	M	M	Setting public hearing process etc. on development of water supply service	*		*				

JICA	Risks	Probability	Impact	Mitigation Measures	Risk Allocation						
					Public		Private				Comment
					MWSS	GOP	SPV	Insurance	Constructor	Operator	
	(7) Economic and Financial Risk										
56	Exchange rate risks (both in construction phase and O&M phase)	H	L	Exchange rate swap, Include in the tariff design - SPV bears cost increase due to after a certain point during construction phase. - Considered in the tariff design during O&M phase			*				
57	Capital transaction restriction	M	M				*				
58	Finance cost increase due to currency fluctuation	M	M	- SPV and MWSS prioritize local currency financing rather than foreign currency financing. - Utilization insurarance or guarantee from multilateral or bilateral institutions.			*				
59	Interest rate fluctuation	M	M	Introduce fixed rate loan and/ or interest rate swaps to mitigate interest rate fluctuation. CPI figure can be included in the tariff formula.			*				
60	Construction cost increase due to inflation	M	L				*		(*)		
61	Operational and maintenance cost increase due to inflation	M	M	Automatic tariff adjustment mechanism is introduced and additionally stipulated in the public law.			*			(*)	
62	Force majeure (Political embargos, riot, wars, invasions and civil disturbance)	M	H	GOP to compensate for private sector if it happens. Setting the SPV's partial cost burden should be considered for the best damage mitigation purpose. It is clearly stated and well defined in the contract		*	*				
63	Force majeure (Natural disasters, earthquake, typhoon, innundation)	M	H			*	*	*			
64	Influence of climate change	M	M				*				
65	Insolvency of subcontractors, or members of consortium	M	M	MWSS carefully examines finacial positions of bidders in PPP bidding stage.			*		(*)	(*)	