

THE STUDY ON PPP INSTITUTIONAL BUILDING IN THE PHILIPPINES FINAL REPORT

September 2013

JAPAN INTERNATIONAL COOPERATION AGENCY

KRI INTERNATIONAL CORP.
MITSUBISHI RESEARCH INSTITUTE, INC.
CTI ENGINEERING INTERNATIONAL CO., LTD.

1R
JR
13 - 025

**THE STUDY ON PPP INSTITUTIONAL
BUILDING IN THE PHILIPPINES
FINAL REPORT**

September 2013

JAPAN INTERNATIONAL COOPERATION AGENCY

KRI INTERNATIONAL CORP.
MITSUBISHI RESEARCH INSTITUTE, INC.
CTI ENGINEERING INTERNATIONAL CO., LTD.

Table of Contents

Introduction	1
Chapter 1. Current Status of PPP Program in the Philippines	3
1.1 Background and Current Status of PPP	3
1.1.1 Introduction of BOT/PPP and Stagnation Afterwards	3
1.1.2 New PPP Initiative of the Current Administration	3
1.1.3 Current Status of PPP Project Pipeline	4
1.2 Legal, Institutional, and Planning Frameworks of PPP	7
1.2.1 Legal Framework	7
1.2.2 Organizational Framework	10
1.2.3 Planning Framework	12
1.3 Recent Discussion on Improvement of PPP Legal Framework	13
1.3.1 Proposed Amendments to the BOT Law	13
1.3.2 Latest Amendments to the BOT Law IRR	15
1.3.3 Other Issues on PPP Legal Framework: ADR and Single Borrower Limitations	19
1.3.4 Improvement of the Function of PPP Center	22
1.4 Recent Issues of PPP Projects	23
1.5 Summary	26
Chapter 2. Current Status of PPP by Sector	27
2.1 Road Sector - Department of Public Works and Highways (DPWH)	27
2.1.1 Institutional Background	27
2.1.2 Organization for PPP Projects	27
2.1.3 Administrative Process of PPP Project	28
2.1.4 Current and Potential PPP Projects	30
2.1.5 Sector's Issues	33
2.2 Railway Sector – Department of Transportation and Communications (DOTC)	33
2.2.1 Institutional Background	33
2.2.2 Organization for PPP Projects	34
2.2.3 Administrative Process of PPP Projects	35
2.2.4 Current and Potential PPP Projects	35
2.2.5 Sector's Issues	36
2.3 Airport Sector (DOTC)	36
2.3.1 Institutional Background	36
2.3.2 Organization for PPP Projects	36
2.3.3 Administrative Process of PPP Projects	37
2.3.4 Current and Potential PPP Projects	37
2.3.5 Sector's Issues	39
2.4 Water Sector- Metropolitan Waterworks and Sewerage System (MWSS)	39
2.4.1 Institutional Background	39
2.4.2 Organization for Water Sector in Metro Manila	39
2.4.3 Current and Potential PPP Projects in Metro Manila and Surrounding Areas	40
2.4.4 Sector's Issues	41
2.5 Energy Sector - Department of Energy (DOE)	43
2.5.1 Institutional Background	43
2.5.2 Organization for Energy Sector	44
2.5.3 Current and Potential PPP Projects	44
2.5.4 Current Status of the Sector	44
2.5.5 Sector's Issues	46
2.6 Summary	46

Chapter 3. Necessity of Integrated Master Plan for Strategic Infrastructure Development ...	48
3.1 Issues of Existing Master Plans	48
3.2 Scope and Function of Integrated Master Plan for Strategic Infrastructure Development.....	49
3.2.1 Functions and Coverage of the Integrated Master Plan.....	49
3.2.2 JICA's Support to Develop Integrated Master Plan.....	50
3.3 Example of Integrated Master Plans in Indonesia: MP3EI and MPA	51
3.3.1 MP3EI (Masterplan for Acceleration and Expansion of Economic Development).....	51
3.3.2 MPA (Metropolitan Priority Area) Master Plan.....	53
3.4 Summary	55
Chapter 4. Analysis on Public Financial Framework for PPP	56
4.1 Introduction	56
4.1.1 Current Financial Situation and the Financial Sector	57
4.2 Current Public Financial Framework	59
4.2.1 Project Development and Monitoring Facility	59
4.2.2 Viability Gap Funding: PPP Strategic Support Fund	61
4.2.3 Public Guarantee Facility	62
4.2.4 Long Term Financing	63
4.2.5 Summary of Review of the Four Facilities.....	64
4.3 Analyses on Functions and Need for New Financial Facilities.....	65
4.3.1 Analysis on Viability Gap Funding (VGF) Pool	65
4.3.2 Analysis on Guarantee Facility with an Emphasis on CL Fund	66
4.3.3 Analysis on Long-term Public Financial Facility.....	68
4.4 Comparison with Other Countries.....	70
4.4.1 Comparison with India, Indonesia, and Colombia	70
4.5 Summary	72
Chapter 5. Quantitative Analysis on Potential Benefits of a CL Fund	73
5.1 Introduction	73
5.2 CL Analysis Framework and Methodology.....	74
5.2.1 Analytical Framework.....	74
5.2.2 Calculation Methods of CL Fund Effect on Government Burden.....	76
5.3 Setting Assumptions and Project Selection for the Analysis	80
5.3.1 Assumptions of the Analysis	80
5.3.2 Selection of Case Study Projects.....	81
5.4 CL Analysis Results	82
5.4.1 Results of the CL Quantitative Analysis.....	82
5.4.2 Expected Benefits of CL Fund to the GoP and Private Sector	83
5.5 Limitation of CL Fund and Further Issues	84
5.6 Summary	84
Chapter 6. PPP Capacity Development for Implementing Agencies	86
6.1 Introduction	86
6.2 PPP Capacity and Needs Assessment of IAs.....	86
6.2.1 Target, Methodology, and Assessment Items	86
6.2.2 Assessment Results: Road Sector (DPWH)	87
6.2.3 Assessment Results: Railway Sector (DOTC and LRTA).....	90
6.2.4 Assessment Results: Airport Sector (DOTC, MCIAA, MIAA, and CAPP)	93
6.2.5 Assessment Results: Water Sector (MWSS and LWUA).....	96
6.2.6 Assessment Results: Energy Sector (DOE).....	99
6.3 Trial Implementation of PPP Capacity Development Training	101
6.3.1 Planning and Implementation of Trial PPP Capacity Development Training	101
6.3.2 Lessons and Feedback from the PPP Capacity Development Program.....	108
6.4 Summary	109

Conclusions110

1. Findings110

2. Recommendations112

Annex A-1

Annex 1. List of PPP Projects A-1

Annex 2. Case Studies for Long-term Public Financial Facility A-4

List of Tables and Figures

Table 1.1-1 List of PPP projects (as of April 10, 2013).....	5
Table 1.1-2 Projects under Development (as of 10 April 2013).....	6
Table 1.2-1 Summary of PPP Legal Framework in the Philippines.....	8
Table 1.2-2 Summary of Public Financial Facilities in the Philippines (To Be Discussed).....	11
Table 1.4-1 Summary of Current Issues.....	23
Table 2.1-1 Existing Toll Roads under Operation.....	31
Table 2.1-2 Toll Road Projects Under Implementation.....	31
Table 2.1-3 Toll Road Projects under Various Stages.....	32
Table 2.2-1 Ongoing and Proposed Railway and BRT Projects in the Philippines.....	36
Table 2.3-1 Potential Airports.....	39
Table 2.4-1 Potential PPP Projects in Metro Manila and Surrounding Areas.....	41
Table 3.1-1 Major Development Plan and Master Plan.....	48
Table 3.3-1 Fast Track Project and Priority Project in MPA Master Plan.....	54
Table 4.2-1 Projects with PDMF Funding.....	60
Table 4.2-2 Budgeted SSF Amounts (P billion).....	62
Table 4.2-3 Difference of GF and CL Fund.....	62
Table 4.2-4 Risks to be Covered by General Insurers.....	63
Table 4.2-5 Summary of Public Financial Facilities.....	64
Table 4.2-6 Summary of Case Study for Long-term Public Financial Facility.....	65
Table 4.4-1 Comparison of PPP Financial Institutions.....	71
Table 5.2-1 Difference of GF and CL Fund.....	74
Table 5.2-2 Government Burden in a PPP Concession Agreement.....	74
Table 5.2-3 Projects Used for CL Quantitative Analysis.....	76
Table 5.2-4 Example of Simple Cash Flow Model.....	77
Table 5.2-5 Output Summary of the CL Fund Effect Calculation.....	80
Table 5.2-6 Output Summary of the CL Fund Effect Calculation.....	80
Table 5.3-1 Outline of Case Study Projects.....	82
Table 5.4-1 Summary of Case Study Results.....	83
Table 5.4-2 Payment Schedule for CLs in the Case Study Projects.....	83
Table 6.1-1 Contents of the Questionnaire.....	87
Table 6.2-1 Section and Position of Respondents (Road Sector).....	88
Table 6.2-2 Capacity Assessment Results (Road Sector).....	88
Table 6.2-3 Needs Assessment Results (Road Sector).....	89

Table 6.2-4 Sections and Positions of Respondents (Railway Sector)	90
Table 6.2-5 Capacity Assessment Results (Railway Sector)	91
Table 6.2-6 Needs Assessment Results (Railway Sector)	92
Table 6.2-7 Sections and Positions of Respondents (Airport Sector).....	93
Table 6.2-8 Capacity Assessment Results (Airport Sector).....	94
Table 6.2-9 Needs Assessment Results (Airport Sector).....	95
Table 6.2-10 Section and Position of Respondents (Water Sector)	96
Table 6.2-11 Capacity Assessment Results (Water Sector)	97
Table 6.2-12 Needs Assessment Results (Water Sector)	98
Table 6.2-13 Sections and Positions of Respondents (Energy Sector).....	99
Table 6.2-14 Capacity Assessment Results (Water Sector)	99
Table 6.2-15 Needs Assessment Results (Water Sector)	100
Table 6.3-1 Findings from the Capacity and Needs Assessments	102
Table 6.3-2 Contents of Trial Capacity Development Training.....	102
Table 6.3-3 Participants of the Trial Capacity Development Training	103
Table A.1-1 List of PPP Projects (as of September 4, 2013).....	A-1
Table A.2-1 Summary of CAVITE Expressway Project.....	A-5
Table A.2-2 Summary of NAIA Expressway Project	A-6
Table A.2-3 Summary of SLEX Extension Project	A-7
Table A.2-4 Summary of Visayas Airport (Landside work).....	A-8
Table A.2-5 Summary of Zamboanga Airport (Landside work)	A-9
Table A.2-6 Summary of Tacloban Airport (Landside work).....	A-10
Figure 1. Report Structure	2
Figure 1.2-1 Summary of PPP Organizational Framework in the Philippines	12
Figure 2.1-1 Organizational Structure of DPWH for PPP Projects	28
Figure 2.2-1 Organizational Structure of the Railway Sector in DOTC	34
Figure 2.2-2 Internal Process for PPP Railway Project Selection	35
Figure 2.3-1 Promotion in the Airport Sector of DOTC	37
Figure 2.4-1 Change in Water Tariff, Metro Manila, 1996-2011.....	42
Figure 3.2-1 Image of the Integrated Master Plan.....	49
Figure 3.2-2 Mega Cebu Vision 2050: Development Strategy.....	50
Figure 3.3-1 Infrastructure Development Plan of MP3EI (Extraction).....	52
Figure 3.3-2 Infrastructure Development Plan of Suma Tera Island in MP3EI	52
Figure 3.3-3 Infrastructure Development Plan of MPA Master Plan	53
Figure 4.1-1 Functions and Relations of Public Financial Facilities for PPP	56
Figure 4.3-1 Savings-Investment Gap.....	58

Figure 4.3-2 Peso Yield Curves, PDST-R2 58

Figure 4.2-1 PDMF Process Flowchart..... 61

Figure 5.2-1 Framework and Flow of Analysis..... 75

Figure 5.2-2 Diagram of CL Fund Effects..... 78

Figure 6.2-1 Capacity Assessment Results (Road Sector) 88

Figure 6.2-2 Needs Assessment Results (Road Sector)..... 89

Figure 6.2-3 Capacity Assessment Results (Railway Sector)..... 91

Figure 6.2-4 Needs Assessment Results (Railway Sector)..... 92

Figure 6.2-5 Capacity Assessment Results (Airport Sector) 94

Figure 6.2-6 Needs Assessment Results (Airport Sector) 95

Figure 6.2-7 Present Capacity Level (Water Sector)..... 97

Figure 6.2-8 Needs Assessment Results (Water Sector)..... 98

Figure 6.2-9 Present Capacity Level (Energy Sector)..... 100

Figure 6.2-10 Needs Assessment Results (Energy Sector)..... 101

Figure A.2-1 Cash flow profiles of Case 1 (100% commercial loan) & Case 2 (use of public long-term loan)..... A-11

ABBREVIATIONS

ADB	Asian Development Bank
ADMS	Aerodrome Development and Management Service
ADR	Alternative Dispute Resolution
AFCS	Automatic Fare Collection System
AOI	Articles of Incorporation
APG	Algemene Pensioen Groep
ASEAN	Association of Southeast Asian Nations
ATPD	Air Transportation Planning Division
AusAID	Australian Agency for International Development
AWUAIP	Angat Water Utilization and Aqueduct Improvement Project
BAC	Bids and Awards Committee, DOTC
BATMAN	Natural Gas Pipeline from Batangas to Manila
BCDA	Bases Conversion and Development Authority
BIWC	Boracay Island Water Company
BLT	Build-Lease and Transfer
BOT	Build-Operate-Transfer
BROT	Build-Rehabilitate-Operate-Transfer
BRT	Bus Rapid Transit
BSP	Bangko Sentral ng Pilipinas
BT	Build-Transfer
BTO	Build-Transfer-Operate
CAAP	Civil Aviation Authority of the Philippines
CAOT	Contract-Add-Operate-Transfer
Cavitex	Cavite Expressway
CALAX	Cavite-Laguna Expressway
CDCP	Construction and Development Corporation of the Philippines
CFC	Certificate of Final Completion
CHED	Commission on Higher Education
CIDA	Canadian International Development Agency
CIIP	Comprehensive Integrated Infrastructure Program
CL	Contingent Liability
CMMTC	CITRA Metro Manila Tollway Corporation
CN	Confirmation Note
CPC	Certificate of Public Convenience
CW	Civil Work
Daang Hari	Daang Hari-South Luzon Expressway Link Road
DBL	Design-Build-Lease
DBM	Department of Budget and Management
DBP	Development Bank of the Philippines
DED	Detailed Engineering Design
DOE	Department of Energy
DOF	Department of Finance

DOH	Department of Health
DOJ	Department of Justice
DOTC	Department of Transportation and Communications
DPWH	Department of Public Works and Highways
DSCR	Debt Service Coverage Ratio
DU	Distribution Unit
ECC	Environmental Compliance Certificate
EDCF	Korea's Economic Development Cooperation Fund
EDSA	Epifanio de los Santos Avenue
EPIRA	Electric Power Industry Reform Act
ERC	Energy Regulatory Commission
FS	Feasibility Study
FM	Force Majeure
GAA	General Appropriations Act
GCG	Governance Commission for GOCC
GCL	Government Contingent Liability
GDP	Gross Domestic Product
GF	Guarantee Function
GFI	Government Financial Institution
GFS	Government Financial Support
GOCC	Government Owned and Controlled Corporation
GOI	Government of Indonesia
GoP	Government of the Philippines
GPRA	Government Procurement Reform Act
GSIS	Government Service Insurance System
HB	House Bill
IA	Implementing Agency
IC	Independent Consultant
ICC	Investment Coordination Committee
IFC	International Finance Corporation
IFG	International Finance Group
IIGF	Indonesia Infrastructure Guarantee Fund
IPO	Initial Public Offering
IPP	Independent Power Producer
IRR	Internal Rate of Return
ITS	Integrated Transport System
JICA	Japan International Cooperation Agency
JV	Joint Venture
KPI	Key Performance Indicator
KOICA	Korea International Cooperation Agency
LAWC	Laguna AAA Water Corporation
LD	Liquidated Damage
LGU	Local Government Unit
LRT	Light Rail Transit
LRTA	Light Rail Transit Authority
LRV	Light Rail Vehicle

LWCI	Laguna Water Company Incorporated
LWUA	Local Water Utilities Administration
MAGA	Material Adverse Government Action
MATES	Manila Toll Expressway Systems Incorporated
MCIA	Mactan-Cebu International Airport
MCIAA	Mactan-Cebu International Airport Authority
MCWD	Metro Cebu Water District
MERALCO	Manila Electric Company
MIAA	Manila International Airport Authority
MIWD	Metro Iloilo Water District
MLD	Million Liters per Day
MMUTIS	Metro Manila Urban Transportation Integration Study
MNTC	Manila North Tollways Corporation
MPIC	Metro Pacific Investment Corporation
MPSS	Minimum Performance Standards and Specifications
MRT	Mass Rapid Transit
MTPDP	Medium-Term Philippine Development Plan
MTPIP	Medium-Term Public Investment Plan
MWCI	Manila Water Company Inc.
MWSI	Maynilad Water Services Inc.
MWSS	Metropolitan Waterworks and Sewerage System
MYOA	Multi-Year Obligational Authority
NAIA	Ninoy Aquino International Airport
NAIAx	Ninoy Aquino International Airport Expressway
NEDA	National Economic and Development Authority
NESDP	National Economic and Social Development Plan
NGA	National Government Agency
NLEx	North Luzon Expressway
NPC	National Power Corporation
NWRB	National Water Resources Board
O&M	Operations and Maintenance
ODA	Official Development Assistance
OGCC	Government Corporate Counsel
OSG	Office of the Solicitor General
PQ	Prequalification
PDMF	Project Development and Monitoring Facility
PEA	Public Estates Authority
PFI	Private Finance Initiative
PHILGEPS	Philippine Government Electronic Procurement System
PhP	Philippine Peso
PIATCO	Philippine International Air Terminals Company Incorporated
PIC	Philippine Infrastructure Corporation
PIDC	Private Infrastructure Development Corporation
PInAI	Philippine Investment Alliance for Infrastructure
PIRR	Project Internal Rate of Return
PNCC	Philippine National Construction Corporation

PNOC	Philippine National Oil Corporation
PNR	Philippine National Railways
PMO	Project Management Office
PMS	Project Management Service
PPA	Power Purchase Agreement
PPD	Plans and Programs Department
PPP	Public-Private Partnership
PSALM	Power Sector Assets and Liabilities Management Corporation
PSIS	Philippine Society for Industrial Security
PEATC	PEA Tollway Corporation
PU	Performance Undertaking
RA	Republic Act
ROM	Rehabilitate-Operate-Maintain
ROR	Rate of Return
ROW	Right of Way
RWCSR	Raw Water Conveyance System Rehabilitation Project
SB	Senate Bill
SBAC	Special Bids and Awards Committee
SCTEX	Subic-Clark-Tarlac Expressway
SEC	Securities and Exchange Commission
SEW	System Enhancement Work
SIDC	STAR Infrastructure Development Corporation
Skyway	Metro Manila Skyway
SLEx	South Luzon Expressway
SLTC	South Luzon Tollways Corporation
SMC	San Miguel Corporation
SMIG	San Miguel Infrastructure Group
SOMCO	Skyway O&M Corporation
SSF	Strategic Support Fund
STAR	Southern Tagalog Arterial Road
STOA	Supplemental Toll Operation Agreement
TA	Technical Assistance
TCA	Toll Concession Agreement
TIEZA	Tourism Infrastructure and Enterprise Zone Authority
TMC	Tollways Management Corporation
TOC	Toll Operation Certificate
TOP	Toll Operation Permit
TOR	Terms of Reference
TPLEx	Tarlac-Pangasinan-La Union Expressway
TRA	Toll Rate Adjustment
TRB	Toll Regulatory Board
TTF	Treasury Task Force
TWG	Technical Working Group
UMPC	UEM-MARA Philippines Corporation
VGf	Viability Gap Fund
WACC	Weighted Average Cost of Capital

WTP	Water Treatment Plant
WD	Water District
WESM	Wholesale Electricity Spot Market

Introduction

The Study on PPP Institutional Building in the Philippines has been conducted from August 2012 to September 2013. The Study's objectives are to (i) propose public financial framework for the promotion of PPP projects and (ii) support capacity development for implementing agencies concerned to enhance PPP project formation and implementation.

The Study was conducted under the guidance of the GoP, especially of the Department of Finance (DOF) and the PPP Center for the objective (i), and the PPP Center and the major implementing agencies (IAs) including the Department of Public Works (DPWH), the Department of Transportation and Communication (DOTC), the Metropolitan Waterworks and Sewerage System (MWSS) and the Department of Energy (DOE) for the objective (ii).

Through the discussions with these concerned agencies, the JICA Study Team identified the unfinished tasks the GoP prioritized to proceed and studied the means for JICA to support the GoP. That is, the JICA Study Team has been working in accordance with the needs of the GoP, and thus its Study focus has shifted correspondent to the adjustments of the policies of the GoP.

The brief structure of the report is as followed. First, Chapters 1 and 2, discussing the current state of PPP in the Philippines, are intended to identify unfinished tasks important to promote PPP. Those tasks are further elaborated in Chapter 3 to 6. The components of the Report are visually shown in the Figure 1.

Chapter 1, *Current Status of PPP Program in the Philippines*, reviews the PPP program formed and implemented by the GoP. This Chapter starts with the background of PPP program in the country, followed by the analysis of PPP legal and institutional frameworks, and overview of the development and implementation of PPP project pipeline.

Chapter 2, *Current Status of PPP by Sector* reviews relevant infrastructure sectors and implementing agencies (IAs) looking at five major sectors, namely road, airport, railway, water and energy. It examines (a) institutional background, (b) organization for PPP Projects, (c) administrative process of PPP projects, (d) current and potential PPP projects, and (e) sector's issues.

Chapter 1 and 2 reveals four major unfinished tasks: (i) lack of integrated master plan, (ii) lack of public financial framework, (iii) necessity for quantification of contingent liability, and (iv) the needs for PPP capacity development for IAs. The details of these four tasks are discussed in the following Chapters.

Chapter 3, *Necessity of Integrated Master Plan for Strategic Infrastructure Development*, overviews the progress of infrastructure development in the Philippines and examines the areas and directions for improvement towards an integrated master plan (IMP) for infrastructure development program.

Chapter 4, *Analysis on Public Financial Framework for PPP*, discusses on the current and future public financial framework to support PPP Projects. It starts by defining four (4) types of public financial framework (PDMF, VGF, Guarantee Facility and Long-Term Lending Facility), which are derived from international best practices. Then, the chapter looks into more details the not-yet-existing three facilities (VGF Pool, Fund for Guarantee and Contingent Liability (CL), and public long-term financing institution). The chapter ends with discussing the characteristics of the Philippines PPP in comparison with other countries.

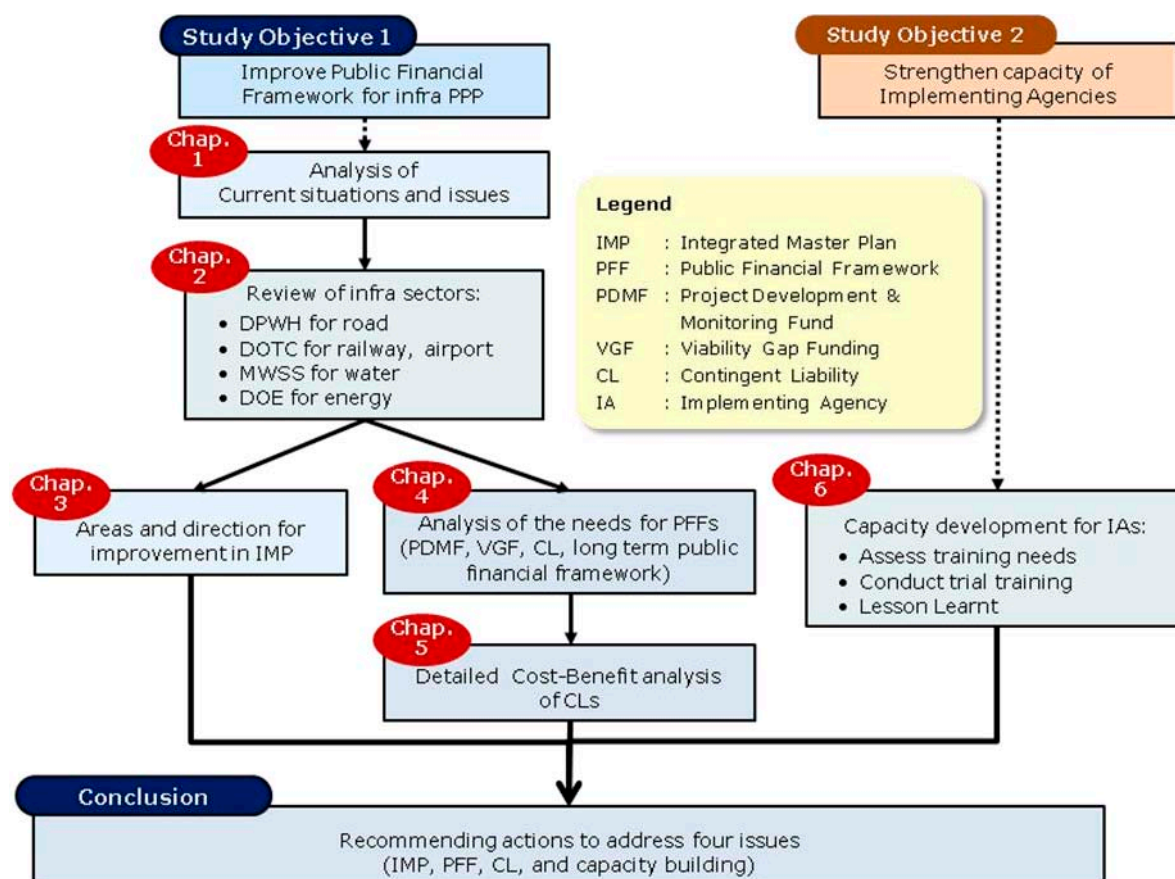
Chapter 5, *Quantitative Analysis on Potential Benefits of a CL Fund*, expands the discussion of the

Chapter 4 by focusing on the issues of CL, which is one of the urgent issues for the GoP in the context of PPP. It selects several case studies (from close-to-actual PPP projects in the Philippines) and examines the potential benefit derived from the introduction of the CL Fund, by calculating the net benefit by comparing the cost; i.e., the realization of CL risks, and the benefit; i.e., reduction in risk premiums assumed by private side. The analysis concludes that net benefit is significantly positive.

Chapter 6, *PPP Capacity Development for Implementing Agencies*, assess the capacity and identifies the needs of IAs, namely, DPWH, DOTC, MWSS/LWUA and DOE (PNOC), and describes the result of a trial implementation of PPP capacity development training that was conducted for DPWH, DOTC and MWSS/LWUA.

Finally, the *Conclusion* summarizes the study findings and recommendations to address the four issues (IMP, public financial framework, the CL Fund and capacity development).

During the term of the Study, the JICA Study Team witnessed that the GoP has taken the most important initial steps towards the management of CL



Source: JICA Study Team

Figure 1. Report Structure

Chapter 1. Current Status of PPP Program in the Philippines

This chapter aims to provide an overview on the current PPP program in the Philippines. It includes discussions on i) Background and Current Status, ii) PPP policies and institutions, iii) Recent discussion on improving PPP legal framework, and iv) Recent issues of PPP in the Philippines.

1.1 Background and Current Status of PPP

1.1.1 Introduction of BOT/PPP and Stagnation Afterwards

PPP has been introduced in the early 1990s in the Philippines. In that era, the country of the Philippines suffered from power crisis and lack of budgetary resources. In order to overcome the situation, the government decided to adopt build-operate-transfer (“BOT”) schemes and offered take-or-pay contracts which enticed private firms to finance development of power plants. With the resolution of the power crisis, BOT schemes were recognized as an effective solution to the country’s infrastructure development and BOT was pursued in other sectors, such as toll roads, railway and water. Having said that, the government had to provide generous guarantees in the face of a debilitating power crisis and lacking a regulatory environment that would enable merchant power sales.

In 1997, difficulties with BOT contracts emerged with the onset of the Asian crisis. That can mainly be traced to the public sector’s reliance on foreign currency borrowings (the domestic market was relatively shallow and immature to provide large-scale, long-term financing) and overly optimistic demand forecasts that expected continuing pre-crisis high growth. These resulted in the “realization” of large contingent liabilities (CL) under the guarantees provided in the past. Political/social sensitivities that prevented losses from being passed on to end-users added to the complexity of the problem. As a result, the government decided to no longer provide generous guarantees to BOTs.

The change of the Government’s policy had undermined private sectors’ appetite for their participation in BOT projects and that lead to stagnation of BOT. The situation continued until around 2010. During that period, there were several political turbulences and they invited poorer investment climate and perception of higher regulatory risk for investors. Coupled with Government’s recurring fiscal problem that pulled back public infrastructure spending, the country was trapped in a vicious cycle of poor infrastructure investment.

1.1.2 New PPP Initiative of the Current Administration

By the time when the Aquino administration took over in 2010, the need to boost infrastructure investment was widely recognized. The new president quickly adopted PPP as one of the centerpieces of its economic recovery program. The Medium-term Philippine Development Plan (MTPDP) 2011-16 was unveiled in 2011, and it stated that the "government shall rely on the PPP scheme to implement the bulk of its infrastructure programs". In various pronouncements, the government authorities have underlined that the new direction for PPP is toward more strategic, competitive, transparent and pro-active partnerships, and away from ad-hoc, supplier-driven unsolicited and opaque processes that have characterized projects in the past.

In creation of the new initiative, the followings are identified as weakness to promote PPP in the Philippines:

- Lack of pipeline of feasibility studies for projects that can be bid out;
- Inadequate technical, financial and legal institutional capability of line and oversight agencies to prepare, evaluate, negotiate and contract out PPP projects;
- Absence of clear sector plans, and unclear legal and regulatory framework;
- Lack of clear policies and lack of institutional mechanisms for providing VGF for projects that are economically desirable but not commercially viable;
- Delays in providing and delivering right of way by government;
- Inappropriate tariff levels and adjustment mechanisms;
- Inability to deliver/enforce contract obligations of government, including lack of credible mechanisms for guaranteeing risks assumed by government; and
- Decision-making politicized.

At the same time, the Secretary of Finance stated in his Letter of Development Policy to ADB¹, that the Government's commitment to develop a "world class PPP framework", which is to be built on the following three pillars:

- Reforming the institutional and policy setup for PPPs, mainly reorganizing the PPP Center, including transferring it as an attached agency of NEDA, and reviewing the regulatory and policy environment for PPP, including revising the implementing rules and regulations of Republic Act ("RA") No. 6957, as amended by RA No. 7718, otherwise known as the Philippine Build-Operate-Transfer Law (the "BOT Law");
- Investing in staff and systems to build capacity at the PPP Center and agencies involved in preparing PPP projects; and
- Funding project preparation costs to be shared by public sector through the Strategic Support Fund ("SSF") and the Project Monitoring and Development Facility (PDMF).

However, notwithstanding the stated policy and commitment, due to a number of issues, progress to date has been slower than envisioned. In fact, as of April 2013, only three projects have been successfully reached to the contract closure between IAs and project proponents, as we will see in the following sections.

1.1.3 Current Status of PPP Project Pipeline

In this section, progress of PPP project pipeline is observed. According to the PPP Center, as of April 2013, fifty nine (59) projects are identified and promoted as PPP project. Those projects are classified into the following nine categories:

A) Awarded Projects:	3 Projects
B) Project with Live Bidding:	7 Projects
C) NEDA Board-Approved Projects:	2 Projects
D) For Evaluation and/or Approval Relevant Government Bodies:	2 Projects
E) Project Structure Being Finalized:	2 Projects
F) On-going Studies:	8 Projects
G) PDMF/Other Multilateral Agencies-Supported Projects:	9 Projects
H) Other Projects Monitored by the PPP Center:	2 Projects
I) Other Projects Under Development:	24 Projects
Total	59 Projects

The list of the projects under each category is shown in Table 1.1-1 and 1.1-2. For further and updated

¹ ADB PN: 43396: Policy based loan increasing competitiveness for inclusive growth, June 2012.

information (up to September 2013), refer to the Annex 1.

Table 1.1-1 List of PPP projects (as of April 10, 2013)

Project	Estimated Cost
A.) Awarded Projects	
1 Daang-Hari-SLEX Link Road	USD46.6 Mn
2 PPP for School Infrastructure Project (Phase 1)*	PHP16.42 Bn USD389 Mn
3 NAIA Expressway Project**	PHP15.86Bn USD377.6Mn
B.) Projects with Live Bidding	
1 LRT Line 1 Cavite Extension and O & M	PHP59.20Bn USD1.25Bn
2 Modernization of the Philippine Orthopedic Center (MPOC)	PHP5.70Bn USD135.5Mn
3 Rehabilitation, Operation & Maintenance of Angat Hydro Electric Power Plant (AHEPP) Auxilliary Turbines 4 & 5	PHP1.155Bn USD27.5Mn
4 PPP for School Infrastructure Project (Phase II)	No information
5 Automatic Fare Collection System (AFCS)*	PHP1.722Bn USD42.9Mn
6 Mactan-Cebu International Airport Passenger Terminal Building (MCIA)*	Phase1: (Initial Investment) PHP8.873Bn; Phase2: (Future Expansion) PHP8.647Bn
7 CALA Expressway (Cavite and Laguna Side)	PHP43.33 Bn USD1.01Bn; PHP21.71Mn USD504,833 (Private Sector)
C.) NEDA Board-Approved Projects	
1 NLEX-SLEX Connector Road	PHP21.20Bn USD504.8Mn
2 Talisay City Plaza Complex Heritage Restoration and Redevelopment	To be determined (TBD)
D.) For Evaluation and/or Approval of Relevant Government Bodies	
1 Civil Registration System–Information Technology Project Phase II	No information
2 Vaccine Self-Sufficiency Project Phase II (VSSPII)	PHP453Mn USD10.8Mn
E.) Project Structure Being Finalized	
1 Enhanced O & M of the New Bohol (Panglao) Airport*	USD 190.50 Mn
2 Operation & Maintenance of the Laguindingan Airport*	USD 42.9 Mn
F.) On-going Studies	
1 Establishment of Cold Chain Systems Covering Strategic Areas in the Philippines*	PHP1.50Bn USD35.7Mn
2 Grains Central Project	PHP400Mn USD9.30Mn
3 Operation & Maintenance of LRT Line 2	To be determined (TBD)
4 Operation & Maintenance of the Puerto Princesa Airport	To be determined (TBD)
5 New Centennial Water Supply Source Project*	To be determined (TBD)
6 Rehabilitation of Quirino Highway Project*	To be determined (TBD)
7 Integrated Transport System (ITS) Project*	To be determined (TBD)
8 Bulacan Bulk Water Supply Project*	To be determined (TBD)
G.) PDMF/Other Multilateral Agencies-Supported Projects	
<i>Ongoing Procurement of Advisors</i>	
1 El Nido Water Supply and Sanitation System Project*	To be determined (TBD)
2 Manila-Makati-Pasay-Paranaque (MMPP) Mass Transit System (MTS) Project*	
3 Regional Prison Facilities through PPP*	
4 Integrated Luzon Railway Project *	
<i>For Procurement of Advisors</i>	
1 Plaridel Bypass Toll Road*	
2 Batangas-Manila (BatMan) 1 Natural Gas Pipeline Project*	
3 LRT-1 Extension to Dasmariñas*	
4 Manila Bay-Pasig River-Laguna Lake Ferry System Project*	
5 Operation and Maintenance of Iloilo, Davao and Bacolod Airports*	
H.) Other Projects Monitored by the PPP Center	
1 Skyway Stage 3	
2 MRT Line-7	

Source: PPP Center

*Approved PDMF Support; **Successfully bid out 15 April 2013 and to be officially awarded 14 May 2013

Table 1.1-2 Projects under Development (as of 10 April 2013)

<i>Project</i>	
1	Logistics Support for Agri-Fishery Products Supply Chain
2	Central Spine RORO Project
3	Ferry Passenger Terminal Buildings Development Project
4	Manila Bay Express Way
5	Pasig-Marikina Express Way
6	Manila-Bataan Coastal Road
7	East-West Connection Expressway
8	Panguil Bay Bridge
9	Cebu-Bohol Translink
10	Panay-Guimaras-Negros Link
11	Davao-Samal Bridge Project
12	C-6 Extension (Laguna de Bay Flood Control Dike Expressway)
13	Calamba-Los Baños Toll Expressway Project
14	Philhealth Information Technology Project
15	Metro Cebu Expressway Project
16	Tagum-Davao-General Santos High Standard Highway
17	Global City Mass Transit (Monorail System) Project
18	Improvement/Modernization of Kennon Road
19	Modernization of Region 1 Medical Center Project
20	Socialized Housing Project
21	Bayabas Small Reservoir Irrigation Project
22	Operation and Maintenance of Clark Airport
23	C-6 Expressway (South-East, East, and North Sections)
24	Manila Heritage and Urban Renewal Project

Source: PPP Center

Brief explanations on each category are given below.

a. Awarded Projects: 3 Projects

Daang-Hari-SIEX Link Road, PPP for School Infrastructure Project (Phase 1) and NAIA Expressway Projects are the first three PPP projects awarded. Two of them are the expressway projects (revenue generating projects or economic infrastructure projects) while one is school project (non revenue generating projects or social infrastructure projects). It seems that the government is pursuing both economic and social infrastructure projects. These are pioneering or “show case” projects for the GoP so that lessons learned from transactions of the three projects will be useful for transactions of PPP projects at pre-awarded stages.

b. Projects with Live Bidding: 7 Projects

There are 7 projects in the transaction (bidding) process. These can be called as “second generation PPP projects” because the government has learned a lot from the first batch (projects which belong to Category A). These are various projects including not only road and school projects but also others such as Orthopedic Center, Power Plant, Automatic Fare Collection System and Airport.

c. NEDA Board-Approved Projects: 2 Projects

The NEDA Board has the authority to make a final approval of PPP projects whether they can proceed to the subsequent stage of transaction or not. There are currently (as of April 2013) two new PPP projects such as i) NLEX-SLEX Connector Road and ii) Talisay City Plaza Complex Heritage Restoration and Redevelopment.

d. For Evaluation and/or Approval Relevant Government Bodies: 2 Projects

The projects under the category of C) are those for evaluation and/or approval of the relevant

government agencies that prepared, planned and studied the said PPP projects. There are currently two projects in that stage.

e. Project Structure Being Finalized: 2 Projects

“Project Structure Being Finalized” means that the studies by IAs are completed and they are preparing documents for evaluation and approval by oversight agencies such as NEDA. Usually, it takes certain times (typically 1 to 6 months) after finalization of the studies until IAs submit application documents to oversight agencies. Currently two projects are in that stage.

f. On-going Studies: 8 Projects

This category corresponds to the projects studied under the GoP’s own regular budget (not by PDMF, as we will see below). Currently eight projects are in that stage.

g. PDMF/Other Multilateral Agencies-Supported Projects: 5 Projects

This category corresponds to the projects studied under PDMF which is financed by international and bilateral agencies such as ADB. Currently eight projects are in that stage. Under PDMF scheme, the PPP Center selects transaction advisors who conduct feasibility study and provided support of bidding process of selected projects, including preparation of bidding documents. The procedure is clearly distinguished from that of Category F. As shown in Table 1.1-1, as for four projects, transaction advisors were already selected and the preparation is under progress. As to the rest of five projects, transaction advisors are to be appointed in the near future.

h. Other Projects Monitored by the PPP Center: 2 Projects

The projects under the category of G) are those for which the PPP Center is extending consultations to IAs which consider adoption of PPP for certain project. However, it can be said that the maturity of planning as PPP projects are still low.

i. Other Projects Under Development: 24 Projects

It can be interpreted that the projects under the category of H) are “potential PPP projects”. In other words, this is a long list of the future PPP project. IAs receiving consultation and advice from the PPP Center and other relevant agencies are to select several projects for the target of PPP feasibility study to be conducted in the near future.

By observing these situations, it can be said that the GoP is making extensive efforts to formulate and implement PPP pipeline projects. Although the number of “show case projects” is still limited to only three, there are number of projects, under study, evaluation and transaction, and we can see the great possibility to explore a wider utilization of PPP in the Philippines. However, it is also true that there are still many hurdles and obstacles to be overcome in terms of institutional frameworks, including regulation, organization, and human resources. It is essential to identify the issues and bottlenecks appropriately, and figure out the ways to remove or address those negative factors.

1.2 Legal, Institutional, and Planning Frameworks of PPP

1.2.1 Legal Framework

In this section, the legal framework of PPP in the Philippines is explained. The main laws and regulations which constitute the PPP legal frameworks of the Philippines are summarized in the following table:

Table 1.2-1 Summary of PPP Legal Framework in the Philippines

Laws and Regulations	Description
BOT Law	Principal law which governs PPP in the Philippines
BOT Law IRR	Implementation Rules of Regulation of BOT Law
Joint Venture Guideline	A guideline which stipulates procurement of projects by JV modality
Executive Order No.8	An order which provides basis for establishment and operation of the PPP Center

Source: JICA Study Team

The outline of the laws and regulations are described below.

(1) The BOT Law

a. Background of Enactment

The BOT Law was enacted against the background of power crisis and financial pressure of the Corazon Aquino's 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 her 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 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 facilities. The BOT Law was amended in 1994 by Republic Act No. 7718 and then independent power producer projects were actively pursued and undertaken, and the power supply condition of the Philippines was improved to a great extent.

b. Outline of the BOT Law

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, government guarantee and support, etc.

The BOT law constitutes of the following sections:

- Section 1: Declaration of Policy
- Section 2: Definition of Terms
- Section 3: Private Initiative in Infrastructure
- Section 4: Priority Projects
- Section 4: A Unsolicited Proposals
- Section 5: Public Bidding of Projects
- Section 5:A Direct Negotiation of Contract
- Section 6: Repayment Scheme
- Section 7: Contract Termination

- Section 8: Regulatory Boards
- Section 9: Project Supervision
- Section 10: Investment Incentives
- Section 11: Implementing Rules and Regulations
- Section 12: Coordination and Monitoring
- Section 13: Renumbered Section 11 of R.A. No. 6957
- Section 14: Renumbered Section 12 of R.A. No. 6957
- Section 15: Renumbered Section 13 of R.A. No. 6957
- Section 16: Repealing Clause
- Section 17: Separability Clause
- Section 18: Effectivity Clause

The current BOT law (Republic Act No. 7718) was enacted in 1994. Although various circumstances and experiences related to PPP have been drastically changed, the GoP has not conducted an amendment of the BOT law. Accordingly various issues such as modality, risk sharing, and government supports have been arisen and currently the amendment of the BOT law is being considered. The related discussion can be seen in Section 1.3 of this report.

(2) BOT Law IRR

The detailed implementing rules of the BOT Law are stipulated in its implementing rules and regulations (IRR), the latest of which was amended in July 2012. 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. Discussions on the revised IRR are made in Section 1.3 of this report.

(3) Joint Venture (JV) Guideline

The other legal basis of PPP in the Philippines is the JV Guidelines issued by NEDA in 2008 pursuant to Executive Order 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 that are not GOCCs but institutions vested with special functions or jurisdictions (i.e. the Manila International Airport Authority, the Philippine Port Authority), GFIs and SUCs.

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.

(4) Executive Order (EO) 8

In September 2010, the President Aquino issued the executive order No.8 of 2010 (here after called as “EO8”), titled as “Reorganizing and Renaming the Build-Operate and Transfer (BOT) Center to the Public Private Partnership (PPP) Center of the Philippines and Transferring Its Attachment from the Department of Trade and Industry to the National Economic and Development Authority and for other purposes.” This is an order which provides basis for establishment and operation of the PPP Center. The PPP Center was established aiming to accelerate the financing, construction and operation of key government infrastructure projects.

EO8 consists of the following 12 sections.

- Section 1. The PPP Center
- Section 2. Powers and Functions of the PPP center
- Section 3. Promotion and Marketing Functions
- Section 4. Head of the PPP Center
- Section 5. Organization and Staffing Pattern
- Section 6. Project Development and Monitoring Facility
- Section 7. Processing of PPP Program/Project Proposals
- Section 8. Appropriations and Source of Funding
- Section 9. Transitory Provision
- Section 10. Repealing Clause
- Section 11. Separability Clause
- Section 12. Effectivity

The main functions of the PPP Centers are as follows:

- Conduct project facilitation and assistance to the national implementing agencies, including government corporations, and Local Government Units (LGUs) in addressing impediments or bottlenecks in the implementation of PPP programs and projects;
- Provide advisory services, technical assistance, trainings and capacity development to agencies/LGUs in PPP project preparation and development;
- Recommend plans, policies and implementation guidelines related to PPP in consultation with appropriate oversight committees, implementing agencies, LGUs and the private sectors;
- Manage and administer a revolving fund to be known as the Project Development and Monitoring Facility for the preparation of business case, pre-feasibility and feasibility studies and tender documents of PPP programs and projects;
- 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;
- Establish and manage a central database system of PPP Program and Projects;
- Recommend improvements to timelines in processing PPP programs and project proposals, and monitor compliance of all agencies/LGUs;
- Prepare reports on the implementation of the PPP programs and projects of the government for submission to the President at the end of each year; and,
- Perform such other functions which may be critical in expediting and implementing effectively the PPP Programs and Projects of the Government.

Up to now, the PPP Center has been playing significant roles in formulation and implementation of PPP projects, including assistance of F/S and transactions. However, as more PPP projects are developed and implemented in recent years, the GoP has recently started the review of the functions and roles of the PPP Center to further accelerate PPP in the country. The relevant discussion is made in Section 1.3.4 of this report.

1.2.2 Organizational Framework

In this section, the institutional framework of PPP in the Philippines is explained. The public organizations which are related with PPP are classified into oversight agencies (OAs) and implementing agencies (IAs). Oversight agencies provide guidelines, orientations, and procedures for IAs to implement PPP projects. They are not in a position to directly enter into PPP contracts with project proponents. Principal Oversight agencies are as follows:

- DBM: Appropriate financing mechanism for different PPP funds such as the Strategic Support Fund and VGF

- DOF: Contract review and approval, contract dispute resolution, and contingent liability management, and
- NEDA ICC: Having an authority to approve PPP projects

Obviously, these OAs are closely related with the Congress, the President and Cabinet, and the Supreme Court.

In terms of public financial framework, the GoP (OAs) has several facilities as summarized in the following table. (The detailed discussions the selected facilities are made in Chapter 4 and Chapter 5 of this report.)

Table 1.2-2 Summary of Public Financial Facilities in the Philippines (To Be Discussed)

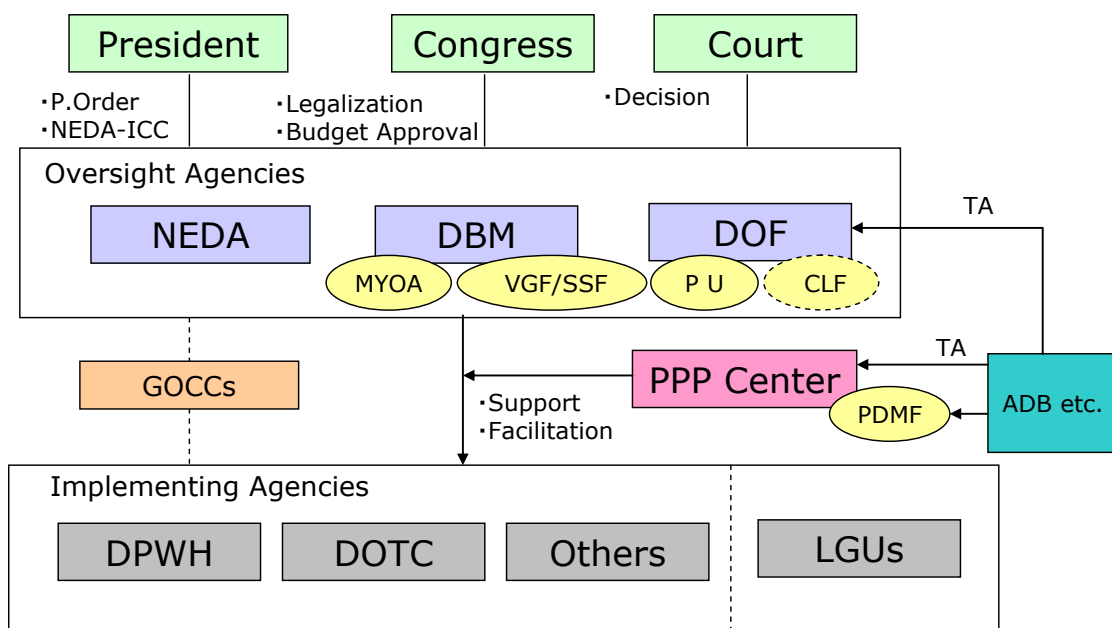
Public Financial Facility	Function	Main Agency in Charge	Relevant Discussion in this Report
PDMF	PPP Project Formulation and Transaction	PPP Center	Ch.4 (4.2.1)
VGF/SSF	PPP Viability Gap Support	DBM	Ch.4 (4.2.2, 4.3.1)
MYOA	Multi Year Budget Appropriation	DBM	Ch.4 (4.2.3, 4.3.2)
PU	Government Performance Guarantee	DOF	Ch.4 (4.2.3, 4.3.2)
CL Facility	Facility to enable CL Payment	DOF	Ch.4 (4.2.3, 4.3.2)
Long Term Financing *Non Existing	Facility to provide long- term financing	-	Ch.4 (4.2.4, 4.3.4)

Source: JICA Study Team

Remarks: Project Development Monitoring Facility (PDMF), Viability Gap Fund (VGF), Strategic Support Fund (SSF), Multi-Year Obligation Authority (MYOA), Performance Undertaking (PU), Contingent Liability (CL)

Implementing agencies (IAs) are those to directly enter into PPP contracts with project proponents. They have a primary responsibility for identification, planning, F/S, procurement and monitoring of projects which belong to their domains of administration. The PPP Center, as mentioned above, is a special agency established under NEDA based on EO8, for facilitation formulation and implementation of PPP projects. It was reported in “ the Study on Review of the PPP Institutional Set-Up in the Philippines” financed by the Governments of Australia and Canada that the PPP Center is a temporal organizations and its position is to be reviewed when performance of implementation of PPP projects become stable and satisfactory.

The relation of the PPP-related organizations is summarized in the following figure.



Source: JICA Study Team

Figure 1.2-1 Summary of PPP Organizational Framework in the Philippines

1.2.3 Planning Framework

In this section, the planning framework of infrastructure PPP in the Philippines is explained. Philippine infrastructure-planning and programming prepared based on the Medium-term Philippine Development Plan (“MTPDP”) lays down the broad policy framework of government for the President’s six-year term. During the preparation of the MTPDP, line agencies also identify and prepare a list of projects, consistent with the broad policy goals that is submitted to the NEDA board to be included in the Medium-term Public Investment Plan (“MTPIP”), albeit it has been observed that supporting studies for selected projects are usually limited, decisions to pursue projects via PPP are based on subjective criteria and prioritization happens without a common analytical system². Together with the MTPIP is the Comprehensive and Integrated Infrastructure Program (“CIIP”) that lists projects appropriate for purely private financing, PPP or joint venture or purely public financing. CIIP is to be approved by NEDA board every 5 years and the latest version is CIIP 2009-2013.

While the MTPDP 2011-2016 is already in place identifying PPP as a key program of the Aquino administration, the PPP program itself is handicapped by the absence of accompanying MTPIP and CIIP. Hence, projects that have been chosen so far for PPP are largely based on their readiness to go to market in terms of the necessary supporting studies and documents. Also, while the current government has emphasized preference for competition associated with publicly-led solicitation of PPP projects, there are a number of infrastructure projects that are not in government’s priority list that are being actively proposed for PPP by the private sector through an “unsolicited” track in the BOT law subject to various rules and limitations.

In light of current constraints related to the absence of national and sector plans as well as inadequate technical, financial and legal capabilities in government agencies to prepare ready-to-tender projects, there is currently greater attention placed on the PPP Center. The PPP Center’s capacity for undertaking PPP projects is enhanced by donor assistance, notably through PDMF financed by AusAID, CIDA, and ADB. PDMF is a revolving fund used for project preparation and tendering,

² GHD Pty Ltd, ed 15 November 2012).² Philippines. The BOT Law for inclusive growth, June 2012. Draft, September 4, 2012.

including the hiring of consultants / transaction advisors.

PDMF involves line agencies, that is, the implementing government agencies for PPP projects, continuing to be at the frontline of identifying projects. However, given capacity constraints, line agencies have the option to submit project concepts for PDMF financing. The PDMF Board consisting of government representatives from NEDA, DBM, DOF and the PPP Center decides whether or not submitted projects are eligible for PDMF funding. If approved, the PPP Center handles selection of consultants from an existing pool of pre-qualified consulting firms to conduct pre-investment studies, prepare draft tender documents and provide transaction advisory services. Should the project be bid out successfully, the winning bidder reimburses PDMF for all these costs.

While there is greater attention on PDMF at this time, going through the PPP Center's facility is in fact not necessary if line agencies have the capability to develop their own projects or have access to technical assistance from other donors.

For instance, the NAIA Expressway and the LRT Line 1 Extension, did not receive PDMF financing but were developed with the assistance of other donors, including the IFC and JICA. In these cases, the projects similarly go through the BOT Law's process where projects have to secure approval of the NEDA ICC and for large ones costing over P300 million, the approval of the NEDA Board, which is chaired by the President.

Drawing up the medium-term policy framework will take some time. However, government appears to have chosen not to wait and instead try to learn by doing. This means pursuing projects which are ready for the market and public tender so that it might be able to show some early successes to drum up interest and build investor confidence in its PPP program. The ultimate objective however remains. The public sector will have to develop competencies in planning, identifying and developing projects that are suitable for PPP. This it hopes to achieve over time with facilities such as the PDMF, as well as technical assistance from other donors.

Lessons learned from pursuing the early projects are valuable. It helps government identify missing elements in the current system that government needs to address. It likewise teaches what the market looks for and demands from government in order to attract greater participation from the private sector. It is important to note that without good integrated planning, which rests in the government's hand, no PPP project can be identified. These lessons will help to strengthen the medium-term framework moving forward

1.3 Recent Discussion on Improvement of PPP Legal Framework

1.3.1 Proposed Amendments to the BOT Law

In this section, recent discussion on amendment of the BOT is explained. After twenty years since the last amendment, the BOT Law is again the subject of several amendatory bills, in apparent response to the call for legal reforms by the Aquino administration. One was filed with the Senate. Three others were filed with the House of Representatives. The main issues under consideration for improvement of the BOT law are:

- The government guarantee to compensate private components in case that it fails to comply with its obligations, and;
- Respect for validity and enforceability of contracts.

The outlines of these four bills are summarized below.

(1) Senate Bill No.2710

Senate Bill (“SB”) No. 2710, which seeks to amend certain sections of the BOT Law and appropriate funds therefor, was introduced by Senator Ralph G. Recto on 22 February 2011. The Explanatory Note of SB 2710 provides that its aim is to further improve the BOT Law “by expanding its coverage and providing more incentives to the private sector who become partners of the government in infrastructure projects.” This is in line with the declared priority legislative policy of the Aquino administration of “strengthening laws that provide incentives to PPP.”

SB No. 2710 was referred to the Committee on Public Works and has been pending with the committee. SB No. 2710 seeks to make it clear that unsolicited proposals are not entitled to direct or indirect government guarantees, subsidies or equity. In addition, SB No. 2710 provides that projects classified by the President as “projects of national significance” are entitled to certain incentives, among which is the exemption from all real property taxes for all real properties actually and directly used for the project.

The most notable amendment proposed under SB No. 2710 is the creation of a PPP Guarantee Fund³, designed to defray the cost of compensating private proponents in the event that the government agency fails to comply with its obligations under a PPP contract. The PPP Guarantee Fund shall initially be funded in the amount of Five Billion Pesos (₱5,000,000,000.00) to be charged against the savings of the National Government. Further, replenishment of the fund shall come from General Appropriation Act (GAA).

(2) House Bill No. 759, No. 4151, and No. 5238

House Bill (“HB”) Nos. 759, 4151 and 5238 are the bills pending before the House of Representatives that seek to likewise amend the BOT Law.

HB No. 759, which was introduced by Representative Rodolfo W. Antonino on 05 July 2010, seeks to “enunciate a clear-cut policy on government support, adhere to best practices on risk allocation, set the reasonable rate of return for solicited or unsolicited or negotiated projects, institutionalize a fair, honest and competitive procurement process, establish a BOT Authority to rationalize the program implementation, and provide penal provisions.”⁴

A notable proposal in HB No. 759 is the creation of a Project Development Facility, which is a revolving fund to finance the proper identification, study, validation, development, and preparation for public bidding of private sector infrastructure or development projects. In addition, perhaps to entice more private investors in PPP projects, HB No. 759 also proposes that the President sign all contracts for PPP projects and proposes to add a provision in the BOT Law expressly saying that the Republic of the Philippines shall honor the validity and enforceability of a duly executed contract, unless it is proven that the procedures under the BOT Law were not followed.

HB No. 4151, which was introduced by Representatives Feliciano Belmonte, Jr. and Neptali M. Gonzales II in February 2011, appears to be but a counterpart of SB No. 2710, as HB No. 4151 contains the same provisions as the latter. The HB No. 4151’s Explanatory Note, which like SB No. 2710, similarly provides that it aims to broaden and tighten the legal and policy framework, and to enunciate a clear-cut policy on government support.⁵

³ The PPP Guaranty Fund proposed under SB No. 2710 refers to a fund which shall “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 an act of another agency or branch of government.”

⁴ HB No. 759, Explanatory Note.

⁵ HB No. 4151, Explanatory Note.

Lastly, HB No. 5238, which was principally authored by Representative Romeo M. Acop and filed in September 2011, aims to address the decrease in the momentum of PPP projects owing to legal problems encountered in the implementation of PPP projects, and controversial transactions. It notes that, strategically, the effective implementation of BOT projects hinges on the followings:

- A legal and economic environment conducive to a mutually beneficial partnership
- Certainty of recovering investments and availability of mechanisms for dealing with risks and unforeseen events
- Clarity in articulating the duties and responsibilities of the parties to the contract;
- Transparency and credibility of the government's processes from project identification, review and approval of proposed BOT projects to contract implementation.⁶

HB No. 5238 proposes to expressly include in the declared policy of the BOT Law that the incentives which shall be provided to the private sector in the development and undertaking of PPP projects shall include allowing a reasonable rate of return of investments and mitigation risks by ensuring that the validity and enforceability of contracts are respected through due process of law. HB No. 5238 also proposes to include a provision in the BOT Law to the effect that a private proponent shall not be subsidized by the government for any loss in projected revenues. These amendatory bills however were not passed into law before the adjournment of the 15th Congress. Thus, the aforementioned amendatory bills would have to be re-filed at the 16th Congress after the May 2013 elections.

1.3.2 Latest Amendments to the BOT Law IRR

In this section, recent amendment on the BOT Law IRR is explained. While the BOT Law itself had not been amended since 1994, its Implementing Rules and Regulations ("IRR") has been adjusted, modified or refined several times. The latest version of the IRR was published in a newspaper of general circulation on 07 October 2012. The 2012 IRR then took effect fifteen (15) days after said publication, or on 22 October 2012. Some of the more salient revisions made in 2012, and matters that may be further improved, are discussed below:

(1) Notable revisions in the 2012 IRR

Improvements and clarifications to the IRR⁷ have been introduced in the 2012 IRR, particularly in terms of providing a fairer and more efficient and transparent process for BOT projects, from the proposal and negotiation stage, to the drafting of the contract, to the bidding, and right down to the execution and implementation thereof. Some of the more notable changes are:

a. Compulsory Contract Review

For a contract drafting procedure leading to fewer contests, the 2012 IRR, under Sections 2.8 (for solicited proposals) and 10.9 (for unsolicited proposals), now requires that the draft contract be reviewed by the Office of the Government Corporate Counsel (OGCC), the Office of the Solicitor-General (OSG), or any other entity prescribed as the statutory counsel of GOCCs and LGUs, and, if necessary, by the Department of Finance (DOF), before the draft contract may be approved by the head of the agency. Prior to the amendment, a DOJ or OGCC opinion may be sought as a closing opinion required to be stipulated under a BOT agreement. The legal review therefore occurs at the tail end of the process. The new requirement sets the review early on. Hopefully, this revision translates to fewer contests on the validity of the BOT contract during the implementation stage.

b. Direct Government Subsidy or Equity

The 2012 IRR, still consistent with the BOT Law, highlights the requirement that no direct

⁶ HB No. 5238, Explanatory Note.

⁷ Prior to 2012, the BOT Law IRR was last amended in 2006.

government guarantee, subsidy or equity shall be allowed for unsolicited projects. Section 10.4 of the 2012 IRR now explicitly states that the grant of usufruct of government assets, including, among others, right-of-way, to private proponents shall be considered as direct subsidy or equity, unless the government receives appropriate compensation for such. Thus, while government may still contribute to a project resulting from an unsolicited proposal, it may not support or assist such a project for free or without receiving remuneration equivalent to what it contributes.⁸

c. Changes to Published Bidding Requirements

In order to promote transparency, the 2012 IRR now emphasizes that, for any change to the bidding requirements previously published, the government agency must issue a bid bulletin to all bidders who had purchased the tender/bid documents, informing them of such changes, and affording them reasonable time within which to consider the same in the preparation of their submission/bids. This promotes fairness in the bidding by keeping all interested bidders informed of all amendments to the bidding requirements, allowing them to properly prepare and craft their bids. While this was already the previous practice of implementing agencies, the 2012 IRR now expressly mandates the same, thereby giving such requirements greater stability and permanence.

d. Formation of Special Purpose Company

Like the 2006 IRR, a private proponent is allowed by the 2012 IRR to create a special purpose company to assume the rights and obligations of the winning private proponent under the BOT contract. In addition however, the 2012 IRR provides that the implementing agency may now mandate or compel the winning private proponent to register or incorporate such a special purpose company, rather than keeping it optional. In either case, there is apparent recognition that a proponent (and its partners or co-investors) need not organize as a company at the onset but shall do so only after it is actually awarded a project.

e. Grant of Provisional Franchise

As regards the grant of provisional franchises, the 2012 IRR now clarifies that the government agency empowered by law to fix the rates of a public service is required to automatically grant, in favor of the private proponent, a franchise to operate the facility on a provisional basis and collect tolls, fees, rentals, and other charges stipulated under the contract.⁹ The 2006 IRR formerly provided that the government agency or regulator concerned shall issue the required franchise only after conducting a public hearing. There was thus some uncertainty as to whether a winning project proponent could actually operate and maintain the facility, including the collection of tolls, fees, rentals, and charges, soon after the award of the project. This new provision under the 2012 IRR is more consistent with Section 5 of the BOT Law, which provides that 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.

f. Use of Parametric Formula in Toll Rate Fixing

Another notable improvement is with respect to the adjustment of tolls, fees, rentals and charges as the 2012 IRR now provides that the government shall ensure that the project proponent recovers the difference between the amount of tolls, fees, rentals and other charges based on the contract and/or approved parametric formulae and the amount approved by the government agency regulating such tolls, fees, rentals and charges. This was not previously provided under the older version of the IRR.¹⁰ Notably, the Department of Justice (DOJ) has rendered an opinion, as early as 1995, that there is nothing objectionable to the use of a parametric formula in adjusting tolls, fees, rentals and other

⁸ DOJ Opinion No. 32, Series of 2011.

⁹ Section "12.3", 2012 IRR.

¹⁰ Section "12.18", 2012 IRR.

charges.¹¹ The track adopted by the 2012 IRR is more consistent with the aforementioned DOJ opinion.

(2) Points for Further Improvement in the 2012 IRR

Notwithstanding the foregoing beneficial additions, revisions, and amendments, the 2012 IRR still has room for improvement. The Study Team has conducted a close review of the 2012 IRR, in comparison with the IRR 2006, and has found that several provisions in the 2006 IRR, which were identified to be deficient or required amendments, remain unchanged. The Study Team suggests that GoP continues discussion and review of the 2012 IRR, particularly on the following points:

a. Unsolicited Proposals

With regard to the period for submission of a counter-proposal or “Swiss challenges” to an unsolicited proposal, the 2012 IRR provides that the period for acceptance of said counter-proposals is sixty working days from the date of issuance of the tender/bidding documents.¹² This period has been observed to be short and insufficient for other proponents to prepare and submit competitive bids, and thus highly favors the original proponent and is thus not conducive to fair competition.

There looks like no provision in the 2012 IRR expressly saying that the contents of a BOT contract for an unsolicited proposal will be opened to the public. This has been observed to lack transparency. However, it is noted that the contract approved by the government agency for an unsolicited proposal forms part of the tender documents provided to those interested to send comparative proposals to the approved unsolicited proposal.¹³ Further, Section 11.4 of the 2012 IRR requires that the notice of award and/or bidding results be posted in government websites within seven calendar days from the issuance of the Notice of Award.

b. Governmental Responsibilities and Procedure

The 2012 IRR has been observed to lack sufficient provisions mapping out governmental obligations and responsibilities under a contract. For instance, there is no provision outlining the criteria for the government’s provision of a subsidy in a BOT project. Secondly, the 2012 IRR does not mention the consequences of any delay by the government in the acquisition and/or delivery of ROW as provided in a BOT contract. Thirdly, remedies available to the private proponent in case of breaches by the government of its contractual obligations are not expressly enumerated in the 2012 IRR. This is not to say, however, that the parties (the government) to a BOT contract may not choose to stipulate and/or provide remedies that may be resorted to by the private proponent. The only rule is that such a stipulation (remedy) must not be contrary to law, morals, good customs, public order, or public policy.¹⁴ Also, consistent with Executive Order No. 78, series of 2012, which expressly mandates the inclusion of provisions on the use of alternative dispute resolution mechanisms in all PPP contracts, the IRR may expressly provide for standard provisions therefore. The use of modes of alternative dispute resolutions is more thoroughly discussed in Chapter 1.3.3.

The 2012 IRR provides for a contract drafting procedure leading to fewer contests, by requiring draft contracts to undergo successive reviews by either OGCC or OSG, and DOF, if necessary. For this purpose, model contracts may be developed to provide greater clarity on certain matters of PPP arrangement between the Government and the private proponent. Provisions on issues such as risk identification and quantification may be required to be inserted in PPP contracts, depending on the public sector concerned, as well as on the BOT scheme.

c. Development Assistance and Subsidies

¹¹ Opinion No. 97, series of 1995.

¹² Sections “10.1” and “10.11”, 2012 IRR.

¹³ Section “10.10”, 2012 IRR.

¹⁴ *cf.* Article 1306, New Civil Code of the Philippines.

Another matter which may benefit from further clarification in the IRR is the provision dealing with projects financed with private funds and partly with direct government appropriations and/or from ODA. A maximum of 50% of the total project cost is set for government or ODA, with the balance to be provided by the project proponent. However, the 2012 IRR currently does not have specific provisions in terms of the following items:

- Whether “financing” includes only the grant of subsidy component (i.e. the concessionality, not the full amounts of ODA loaned)
- Whether the limit should cover the cost of acquiring ROW
- Clearly defined criteria for determining the difficulty of sourcing funds from the private sector, and who determines the same.
- Whether net present value of lease fee paid by the private sector under “Lease Type” of PPP modality (the Government leases facility constructed by ODA to the private sector) can be deducted from the Government contribution or not.

The foregoing matters may be expressly clarified in a new set of IRR of the BOT Law, because aside from the lack of express provisions thereof in the 2012 IRR, no precedent has yet been made by the Supreme Court and no opinion has yet been issued by the DOJ squarely interpreting the foregoing provision.

Nonetheless, in interpreting the provisions of the BOT Law, an IRR must not run counter to, but rather be in furtherance of the State policy behind the law/statute. As discussed earlier, by enacting the BOT Law, the Philippine Congress “recognized the indispensable role of the private sector as the main engine for national growth and development”. While the ideal scenario contemplates a complete investment by the private sector in BOT projects, the Congress also recognized that there is a need to “provide the most appropriate incentives to mobilize private resources” to attract more private sector participation. Among others, the foregoing provision, which allows assistance in the form of direct government appropriations and ODA at the maximum of 50% of project cost, may be said to implement the national policy.

d. Joint Venture (JV)

A Joint Venture (JV) is contemplated under the Revised Guidelines and Procedures for Entering into JV Agreements between Government and Private Entities issued by NEDA in 2013 (JV Guidelines)¹⁵. JV is one form of partnerships between a private party and a government entity. More specifically, it is described in JV Guidelines as “a contractual arrangement whereby a private sector entity or group of private sector entities on one hand, and a Government Entity or group of Government Entities on the other hand, contribute money/capital, services, assets (including equipment, land or intellectual property), or a combination of any or all of the foregoing to undertake an investment activity.”

A JV is treated differently from other PPP or BOT contracts as it has its own set of guidelines. The JV Guidelines and the BOT Law are similar in a lot of aspects, particularly in the processes adopted to ensure transparency and accountability in the procedures for public tender. In fact, the procedures for evaluating negotiated JV proposals were patterned after the process for unsolicited BOT projects, particularly in the adoption of the “Swiss Challenge” method.

BOT projects may be differentiated from JV arrangements in the following points.

Firstly, in BOT projects, ownership of the business will stay with the government, while in the JV projects, the private sector is allowed to take over the undertaking of the projects in its entirety, after the government divests itself of any interest in the JV.

¹⁵ The JV Guidelines were first issued in 2008, and were later revised in May 2013. The JV Guidelines, as revised, will take effect fifteen (15) calendar days from its publication on 11 May 2013 (in the Philippine Daily Inquirer), or on 26 May 2013. (Sec. 11, JV Guidelines). The quotations in this section are all made from JV Guidelines.

Secondly the JV Guidelines apply only to public or semi-public entities, such as GOCC, government corporate entities, government instrumentalities with corporate powers, government financial institutions, state universities and colleges, which are expressly authorized by law or their respective charters to enter into JV agreements. On the other hands, LGUs are expressly excluded from its coverage. And so are national government agencies, by implication. In contrast, the BOT Law expressly authorizes “all government infrastructure agencies, including government-owned and-controlled corporations and local government units” to enter into BOT contracts. Therefore, it can be said that the coverage of the BOT Law is much broader.

Thirdly, the JV Guidelines allow the parties thereto to elect for a SEC registered/incorporated, or un-incorporated, JV arrangement, provided that government’s interest or equity contribution in the JV “shall only be less than fifty percent”. The BOT Law and the IRR allow for greater flexibility in providing for a multitude of schemes or variants, such as BOT, BOO, BLT, and other variations. In fact, the possibilities are broad enough to include even JV type arrangements since the law allows for the adoption of “other variations as may be approved by the President”.

Fourthly, apart from the foregoing, probably the more problematic matter is the 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 projects involve 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.

Fifthly, the JV Guidelines also provides that a “JV Company shall be permitted to derive income from activities authorized under the JV Agreement”. It also specifies that the parties to the JV “shall be entitled to receive dividends each year from the net profits that would constitute portion of the unrestricted retained earnings of the company”. The JV Guidelines does not set a limit unlike for certain BOT projects which have a cap on rate of return on rate base at 12% specifically for public utility which are monopolies. Thus, a proponent seeking either direct equity and/or a higher return may resort to a JV rather than a BOT arrangement.

As discussed, the issues of the JV Guideline are summarized below.

- It seems that the JV is preferred by IAs and private proponents since the guideline generally needs few government approvals and requirements.
- The JV entails a shorter processing period (90 to 165 days) while the BOT Law does a longer processing period from 250 to 410 days.
- There is less transparency in the procurement process undertaken under the JV Guideline.

In this regard, it is worth considering how the BOT Law may be revised to cover JV projects. Possibly, the track may be initiated by including JV projects among the list of permissible BOT schemes or variants. Unifying the JV Guidelines with the BOT Law will benefit private proponents as they will only need to consider one set of regulations for PPP projects in the Philippines.

1.3.3 Other Issues on PPP Legal Framework: ADR and Single Borrower Limitations

(1) Executive Order No. 78, Series of 2012

In this section, other issues on PPP legal framework are explained. The use of different modes of alternative dispute resolution (ADR) has been perceived globally, not only as an acceptable substitute to ordinary court litigation, but also as a more efficient and less costly option for resolving various legal disputes between and among the parties to a contract. Ordinarily, resort to ADR may be made when the contracting parties have agreed that disagreements related to the contract may be submitted

to ADR.

In the Philippines, the use of the ADR system has been recognized and adopted through Republic Act No. 9285, or the ADR Act of 2004. Said law sanctions various modes of ADR, including but not limited to any, or a combination, of the following:

- Mediation - a voluntary process in which a mediator, selected by the disputing parties, facilitates communication and negotiation, and assists the parties in reaching a voluntary agreement regarding a dispute;
- Arbitration - a voluntary dispute resolution process in which one or more arbitrators, appointed in accordance with the agreement of the parties, or the IRR of the ADR Act of 2004, resolve a dispute by rendering an award;
- Mini-trial - a structured method where a panel comprising senior decision makers would sit to hear the arguments for or against a case. The panel may or may not include a neutral third party. After hearing, the panel members will negotiate a settlement;
- Mediation-arbitration - a two-step dispute resolution process involving both mediation and arbitration.

Consistent with the policy of the promotion of party autonomy in the resolution of disputes, the ADR Act of 2004, the parties to a contract are given the freedom to choose their preferred mode of dispute settlement, as well as other incidents thereto, such as, in the case of arbitration, the place of arbitration, the language to be used therein, and the arbitrator/s.

For arbitration, the ADR Act of 2004 expressly adopted the United Nations Commission on International Trade Law (UNCITRAL) Model Law as the law governing international commercial arbitration¹⁶ in the Philippines, and Republic Act No. 876, or the Philippine Arbitration Law of 1953, for domestic arbitration cases.¹⁷

The use of ADR system has been institutionalized in the Executive Department under Executive Order No. 523, series of 2006, which required all administrative bodies to promote the use of ADR such as, but not limited to, mediation, conciliation and arbitration as part of their practice in resolving disputes filed before them. Further, Executive Order No. 78, series of 2012 (“EO 78”), expressly mandates the inclusion of provisions on the use of ADR mechanisms in all PPP contracts.

As specifically required by EO 78, the National Economic Development Authority is required to issue the implementing rules and regulations for EO 78, which shall be binding on all government agencies and shall guide LGU that shall enter into PPP contracts.¹⁸ Said IRR may provide for a uniform contractual clause on ADR mechanism and require the same to be inserted in all PPP contracts. Moreover, it may provide for a standard default provision (which will set an ADR mechanism) in PPP contracts in the event that the parties do not or fail to specify a dispute mechanism. As of the date of writing of this report however, NEDA has yet to issue implementing rules and regulations for EO 78. It is likewise not clear when NEDA will be able to issue the same.

As regards the courts’ power of judicial review over matters relating to ADR where contractual parties have agreed to resort thereto, the Supreme Court has promulgated the Special Rules of Court on

¹⁶ “International arbitration” is defined in the IRR of the ADR Act of 2004 as an arbitration where:

(a) the parties to an arbitration agreement have, at the time of the conclusion of that agreement, their places of business in different states; or

(b) one of the following places is situated outside the Philippines in which the parties have their places of business:

(i) the place of arbitration if determined in, or pursuant to, the arbitration agreement;

(ii) any place where a substantial part of the obligations of the commercial relationship is to be performed or the place with which the subject matter of the dispute is most closely connected; or

(c) the parties have expressly agreed that the subject matter of the arbitration agreement relates to more than one country.

¹⁷ Except for construction disputes, which shall be governed by Executive Order No. 1008, or the Construction Industry Arbitration Law.

¹⁸ Section 2 of EO 78.

Alternative Dispute Resolution¹⁹, which took effect on 30 October 2009. Consistent with the policy to promote the use of various modes of ADR, in accordance with said Special Rules, courts shall intervene only in cases allowed by the ADR Act of 2004 and by the said Special Rules. While arbitral awards may not be set aside by the courts based on mere errors of judgment (either as to the law or as to the facts), an award may be vacated if the arbiter's findings have no factual support or when the award was made in "manifest disregard of the law" (*i.e.* when the findings clearly violate an established legal precedent).²⁰

Domestic arbitral awards may be confirmed, upon proper petition, by the Regional Trial Court having jurisdiction over the place in which one of the parties is doing business, where any of the parties reside or where arbitration proceedings were conducted. However, while the court may not overrule the factual findings of the arbitrator/s, it may also vacate the domestic arbitral award based on certain specific grounds (*e.g.* corruption on the part of the arbitrator, non-existence or invalidity of the arbitration) or correct/modify the same based on specific grounds (*e.g.* evident miscalculation of figures or evident mistake in the identification of a thing, omission of an issue submitted for resolution, imperfect form).²¹ On the other hand, foreign arbitral awards may, upon proper petition, be recognized and enforced in the Philippines by a decree of the court. However, the court may also set aside and resist recognition and enforcement of a foreign arbitral award based on certain specific grounds (*e.g.* incapacity of one of the parties, lack of proper notice to any of the parties, invalid appointment of arbitrator/s).²²

Given the foregoing, it may also be worthy to consider whether PPP contracts should be required to include provisions that, in the event that a judgment is issued or an award is made by the arbitral body through the ADR provision of the contract, the Government shall automatically draw from an available standby fund to ensure the immediate payment of said award to a private party, pending the court confirmation of the domestic arbitral award or recognition and enforcement of the international arbitral award. Such payment should, however, be without prejudice to the right of the Government to question such arbitral award (and recovery of wrongful payments) through available remedial measures provided for by law, such as a petition to the proper courts to vacate or correct a domestic arbitral award or a petition to set aside a foreign arbitral award, based on valid grounds.

By allowing the proponent some payments upon the issuance of the arbitral award but prior to the confirmation or recognition and enforcement of the award by the courts, the burden of waiting for the final resolution of the courts, as well as the concomitant costs therefor, is effectively shifted from the private proponent (who holds on the burden from the commencement of the dispute up to the decision or arbitral award) to the Government. The compensation for any injury which the private party may have suffered from a Government breach of the contract is not unnecessarily prolonged by possible unexpected delays in the resolution of the courts. By so providing in the contract, the parties give the arbitral award the presumption that the same shall eventually be confirmed or recognized and enforced by the courts, subject to the repayment to the Government of whatever it pays pursuant to the award in the remote possibility that the same is vacated or set aside by the courts.

(2) BSP Circular No. 779

As a general rule, the maximum amount of loans, credit accommodations and guarantees that may be issued by a bank to any single person or entity shall at no time exceed twenty five percent (25%) of the net worth of such bank.

As an exception to the foregoing rule, Circular No. 700, issued by the Bangko Sentral ng Pilipinas ("BSP") in 2010 provides that the single borrower's limit of 25% of the net worth of the bank may be

¹⁹ A.M. No. 07-11-08-SC.

²⁰ *Equitable PCI Banking Corporation vs. RCBC Capital Corporation*, 574 SCRA 858 (2008).

²¹ Rule 11.4 of the Special Rules of Court on Alternative Dispute Resolution.

²² Rule 12.4 of the Special Rules of Court on Alternative Dispute Resolution.

increased by another 25%, provided that said additional loans, credit accommodations or guarantees are for the purpose of undertaking PPP projects duly certified by the Secretary of Socio-Economic Planning. BSP Circular No. 700 further requires that the total exposures of a bank or quasi-bank to any borrower pertaining to such infrastructure and/or development projects under the PPP Program shall not exceed twenty-five percent (25%) of the net worth of such bank or quasi-bank.

However, the additional 25% shall only be allowed for a period of 3 years from 28 December 2010. BSP Circular No. 779, series of 2013, extended the effectivity of the foregoing rule to 28 December 2016.

1.3.4 Improvement of the Function of PPP Center

In this section, the current discussion on improvement of function of the PPP Center is explained. The PPP Center, as established by Executive Order No. 8, series of 2010 (“EO 8”), is the primary government institution, tasked with enabling PPP projects in the Philippines. Prior to a series of reorganizations in the past, the PPP Center started out as the Coordinating Council on the Philippine Assistance Program (“CCPAP”), created in 1989 by Administrative Order No. 105 mainly to implement the Philippine Assistance Program, to “mobilize the international community’s support to achieve the objectives of sustainable economic growth coupled with an equitable distribution of income and wealth” and to “effectively mobilize the aid and to ensure its successful implementation”.²³

Not only was it tasked to formulate policies and guidelines for the implementation of said program, it was also given the responsibility to monitor, review and evaluate the implementation of programs and projects thereunder. Upon the passage of the BOT Law, the CCPAP became the central body responsible for the coordination and monitoring of BOT or PPP projects.

In 1999, the CCPAP was reorganized as the Coordinating Council for Private Sector Participation (“CCPSP”) under the Office of the President, through Administrative Order No. 67. The CCPSP’s functions included coordination and monitoring the program of the Government on private sector participation (“PSP”) in its infrastructure and other development activities and the formulation of policies and guidelines which will ensure transparent and expeditious implementation of the PSP Program.

The CCPSP was then converted to the BOT Center by virtue of Executive Order No. 144, Series of 2002, and became an attached agency of the Department of Trade and Industry (“DTI”). The BOT Center was empowered to coordinate and monitor BOT and PPP projects and the BOT/PSP Program of the Government, as well as to promote and market the same. As such, it was expressly designated as an investment promotion body, and not a regulatory or approving authority.

The BOT Center also had the functions of formulating policies and guidelines for BOT/PSP project development and of providing technical assistance to national agencies, GOCCs and LGUs. It also was tasked to establish, manage and administer a revolving fund to be known as PDF, a technical assistance fund for the preparation of feasibility studies and bid documents. The seed capital of PDF was funded from a grant, and was envisioned to be administered in such a way that would allow for the recovery of said seed capital and to use the re-flows for other BOT/PSP project preparation/studies.

EO 8 reorganized the BOT Center of the Philippines into what is now the PPP Center, and made the same an attached agency of NEDA. With the aim to fast-track the implementation of PPP programs and projects, as a cornerstone strategy of the national development plan to accelerate the infrastructure development of the Philippines, the PPP Center was given certain responsibilities over all PPP

²³ Whereas Clauses of Administrative Order No. 105, Series of 1989.

programs and projects.

As evidenced by the number of reorganizations of the PPP Center, the Government has indeed recognized the changing needs of the PPP environment in the Philippines, including the need for a centralized body in charge of formulating policies and guidelines, monitoring and evaluating the overall implementation of PPP projects, with the view of achieving greater effectiveness and efficiency therefor.

EO 8 may still benefit from further amendments in the future. For instance, it has been suggested that EO 8 expressly provide for a PPP Center Governing Board which may serve as a central policy-making body in all PPP matters. Moreover, EO 8 may be amended to expressly include as one of the purposes of the PDMF the monitoring of PPP projects to ensure their timely implementation.

There are also operational aspects that have to be addressed for the PPP Center to be further strengthened. Contract management encompasses i) monitoring and evaluation; ii) contract administration; iii) project management, and iv) contract structuring. These roles span over the life cycle of the project.

For these operational aspects to be addressed, legal matters have to be resolved and clarified first. While EO 8 states that the PPP Center shall "...monitor and facilitate the implementation of the priority PPP programs and projects...", the revised IRR of the BOT Law states that the PPP Center shall "...coordinate and monitor projects..." The interpretation of the EO and the revised IRR should be harmonized.

Monitoring and evaluation role is crucial for the success of PPP programs. In a meeting early in 2013, PPP Center Executive Director Canilao identified contract and performance monitoring as among the serious issues that have to be addressed. She noted that the PMO (Project Management Office) unit only monitors the contracting but not the operation. She expressed a concern that once projects are rolled out, monitoring will be a serious issue.

1.4 Recent Issues of PPP Projects

This section identifies the recent issues which are associated with on-going PPP projects. The following table summarizes the major issues in each project stage.

Table 1.4-1 Summary of Current Issues

Category	Current Issues
Identification	Identification of sound potential PPP projects is often difficult.
Preparation (F/S)	Examining of F/S is often insufficient due to shortage of capacity.
Review and Approval	Preparation is often not good enough to convince NEDA-ICC
Transaction	Number of bidder is often small and negotiation on contracting agencies is lengthy.
Implementation	Monitoring in compliance with contract is often inadequate.
Common (Public Financial Institution)	It is often pointed out the current public financial institution on PPP in the Philippines is too weak to secure comfort of private investors.

Source: JICA Study Team

Explanation on each issue is provided below.

(1) Difficulty in PPP Project Identification

The current administration is showing a strong will to promote PPP. However, in spite of various

efforts, identification and formulation of PPP project pipelines has been difficult. It can be attributed mainly to i) Insufficiency of experiences of PPP by IAs, ii) Cautious mindset of IAs on PPP, iii) No clear guide or formal procedure for identification of potential PPP project. Although the PPP Center has been announcing a list of on-going and potential PPP projects, as we have observed in the previous section, it is recognized that formal guide or procedure, including selection criteria, needs to be developed by the GoP. Also, it seems that there is not enough consultation and coordination between IAs when they plan relating or competing projects and it may undermine optimal infrastructure development policy and program. Creation of a coordination mechanism among relevant agencies, in the process of planning, may help to avoid such inefficiency and work load beforehand.

(2) IA's Insufficient Capacity for PPP F/S

In general, officers of IAs do not have sufficient skills and experience of managing a PPP project, including implementation of a PPP F/S. A feasibility study on PPP project is different from that of conventional projects in terms of including project financing, risk analysis and modality selection. Due to lack of experience, it is often the case that a satisfactory PPP F/S is not conducted and appropriate project planning is not realized. If appropriate project planning is not conducted, the project might not be materialized as a PPP project due to, for example, low interest on private side. In order to tackle these issues, the GoP is utilizing PDMF. It is surely working but still not good enough to improve the capacity of officers and staff of IAs. More strategic programs focusing on capacity development of IAs, are required.

(3) Lengthy Process of Review and Approval by NEDA-ICC

It is often pointed out that the review and approval process of NEDA-ICC takes a long time and it causes delay of project schedules. Basically, the discussion in the process is not opened to outside and the Study Team does not have much official information on what kind of discussion is going on. Also, it is obvious that the required time and the reasons may differ in individual projects. Thus, it is not appropriate to blame only because the process often takes time. However, it is also fair to say that many stakeholders wish that the duration is shortened. It is thus necessary to review the current rules and criteria and to consider and streamlining the whole process.

(4) Small Number of Bidders

One of the GoP's concern on PPP is that IAs cannot always expect many bidders in their PPP project transactions. Obviously, no one can project the number of bidders before hand and it can vary project by project. However, in fact, there are cases that only a few bidders participated in the bidding. The typical example is the School PPP project (PSIP-Phase I), which were bid out in 2012. Eight groups had applied for pre-qualifications for that project and only two of them actually participated in the final bidding. And both of the two groups are effectually led by large local conglomerates. In general, a small number of bidders can be attributed to one or more of the following factors or profiles:

- Profitability
- Project risks, including trustworthiness of IAs
- Market competition
- Economic and financial market conditions
- Conditions on government supports

In the PPP world, it is widely recognized that more competition brings higher VFM for the government and the taxpayers. Thus, it is necessary for the GoP and relevant agencies to always seek for any measures to induce sound competition in all the transactions. It will require not only review and improvement of transaction techniques, but also those of the current regulatory and institutional frameworks.

(5) Weak Contract Compliance and Monitoring

It is often pointed out that IAs do not always fulfill their obligations which are stipulated in concession agreements. The followings are the examples of breach of contract compliance:

- Delay of Land Acquisition
- Delay of Issuance of Approval and Permission
- Delay of payment of VGF and other payments

If these kinds of practices often break out, many potential investors might be discouraged to participate in PPP projects. Thus, the measures to avoid or compensate these events should be appropriately taken. There are also problems of insufficient experience of staff in IAs for PPP project monitoring. A PPP project is a “public project” and IAs ought to be responsible for delivery of the project services. However, due to lack of experiences, it is often the case that quality control of project service is left solely to a project proponent and IAs effectually does not have control over the project. This may work well for revenue-generating project because revenue gives an incentive for improvement of services; however, this is not applicable especially to social infrastructure project, such as schools and hospitals. Because of these considerations, it is considered that capacity development of IAs in terms of project monitoring is crucial

(6) Improvement of Public Financial Institution

Public financial institutions are necessary for PPP project processing, not in a particular stage but in the whole cycles of the project. As to discuss in Chapter 4 of this report, the typical functions of public financial facilities on PPP can be classified into the following four functions:

- Project Development
- VGF (Viability Gap Funding)
- Guarantee
- Long Term Financing

In relation with these functions, securing government budgeting mechanism related with a multi-year payment obligation should be taken into account. The practices differ from country to country, however, in case of the Philippines, there is certain room for improvement when we observe the current slow progress of PPP pipeline and low number of bidders. Obviously, this point is one of the main themes of this study and will be elaborated in details in the following chapters, especially, Chapter 4 and 5.

(7) Unclear Interpretation of Related Laws and Regulations

There are often cases that the different interpretation of related laws and regulations causes huge discussion and arguments in preparing projects. The typical example is the discussion on VGF or the Government Support for CALA Expressway project, constituting sections financed by ODA and Private as a PPP. According to the BOT law, the government support for a PPP project, including use of ODA, is limited up to 50% of the project cost. However, it is not clear, for example, whether the construction of ODA-financed section is regarded as the government support or not, when its asset shall be leased to private with consideration. Although the GoP has the BOT Law and the new IRR, there are many cases that dispute happens because of unclearness of the interpretation. The clarification of the interpretation shall be given and it shall be reflected in the review of the relevant regulations, when each dispute arises and it is settled.

It can be summarized that slow progress in moving PPP projects forward results directly from the

weak project pipeline at the start of the program. The enabling environment for PPP where policies are clear, rules are predictable and fundamental guidelines for selecting PPP projects are in place, is still a work in progress. There is also the absence of long-term master plans for either specific sectors or strategic geographic corridors, which impedes the process of evaluating the viability and social desirability of specific projects, whether PPP or ODA funded.

Moreover, the shortage of the government staff with technical, financial and legal background for PPP processing is apparent since most PPP projects over the past decade were done under the unsolicited mode and thus, led by private sector proponents. The sting from controversies associated with past projects and actual/perceived leakages in the use of public funds following realizations of government contingent liabilities in PPP projects led to public sector officials' highly cautious stance in entering into PPP contracts and general distrust of private sector counterparts.

1.5 Summary

In general, the slow progress in moving PPP projects forward results directly from the weak project pipeline at the start of the program. This is also due to the PPP enabling environment where policies has to be clear, and rules have to be predictable and fundamental guidelines for selecting PPP projects. Additionally, there is shortage of technically (including financial and legal) trained government staff to implement PPP especially since most PPP projects over the past decade were conducted under the unsolicited mode and thus, led by private sector proponents. The sting from controversies associated with past projects and actual/perceived leakages in the use of public funds following realizations of government contingent liabilities in PPP projects add to public sector officials' highly cautious stance in entering into PPP contracts and general distrust of private sector counterparts. All this has made structuring long-term PPPs deemed as fair by both sides even more difficult and time consuming as public sector officials go to great lengths to have "quality at entry".

Chapter 2. Current Status of PPP by Sector

This chapter aims to provide an overview on the current status of PPP by Sector. The Chapter focuses on the key sectors (toll road, railway, airport, water supply and energy) and their respective implementing agencies (IAs) in terms of the following aspects, reflecting sector specific conditions and track records:

- Institutional Background
- Organizational for PPP Project/Sector
- Administrative Process of PPP Project
- Current and Potential PPP Projects
- Sector's Issues

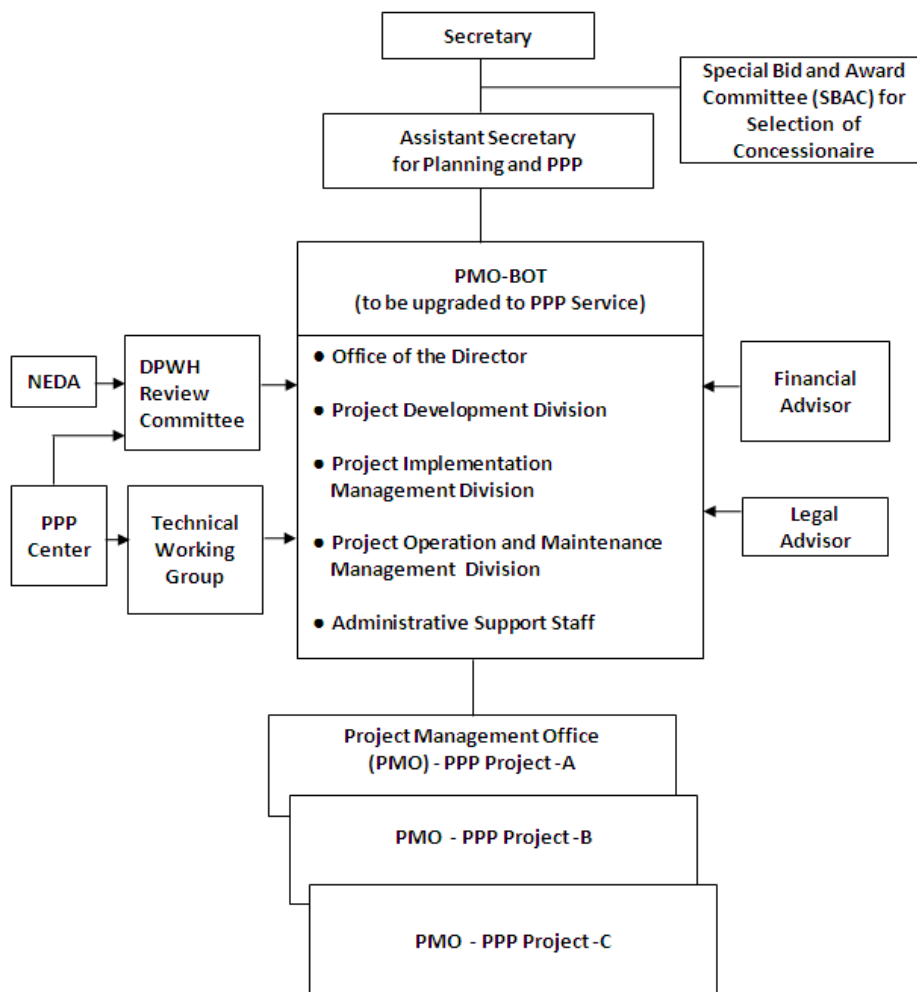
2.1 Road Sector - Department of Public Works and Highways (DPWH)

2.1.1 Institutional Background

The Department of Public Works and Highways (DPWH) serves to implement PPP toll road projects. DPWH has a long history of PPP projects and has experienced different types of project contracts i.e., franchise, JV, and BOT, between the government and private sector, in line with the legal framework of PPP development. DPWH is currently the spearhead of all infrastructure development agencies over PPP promotion and implementation because a dedicated Project Management Office of Build-Operate-Transfer (PMO-BOT) is responsible for the project cycle, from planning to implementation/operation. It also functions as a comprehensive PPP unit managing the principal PPP road projects such as Daang Hari-South Luzon Expressway Link Road (Daang Hari), the Ninoy Aquino International Airport Expressway (NAIAx), and the Cavite-Laguna Expressway (CALAx).

2.1.2 Organization for PPP Projects

DPWH has set up the PMO-BOT in the 1990s. It is linked directly to the Department Secretary through the Assistant Secretary for Planning and PPP. DPWH plans to upgrade the PMO-BOT to "PPP Service". DPWH has also organized DPWH Review Committee and the Technical Working Group (TWG), which NEDA and the PPP Center also participate. The Special Bids and Awards Committee (SBAC) is placed in between the Secretary and the Assistant Secretary for selection of concessionaires (See Figure 2.1-1).



Source: DPWH

Figure 2.1-1 Organizational Structure of DPWH for PPP Projects

2.1.3 Administrative Process of PPP Project

DPWH is, as mentioned above, regarded as the spearhead of all agencies implementing PPP projects in terms of PPP processing, which is made in cooperation with oversight agencies such as DOF, NEDA, and the PPP Center. DPWH manages the following administrative process of PPP project.

(1) Project Identification, Screening, and Selection of PPP Projects

The first step is the project identification, screening and selection of PPP projects. The same procedure has been made in other implementing agencies while DPWH has been assisted by JICA for formulation of the Master Plan for High Standard Highway Network (Master Plan) in 2010, which covers the following items:

- Project identification;
- Project prioritization;
- Project selection for short, medium, and long term; and
- Project identification procedure, project evaluation criteria, and project prioritization criteria were proposed in the Master Plan.

DPWH has firmly decided to implement PPP projects recommended by the Master Plan. JICA also assisted DPWH in the realization of the Master Plan and provided technical assistance in the preparatory study of the following high priority projects:

- Ninoy Aquino International Airport Expressway (NAIAx);
- Central Luzon Link Expressway (CLLEx); and
- Cavite-Laguna Expressway (CALAx).

DPWH has completed in April 2013 the following business case studies of projects as recommended in the master plan utilizing DPWH fund.

- C-6 Extension
- Calamba- Los Baños Toll Expressway
- Cebu North Road
- Tagum-Davao-General Santos High Standard Highway (JICA started the preparatory survey for the project in July 2013, utilizing the results of its business case study)

(2) Feasibility Study

The second step is to conduct feasibility studies undertaken for various projects with PDMF or technical assistance (TA) development partners such as of JICA to determine the following items:

- Optimum expressway alignment;
- ROW limit;
- Scope of civil works;
- Cost estimates of civil works, consulting services, right-of-way (ROW) acquisition, operations and maintenance (O&M) cost, administrative cost, etc.;
- Traffic demand forecast;
- Revenue estimate;
- Evaluation of various PPP schemes and selection of optimum PPP scheme;
- Economic evaluation;
- Financial evaluation;
- Environment impact statement (EIS) and resettlement action plan (RAP); and
- Identification of risks, risk allocation, and risk mitigation measures.

(3) Preparation of NEDA-Investment Coordination Committee (NEDA-ICC) Project Evaluation Form for Project Approval

The third step is the preparation of NEDA-ICC project evaluation form for project approval. The DPWH, with the assistance of NEDA and the PPP Center, prepares the project evaluation forms for approval by NEDA-ICC.

(4) Preparation of Tender Documents and Tendering

The fourth step is the preparation of tender documents and tendering. For example, a special team was organized for NAIAX, for the preparation of tender documents, composed of the following agencies:

- Department of Public Works and Highways (DPWH);
- Department of Finance (DOF);
- NEDA PPP Center;
- Office of the Solicitor General (OSG);
- Development Bank of the Philippines (DBP);
- International Finance Corporation (IFC); and

- The JICA Study Team.

DPWH also hired a transaction advisory consultant for CALAx. DPWH Special Bids and Awards Committee responsible for the selection of concessionaires is usually assisted by DOF, NEDA ICC, and the PPP Center.

2.1.4 Current and Potential PPP Projects

Toll road development has started in the late 1970s and since then the legal framework has been modified to meet PPP project requirements as shown below.

- The Toll Regulatory Board (TRB) was created by Presidential Decree (PD) No. 112 (March 1997). TRB was vested to enter into a contract with private sector for the operation and maintenance of toll roads as well as to authorize franchises to private companies.
- The Construction and Development Corporation (currently, the Philippine National Construction Corporation) was first given the franchise to operate and maintain the North Luzon Expressway (NLEx) and South Luzon Expressway (SLEx) in 1977, both of which were constructed by the government and a franchise was given to extend farther NLEx and SLEx
- In 1990, the original BOT Law (Republic Act (RA) No. 6597) was created, which was amended to RA No. 7718 in 1994.

In line with the above legal framework of development, types of contracts between the government and the private sector have been diversified as follows:

(1) Franchised Approach

The Toll Operation Agreement (TOA) and franchises for O&M and extension of toll roads were entered into between TRB and the private company (the original franchise holder). This approach was succeeded by a JV approach. Currently, there is no toll road contract under this approach.

(2) JV Approach

With the pressure and need for improving and widening originally franchised toll roads, the original franchise holder invited new investors for the upgrading of a toll road and implemented the necessary works. The JV company and TRB entered into a Supplemental Toll Operation Agreement (STOA). The original franchise was succeeded by the JV company.

The current contracts of NLEx, SLEx, Skyway, and the Manila-Cavite Coastal Expressway (CAVITEx) belong to this kind of approach.

(3) BOT Law Approach

With the enactment of the BOT Law, DPWH was authorized to enter into a contract with the private sector for toll road construction and O&M. The Toll Concession Agreement (TCA) is exchanged between DPWH and the private sector. There are three contracts under this approach.

DPWH currently operates seven toll road projects as shown in Table 2.1-1. As to the toll roads developed at the early stage (NLEx, SLEx, and CAVITEx), it is private proponents that design, build and operate (BOT) with the contract adopted JV. These are categorized as pure BOT type since the revenue risk is shared with the government by adopting a minimum revenue guarantee. The Subic-Clark-Tarlac Expressway (SCTEX) is regarded as lease type, where the toll road facility constructed by the government is leased to a private proponent to conduct O&M. The Southern Tagalog Arterial Road (STAR) is a typical hybrid type where half of STAR was built by the

government and the rest by the private proponent under the BOT scheme.

Table 2.1-1 Existing Toll Roads under Operation

Toll Road Name	Distance (km)	Concessionaire	Status
NLEx Segment 8.2	10.2	Manila North Tollways. Corp. (MNTC)	Segment 8.2: Detailed Design
Segment 9	4.1		Segment 9: ROW Acquisition
Segment 10	5.6		Segment 10: Detailed Design
Tarlac-Pangasinan-La Union Expressway (TPLEx)	88.0	Private Infrastructure Development Corp. (PIDC) San Miguel Corp. (SMC)	Phase I: About to be completed
Daang Hari-SLEx Connection Road	4.0	Ayala Corp.	Detailed design about to be completed
Total	111.9		

Source: JICA Study Team

Note-1: Lease contract to the private sector is being sought.

Toll road projects under implementation are shown in Table 2.1-2. The Tarlac-Pangasinan-La Union Expressway (TPLEX) is categorized as BOT type with government subsidy. A private proponent designs, builds, and operates, while the government finances part of the project using government financial support (GFS), or in other words, VGF. The PMO-BOT has already selected the concessionaire for Daang Hari as of December 2012 (and 30% of the construction has completed as of 25th July 2013).

Table 2.1-2 Toll Road Projects Under Implementation

Toll Road Name	Distance	PPP Structure	Contract Approach	Name of Concessionaire	Name of Operator
North Luzon Expressway (NLEx)	82.6	BOT	JV	Manila North Tollways Corp. (MNTC)	Tollways Management Corp. (TMC)
Subic-Clark- Tarlac Expressway (SCTEx)	93.8	Outsourcing of Operation and Maintenance (O&M) (Note-1)	JV	Implementing Agency – Bases Conversion Development Authority (BCDA)	TMC
Subic-Tipo Tollway	8.5	BOT	JV	MNTC	TMC
Metro Manila Skyway	16.2 (Elevated, Phase I + Phase II) 13.4 (At-grade)	BOT	Original BOT Law	CITRA Metro Manila Tollways Corp. (CMMTC) San Miguel Corp. (SMC)	Skyway O&M Corp. (SOMCO)
Manila-Cavite Coastal Expressway (CAVITEx)	18.0 (Phase I + Phase II)	BOT	JV	UEM-MARA Philippines Corp. (UMPC)	PEA Tollways Corp. (PTC)
South Luzon Expressway (SLEX)	37.2	BOT	JV	South Luzon Tollways Corp. (SLTC) SMC	Manila Toll Expressway Systems Inc. (MATES)
Southern Tagalog Arterial Road	41.9	BOT (About ½ of STAR was built by the government)	BOT Law	STAR Infrastructure Development Corp. (SIDC) SMC	Star Tollways Corp. (STC)
Total	311.6				

Other toll road projects under various stages are shown in Table 2.1-3. As shown below, projects 1) to 5) have been committed by the government for implementation. Next candidate projects will be projects 6) and 7).

Table 2.1-3 Toll Road Projects under Various Stages

	Name of Toll Road	Current Status
1)	NAIA Expressway: Phase II	Contract was signed in June 2013. A 4 lane, 7.75 elevated expressway and 2.22 km at grade feeder road that will provide access to NAIA Terminals I, II and II and link the Skyway and the Manila-Cavite Toll Expressway. Costing P 15.52 billion, it was bid out as a Build Transfer Operate with a 30 year cooperation period. Government bid out on basis of lowest subsidy by way of an interest free loan of up to P 6 billion wins, or highest negative subsidy by way of an upfront concession fee payment. San Miguel group won the bid, and already paid government the P 11 billion upfront payment, besting the Metro Pacific group which only bid P 300 million. Ongoing preparation of Detailed Engineering Design; Target construction period January 2014 to September 2015.
2)	CALA Expressway	This was approved by the NEDA Board as a hybrid project with the Cavite segment (29 kilometers) to be done via PPP and Laguna segment (18 kilometers) to be financed from JICA ODA. After the surprise large negative subsidy of the NAIA Expressway Phase II, and market soundings with potential private bidders, government decided to proceed on a pure PPP basis for the entire 4 lane 47 km closed system tolled expressway. Estimated project cost of P 35 billion, with a Build Transfer Operate structure, 35 year cooperation period. Invitation to prequalify to Bid was published on July 22, 2013.
3)	NLEx-SLEx Connector Road	There are two proposed projects, one a 13.4 km from Metro-Pacific Investments group, and another from Citra-San Miguel for a 14 km tollway, intersecting at a point. Both were approved by the NEDA Board; the former will be subject to a Swiss challenge as under an unsolicited mode; though negotiations on going to fold into existing franchise of Philippine National Construction Company, a majority owned government corporation but with private shareholders. The Citra San Miguel project is already based on extension of an existing PNCC franchise. Negotiations are on-going on integration and on common segment alignment between the two project sponsors, and with PNCC. No clarity on timetable pending conclusion of these negotiations.
4)	Skyway Phase III	Feasibility study is completed. Within existing franchise (Joint venture approach)
5)	CLLEx: Phase I	Constructed by the government Lease contract with the private sector Japanese ODA-loan provided by JICA Detailed Engineering Design Consultant under selection
6)	C-6	Feasibility study completed (with assistance from xx)
7)	C-6 Extension Calamba – Los Baños Expressway Cebu North Road Tagum-Davao-Gen. Santos High Standard Highway	Business case study completed in April, 2013.

Source: JICA Study Team

2.1.5 Sector's Issues

DPWH is moving ahead in the implementation of PPP toll road projects as brownfield projects, supported by secure financial feasibility and stable business income. The business environment surrounding PPP projects has changed during the recent years. Financial market in the Philippines is particularly liquidity-rich creating lending conditions in terms of interest and lending period favorable to the investors. For instance, interest rate decreased from approximately 10% two years ago to approximately 8% at present²⁴. The lending period increased from approximately 12 years to approximately 15 years. Under such circumstances, investors such as financial conglomerates are eager to increase their shares in the market of PPP projects; therefore, they tend to owe risks including revenue risk to themselves.

Despite the DPWH's leading position in PPP project preparation, the agency still has various issues such as i) ROW acquisition and relocation, ii) institutional conflict between DPWH and TRB with respect to initial toll rates and toll rate adjustment and monitoring works of O&M, and iii) management capacity of the PMO-BOT over the number of PPP toll road projects expected in the future. The first one is part of CL administered by the agency. The second is an institutional matter that needs to be resolved urgently because the current BOT Law allows the agency to be responsible for the issuance of TCA and approval of initial toll rates. The third is further strengthening of staff members in the PMO-BOT.

2.2 Railway Sector – Department of Transportation and Communications (DOTC)

2.2.1 Institutional Background

The Department of Transportation and Communication (DOTC) serves as IA of PPP railway projects. The Past PPP projects in the transportation sector were represented by i) NAIA 3, and ii) MRT3. The both projects were unsolicited proposals. The NAIA 3 (BOT) contract was disputed by the previous administration because of violating the laws, while the MRT 3 was criticized because of subsidies causing a huge drain on government resources.

Despite the lessons learned from NAIA 3 and MRT 3, DOTC's action to strengthen its organization for PPP project preparation has been apparently slow. Currently, this agency is in the process of strengthening its PPP unit called the Project Development Team (PDT) attached to the Assistant Secretary for Planning. The PDT, consisting of around ten staff members, is not assigned to any specific sector (e.g. airport/ railway) but to PPP process from project identification up to the preparation of bid documents. Institutional weaknesses observed are presented below:

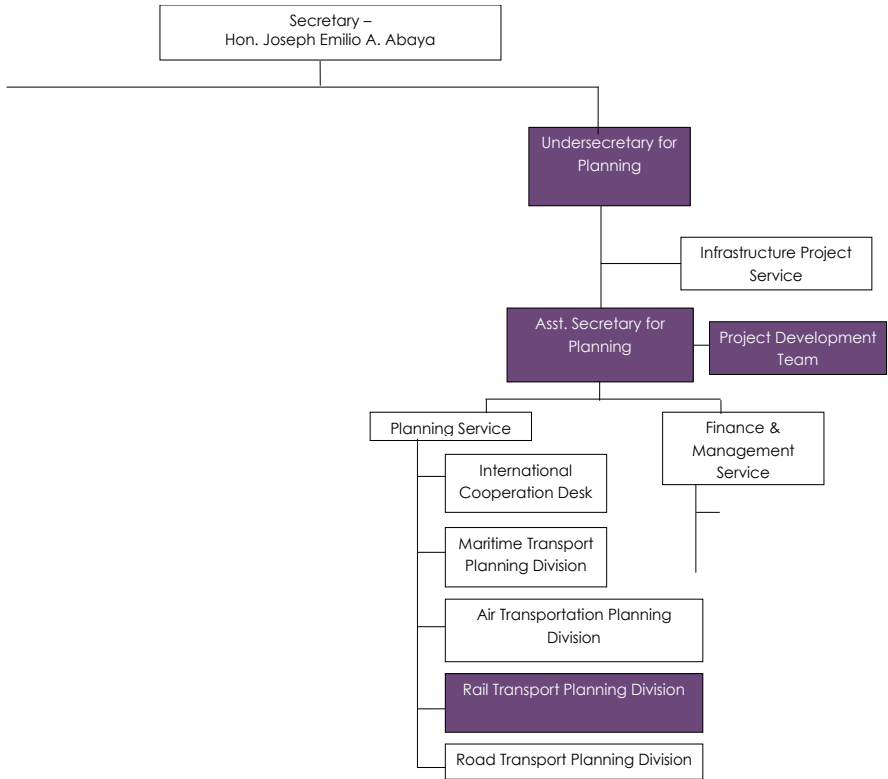
- The PDT lacks specific knowledge and expertise on the following sectors, e.g., air, railway and maritime,
- The PDT attached to the Assistant Secretary for Planning is institutionally a halfway position where authority seems to be vague, and
- The number of staff is limited to accommodate the number of PPP transportation projects being planned.

DOTC will need further institutional improvement on how to strengthen its PPP unit by sector (airport, railway and maritime), and recruitment of competent staff particularly in the upstream level (e.g., feasibility study) of the PPP process.

²⁴ Financial model prepared by DPWH/PPP Center for CALAX, February 2013.

2.2.2 Organization for PPP Projects

The organizational structure of the railway sector in DOTC is shown in Figure 2.2-1.



Note: Figure includes related agencies.
Source: DOTC

Figure 2.2-1 Organizational Structure of the Railway Sector in DOTC

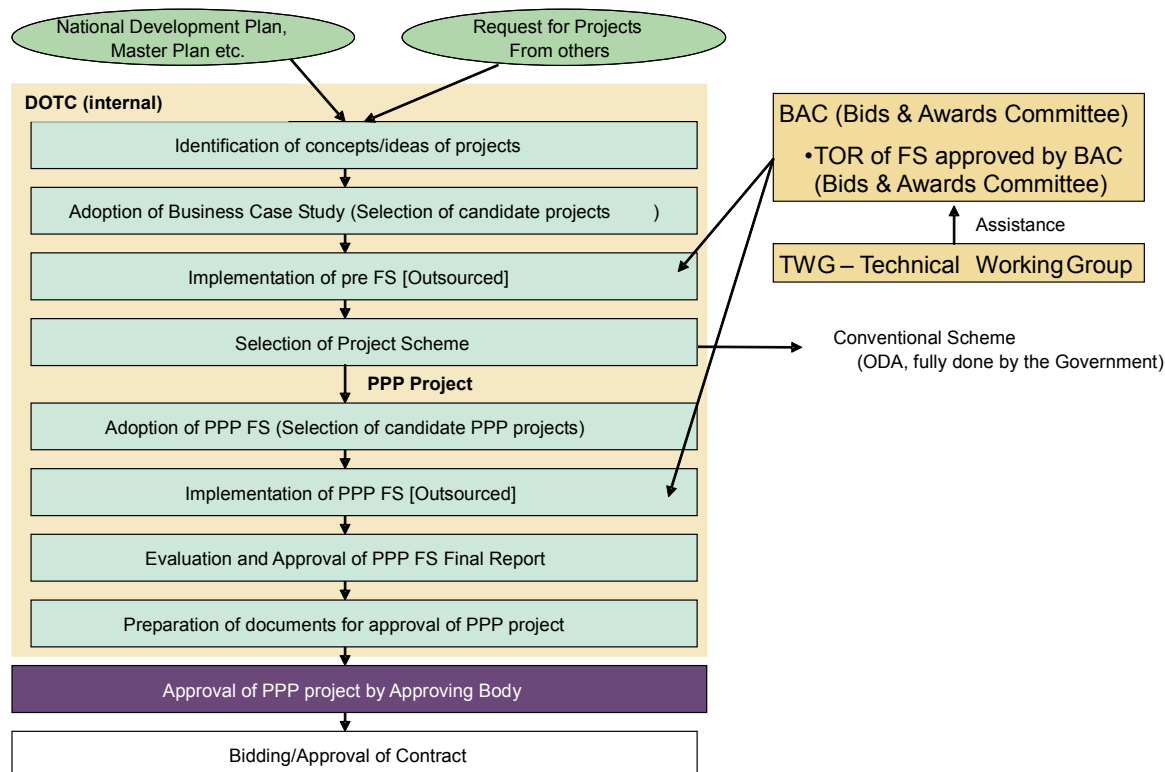
The organization for railway planning in DOTC is roughly divided into two groups, i.e., the PDT and the Rail Transport Planning Division. The PDT under the Office of the Assistant Secretary for Planning is responsible for the development of PPP projects, including development of project implementation structure and preparation of bid documents. The team consists of approximately ten members who are not assigned to any specific sector. On the other hand, the Rail Transport Planning Division is responsible for the planning of railway projects. Currently, DOTC considers that planning and project development functions should ideally separate, and intends to strengthen its Project Development Unit. However, DOTC still needs additional people to strengthen this unit.

Additionally, DOTC also has its Bids and Awards Committee (BAC) and Technical Working Group (TWG) under the BAC. The BAC is an ad hoc committee created by the Secretary and chaired either by the Undersecretary or Assistant Secretary. Currently, the BAC is chaired by the Undersecretary for Legal Issues. Under the BAC are the TWG and the BAC Secretariat. The TWG is responsible for creating bid documents, TOR for the feasibility study to be outsourced to a private firm. The BAC Secretariat is responsible for providing assistance to the members of the BAC. The LRT Line 1 South Extension is under the Special Bids and Awards Committee (SBAC) and the TWG members are from the Rail Planning Division Office of DOTC and Light Rail Transit Authority (LRTA).

2.2.3 Administrative Process of PPP Projects

As to the PPP project selection process, DOTC follows the BOT Law and its implementing rules and regulations, however, there are no any guidelines and manuals of procedure for PPP project preparation in DOTC.

Based on interviews with DOTC personnel, the current procedure for PPP project selection in the solicited approach is shown in Figure 2.2-2, which shows a general processing being adopted by some projects. No consistent process of PPP project selection in DOTC is stipulated, and some variations are being made in the process because PPP processing seems to be different depending on the project.



Note: In case of solicited approach
 Source: Office of the Assistant Secretary for Planning

Figure 2.2-2 Internal Process for PPP Railway Project Selection

The procedure shown in Figure 2.2-2 is being applied to the current transactions but it appears that there are some rooms to be improved. Firstly the sector study is made as to identification of sector projects. Secondly the business case study should be placed as PPP processing. The purpose and contents of a business case study and a pre-feasibility study are not clearly defined in the process. The two processes should be converged as business case study whose objective is selection of optimum PPP modality. The position of “selection of project scheme” should be after the PPP feasibility study.

2.2.4 Current and Potential PPP Projects

An outline of the ongoing and planned PPP railway and bus rapid transit (BRT) projects is shown in Table 2.2-2.

A number of railway and BRT projects have been planned or proposed under PPP scheme, but there are only a few projects whose project design has been finalized. Most of the projects are still in the conceptual stage or preparation stage.

Table 2.2-1 Ongoing and Proposed Railway and BRT Projects in the Philippines

Project Name	Section	Length	Project Cost	Implementing Agency	Status
LRT Line 1 South Extension Phase 2	Bacoor to Dasmariñas	15 km	—	DOTC	Conceptual
LRT 1 Airport Extension	Baclaran to NAIA Terminal 3	6.2 km	PhP 3.6-5.0 billion	DOTC	Conceptual
MRT 8 (East Line)	Santa Mesa, Manila to Angono, Rizal	48 km	—	—	Conceptual
BGC Monorail to NAIA	MRT 3 Guadalupe to NAIA Terminal 3	12.56 km	—	BGC	Conceptual
LRT Line 2 East Extension	Marikina to Masinag in Antipolo, Rizal	4 km	PhP 9.8 billion	DOTC	Preparation
MRT 7 (Unsolicited)	North Avenue/EDSA to San Jose del Monte	23 km	USD 1.2 billion	DOTC	Preparation
MRT 3 & LRT Capacity Expansion	Acquisition of Light Rail Vehicles (LRVs), upgrading of depot	-	PhP 16.1 billion	DOTC	Preparation
Cebu Bus Rapid Transit Development Project	Bulacao to Ayala in Cebu City	16 km	USD 212 million	DOTC/Cebu City	Preparation
LRT Line 1 South Extension Phase 1	Baclaran to Niyog (in Bacoor, Cavite)	11.7 km	PhP 60 billion	DOTC/LRTA	Bidding

Note: "Conceptual" means the stage before feasibility study. "Preparation" means the feasibility study stage.

Source: Railway Division, DOTC

2.2.5 Sector's Issues

Despite the valuable lessons learned by DOTC from its past PPP projects in the following areas: i) limited number of private proponents for system operation of stations/rolling stocks/traffic signals/railway, ii) high initial investment cost, iii) low fares being regulated by the government, and iv) high ridership risk that discourages bidding of private proponents, the agency's measures in resolving PPP issues have been apparently slow.

The private sector is keen on risk sharing between the government and the private proponent, while the government is being careful toward ridership (demand) guarantee, which drains government resources as learned from the MRT 3 project. DOTC is requested to pay its attention to reasonable allocation of risks between the government and the private sector.

2.3 Airport Sector (DOTC)

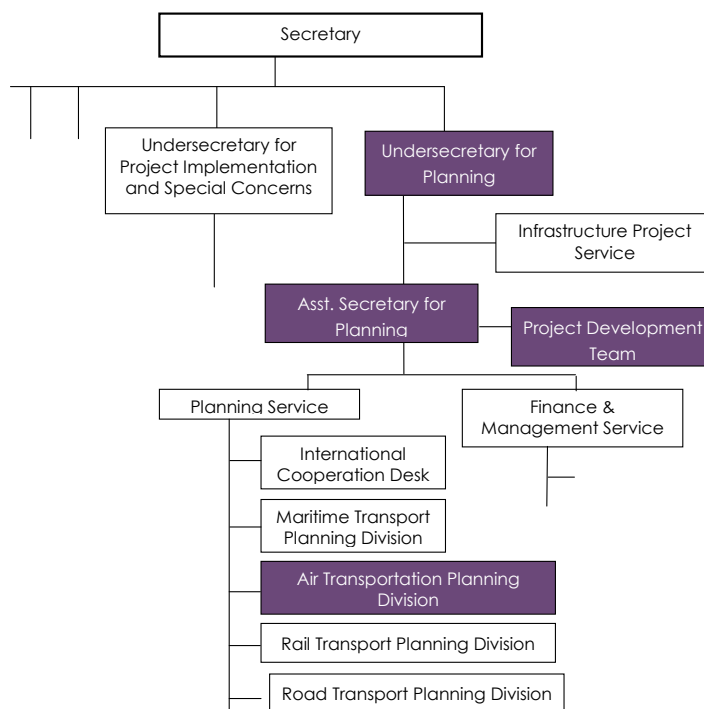
2.3.1 Institutional Background

DOTC serves as IA for PPP airport projects. The institutional background of DOTC is presented in Subsection 2.3.1 of this report.

2.3.2 Organization for PPP Projects

DOTC's organization for the airport sector is roughly divided into two groups, namely, the PDT and the Air Transportation Planning Division (ATPD), as shown in Figure 2.3-1. Currently, PPP projects are handled by the PDT under the Office of the Assistant Secretary for Planning. The ATPD is responsible for the preparation of the National Aviation Plan, including the monitoring and evaluation

of airport development projects.



Source: DOTC

Figure 2.3-1 Promotion in the Airport Sector of DOTC

2.3.3 Administrative Process of PPP Projects

The administrative process of PPP projects in the airport sector is the same as in the railway sector. (Please see Section 2.2.3 of this report.)

2.3.4 Current and Potential PPP Projects

The airport is divided into two major areas, the landside and airside. The airport services provided in the landside and airside areas are under the responsibilities of the private sector and the government, respectively.

The government can adopt investment enhancement strategies in order to improve the airport investment environment for the private sector. The present investment environment in airport infrastructure may already be suitable for private investment depending on the distinction between the landside and airside areas.

(1) PPP Center’s Airport Projects for Rollout in 2012

The PPP Center listed four airport projects for potential collaboration between the private sector and the GoP in 2012. These airport projects for rollout, which means being set to the preparation stage from the pipeline list, in 2012 are as follows: i) Mactan-Cebu International Airport (MCIA) Passenger Terminal Building, ii) Enhanced O&M of the New Bohol (Panglao) Airport, iii) O&M of the Laguindingan Airport, and iv) O&M of the Puerto Princesa Airport.

Of the four projects, only the MCIA project brings about private sector participation under a general BOT scheme for the new terminal. The other three projects only involve O&M of the airport. The

scope of O&M works of the airport will depend on the results of the transaction advisory services.

a. MCIA Passenger Terminal Building

The private sector portion involves the rehabilitation and improvement of the existing passenger terminal as well as the construction of a new passenger terminal and new apron. Basically, this project will be implemented under build-rehabilitate-operate-transfer (BROT) scheme.

Cebu is one of the most developed provinces in the Philippines and is the center of world class tourism spots in the Philippines. The MCIA is the main gateway airport in the southern part of the Philippines handling around six million passengers annually. Therefore, revenues from passengers become attractive for airport operators including those from private proponents.

In April 2013, seven groups of investors bidded for the MCIA Passenger Terminal Building whose project cost is around PhP 1.75 billion. Investor groups are financial conglomerates of the Philippines and big businesses from Asia (Korea, Singapore and India) and Europe. The MCIA is placed as the second airport in terms of passengers (more than 5 million per year) and revenue generation. Depending on the PPP modality selected, the MCIA will be a model of PPP airport projects. Other PPP projects are limited to O&M of new airport projects (New Bohol, Lagindingan, and Puerto Princesa)

b. Enhanced O&M of the New Bohol (Panglao) Airport

Towards the end of 2012, JICA funding support for the detailed engineering and construction of this new airport is expected to be finalized. Meanwhile, the transaction advisor for the project's PPP implementation was already selected by the PPP Center.

c. O&M of the Laguindingan Airport

At this stage, only the construction of the airside facilities and terminal building has been completed. The process for selection of a contractor that will install, test, and commission the air navigation facilities of the new airport is ongoing. A transaction advisor was already selected by the PPP Center, but it is envisioned that its services can only proceed after the air navigation facilities have been commissioned.

d. O&M of the Puerto Princesa Airport

Project construction is already ongoing. Funding for the foreign exchange component is from Korea's Economic Development Cooperation Fund (EDCF), while the local currency requirements are undertaken by the GoP. It is expected that bidding for the O&M of the facility will be pursued upon completion of its construction sometime in 2015.

These four airports are priority airports in accordance with JICA funded Master Plan Study on the Strategy for the Improvement of National Airports (completed in 2006). It is expected that an update of the said master plan will be prepared with funding support to be provided by the Korea International Cooperation Agency (KOICA).

In 2011, the PPP rollout for the airport sector included four projects, one of which (the New Legazpi Airport) is not in the list of projects for PPP rollout in 2012. So far, however, only the MCIA Passenger Terminal Building has materialized with the recent NEDA Board approval. The three airport projects are still too far into the future in forging any agreement with private sector proponents. Table 2.3-1 gives the stages of development of each airport project.

Table 2.3-1 Potential Airports

No.	Project Title	Estimated Project Cost	Status
1	MCIA Passenger Terminal Building	Phase 1: USD 239 million Phase 2: USD 278 million	Started Preparation of bid Documents
2	O&M of New Bohol (Panglao) Airport	USD 190.5 million (Indicative project cost)	Project Preparation is ongoing
3	O&M of Laguindingan Airport	USD 42.9 million (Indicative project cost)	Some of the related work has started
4	O&M of Puerto Princesa Airport	To be determined (Indicative project cost)	Some of the related work has started

Source: PPP Center Website (as of December 2012)

2.3.5 Sector's Issues

In Asia, the "Open Skies" policy is expected to significantly increase interregional tourism between ASEAN member states. The government's initiative regarding such 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. It implies that the business environment is already well-established for the promotion of PPP airport projects.

Like PPP railway projects, commercial development associated with PPP airport project will be highlighted so as to encourage private sector into PPP promotion in the airport sector.

2.4 Water Sector- Metropolitan Waterworks and Sewerage System (MWSS)

2.4.1 Institutional Background

There are four types of water service providers, namely, i) concessionaires, ii) water districts, iii) local government units (LGUs), and iv) certificate of public convenience (CPC) grantees. PPP schemes in the water sector in the past were represented by: i) concession schemes in Metro Manila where the concessionaires undertake water services previously operated by the Metropolitan Waterworks and Sewerage System (MWSS), and ii) the BOT scheme applied for bulk water supply in water districts where water districts/public water corporations entrust water services to private proponents.

Although, MWSS currently acts as the agency for planning and contracting under concession scheme, it takes interest in bulk water supply projects outside Metro Manila. The Corporate Division of MWSS still has competent staff members that manage PPP projects in the field of planning and project development from project identification to bid evaluation. A growing demand for water supply and sewerage projects in green field would trigger MWSS to recognize its role as IA in the project management cycle.

2.4.2 Organization for Water Sector in Metro Manila

In Metro Manila, two private service providers have been operating based on government concession agreements since 1997, which allowed them to take over the operation of MWSS. MWSS, which used to operate the water supply and sewerage systems of Metro Manila, currently acts as a regulatory agency that monitors projects and approves tariff adjustments as well as water source development.

MWSS consists of Corporate Office which is responsible for development of new water sources, and Regulatory Office which is responsible for monitoring concession agreement, implementing tariff adjustment and etc. The functions of Corporate Office and Regulatory Office are shown below

(deprived from MWSS website).

Corporate Office

- Cooperate with the Concessionaires in the development of new water sources*
- Facilitate the exercise by the Concessionaire of its agency powers
- Carry out accounting and notification functions
- Monitor, report, and administer the MWSS loans and perform related functions in connection with existing projects
- Manage and/or dispose retained assets
- Provide other services or functions as assigned in the Concession Agreement

Regulatory Office

- Monitoring and/or enforcement of the Concession Agreements, including:
- Contracts between the Concessionaires and Customers
- Standards of service to Customers
- Production of audited financial information, ruling on cost allocation and others for rate-setting methodology
- Reviewing water supply and sewerage rates (tariff) and implementing Extraordinary Price Adjustment and Rate Rebasing provision
- Prosecuting or defending proceedings before the Appeals panel

2.4.3 Current and Potential PPP Projects in Metro Manila and Surrounding Areas

Current water PPP project in Metro Manila started in 1997, through concession agreements privatizing Metro Manila's water and sewerage systems, and continuing up to the present. East area of Metro Manila is operated by Manila Water Company Inc. (MWCI) and West area of that is operated by Maynilad water Services Inc. (MWSI).

The potential PPP projects in the surrounding of Metro Manila area are as follows.

a. Bulacan Bulk Water Project

The bulk water supply project is planned to supply 230 MLD water to benefit 1.9 million people in the province of Bulacan. This project shall reduce groundwater extraction and use of deep wells in the province. The project include the construction of transmission mains, water treatment plants, pumping station, installation of flow metering devices, installation of appropriate pressure monitoring stations. The status of project is ongoing finalization of project structure. Bid process and procurement is targeted in Sep 2013.²⁵

b. New Centennial Water Supply Source Project

The project is to fill the need to augment the water supply source of Metro Manila, currently provided by the Angat Dam (96%). Primary consideration is placed on the river basin covering the Kaliwa-Kanan-Agos Rivers as location for the new water supply source. The project include the construction of potential dams, head works and its appurtenant facilities, conveyance structure from the diversion point to the water treatment facility, water treatment facility, and hydropower facility. The status of project is ongoing finalization of project structure. The award of project is targeted in the first quarter of 2014.²⁶

²⁵ PPP Center website (<http://ppp.gov.ph/?p=7454>), MWSS website (<http://www.mwss.gov.ph/2013/04/mwss-project-updates-events/>), MWSS "Ensuring a Water Security Legacy for Metro Manila", Philippine Infrastructure Development Seminar, 2013

²⁶ Ditto

c. Rehabilitation, Operation and Maintenance of Angat Hydro-electric Power Plant Auxiliary Turbines No. 4&5

This project is 20-year concession agreement for rehabilitation, operation and maintenance of Auxiliary Turbines No. 4 & 5 to increase the average plant load factor to 60%. This is water related project implemented by MWSS. The status of project is under rebidding.²⁷ The situation of the PPP projects in water sector in Metro Manila and surrounding area is shown in Table 2.4-1.

Table 2.4-1 Potential PPP Projects in Metro Manila and Surrounding Areas

Year	Name of Project	Project Cost	PPP Modality	Law Applied
2013 (Under preparation)	Bulacan Bulk Water Supply Project	USD 278 million	Bulk Water Sale	BOT Law
2013 (Under preparation)	New Centennial Water Supply Source Project	USD 2 billion	ODA/PPP/Co-financing	BOT Law
2013 (rebidding)	Rehabilitation, Operation and Maintenance of Angat Hydro-electric Power Plant Auxiliary Turbines Nos.4&5	USD 28 million	Rehabilitate-Operate-Maintain (ROM)	BOT Law

Source: PPP Center website, MWSS website, MWSS website, MWSS “Ensuring a Water Security Legacy for Metro Manila”, Philippine Infrastructure Development Seminar, 2013

2.4.4 Sector’s Issues

(1) Coordination of Interests in the Water Tariff Adjustment among IAs and Private Proponents

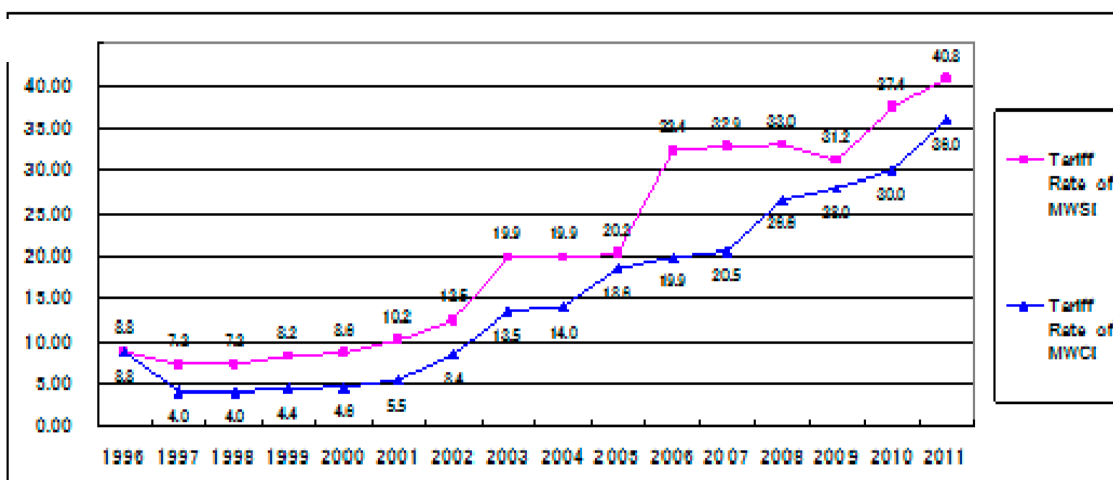
The water tariff adjustment regarding to the concession agreement in Metro Manila has been controversial issue for many years.²⁸

MWSS Regulatory Office has been wary in allowing a rapid increase in the tariff. However, private concessionaires often push for an increase. During the 1997 concession, the concession agreement did not specify any rapid tariff increases for the first ten years. However, after the Asian Crisis, the two concessionaires began to face financial difficulties. Consequently, MWSS allowed the increase in tariff from 2002 onwards. Figure 2.4-2 shows the change in all-in water tariff of the two concessionaires. In 1996, the tariff was PhP 8.87/m³.²⁹ This increased by 4.6 times in the west area and four times in the east area in 2011. The rates are significantly higher even considering 2.3 times increase in inflation and the improved service that included a 24-hour supply during the period. After this experience, MWSS Regulatory Office became more cautious in approving the tariff increase as a regulator.

²⁷ Ditto

²⁸ Recently, there is a controversy whether income corporate tax should be included in the water tariff or not (Philippine Daily Inquirer, June 28,2013)

²⁹ The tariff average was PhP 6.43/m³ from 1994 to 1996 before the 1997 concession. It was strategically increased to PhP 7.4/m³ in 1996 and PhP 8.87/m³ in 1997 following the Buenos Aires’ example.



*Source: MWSS as of December 2010, "The Study on Institutional Improvement for PPP in the Philippines, 2012, JICA

Figure 2.4-1 Change in Water Tariff, Metro Manila, 1996-2011

For future projects (i.e., bulk water sale), it is desirable for MWSS Regulatory Office as a regulatory agency to have a clear monitoring and evaluation mechanism for performance-based tariff adjustment to avoid occurrence of similar tariff hike. Provision of such performance monitoring mechanism in the project contract would urge the private investor to maintain good quality of water service by notifying that water tariff would be reduced (as a penalty) if the quality has deteriorated and the supply is deficient due to negligence and poor performances. MWSS Corporate Office as an implementing agency, in the future PPP project needs to design to improve the current insufficient performance monitoring system up to the level that the performance-based tariff adjustment is actually workable.

(2) Low Profitability of Sewerage Project

Low profitability of sewerage projects is another issue. Only around 10% of Metro Manila households have gained access to the sewerage system. The sewerage cost is recovered only through a 20% of water charge to households³⁰.

The present concession contract allocates the responsibility of establishing the sewerage system to the concessionaire. Considering the huge cost of developing a sewerage system and its low profitability (i.e. potential case of VGF), the proliferation of sewerage system is anticipated to be very slow and limited under the current situation.

(3) Increasing Greater Transparency and Competitive Projects by Applying the BOT Law

As mentioned previously, water concessions of Metro Manila’s water supply and sewerage were granted based on the Water Crisis Act of 1997 but the concessions which were done by local authorities later, like the Clark Water Supply and Sewerage Project, were made based on the BOT Law. After 2000, the BOT Law had been avoided as a legal base because of its complicated procedure. However, recently, the BOT Law has been utilized again in PPP in the water sector. The Bulacan Bulk Water Supply Project and other PPP projects that MWSS is preparing are BOT-based arrangements. Since the Project Development and Monitoring Facility (PDMF)³¹ is available only when the BOT Law is applied (PDMF Guideline 3.8), PPP projects based on the BOT Law are expected to increase.

³⁰ Additionally, another 20% is charged to operators.

³¹ PDMF is the revolving fund which was established by the government of Philippines with support of Australian government under ADB’s TA and Canadian government. PDMF will provide the fees for PPP F/S and advisory service for procurement. Those expenses would be paid by winning bidders later.

Procurement of these projects is expected with greater transparency and competitiveness since NEDA-ICC approval is required and because of the restrictions imposed to unsolicited proposals when the PPP is based on the BOT Law. The BOT Law is currently under an amendment process while the JV method, which is not included in the current BOT Law may be included in the amended BOT Law.

(4) Increase the Importance of Government Support for Sewerage Development

Government role has been instrumental in promoting early expansion of the sewerage system. The capital cities of neighboring countries have better sewerage access levels such as 100% in Singapore, 90% in Kuala Lumpur, 63% in Phnom Penh, and 54% in Bangkok³². Their sewerage systems have been built by public entities. In Japan's case, all the major cities are able to reach 100% access to sewerage due to national government "acceleration" subsidies given to the LGUs during the last four decades.

As long as there is fiscal space, it is possible to construct sewerage systems as a common public goods project under public support. However, in the Philippines, public resources have been scarce. It seems that private finance would be required in various ways for the development of sewerage systems.

Under the abovementioned conditions, in general, the following PPP modalities could be applied: BOT with government subsidy, hybrid method, service payment method, and public-build and private-operate method. Firstly, through the BOT with government subsidy, private proponents could conduct business independently but receives government subsidy. Secondly, the hybrid method is the way of combining private finance and soft loan such as an official development assistance (ODA) loan. For example, government will construct a sewerage network through an ODA loan while a private proponent will build a wastewater treatment facility through private finance. Thirdly, the service payment method is the way for a private proponent to construct and operate a facility while the government pays for a certain service charge annually. Finally, the public-build and private-operate method is the way for the government to construct the facilities after which private proponents will manage the operations.

2.5 Energy Sector - Department of Energy (DOE)

2.5.1 Institutional Background

The Department of Energy (DOE) has a long history of promoting BOT-based independent power projects (IPPs) in the decade of 1990s. About 68 BOT contracts were contracted so far. The National Power Corporation (NPC) continued contracting with new IPPs based on the "take or pay" scheme. Nonetheless many of IPP contracts were identified to be targets of renegotiation resulting in increase of the government payment obligation for purchasing fixed or minimum electricity supply from IPPs.

The Electricity Power Industry Reform Act (EPIRA) was enacted in 2001 in order to restructure the power industry including the unbundling and privatization of the NPC. The National Transmission Company (Transco) became a subsidiary of the Power Sector Asset and Liabilities Management (PSALM), which also acquired the NPC's IPP contracts. PSALM sold the NPC's generation assets in order to settle the debts of the state-owned power firm (NPC).

Nevertheless power sector reform of almost one decade under EPIRA brought down the four unexpected results, i.e. i) big companies sharing the power generation and distribution markets, ii) soaring of electricity price, iii) energy insecurity (continuous power shortage) particularly in Mindanao, and iv) high level of the debts of PSALM which took over the debt liabilities and non-transmission assets of NPC.³³

³² Good Practices in Urban Water Management, ADB, 2012.

³³ ADB Completion Report August 2010 Power Sector Development Program

2.5.2 Organization for Energy Sector

The DOE is primarily the policy and planning agency for energy sector in the Philippines. The agency has the six Bureaus responsible for i) energy resource development, ii) renewable energy management, iii) energy utilization management, iv) oil industry management, v) energy policy and planning, and vi) electric power industry management.

The agency also has its energy-related company consisting of i) Philippine National Oil Corporation (PNOC), ii) National Power Corporation (NPC), iii) National Electrification Administration (NEA), iv) Power Sector Assets & Liabilities Management Corp (PSALM), v) National Transmission Corp (NTC), and vi) Philippine Electricity Market Corp (PEMC) operating and governing the wholesale electricity spot market (WESM) which is a commodity market where electricity is traded.

2.5.3 Current and Potential PPP Projects

This section describes the historical evolution of PPP in order to highlight the current status of the sector in the next section.

(1) BOT (IPPs)

The onset of the power crisis in the early 1990s paved the way for the massive entry of independent power producers (IPPs). The BOT scheme was applied by DOE as a response to the crisis, where IPPs sold electricity to either distribution companies (DU) or the National Power Corporation (NPC). The latter is known as the “take-or-pay” wherein the NPC is required to buy the minimum capacity of electricity supply based on a power purchase agreement (PPA). The credibility of IPP-BOT setup was then eroded due to oversupply of electricity. The promulgation of the Electric Power Industry Reform Act (EPIRA) was enacted in 2001 to check IPP contracts based on the BOT scheme and limited electricity supply capacity in the “take-or-pay” scheme.

(2) Concession Agreement

The EPIRA mandated the privatization of the National Transmission Corporation (Transco). Transco was mandated to monitor concessionaires’ compliance with the terms and conditions of the concession agreements for O&M of transmission lines. The National Grid Corporation of the Philippines (NGCP) was given a franchise for the O&M for 25 years in 2008.³⁴ NGCP’s operation in terms of ancillary service is regulated by the Energy Regulatory Commission (ERC).

(3) JV Agreements

The Philippine National Oil Corporation (PNOC) has the five (5) subsidiaries for different purposes (i.e., i) natural resource exploitation ii) renewable energy development, iii) alternative fuels, iv) shipping transport and v) development and management). The PNOC, as a GOCC, was mandated to generate income from its business dealings as a profit-making body. It uses the JV model scheme in its project development and implementation. A service contract was made between the PNOC and a developer to exploit, develop, and utilize natural resources. The JV model takes the form of co-production or profit sharing.

2.5.4 Current Status of the Sector

The Philippine energy sector is comprised of i) oil and gas industry, ii) electric power industry, iii)

³⁴ Web site information of NGCP which is a privately owned company owned by the SM Group and State Grid Corp of China.

renewable energy industry. The government aims to achieve energy diversification from dependence on imported oil to natural gas and renewable energy, and private sector's intervention in the industries. Positive trend in the development of local energy sources indicate the diminishing need for importation of oil and coal and it may be possible that high level of energy self-sufficiency is to be attained in the future. Privatization of the power industry was triggered off by the EPIRA. The gas industry which is to be the primal energy in the Philippines will need intervention of private sector. The conventional oil/gas exploration have been executed by the joint venture (JV) between the government (PNOC) and private companies. The natural gas pipeline project which has never implemented so far will need to consider what role of public sector in PPP is. The PNOC might be a contracting agency so that its role would be equivalent to that of other implementing agencies of infrastructure development.

(1) Power Sector after EPIRA

A decade after the EPIRA, power sector's privatization brought about both merits and demerits to the sector. The merit is that the government is no longer liable for contingent and actual liabilities caused by the NPC's payments and obligations under the "take-or-pay" scheme. Privatization has been made almost in areas of Luzon grid by selling NPC's assets to private sectors through the Power Sector Assets and Liabilities Management Corporation (PSALM) and establishing the wholesale electricity spot market (WESM).

Nevertheless, the power sector reform brought down unexpected results, i.e., i) soaring of electricity price due to the WESM dominated by principal generators that are related with distribution units (DUs), ii) energy insecurity (continuous power shortage) particularly in Mindanao, and iii) high level of NPC's debts resulting in the selling of its assets to private sectors.

(2) Renewable energy projects

Despite the nearly perfect electrification throughout the country, energy insecurity particularly in Mindanao has been regarded as a big issue. Realizing Plans into Plants has been entirely left to the initiative of the private sector. The government (DOE) has been promoting renewable energy-based power generation projects particularly in isolated (off-grid) areas. Those projects often take the form of construction funded by DOE budget with ODA loan from donors and O&M done by community-based organizations (CBOs). Donors also assist CBOs to sustain the project operation through livelihood programs.

The recent release of the feed-in-tariff (FIT) has brought anticipation to potential investors. However, the released rates are lower than expected by these investors. These rates may not be able to cover the costs of maintaining most of the renewable energy projects.

(3) Active use of natural gas as energy source

The PNOC is given the concession for the gas pipeline (BATMAN 1) from DOE. The conversion of oil-fired power plants to gas-fired, as well as the promotion of natural gas for industrial production and transportation, is an example of active use of natural gas. The existing Malampaya Gas Field has a limited reserve of natural gas; therefore, the government will have to exploit undiscovered resources in existing petroleum basins. Nevertheless, this could require tremendous investment costs.

The government has made a short-term plan³⁵ of importing gas that would require the construction of energy terminals or floating storage that re-gas liquefied natural gas (LNG) transported by LNG vessels. In order to cope with the growing demand for natural gas in the Metropolitan Manila area, DOE has prepared an extensive plan of natural gas pipeline projects, consisting of the following

³⁵ DOE's feasibility study of gas industry development based on imported oil

pipeline projects: i) from Batangas to Manila (BATMAN 1), ii) from Bataan to Manila (BATMAN 2) and iii) from Bataan to Cavite (Bat Cave) and LNG terminals in Batangas and Bataan. Because these planned gas pipeline projects entail huge investment, a solution on how these projects will be implemented is being considered.

2.5.5 Sector's Issues

Metro Manila residents already bear high electricity rates compared to other Asian countries/ cities. A study conducted by Meralco found that the Philippines had the 2nd highest electricity rates in the region in the beginning of 2012. High cost of electricity has often been cited as one of the hurdles preventing FDI from investing in the Philippines. The main reason for this seems to be because the government does not apply subsidies to keep tariffs low while other Asian countries (Thailand, Indonesia, Malaysia, Korea and Taiwan) all have lower tariffs because of government subsidies.

Energy insecurity issue particularly chronic power shortage in Mindanao has often been raised as one of unwelcomed results of EPIRA. To tackle the issue, the National Grid Corp of the Philippines (NGCP) and the Philippine Electricity Market Corp (PEMC) cooperate to put up a reserve market and an electricity trading platform in Mindanao. The reserve market is the platform for trading reserve or back-up power supply. DOE expects both parties to help improve power supply in Mindanao, which has been hit by persistent brownouts for the past years.

The gas supply project is largely divided into i) an LNG terminal with compressed natural gas refueling station and ii) gas pipelines. The natural gas pipeline project called the Bat Man 1 will be the urgent PPP project identified in the energy sector. Nevertheless, DOE will face a number of problems in the implementation of the gas pipeline project. Such problems include the following: i) project contract arrangement, ii) tariff (end user price of natural gas), iii) selection of IAs (PNOC a strong candidate), iv) acquisition of ROW for installment of pipeline along the national roads, and v) demand risk management.

The DOE has a plan of bringing electricity access up to 90% by 2017 in terms of Barangay level so that the agency has an ambitious goal of expanding renewable energy-based capacity. A key role is being played by electric cooperatives (ECs), which provide electricity to rural areas and small cities and towns. Electricity access has become clear that meeting the government's goal of 90% by 2017 would require addressing the issue of ECs' finances.³⁶

2.6 Summary

PPP at the onset has been dominated by unsolicited projects (all sectors), JV (energy) and concession in the brown field (water). Then with enactment of the BOT Law, implementing agencies were authorized to enter into a contract with a private sector based on BOT. The review of PPP in the five sectors revealed the different status/process of it in terms of i) organizational development in conducting PPP projects, ii) PPP track records, and iii) sectors' specific situation. The followings are the key message of this chapter:

- DPWH appears to take the lead in the organizational setup for PPP projects (i.e. PMO-BOT) while DOTC is still at the development stage for strengthening of its PPP unit (Project Development Team).
- DPWH has a number of PPP track records (toll road projects) while DOTC currently endeavors to prepare PPP project pipeline (railway and airport).
- PPP experience in water sector can be traced back to concession schemes (brownfield) in

³⁶ Home page of the Energy Sector Management Assistance Program (ESMAP), multi-donor technical assistance trust fund administered by the WB. The information is from Expanded Renewable Energy and Rural Electrification.

Metro Manila, and the recent greenfield projects for water supply, particularly in the form of bulk water sale, are the candidates PPP projects.

- Energy sector after a decade of EPIRA seems to face new challenges, in particular, in promoting new investments. Power development is to be challenged by a combination of renewable energy and EC's finances while gas development is to be facilitated by PPP scheme (i.e. gas pipeline projects)
- The implementing agencies are responsible for minimizing the contingent liability associated with implementation of projects.

Chapter 3. Necessity of Integrated Master Plan for Strategic Infrastructure Development

This chapter aims to highlight the issues of an integrated master plan. As the Study Team has observed in Section 1.5 of Chapter 1, lack of an integrated master plan undermines smooth identification and formulation of PPP pipeline project. This chapter will provide a detailed explanation on the function and necessity of such integrated master plan with some illustration of other countries' experiences.

3.1 Issues of Existing Master Plans

Currently, agencies such as NEDA, DPWH, DOTC, and NWRB develop national development plan and master plans in each sector. Followings are some of the plans which relate with infrastructure development:

Table 3.1-1 Major Development Plan and Master Plan

Title of Plan	Agency in Charge
Philippine Development Plan 2011-2016	NEDA
Master Plan of High Standard Highway Development	DPWH
National Transport Plan	DOTC
Master Plan for Transport in Metro Manila	DOTC
Philippine Water Supply Roadmap (2008, amended in 2010)	National Water Resource Board (NWRB)

Source: JICA Study Team

However, those master plans are not explicitly intended to formulate PPP projects and relevant agencies, including oversight agencies and implementing agencies, are facing with the following issues:

- Comparison and Prioritization of infrastructure projects are difficult.
- It is difficult to see the justification of particular projects from wider view points.
- Infrastructure projects developments are done in a piecemeal (not strategic) manner.
- It often requires huge costs for adjustment when plural projects produce physical and functional conflicts.
- The necessary budget cannot be estimated at once.
- There is no guide to identify potential PPP projects.

These issues seem to arise from the following factors.

- Philippine Development Plan does not articulate the basis of specific projects selection.
- The master plans are independently developed and not linked and adjusted with other plans or sectors.
- The existence of master plan itself is not widely informed.
- The information exchange and sharing among ministries are not well conducted.
- The master plans have no binding power.
- Indicative viability analysis is missing.

According to ad hoc interviews to the current and ex officers of the relevant agencies, at present there is not authorized platform or organizational vehicle to invite relevant agencies collect information,

adjust their plans and integrate them into single plan.

However, in order to accelerate formulation and implementation of PPP projects, such coordination and integration mechanisms, which are supposed to improve the efficiency of decision making process, will be required. The Study Team considers that a strategic master plan, which covers main infrastructure sector and enables prioritization, objective and appropriate evaluation, and rational identification of potential PPP project, will be a great help for relevant decision making agencies, such as DOF, NEDA, DPWH, DOTC, the PPP Center and even LGUs. The concept and functions of such an integrated master plan will be elaborated in the following sections.

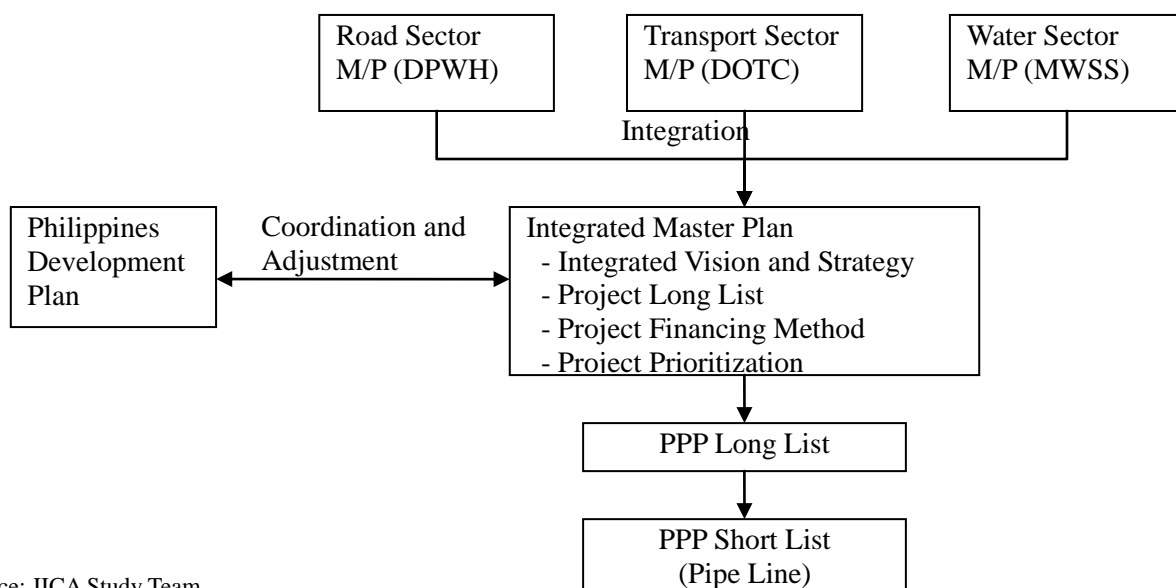
3.2 Scope and Function of Integrated Master Plan for Strategic Infrastructure Development

3.2.1 Functions and Coverage of the Integrated Master Plan

Based on the recognition of the previous sections, the JICA Study Team proposes a master plan (it is tentatively called as an “Integrated Master Plan for Strategic Infrastructure Development) which has the following functions and coverage:

- Objective: The plan aims at prioritizing infrastructure projects and formulating their financing methods.
- Agency in Charge: NEDA should assume the responsibility for development of the master plan. They may require supports from the key IAs such as DPWH and DOTC.
- Sector Coverage: It should cover the entire transport sector of being as public goods, including Road, Railway, Airport and Seaport sector. Other critical sector should also be covered which include but not limited to Water, Flood Control, Waste and power plant /pipeline.
- Project List: It should contain key infrastructure projects (long-list) and the information of project list should be obtained from implementing agencies.
- Project Evaluation Procedure and Criteria: It should show the evaluation procedure and criteria for prioritization of infrastructure project.
- Role of DOF: Indicative commercial viability to inform the decision on finance.

Image of the integrated master plan is shown in the following figure:



Source: JICA Study Team

Figure 3.2-1 Image of the Integrated Master Plan

The main differences of the integrated master plan from existing ones are as follows:

- The integrated master plan is applicable to multi-sectors (multi-agencies)
- The plan is made for strategically priority areas in the country.
- The plan contains prioritized project list and shows indicative commercial viability.

3.2.2 JICA’s Support to Develop Integrated Master Plan

JICA has been contributing to develop this kind of master plan in various countries including the Philippines. There are three examples of such trials in the Philippines.

The first example is Master Plan on High Standard Highway (HSH), which was completed in 2010. The main objectives of the study were as follows:

- To formulate HSH (High Standard Highway) Development Strategies in three areas, Manila
- 200-km radius, Cebu, and Mindanao,
- To formulate HSH Master Plan in Manila 200-km radius and identify priority projects for future feasibility studies, and
- To develop DPWH’s capacity on HSH planning, design, construction, maintenance, operation, and management.

In this study, the project prioritization was made and their implementation schedule and the financing methods were considered. This still serves as the basis for DPWH’s project development planning.

The second example is a support do develop “Mega Cebu Vision 2050 (Formulation of sustainable urban development vision for Metro Cebu)” which aims at formulation of a collective suitable urban development vision for Metro Cebu. The grand development strategy, created for Mega Cebu Vision 2050 is shown in the following figure:



Source: JICA

Figure 3.2-2 Mega Cebu Vision 2050: Development Strategy

The third example is “Study on Transport Sector Roadmap for the Sustainable Development of Mega Manila” which is currently being conducted by another JICA Study Team (as of May 2013). This study helps the GoP to develop its integrated vision and development direction, as well as to identify prioritized transport projects and its development strategy in Great Manila. This exactly will serve as an integrated master plan and it is expected that the GoP and the relevant agencies will take full advantage of this study results.

3.3 Example of Integrated Master Plans in Indonesia: MP3EI and MPA

The examples of integrated master plans can be found in many countries and this section introduces the examples of Indonesia. As of April 2013, GOI has been addressing the two master plans for acceleration of infrastructure development: MP3EI and MPA Masterplan of which outlines are described below. The JICA Study Team hopes the examples shown here will help the Philippine counterparts improve their mater plans on their own.

3.3.1 MP3EI (Masterplan for Acceleration and Expansion of Economic Development)

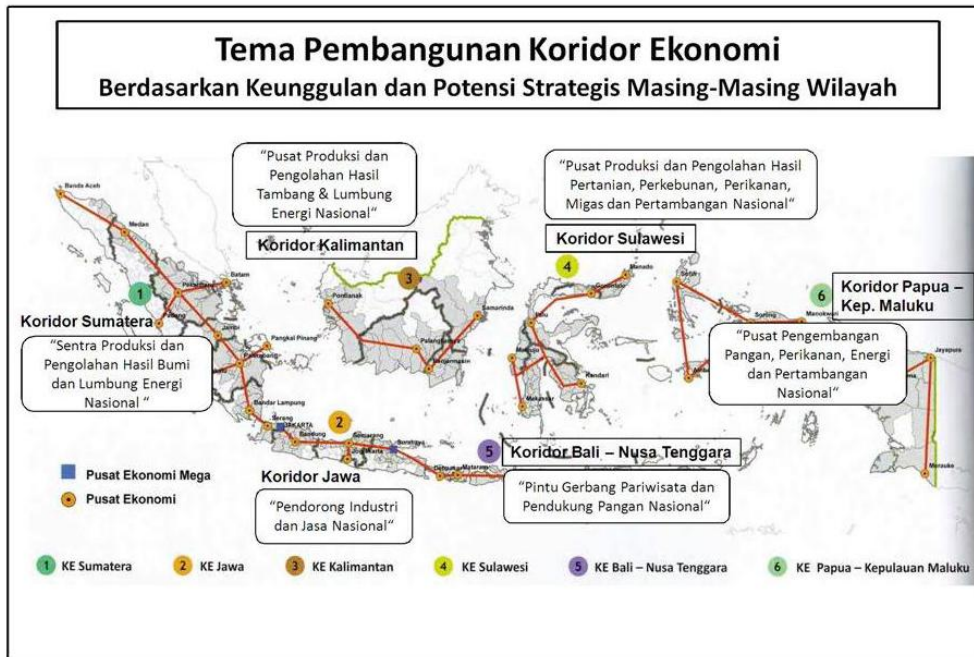
MP3EI (Master Plan Percepatan Pembangunan Ekonomi Indonesia) is “the Masterplan for Acceleration and Expansion of Indonesia's Economic and Social Development” in order to support its national long-term development plan up to 2025. The plans identified 6 economic corridors in the country and establish strategic plan for economic and social development of the region. In the plan private sector will have an important role in implementing the Masterplan, in investment, production and distribution, together with the Government who will act as the regulator and also as a facilitator, and with strengthened coordination among related ministries and regional government.

MP3EI consists of three main elements:

- Developing six Indonesia economic corridors, by establishing centers of development within every corridor and developing industry clusters and special economic zone based on advanced commodities resources;
- Strengthening national connectivity, which includes intra and inter connectivity of centers development, intra-islands (corridors), and international trade;
- National science and technology acceleration to support the development of the main program.

The development and implementation of the plan is managed by KP3EI (Committee for MP3EI) with supports from the Coordinating Ministry of Economic Affairs (CMEA) and National Planning and Development Agency (BAPPENAS). JICA is providing assistance to the secretary office of KP3EI and the Corridor Working Group under KP3EI.

The image of the MP3EI is shown in the following figure:



Source: KP3EI

Figure 3.3-1 Infrastructure Development Plan of MP3EI (Extraction)

MP3EI identifies 6 economic corridors in the countries and set unique economic strategy for economic corridors. It also shows the relations and linkage of those corridors. And based on the strategy, infrastructure development strategy in each corridor is developed. This covers project from several sectors and integrated analysis and prioritizations are made for selection of urgent projects. The image of the integrated analysis is shown in the following figure.



Source: KP3EI

Figure 3.3-2 Infrastructure Development Plan of Suma Tera Island in MP3EI

3.3.2 MPA (Metropolitan Priority Area) Master Plan

MPA Master Plan Study (Jakarta Metropolitan Special Area and Investment Promotion (MPA) Master Plan Study) is the study sponsored by JICA, for establishment of bilateral development framework between the Government of Indonesia and the Government of Japan. This is the integrated master plan for which focuses on Jakarta Metropolitan Area (JABODETABEK Area) and proposes comprehensive development plan of the region. As the results of the study, Fast-Track Projects and Priority Projects, which should be developed with high priority, are identified. (See the table of the next page)

The master plan is made from multi-sector (ministerial) perspectives and covers a wide range of sectors as shown in the following:

- City planning (Social, economic forecast, industry structure)
- Urban planning (Spatial planning vision for the city)
- Industrial Park Investment Promotion and Facilitation
- Urban transportation planning and logistics planning Highway planning
- Railway plan
- Airport Plan
- Port planning
- Power plan
- Water and sanitation project
- Waste plan
- Disaster prevention plan

The vision and the image of integrated analysis are shown in the following figure.

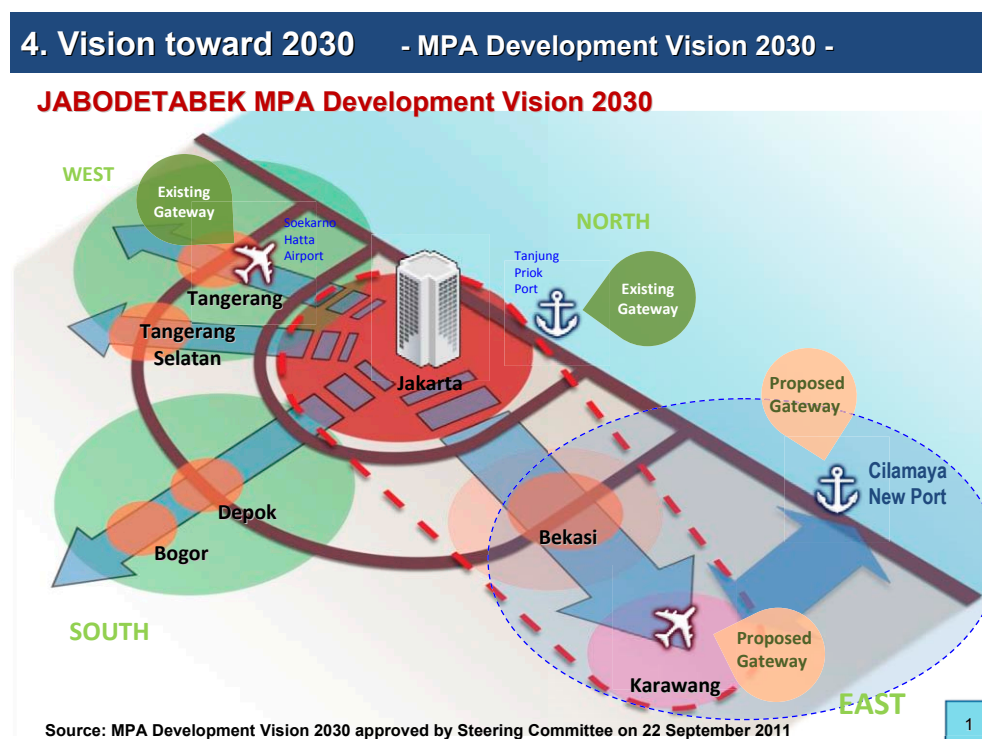


Figure 3.3-3 Infrastructure Development Plan of MPA Master Plan

The identified Fast Track Project and Priority Project are summarized in the following table.

Table 3.3-1 Fast Track Project and Priority Project in MPA Master Plan

Programs	Projects	Project Type
A.1: Development of MRT-based New Urban Transport System	(1) Jakarta Mass Rapid Transit (MRT): N-S Phase I, N-S Phase II, and E-W Phase 1 as FTP 3.1	Public
	(2) JABODETABEK Railway Capacity Enhancement Project (Phase I) as FTP 3.2 and Further Improvement as Phase II	Public
	(3) Development of Jakarta Monorail	PPP
	(4) Station Plaza Development and Park & Ride System Enhancement	PPP
	(5) Introduction of Common Ticketing System (Smart Card)	Private
A.2 :Development of Road Network in and around Jakarta	(1)a. Improvement of Road Network in JABODETABEK as FTP 4.1	Public
	(1)b. Improvement of Road Network in JABODETABEK as FTP 4.1 (Improvement of Intersection in DKI Jakarta)	Public
	(2) Development of Outer Ring Road	PPP
A.3: Promotion of Urban Re-development	(3) Introduction of Intelligent Transport System (ITS) n JABODETABEK	Public
	(1)a. A Pilot Project of Urban Development/ Redevelopment (Option I: Project for creating green open spaces of business and commercial area and development affordable housing in DKI Jakarta)	PPP
A.4: Improvement of Water Supply and Sewerage Systems	(1)b. A Pilot Project of Urban Development/ Redevelopment (Option II: Project for development of housings in multiple purpose complex)	PPP
	(1) DKI Jakarta-Bekasi-Karawang Water Supply (Jatiluhur) as FTP 6.1	PPP
	(2) Rehabilitation of Water Supply Facilities in DKI Jakarta, Bekasi and Karawang, with the integration of DKI Jakarta – Bekasi – Karawan Water Supply (Jatiluhur)	PPP
	(3) Development of Sewerage Works in DKI Jakarta (Zone 1, 6)	PPP &Public
A.5: Solid Waste Treatment	(4) Development of Water Supply Systems for Large-scale Infrastructure Development	PPP
	(1) Construction of the West Java Regional Solid Waste Treatment and Final Disposal as FTP 7.1 (Legok Nangka)	PPP
A.6: Flood Management	(2) Development of New Landfill Site at Tangerang	PPP
	(1) Reconstruction of East Pump Station at Pluit as FTP 8.1	Public
	(2) Development of Urban Drainage System in DKI Jakarta	Public
B.1: Development of New Growth Sub-Corridor for Jabodetabek	(3) Construction of East Banjir Floodway from the Ciliwung River	Public
	(1) Development of New Township	PPP
	(2) Development of New Industrial Estate in the vicinity of New Airport	PPP
B.2: Development of New Academic Research Cluster	(3) Development of New Administration Area	PPP
	(1) Development of New Academic Research Cluster	PPP
B.3: Development of Road/Railway along New Growth Sub-Corridor for Jabodetabek MPA	(1) Construction of Second Jakarta-Cikampek Toll Road	PPP
	(2) Improvement of Road Network within the Industrial Area to the East of Jakarta as FTP 2.2	Public
	(3) Construction of Access Road to New Cilamaya Seaport as FTP 1.2	PPP
	(4) Construction of Freight Railway to New Cilamaya Seaport	Public
	(5) Construction of Access Road to New International Airport	PPP
	(6) Construction of Jakarta-Bandung High Speed Railway via New International Airport	PPP
C.1: Development of Cilamaya Port	(1) Development of a New International Port as FTP 1.2	PPP
	(2) Development of a New Car Terminal at Cilamaya Port	Private
	(3) Development of Logistics/Industrial Parks at Cilamaya Port	Private
C.2: Improvement of Tanjung Priok Port	(1) Improvement and Expansion of Container Terminal at North Kalibaru as FTP 1.1	Public (SOE)
	(2) Development of New Car Terminal at Kalibaru	Private

C.3: Development of New Int'l Airport	(1) Development of New International Airport (Phase I)	PPP
C.4: Improvement of Soekarno-Hatta International Airport (SHIA)	(1)a Expansion of Soekarno-Hatta International Airport as FTP 5.2 Phase 1	Public (SOE)
	(1)b Expansion of Soekarno-Hatta International Airport as FTP 5.2 Phase 2	Public (SOE)
	(2)a Construction of Access Railway to Soekarno- Hatta International Airport as FTP 5.1 (Express)	PPP
	(2)b Construction of Access Railway to Soekarno-Hatta International Airport as FTP 5.1 (Commuter)	PPP
D.1: Low-Carbon Power Supply Development	(1) Development of Central Java Coal-fired Power Plant, proposed as FTP	PPP
	(2) Construction of Indramayu Coal-fired Power Plant as FTP 9.2	Public (SOE)
	(3) Development of Banten Coal-fired Power Plant as FTP 9.3	Private
	(4) Development of Gas-fired Power Plant and FSRU (Floating Storage Regasification Unit) as FTP 9.4	Private
	(5) Development of Rajamandala Hydroelectric Power Plant as FTP 9.5	Private
	(6) Construction of Java-Sumatra Interconnection Transmission Line as FTP 9.1	Public (SOE)
	(7) Other Renewable and Low-Carbon Emission Power Projects connecting to Java-Bali- Sumatra Power Network	PPP
	(8) Development of West Java Coal-fired Power Plant with Clean Coal Technology	Private
D.2: Development of Smart Grid	(1) Smart Community (including a pilot project for the Smart Grid) as FTP 2.1	PPP
	(2) Optimization of Power Distribution System in DKI Jakarta	Public

Source: JICA Study Team

The project type or the financing methods are considered by the JICA Study Team based on the discussion with oversight agencies, such as BAPPENAS, as well as implementing agencies, such as the Ministry of Public Works and the Ministry of Transportation. The main criteria applied for the analysis are as follows:

- Existing ODA Plan (Blue Book) and PPP Pipeline (PPP Book)
- Readiness of Implementing Agency including Maturity of Conventional F/S , PPP F/S
- Market Interest
- Business Plan of State Owned Enterprises
- Project Profitability (The Study Team's Preliminary Analysis)

3.4 Summary

This chapter provided a detailed explanation on the function and necessity of such integrated master plan with some illustration of Indonesia's experience. The followings are the key messages of this chapter:

- Lack of integrated master plan, in particular, a cross sector infrastructure development and investment plan, undermines smooth identification and formulation of PPP project pipeline.
- Integrated master plan shall be developed to enable the GoP to conduct project prioritization across sectors and to conduct s analysis of project financing in more efficient and rational manner.
- Examples of such integrated master plans in the Philippines are, High Standard Highway Master Plan, Transport Road Map Study in Metro Manila, and CEBU vision 2000, all of which are supported by JICA.
- Another examples of integrated master plan are MP3EI (Masterplan for Acceleration and Expansion of Indonesia's Economic and Social Development) and MPA (Metropolitan Priority Area) Master plan in Indonesia.

Chapter 4. Analysis on Public Financial Framework for PPP

This chapter aims to conduct analysis on the current public financial framework for PPP in the Philippines. Based on global PPP best practices, the major roles of public financial framework can be classified into the following four (4) functions:

- Project Development Facility
- Viability Gaping Funding
- Guarantee Facility, including Contingent Liability
- Long Term Financing

This chapter highlights these four functions and analyzes the current framework and issues in the Philippines. Also, based on the analysis, proposal for further improvement and discussions on the public financial framework for PPP are also made.

4.1 Introduction

The key issue in ongoing PPP projects is how to attract private sector in the financing, construction, operation and maintenance of infrastructure services at minimum cost (both on and off-budget) to government, while at the same time achieving social objectives (service provision at affordable rates). Since long-gestating infrastructure projects are inherently risky, the issue boils down to what risks the private sector is able and willing to bear, and for risks that stay with government, what mechanisms it can use to assure the private partner of its long-term commitment to the PPP contracts.

In some countries where the environment for PPP is still in its developing stage and needs private capital to finance catch-up infrastructure, government has introduced a number of financial facilities to address gaps that may keep the private sector away. Depending on each country’s institutional features and domestic market conditions, these may include dedicated facilities for i) project development, ii) closing viability gaps, iii) long-term domestic currency lending, and iv) extending guarantees, including mechanisms to ensure contingent liability obligations of government are complied with. In the Philippines, the public financial framework currently consists of an assortment of formal and informal facilities and mechanisms that tries to meet the requirements of a successful bid. The functions and relations of those facilities are summarized in the following:

Facilities	Functions
PDMF	Enhance Project Formulation
VGF	Secure Project Viability
Guarantee including CL	Improve Bankability
Long Term Lending Facility	Improve Profitability

Source: JICA Study Team

Figure 4.1-1 Functions and Relations of Public Financial Facilities for PPP

4.1.1 Current Financial Situation and the Financial Sector

Growing at an average compound rate of 8% over the past ten years, resources (assets) of the banking system, which comprises 80% of total financial resources, are at healthy levels. While loans to deposits have increased to 73% last year, from only 64% in 2010, there is still much room for additional lending, including to infrastructure, as evidenced in high level of investment in securities.

Much of this investment are in government securities, and as part of the liquidity management tool box of BSP, in short term deposits known as Special Deposits Accounts (SDA's) amounting now almost P 2 trillion (\$ 50 billion).

At the same time, what is loaned out to private sector has a fairly high and rising real estate component (rising from 13% in 2000 to 17% in 2012) and high concentration in a few conglomerates. The latter has been accommodated by BSP by easing the single borrower's limit (exposure to a conglomerate as a percentage of the bank's capital) from 25 % to effectively 50% with the special allowance for a three year period for infra/power projects. (The IMF in a recent report recommended this should be wound down for prudential reasons.)

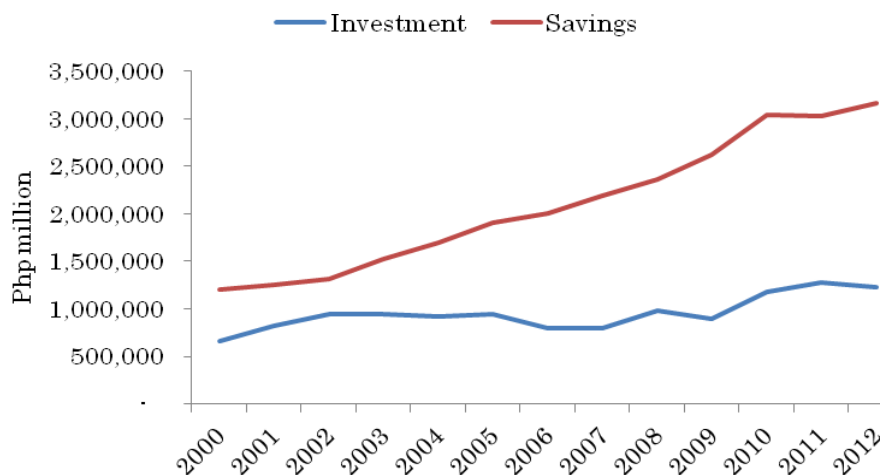
This high level of liquidity that BSP has had to manage emanates from the high level of remittances and earnings of BPO, unmatched by import demand, which has resulted in a structural Current Account Surplus 3 to 4% of GDP, for the past decade and record high accumulation of International Reserves (\$ 84 billion), the counterpart of the high SDA amounts, making the Philippines also a net creditor to the world.

These foreign exchange earnings are not matched by increased investments resulting in the Philippines being in Current Account Surplus despite the need for investments including in much needed infrastructure and manufacturing sectors to bring the country to a higher level and higher quality growth path.

This savings surplus together with other improvements in macro-fundamentals --low inflation due to improved fiscal situation, highly effective monetary and debt management-- and consequent investment rating grade by Fitch and S&P, has led to unprecedented low levels of domestic interest rates. The monetary expansion in the US, Europe and most recently in Japan, and low interest rates there, has also attracted portfolio flows to both Philippines' debt and equity markets, thus contributing to unprecedentedly low interest rate levels and flattening of the yield curve.

The Philippines currently sustains the positive savings-investment gap. The country's weak initial conditions on the investment front, with government infrastructure spending at a low 2.5% of GDP and overall fixed investment ratio at roughly 20% as of xx, points to tremendous opportunities for private investors to come in and help upgrade infrastructure. The low investment rate over the years has given rise to surplus savings locked up in the local financial system that can be tapped to help cover infrastructure financing needs. Indicatively, there are about P1.7 trillion³⁷ parked in the central bank's special deposit accounts. While the excess liquidity does not automatically mean that infrastructure projects will be bankable, it does help in the points stated below.

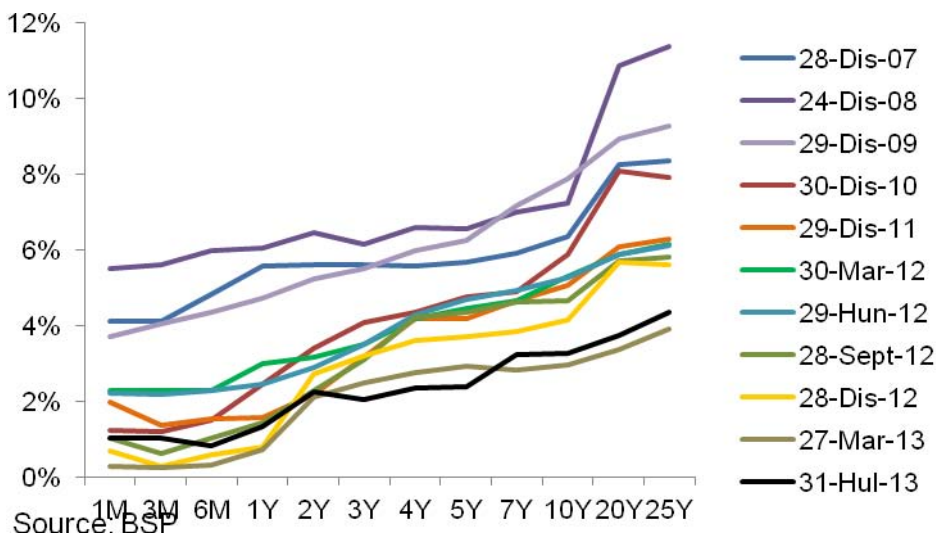
³⁷ As of November 2012.



Source: NSCB; IDEA Staff Calculations

Figure 4.3-1 Savings-Investment Gap³⁸

First, it would lower hurdle rates for the private parties that have the financial strength to borrow either from banks or directly from capital markets or alternatively, tap the booming stock market via new equity issuances. Large Philippine conglomerates have been observed to already lock in cheap financing (about a little over 5% to nearly 7% for 10 to 15 year bonds, respectively³⁹).



Source: BSP

Figure 4.3-2 Peso Yield Curves, PDST-R2

Second, it would reduce the need to borrow externally to fund projects, which lowers foreign exchange risk for projects that typically receive peso revenues. Such longer-term (10 to 15 years) peso borrowing is a very recent development in the local capital market⁴⁰.

³⁸ Domestic investment compared to domestic supply.

³⁹ GT Capital listed 10-year bonds 27 April 2013 with a coupon rate of 5.0937%. In 11 May 2012, Ayala Corporation listed 15-year 6.875% bonds.

⁴⁰ Although the graph shows the “20Y” and “25Y”, such longer-term bonds (20 to 25 years) are rarely issued according to the statistics.

4.2 Current Public Financial Framework

4.2.1 Project Development and Monitoring Facility

The PDMF, lodged in the PPP Center, is a revolving fund charged with developing a robust pipeline of bankable PPP projects. Initial funding for the PDMF was sourced from the government (\$7 million), and Australian and Canadian governments grant (\$6 million) under the administration of the ADB. The funds may only be used for: (a) preparation of project pre-feasibility and feasibility studies, (b) project structuring, (c) preparation of bid documents and draft contracts, (d) transaction advisory, (e) assistance in the tendering process, including bid evaluation and award, (f) activities required to determine the feasibility and viability of potential PPP projects, (g) preparation of various project documents as required for approval, and (h) hiring of consultants and advisors to assist the implementing agency in the various aspects of the project preparation. The fund may be replenished by (a) winning bidder if a project is successfully bid out, (b) repayment by implementing agency if it fails to bid out the project⁴¹ or (c) the PPP Center from its annual budget to augment estimated cash deficiencies. [National Budget Circular 538, March 22, 2012]

The PDMF, as of April 2013, has funded 18 projects, with only one awarded and funds reimbursed⁴². The PDMF has unallocated funding estimated at \$18.5 million (as of April 2013). Among those, \$9 million was funded as additional support by the Australian government and the ADB (the total of the fund was \$15.5 million; the remaining \$6.5 million was for capacity building activities). Remaining amount then comes from counterpart funding from the Philippine government.

While the PDMF has helped build up of a pipeline of projects for potential bidding, the record of actual successfully awarded projects has been poor. It has been plagued by delays: delays in completion of feasibility studies, continuous push-out of bidding schedules, no shows of bidders due to poor risk allocation between the government and private investors (e.g. loading local real property tax risks on the private side) and misreading of private sector risk appetite. Even for project already awarded issues have arisen, e.g. integration with an existing toll way, in the case of the first PPP project awarded since the PDMF was set-up that has a much delayed construction schedule.

Some of these delays may trace to weaknesses in the current PDMF system, including selection process of transactions advisers that may have led to the selection of the lowest bid, but perhaps drawn from a narrow list and without sufficient representation of needed expertise, including technical engineering ones. The concentration of advisory engagement is illustrated in that one firm out of the 15 pre-qualified gets a third of all awarded contracts. Five of the prequalified firms never submitted proposals. There was also poor direction and coordination between the IAs and the transactions advisors, possibly due to technical and professional limitations.

Additionally, there is the question of sustainability of the PDMF. Even with the additional contribution from development partners, there is insufficient funding for the development of new projects. This is despite the much higher infusion from government, because there is an agreed equal matched funding under the PDMF terms. (Shifting this to an 80-20 government to development partner funding mix will alleviate the constraint.) The delays in project bidding and award also meant that the expected reimbursements from the winning proponents to make the PDMF a revolving fund are also delayed. With the full commitment of existing funding, no more new project development can be done at this time by the PDMF.

Parallel with the PDMF is bilateral technical assistance being provided for project development for

⁴¹ Percentage repayment depends on PDMF Board determination of fault/responsibility for failure to bid out the project (100% if due to IA failure, 50% otherwise)

⁴² As of this time, the PPP Center only releases information on PDMF-approved projects. It does not indicate whether a project has applied for such support.

PPP, of which JICA has been most prominent. The typical PPP projects assisted by JICA are i) CALA Expressway Laguna Section, ii) NAIAX Phase-2, iii) LINE-1 South Cavite Extension and iv) LINE-2 Extension. The IFC has likewise been active in providing PPP advisory.

Table 4.2-1 Projects with PDMF Funding

Project	Estimated Cost
Awarded	
1 PPP for School Infrastructure Project (Phase 1)	PHP16.42Bn USD389Mn
Projects with Live Bidding	
1 Automatic Fare Collection System (AFCS)	PHP1.722 Bn USD 42.9 Mn
2 Mactan-Cebu International Airport Terminal Building (MCIA)	Phase 1:(Initial Investment) PHP8.873 Bn; Phase 2:(Future Expansion) PHP8.647 Bn
Project Structure Being Finalized	
1 Enhanced O&M of New Bohol (Panglao) Airport	USD 190.50 Million
2 Operation and Maintenance of Laguindingan Airport	USD 42.9 Million
On-going Studies	
1 Establishment of Cold Chain Systems Covering Strategic Areas in the Philippines	PHP 1.50 Bn USD 35.7 Mn
2 Integrated Transport System (ITS) Project	To be determined (TBD)
3 New Centennial Water Supply Source Project	To be determined (TBD)
4 Bulacan Bulk Water Supply	To be determined (TBD)
On-going Procurement of Advisors	
1 El Nido Water Supply and Sanitation System Project	To be determined (TBD)
2 Manila-Makati-Pasay-Paranaque (MMPP) Mass Transit System (MTS) Project	No information
3 Regional Prison Facilities through PPP	No information
4 Integrated Luzon Railway Project	No information
For Procurement of Advisors	
1 Plaridel Bypass Toll Road	No information
2 Batangas-Manila (BatMan) 1 Natural Gas Pipeline Project	No information
3 LRT-1 Extension to Dasmariñas	No information
4 Manila Bay -Pasig River-Laguna Lake Ferry System Project	No information
5 Operation and Maintenance of Iloilo, Davao and Bacolod Airports	No information

Source: PPP Center

The PPP Center provides the PDMF Guidelines (October 2011) to operate and manage it. Its main points are summarized below.

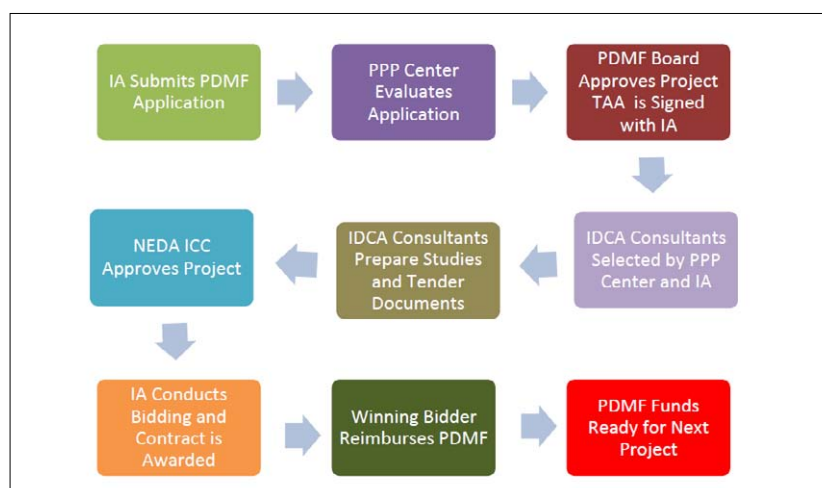
(1) Qualified projects

The projects that can be funded under the PDMF shall: i) belong to economic and social infrastructure sectors; ii) be consistent with priority government infrastructure programs such as Comprehensive and Integrated Infrastructure Program (CIIP), Medium-Term Philippines Development Plan (MTPDP)/Medium Term Public Investment Program (MTPIP) and Regional/Provincial/Local Development Programs; and iii) be pursued under the PPP schemes allowed under the BOT Law and its IRR. CIIP is to be approved by NEDA board every 5 years and the latest version is CIIP 2009-2013.

(2) Operating Process

The projects applied for PDMF support will be handled in the following steps as shown in the process chart.

- An IA applies for PDMF financing to the PPP Center with applications including project concept note, indicative TOR with cost estimates, etc.
- The PPP Center evaluates the application and the PDMF Board approves it.
- The IA executes a Technical Assistance Agreement (TAA) with the PPP Center.
- The PPP Center establishes a Project Study Committee (PSC), a Special Bids and Award Committee (SBAC), and a Technical Working Group (TWG).
- The PPP Center selects the Consultants/Transaction Advisors and signs the consulting contracts with the selected ones in consultation with IA based on indefinite delivery contract assignment (IDCA)
- The selected Consultants/Transaction Advisors engage the assigned work such as: conduct the pre-investing studies; prepare draft tender documents; provide PPP transaction advisory services.
- The NEDA Investment Coordination Committee (ICC) approves the project for bidding.
- The approved PPP project is bid out and the contract is awarded to a winning bidder.
- The winning bidder reimburses all the project related cost from the PDMF.



Source: Project development and monitoring facility (PDMF) Guidelines

Figure 4.2-1 PDMF Process Flowchart

4.2.2 Viability Gap Funding: PPP Strategic Support Fund

In addition to the PDMF, government has provided budget to a number of implementing agencies starting in 2011 under the line item “PPP Strategic Support Fund (SSF)” to defray costs assigned to the public sector, including capital subsidies. Under National Budget Circular 538 (March 22, 2012), the SSF may only be used for: (a) right of way acquisition and related costs (including resettlement), government counterpart to be used for the construction and other related costs for potential and actual PPP projects, and (b) cost of designing, building and otherwise delivering any part of a PPP project which government decides to retain responsibility for, including public infrastructures such as rural and access roads, utilities and other support facilities required for a PPP project to be viable.

The 2011 and 2012 SSFs were lump sum amounts in agency budgets with the two main infrastructure agencies, DOTC and DPWH, having the largest SSF budgets. For these two years, the implementing agencies were given two years to obligate their SSFs. However, given the slow progress in project pipeline development, some agencies had trouble utilizing their budgeted SSFs. While the executive branch was earlier considering pooling the SSFs into one fund that is open to any implementing agency and avoids the problem of unutilized SSFs left idle in any particular agency, the legislature decided in the opposite direction. That is, starting 2013, the SSFs are expected to be disaggregated to

specific, identified PPP projects in agency budgets with the sums having a one-year expiry⁴³.

As can be seen in Table 4.2-2, SSF in 2013 is significantly lower than its 2011 and 2012 levels. This is because earlier appropriations are yet to be spent.

Table 4.2-2 Budgeted SSF Amounts (P billion)

	2011	2012	2013
DA	2.50	1.00	
DOH		3.00	
DOTC	5.00	8.59	5.08
DPWH	5.00	3.00	3.00
Total	12.50	15.59	8.08

Source: DBM

4.2.3 Public Guarantee Facility

At the outset, it is important to distinguish the two functions under a guarantee facility: one that guarantees direct liability (or, scheduled liability) and the other that guarantees contingent liability (CL). The Public Guarantee Facility that we discuss here covers both Direct Liability and Contingent Liability.

Table 4.2-3 Difference of GF and CL Fund

	Coverage	
	Direct Liability (DL)	Contingent Liability (CL)
GF	○	○
CL Fund	—	○

Source: JICA Study Team

Currently, there is no dedicated guarantee facility for PPP beyond provisions in the contract itself. To strengthen these and provide investors greater comfort, government may use two instruments available to it: (a) the stronger of the two with tested bankability is the performance undertaking or Confirmation Note, a letter issued by the Secretary of Finance to the project investor stating that government obligations under the contract carry the Republic's "full faith and credit"; or (b) the multi-year obligational authority (MYOA), an authority issued by Department of Budget and Management (DBM) allowing government agencies to enter into multi-year contracts and that commits the executive to provide budget cover for these annually. Investors' discomfort with this instrument is that the MYOA does not bind Congress, the approving authority for government's budget. Performance undertaking or confirmation note can cover both direct and contingent liabilities while MYOA covers direct liability only.

There is no public guarantee facility in the Philippines. Non-political risks and damages occurred during project implementation are compensated by private insurance companies. There are currently about 100 private general insurers (companies managing general/non-life insurance) out of which 11 foreign companies operate. Private proponents basically insures against force majeure caused by natural calamity, and third party liability during construction and operation but not for events caused by the government side. The following is risks covered by private insurance based on a toll road project contract on a BOT basis.

⁴³ VGF has been legislated as part of the annual budget for the IAs, including DPWH, DOTC, and DepEd, for their infrastructure PPP projects under an item called Strategic Support Fund (SSF). However, this had to be obligated within two years or these will lapse; since the budget in 2012, the expiration period has been further shortened to one year. Congress does not favor setting aside lump sum funding for either SSF or CL. The assessment of the DOF and the DBM is that there is no political support for such at this time.

Table 4.2-4 Risks to be Covered by General Insurers

Stages	Kinds of Insurance	Coverage	Fees/Conditions
Detailed design	Professional Indemnity Insurance	Damage during construction caused by defects of detailed design. Insurance period is a few years after start-up of construction.	For a toll road project, foreign company insuring professional indemnity insurance is employed in the Philippines.
Construction	Contractors' All Risks Insurance	1) Material damage 2) Third party liability	Insurance fees: 1) 0.35% of construction cost 2) US\$ 10,000 per person
	Marine Cargo Insurance	Material damage/loss during marine or air transportation	Insurance fees: About 0.2% of cargo value per one transportation
	Start-up delay insurance	Revenue loss/additional cost caused by delay in construction due to natural calamity,	Delay in commencement due to delay in land acquisition is outside the coverage
Operation	All Risks Insurance	Fire/Earthquake insurance, damage caused by maintenance works	Insurance fees: About 0.15% of facility value at current price
	Third Party Liability Insurance	Damage of third party caused by maintenance works	Insurance fees: About US\$ 10,000 per insurance
	Workers' compensation insurance	Injures of workers during O&M	Insurance fees: 2% of annual income of workers

Source: JICA Study Team's interview to the private insurers

Any damage/loss caused by political risk and delay in commencement of project implementation due to delay in ROW (Right of Way) is outside coverage of general insurance.

4.2.4 Long Term Financing

While the government initially contemplated the setting up of a dedicated long-term lending facility to address likely-market failure in providing needed long term project finance for PPP projects and reducing demands for on-budget viability gap funding, initial work put into designing the facility has failed to prosper and to date, no such facility is in place. Instead, one of the government financial institutions, the Government Service Insurance System (GSIS) which manages the pensions of public sector employees, that was supposed to participate in the lending facility has opted to set up its own infrastructure fund. Called the Philippine Investment Alliance for Infrastructure (PInAI), the facility has contributions totaling \$625 million coming primarily from GSIS (\$400 million), with the rest put in by the ADB and two foreign groups, Australia's Macquarie and Dutch pension asset manager Algemene Pensioen Groep (APG). The fund seeks to invest in all types of infrastructure projects in the Philippines. However, given GSIS's mandate (it has an internal 12% target hurdle rate for investments), it is expected that PInAI will be commercially-oriented and focused on projects with predictable cashflows and good returns and hence, may not be able to serve as a more catalytic role especially for greenfield PPP projects.

At the time, institutions targeted to participate in the facility either as equity or debt holders included from the government side, DBP, Land Bank, SSS and GSIS and from donor agencies, ADB, IFC and JICA. Key criticism at the time included (a) the facility was being designed with both developmental and commercial goals (giving rise to conflicts in performance targets and governance issues) (b) with no government guarantees and (c) likely high startup and operating costs. At the same time, the facility was being proposed at a time when the local financial market was highly liquid. Hence, the set up to address a perceived gap in the PPP financial framework that has not been realized yet for the

PPP program.

While initial efforts to set up a public lending facility were unsuccessful because of the above, the JICA Study Team continues to find value in having such a facility in place to address long term infrastructure investment and demand gaps.

4.2.5 Summary of Review of the Four Facilities

In some countries where the environment for PPP is still in its developing stage and yet needs private capital to finance catch-up infrastructure, government has introduced a number of financial facilities to address gaps that may keep the private sector away. Depending on each country's institutional features and domestic market conditions, these may include dedicated facilities for (a) project development, (b) closing viability gaps, (c) long-term domestic currency lending, and (d) extending guarantees, including mechanisms to ensure contingent liability obligations of government are complied with. Similarly, the World Bank identifies four types of government support (financial facilities) to PPP projects: i) funded products, ii) contingent products, iii) financial intermediaries, and iv) project development funds. The country-specific facilities are related to the WB definition and the current status is summarized below (This long-term financing is tentatively called PIPFF (Philippines Infrastructure Public Finance Facility) for the same of the case study in this report).

Table 4.2-5 Summary of Public Financial Facilities

Type (per WB)	Facilities in the Philippines	Function	Current status
Project development fund	PDMF	Enhance project formulation	already exists
Funded project	VGF	Secure project viability	does not yet exist (started with SSF)
Contingent product	Guarantee for CL	Improve bankability	does not yet exist
Financial intermediaries	PIPFF	Improve profitability and reduce VGF	does not yet exist

Source: JICA Study Team

Out of the four facilities, PDMF is already existing and working. The needs for the remaining not-yet-existing facilities are as follows.

The immediate need of the GoP is to address the issue of CLs. There is no dedicated CL Fund for PPP beyond provisions in the contract itself. The lack of facility for CLs arising from the GoP's non-performance of its obligations causes poor response to bidding and results in slow progress of PPP pipeline implementation. There is an urgent and pressing need for addressing the CLs. In the longer run, there is a need to address the issue of guarantee for direct liabilities.

Regarding VGF and long-term public financial facility there are needs for medium and long term perspectives. The PPP projects currently bid-out are commercially viable so that there is little need for direct financial supports from the government. Coming projects, however, will be less commercially viable than now, and there is a need for strong support from the GoP through the combination of VGF and long-term public financial facility. The immediate need lies in establishing of a standalone VGF and then application of long-term financing is explored to reduce the amount of VGF required. This VGF reduction effect by the financing is shown below.

A case study was conducted using coming candidate project to clarify this point. The results of this case study are summarized below (see Annex 2 for details).

Table 4.2-6 Summary of Case Study for Long-term Public Financial Facility

Case study project	Project cost (Mn Ps)	FIRR (%)	VGF required (% of project cost)		Cash flow for GoP (NPV, Mn Ps)	
			Without PIPFF	With PIPFF	Without PIPFF	With PIPFF
CAVITE Express way	22,652	11.2	39.2	26.7	▲ 3,038	142
NAIA Expressway	13,608	10.2	43.9	26.2	▲ 22,128	▲ 535
SELEX Extension Road	13,835	9.2	42.8	20.6	▲ 2,349	▲ 333
Visayas Airport	2,197	13.7	16.7	0.0	298	400
Zamboanga Airport	2,387	10.4	38.7	24.4	182	4
Tacloban Airport	1,581	7.7	47.1	37.8	426	▲ 316

Source: JICA Study Team

The case study indicates VGF ranging from 16.2% to 47.1%, averaging 38.1% of project costs is required to make them viable in cases of without long-term public financial facility. In case of financing combined with long-term public financial facility (a mixed loan of 50% commercial loan and 50% public long-term loan with half interest and double tenor (12-15 year) of those in commercial loan) the required VGF is reduced to 37.8% to zero, averaging 22.6%. Provision of public long-term financing reduces VGF by 40.6% on average basis. This is a substantial benefit for the GoP in terms of mitigation of fiscal burden.

The subsequent sections describe further analysis of the not-yet-exist facilities (VGF pool, CL Fund, Guarantee facility, and long-term public financial facility).

4.3 Analyses on Functions and Need for New Financial Facilities

Diagnostic studies have found that underinvestment by the private sector (in infrastructure, as well as other industries) is linked to the low confidence in government's ability to provide an enabling legal, political and regulatory environment. Investors and creditors to PPP projects are particularly vulnerable to such risks as infrastructure investments are huge, generally immobile/captured, and are financially exposed for as long as 20 years or even longer.

Ideally, if all costs and risks in a PPP project can be properly priced, and if government is not constrained either fiscally or by institutional dysfunctions in the legislative budgetary processes, Government need only provide an upfront cash subsidy to close any viability gaps resulting from decisions to impose tariffs below cost-recovery rates. However, in the Philippines and other emerging countries, where the political, legal and regulatory environment may be a source of uncertainty, private investors typically demand stronger assurances by way of government guarantees to enter into risky, long-term PPP contracts.

4.3.1 Analysis on Viability Gap Funding (VGF) Pool

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 Equity IRR/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.

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 VGF and long-term public financial facility, are described below but will need further elaboration after more consultations with concerned government agencies, particularly DOF and DBM.

- VGF is an unprogrammed amount appropriated annually to provide incremental support to PPP projects of line agencies, local governments and GOCC's.
- 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%.
- Management of the VGF may alternatively be: (a) by an inter-agency committee, with representation from NEDA, DOF, the PPP Center and DBM, or (b) lodged in a particular agency, e.g., NEDA or DOF.
- Contracts for PPP projects would be awarded on the basis of the lowest VGF

4.3.2 Analysis on Guarantee Facility with an Emphasis on CL Fund

PPP is a cooperative agreement between public and private entities and it is essential that both parties fulfill their obligations and responsibilities stipulated in a Concession Agreement. In particular, it is indispensable that the government give sufficient confidence to a project proponent that they fulfill their obligations and responsibility for the public expenditure (either toward the private entities or the third parties).

It is often pointed out in the Philippines that such credibility of implementing agencies are weak and that has been undermining positive participation of private entities in the PPP project bidding. Correctly saying, it is said that many private entities cannot participate the bid because they are not confident enough that implementing agencies will surely fulfill their payment obligation.

Such anxieties seem to arise from mainly three reasons. Firstly, the current budgetary system does not allow securing such budget in the long term (*i.e.* for more than a year). Secondly, there is no guarantee that implementing agencies will actually budget or allocate funding sufficient to fulfill their payment obligation. Thirdly, there is no guarantee that the Congress will approve such budget application even if departments call for approval. Finally, there is no financial facility or mechanism to secure such budget.

In sum, there is a problem of the Government not being able to make good on its obligations under various types of PPP contracts even when Government is in clear breach of a payment obligation and recognizes such without dispute or even when there may already be an enforceable court or third party judgment in favor of the private contracting party from bodies which the Government has agreed to be governed by within the terms of the PPP contract (e.g., arbitration in Singapore-based International Chamber of Commerce (ICC) under MWSS concession agreement).

Basically, there are two categories of the problem:

- **Direct Liabilities:** This involves certain payments that Government needs to make but which requires multi-year budget authority under a Philippine budgetary system that only provides for annual authority, thus exposing the private proponent to non-payment due to lack of Congress appropriation for the payment.⁴⁴

⁴⁴ Examples of PPP contracts with these types of budget appropriation risk include the take-or-pay contracts of the National Power Corporation, capacity fee payments for MRT Line 3 and more recently, the amortization/lease payments for the

- **Contingent Liabilities:** This involves true contingent liabilities, which include government guarantee of various risks that the private proponent will need to be covered against for the PPP project to be bankable.

Even though the GoP has some method to secure such budget such as MYOA and Performance Undertakings, it is considered that those measures are not enough to secure the budget for payment of both Direct and Contingent Liabilities. As mentioned in Chapter 4.1.4, MYOA is just a technical mechanism for multi-year budget appropriation but it does not have any guarantee effect toward proponents. On the other hand, Performance Undertaking by DOF has certain guarantee effect but recently DOF is very cautious to issue it to minimize the government's guarantee obligations. Therefore, it is regarded that these measures are not enough to provide sufficient confidence to private sector.

In order to tackle these problems, creation of guarantee facility including fund for contingent liability will be effective. We can see such example in Indonesia. The government of Indonesia has established the Indonesia Infrastructure Guarantee Fund (IIGF) in 2009, in order to promote PPP project in the country. It will be worthwhile also for the Government of the Philippines to create such facility as well

Another action is first starting with the establishment of Fund for Contingent Liability which is a subset of guarantee facility. This fund supposed to cover only contingent liabilities of the government during PPP contract period. Although this coverage is only focuses on contingent liability and not direct liability (which is also called as scheduled payment), this might still have certain effects to reinforce the confidence of private entities. The needs and effects of the CL Fund are analyzed in detail in Chapter 5 of this report.

Consistent with the foregoing observations, the Study Team suggests it is worthwhile for the GoP to consider establishing a dedicated guarantee facility (including Contingent Fund) to guarantee obligations of implementing agencies under a PPP contract.

The guarantee facility is contemplated to act as an institutional mechanism that would allow for the timely disbursement or mobilization by Government of funds necessary to meet payment obligations as and when these fall due. Government will be more flexible as the guarantee facility is removed from the annual budget cycle⁴⁵ and segregated from the general fund under the administration of a GOCC or DOF under set rules of governance and management.

Some of the benefits of establishing the guarantee facility are as follows:

- Government will have the ability to meet direct liability and contingent liabilities as and when these fall due. Further Congressional action will no longer be necessary in order to disburse the special funds as action by either the concerned GOCC board or DOF office should be sufficient.
- Risks will be better ring-fenced in the guarantee facility if the same is created under a GOCC and the guarantee is issued by such GOCC backed-up only by its own capital, which serves as auto-limitation to the amount of coverage it can provide. The guarantee facility may consider bigger, more complicated, and expensive projects, if it broadens the scope of its guarantee functions, similar to the Indonesia Infrastructure Guarantee Fund ("IIGF"), which, in addition to its own guarantee, issues two (2) other types of guarantees: (a) guarantees backed by the Minister of Finance of Indonesia; and (b) guarantees backed by funding from international financial institutions, such as the World Bank, ADB, and JICA, etc.

Department of Education's PSIF. In some of these cases, government payment is the only source of revenue for the private sector thus making this as a key project risk.

⁴⁵ Jeffrey Delmo, *Private Sector Investment in Infrastructure* (2nd Ed, 2009).

- In case of Contingent Liability Fund, the need for viability gap support from the Government will be reduced as verified by the quantitative analysis on contingent liability discussed in the earlier part of this paper. Notably, the quantitative analysis also revealed that combining the same with a credit facility provides for far greater incremental benefits for the Government.
- In case of Contingent Liability Fund, risk management may improve, as Government officers and personnel involved may, through consistent monitoring of contingent liabilities, develop to be more careful and deliberate in valuing contingent liabilities and be more realistic or disciplined in assuming or agreeing to given risks to better manage liability of the Government.
- The quality of PPPs in the Philippines would be improved by stronger interest of private sector participating in PPP projects, more competition, lowered costs of financing and user charges for the important public services, and improved bankability of projects and unlocked private resources to complement and leverage Government's limited funding that will become more relevant as the pipeline of PPP projects builds up.

In creating the guarantee facility, two questions arise: i) how the guarantee facility will recover what it pays and ii) who will pay for the cost of the guarantee.

With regard to item (i), the guarantee facility may follow the example of the IIGF and require a Recourse Agreement be executed by the implementing agency of the National Government. The Recourse Agreement shall provide that, in case the private proponent calls upon the facility's guarantee and the PIGF is required to pay the private proponent, the implementing agency shall be liable to reimburse the facility for the said amount. Such a mechanism will not only allow reimbursement and replenishment of the funds of the guarantee facility, but will also act as a means to hold the implementing agency accountable for its actions (or inaction) by ultimately having to pay for the resulting liability from its budget.

With regard to item (ii), the cost of the guarantee can be borne solely by the Government, solely by the private proponent, or shared among the two. The decision on which party will bear such costs may be properly assessed depending on the particular project involved.

Once the guarantee facility is established, it will also have to determine and define the types of risks that it shall guarantee. The risks that may be covered by the guarantee facility may include: (a) Land acquisition delay risk; (b) financial risks, with respect to Government support; (c) regulatory risks associated with the issuance of permits for the project; (d) revenue risks associated with timely and correct periodic adjustment of toll rates; and (e) political risks. The guarantee facility's capacity to guarantee risks will, of course, be subject to various factors such as the amount of its capitalization, its assessment of the project and the conditions to be imposed by co-guarantors.

In addition, the guarantee facility should make its own assessment of the viability of a project and the appropriate guarantee to issue, if any. The guarantee facility should thus grow into a specialized entity with capable professionals that can assess projects, identify the right balance of government support and manage the implementation of that support.⁴⁶ Initially, assistance from related agencies, such as DOF and NEDA, may be resorted to but, ultimately, the guarantee facility will have to undergo a capacity building program geared towards developing adequate and appropriate competencies.

4.3.3 Analysis on Long-term Public Financial Facility

Under the assumption that (a) government desires to pursue an ambitious infrastructure catch-up program of strategically vital projects which requires at least a doubling of government's current annual investment (about 2.5% of GDP) in infrastructure sustained over the medium term, and (b) the

⁴⁶ Ibid.

economy's present surplus of savings over investments will reverse with such a catch-up program, an earlier study by the team proposed the setting up of a long-term public financial facility to address government's limited fiscal space for large-scale infrastructure financing over the medium-term.

Mainly, the long-term public financial facility is being proposed to conserve on-budget, scarce VGF resources by providing more support to PPP projects off-budget, i.e., making low-cost, long-term staple financing available to private proponents to help reduce overall project cost. It is expected that the availability of such funds will reduce or even do away with the need for an upfront subsidy, enabling government to use monies that would have otherwise gone to one strategically-vital project for other similarly economically-worthy projects. Indeed, it is expected that when projects are awarded competitively, the subsidy implicit in the long-term public financial facility will be properly-priced such that the subsidies are not captured by the private proponent but given back to taxpayers (through lower or negative VGF) or passed on to end-users (through lower tariffs).

While the long-term public financial facility is second-best solution to a well-developed and deep local capital market, such remains lacking in the Philippines today, despite surplus liquidity in the financial system, with long-term risk capital available at reasonable rates only to well-known conglomerates. Most borrowers have had to rely on bank financing which to date largely remains balance-sheet based, not pure project financing that is more suited for long-term infrastructure projects which typically have unique asset features, including cash flow profile and risk allocation. Local banks moreover have yet to develop the expertise to structure financing packages for infrastructure projects. That there is of limited project finance available typically requires some form of recourse from project sponsors.

Given banks' need to manage maturity mismatches, extends lending to, at most, 12-15 years, and way below the 25-30-year concession periods of most PPP projects. Moreover, banks are subject to strict prudential regulations of the local Central Bank (e.g., single-borrower's limit, capital charges, sector lending limits) that are necessary to maintain financial and macroeconomic stability. A temporary measure like creating a separate SBL for PPP may work but is not a long-term solution as it is eventually exhausted as more projects become ready for bidding, not to mention the prudential effect such easing of anti-concentration rules has on the stability of the banking system.

For these reasons, banks cannot be expected to participate extensively in funding the country's infrastructure requirements. Hence, at this stage of the country's development, given the need for massive infrastructure building and considering government's limited resources, long-term public financial facility may be the key to unlocking infrastructure financing.

As contemplated in the previous study, the long-term public financial facility is proposed as a "not-for-profit fund" lodged in a government financial institution that will oversee fund administration. Contributions to the fund are expected to come from government and donors in various forms of debt and equity, with donor funds expected to carry the government's sovereign guarantee. Operationally, the fund will provide staple financing to proponents of infrastructure projects selected through competitive bidding after proper due diligence by private financial institutions. Long-term public financial facility lending to the project will be on a 50-50 sharing with private financial institutions on the debt portion. The public long-term financing's lower funding cost (due to the ODA portion) will thus help to bring down the proponent's blended cost of debt, which in turn contributes to lower overall project cost and lower hurdle rates for investors. Because the major due diligence work will be off-loaded to private financial institutions, the public long-term financing's overhead costs can be kept to a minimum.

Nevertheless, several pressing short-term concerns render the setting up of the long-term public financial facility (especially given the ODA-funding feature) less urgent for the government, which in fact is now viewing the facility as a more medium-term issue. These include:

- Pre-requisites for establishing the long-term public financial facility – mainly the overarching framework for PPP, including clear guidelines for identifying PPP projects, a vetted list of

strategically important infrastructure projects, as well as government policies on user fees, right of way cost, and taking on contingent liabilities are still being developed. The current limited universe of strategically vital projects in the pipeline and slow progress in bringing projects to market is a reflection of these problems.

- Preference for local currency lending – the current low-interest rate environment for peso-based borrowings significantly cuts into the benefits of a long-term public financial facility, especially given additional add-on fees for sovereign and foreign exchange guarantees on ODA loans as well as donors’ standard charges on undrawn fund balances. Moreover, in light of large foreign exchange inflows that are exerting appreciation pressure on the local currency, there are loud calls from exporter and OFW groups for government to stay away from more foreign borrowings.
- Policy – related to the above two issues, DOF has also indicated reduced willingness to bear foreign exchange risk as seen in recent moves for global peso bond issues. In addition, if DOF can be so persuaded, is the size of the risk premium it charges, which in practice is set at 300bp above the sovereign risk-free rate and will thus raise the cost of long-term public financial facility funds significantly.
- Legal – as initially envisioned, the long-term public financial facility will be off-budgeted with the ODA coursed through a GFI and guaranteed by the national government, giving rise to the problem of the ODA amount being counted against the guarantee ceiling of the Foreign Borrowings’ Act, which has limited headroom left (around \$900 million out of a total \$10 billion ceiling). Given difficulty of getting new legislation to raise the guarantee ceiling, alternatives to overcome this hurdle were identified including possibly tapping some GOCCs, whose guarantees fall outside the guarantee ceiling of the Foreign Borrowings Act, to provide the guarantee for the ODA loan (subject to donor approval). However, various government officials have expressed the leadership’s concern with both incurring more debt and exposing government to more fiscal risk at this time, especially in light of the identified GOCCs poor track record.
- Institutional – given the above reservations, there is a need for an objective assessment of the institutional readiness of the identified GOCCs to act as agents for government’s PPP program and to craft a roadmap that will allow them to evolve into the ideal institutions with proper governance structures and financial strength.

4.4 Comparison with Other Countries

4.4.1 Comparison with India, Indonesia, and Colombia

In this section, the four types of public financial facilities to support PPP in the Philippines is briefly compared with Colombia, India, and Indonesia.

PPP projects in the Philippines can benefit from government support through the SSF and the PDMF. The former is annual budget appropriation while the latter is a revolving fund. Colombia, similarly, also allots subsidies especially to toll road concessions or PPPs through future annual budgetary appropriations. Future budget appropriations that have to be made beyond the term of the administration signing the concession have to be approved by Colombia’s National Council on Fiscal Policy (CONFIS). Indonesian government extends VGF to projects that may be economically feasible but not yet financially viable. The same is true for the Indian case.

Only Indonesia and Colombia have institutional guarantee mechanisms in this sample of countries.

Fully-owned by the government, IIGF⁴⁷ serves as a single-window for appraising, structuring, and providing guarantees for PPPs. Colombia's "Contingency Fund for State Entities"⁴⁸ provides mechanism for the government to shoulder contingent liabilities. Contributions to the Fund come from state agencies, the national budget, financial returns generated by the funds, and recovery product portfolio⁴⁹.

India and Indonesia both have two financial intermediaries that can be tapped by the private sector. India has the Infrastructure Development Finance Company (IDFC)⁵⁰ and India Infrastructure Finance Company Ltd (IIFCL)⁵¹. The former is a partly government-owned and the latter wholly-owned. Indonesia's SMI⁵² (Sarana Multi Infrastruktur) offers senior and subordinated loans, and mezzanine and equity financing. Through SMI, the Indonesian government holds partial ownership of PT IIF (PT Indonesia Infrastructure Finance), a non-bank financial institution that focuses on providing long-term financing for infrastructure projects. Together with the IIGF, PT SMI-IIF also contributes in infrastructure development through advisory services like project feasibility studies.

In the United Kingdom, advisory costs during project development stage average 2.6% of project capital costs and even higher in lesser developed PPP markets⁵³. India and the Philippines have dedicated funds for project development, the Project Development and Monitoring Facility (PDMF) and India Project Development Fund (IPDF), respectively. While the PDMF is a fund under the management of a government entity, the IPDF is a private equity fund⁵⁴. Indonesia does not have separate facilities or funds for the development of projects; PT SMI-IIF and the IIGF, instead, fulfill such role.

Table 4.4-1 Comparison of PPP Financial Institutions

	F/S * Interim Fund	ROW * Interim Fund	Implementation (EPC, O&M)			
			Subsidy	Equity *Permanent Fund	Loan *Permanent Fund	Guarantee
Philippines	PDMF (SSF)	VGF (SSF)		PEF*	—	—
India	IIPDF (est.2010)	Gol	VGF (est.2006)	—	IIFCL (est.2006)	—
Indonesia	PDF (est.2007)	Land Fund	VGF	PT SMI (est.2009)	PT SMI (est.2009)	IIGF (est.2009)
Columbia			VGF			Contingency Fund for State Entities

Legend: Gov't Coverage: Investment House Coverage:

Source: JICA Study Team

⁴⁷ <http://www.iigf.co.id/Website/Home.aspx>

⁴⁸ The Ministry of Finance and Public Credit, Republic of Colombia [2011] "Contingent Liabilities: The Colombian Experience" Available at: http://treasury.worldbank.org/bdm/pdf/Contingent_Liabilities_Colombian_Experience.pdf

⁴⁹ Scott Wallace/World Bank [no date] "Chapter 7: Contingent Liability Management in Colombia and the Financial Strategy Associated with Natural Disasters" Available at:

http://www.gfdr.org/sites/gfdr.org/files/Chapter_7-Colombia-Contingent_Liability_Management_in_Colombia_and_the_Financial_Strategy_Associated_with_Natural_Disasters.pdf

⁵⁰ <http://www.idfc.com/>

⁵¹ <http://www.iifcl.org/Content/index.aspx>

⁵² <http://www.ptsmi.co.id/>

⁵³ <http://ppp.worldbank.org/public-private-partnership/financing/government-support-subsidies>

⁵⁴ http://www.ilfsinvestmentmanagers.com/divestedfunds_IPDF.aspx

4.5 Summary

This chapter conducted analysis and made proposal for improvement, regarding the public financial framework for PPP in the Philippines. Firstly, the Study Team selected four major functions (project development facility, VGF, long-term financing, and guarantee) and made observations of the current frameworks of the Philippines from those perspectives. Then, the Study Team analyzed the issues inherent to the current framework, and discussed the needs and ways for their improvement. A comparison of the framework with other countries, such as India and Indonesia is also made in order to highlight the uniqueness of the Philippines.

The followings are the key messages of this chapter:

- Regarding the four major public financial framework, the GoP already has functions of PDMF and VGF. However, it does not have functions of long term financing and guarantee.
- PDMF, with assistance from ADB and other donors, has been applied in many projects and it is going to be expanded in terms of budget and scope.
- The function of VGF already exists in the Philippines. They are budgetized in the framework of Strategic Support Fund (SSF) and the GoP is allowed provide VGF up to 50% of project cost.
- Multi-year appropriation is not secured under the current VGF framework. Establishment of VGF pool or the similar function is desirable.
- The GoP does not have an intention to establish guarantee function at this moment. Instead, it has decided to create a measure to secure budgeting and disbursement for CL- related expenditures.
- It is essential to secure automaticity of payment mechanism from CL in order to provide sufficient comfort to project proponents.
- In the longer run, there is a need to address the issue of guarantee for direct liabilities.
- The GoP has been conducting the discussion on the needs of a long-term financing institution for certain time, however, it is generally understood that there is no urgent need to create such a organization, considering the current financial market environment.

It can be concluded that the GoP has been continuously reviewing and trying to improve its public financial frameworks on PPP. However, such efforts have just started in 2010 and they are still in the progress, in other words, public financial facilities cannot be completed in such a limited period. Thus, the Study Team considers it is necessary to continue to review the current framework and improve it, if necessary, from medium and long term perspective.

The typical examples are long-term financing and guarantee fund. As mentioned above, the GoP does not seem to recognize the necessity of a long term financing institution and a guarantee fund at this moment. However, when we observe global practices on PPP, they are quite popular measures and working well in many cases. Thus, it is deemed meaningful to continue the discussion, observe and listen to the voices of the market, and elaborate on progressive improvement of the framework.

Chapter 5. Quantitative Analysis on Potential Benefits of a CL Fund

This chapter aims to assess the potential benefits of CL Fund in the Philippines. As mentioned in the previous chapter, tackling CL issue is one of the prioritized agenda for the GoP. This chapter attempts to quantify the benefits and costs of CL Fund, using data of close-to-existing PPP pipeline projects, to verify the meaning and necessity of a CL Fund. Also, a discussion will be made on how to further promote the participation of private entities in PPP project biddings.

5.1 Introduction

As mentioned in the previous chapters, the non-performance of the government of its obligations specified in the concession agreement has been identified as an urgent issue to be addressed in the Philippines. In particular, it was observed that appropriate compensation due to private proponents (including compensation for CL) has not been sufficiently done. For example, as often seen in cases such as, delay in land acquisition, delay in obtaining permission of a project, delay in the approval of tariff structure, there is no information obtained wherein IA paid the private proponent compensation in any form.

The GoP has created measures such as Public Undertaking (PU) and Multi-Year Obligation Authority (MYOA) in order to carry out these obligations. The former is stipulated in the revised implementing rules and regulations of the Build-Operate-Transfer (BOT) Law and allows the GoP to compensate the private proponent when there is default in government's contract obligation. And the latter allows the GoP to fulfill the multi-year government's payment obligations. However, the GoP requires approval from the Congress by budgeting such compensations following a due process and there is no guarantee that the Congress will always approve such budget item. Obviously, the government administration cannot control the intention of the legislature, which means that as long as this approval process is embedded in the law and there is no effective device to address this issue, private proponents will always be exposed to "appropriation risk". For private proponents, it effectually means that IA is not actually shouldering the risks agreed in the concession agreement.

In order to solve these types of issues, the JICA Study Team has been considering the effectiveness of creating a Contingent Liability Fund (CL Fund) in the context of PPP in the Philippines. This section shows the methodology of quantitative analysis to verify the effectiveness and meaning of the CL Fund).

Based on these background and recognition, the JICA Study Team conducted a quantitative analysis on CL to verify the needs and effects of the CL Fund based on six PPP infrastructure projects, such as toll road, railway, and airport projects. The following sections show the framework, methodology, and the results of the CL quantitative analysis.

Note that the purpose of this analysis is to understand the effects of the CL Fund, using data of various projects that have already been implemented. Such purpose is different from that of the CL analysis conducted by DOF which aims to quantify expected CL burden for particular projects that are now being prepared for bidding.

5.2 CL Analysis Framework and Methodology

5.2.1 Analytical Framework

(1) Assumed CL Fund

In this analysis, the JICA Study Team assumed the functions of the CL Fund, as follows:

- The CL Fund is created as a public or semi-public body.
- It will have some sort of agreement, such as a recourse agreement or a guarantee agreement, between IAs and project proponents.
- The project proponent may claim the payment for CL damage from the CL Fund if CL payments are not made by IAs.
- The CL Fund will independently and automatically advance with the procedure, including assessment of proponents' claim and disbursement.
- The payment for CL damage will be paid quickly to satisfy the needs of the claimants.

The CL Fund, which is assumed here, is one kind of guarantee fund which addresses the risks related with contingent liabilities. However, it is assumed that the CL Fund does not address the direct liabilities. Therefore, the CL Fund is different from a Guarantee Fund (GF) in the sense that the coverage area is limited to CL risks. Table 5.2-1 shows the difference of coverage of GF and CL Fund.

Table 5.2-1 Difference of GF and CL Fund

	Coverage	
	Direct Liability (DL)	Contingent Liability (CL)
GF	○	○
CL Fund	—	○

Source: JICA Study Team

(2) Government Burden in PPP

The effectiveness of the CL Fund was analyzed by comparing the government burden (government obligation) without CL Fund, and with CL Fund. Table 5.2-2 shows the classification of the government burden as well as examples of expenditure items.

Table 5.2-2 Government Burden in a PPP Concession Agreement

Classification	Example
a) Direct Liability (DL)	Land acquisition costs, government subsidy, purchase cost of service
b) Contingent Liability (CL)	Public burden of contracting agency due to force majeure or accidental failure of procuring entities

Source: JICA Study Team

Of the above, the amount of DL is set in the concession agreement, and it is relatively easy to carry out the computations. On the other hand, the amount of CL exposure could not be calculated from the concession agreement alone. The following formula shows the definition of government burden in the analysis:

Government Burden = DL + CL.....Formula 1
--

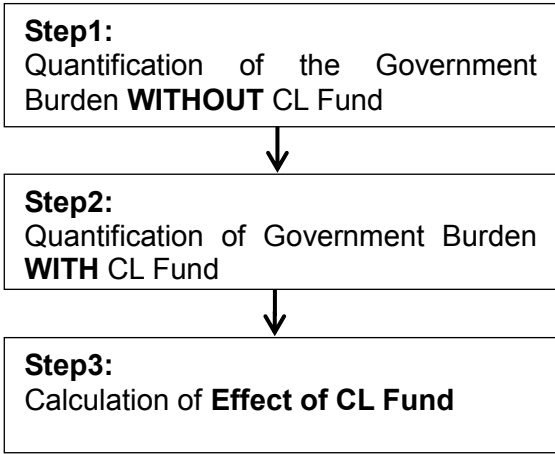
Obviously, there is a question on how to quantify the CL exposure. Here, “CL exposure” refers to the amount of risk that IA has been exposed in a PPP concession agreement. The amount of CL exposure of a project can be calculated, assuming the impact and probability of occurrence of related risks and the government’s total exposure to PPP can be calculated as the summation of CL exposure in each project, as shown in the following formula:

CL = $\sum P_r \times I_r$.....Formula 2 * Here, “P” refers to the probability of risk occurrence, “I” refers to the impact (debt) of the risk occurrence, and “r” refers to the type of CL.

The JICA Study Team conducted the analysis using the abovementioned definition and formula.

(3) Framework and Flow of Analysis

The framework and flow of analysis is shown in Figure 5.2-1. The first step is to calculate the government burden (DL + CL exposure) without CL Fund. Since the CL Fund does not currently exist, the amount of government burden is supposed to be the same as the government burden at present. The second step is to calculate the government burden with CL Fund. The third step is to calculate the effects of reducing government burden by comparing between government burden without CL Fund and with CL Fund.



Source: JICA Study Team
 Figure 5.2-1 Framework and Flow of Analysis

The effectiveness of the CL Fund on individual project is measured using actual project samples in sectors such as roads, airports, and railways. In this analysis, six pipeline projects were selected. The JICA Study Team conducted the financial analysis using the existing reports, other related documents, and information acquired from interviews with private proponents and banks. The projects used in the CL quantitative analysis are shown in Table 5.2-3.

Table 5.2-3 Projects Used for CL Quantitative Analysis

Sector	Project
Road	CALAx, and NAIAx
Airport	Tacloban, Zamboanga, and Visayas
Railway	MRT 7

Source: JICA Study Team

5.2.2 Calculation Methods of CL Fund Effect on Government Burden

This section shows the procedure for calculating the concrete amount of government burden in a PPP project. As mentioned in the previous section, it is necessary to estimate both with CL Fund and without CL Fund in this analysis. The following items below show the procedure for calculating government burden.

(1) Quantification of Government Burden "Without CL Fund" (Step 1)

The amount of government burden in a PPP project consists of DL and CL. Fixed debt may include the costs for land acquisition, VGF, service purchase payment, depending on the project type and conditions.

a. Calculation of DL

Without the CL Fund, the JICA Study Team assumed that the private proponents and banks require their equity internal rate of return and interest rate which includes the cost of the CL. In order to realize higher equity internal rate of return (IRR) and interest rate, the private proponents shall require more VGF in case where the project cannot recover the capital and operation expenditure from the business revenue.

Table 5.2-4 is an example of a simple cash flow model of PPP projects without CL Fund. The amount, which IA pays as VGF to the private proponent, can be calculated using these assumptions and figures.

The model example shows that the required equity IRR is 15%, and the interest rate is 10%, which reflect the CL costs. Since private proponents cannot achieve equity IRR of 15% by toll revenue alone, a total amount of PHP 2 billion is paid as VGF to the private proponent.

Table 5.2-4 Example of Simple Cash Flow Model

Conditions and Assumptions:														
Project period		12 years (2-year construction period, 10-year operating period)												
Initial investment		PhP 12 billion (1st year 50%, 2nd year 50%)												
VGF (subsidy)		PhP 2 billion (1st year 50%, 2nd year 50%)												
Private funding		PhP 10 billion												
Equity ratio		30.0%												
Debt ratio		70.0%												
O&M costs		PhP 500 million (First year of operation)												
Borrowing repayment period		10 years (annuity)												
Interest repayment of borrowings		10%												
Inflation rate(Operating period)		5.0%/year												
Request rate equity IRR		15.0%												
WACC (Discount rate)		11.5%												
Revenue management		PhP 2.05 billion (First year of operation)												
Simple PPP Cash Flow:														
Classification	Item	1	2	3	4	5	6	7	8	9	10	11	12	Total
Cash out	Initial Investment	60.0	60.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	120.0
	O&M	0.0	0.0	5.0	5.3	5.5	5.8	6.1	6.4	6.7	7.0	7.4	7.8	62.9
	Debt Repayment	0.0	0.0	4.4	4.8	5.3	5.8	6.4	7.1	7.8	8.6	9.4	10.4	70.0
	Interest Payment	0.0	0.0	7.0	6.6	6.1	5.5	5.0	4.3	3.6	2.8	2.0	1.0	43.9
	Subtotal	60.0	60.0	16.4	16.6	16.9	17.2	17.5	17.8	18.1	18.4	18.8	19.1	296.8
Cash in	Investment	30.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	30.0
	Borrowing	35.0	35.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	70.0
	* Borrowing Outstanding	35.0	70.0	65.6	60.8	55.5	49.6	43.2	36.1	28.3	19.8	10.4	0.0	-
	VGF	10.0	10.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	20.0
	Toll Revenue	0.0	0.0	20.5	21.5	22.6	23.7	24.9	26.2	27.5	28.8	30.3	31.8	257.8
Subtotal	75.0	45.0	20.5	21.5	22.6	23.7	24.9	26.2	27.5	28.8	30.3	31.8	377.8	
Net cash flow	(Dividends)	15.0	-15.0	4.1	4.9	5.7	6.6	7.4	8.4	9.4	10.4	11.5	12.7	81.0
Equity IRR	15%	-30.0	0.0	4.1	4.9	5.7	6.6	7.4	8.4	9.4	10.4	11.5	12.7	-

Source: JICA Study Team

b. Calculation of CL

The CL without CL Fund is assumed as zero because the CL, which is already borne by the government, shall not be calculated as CL with CL Fund; furthermore, it will not affect the results of the quantitative analysis of CL Fund effect.

(2) Calculation of Government Burden With CL Fund (Step 2)

a. Calculation of DL

If CL Fund exists, CL payment would be made surely to the private proponent. If this is realized, then the exposure risks faced by investors and lenders will be smaller. Also there is a high possibility that the required level of equity IRR and interest rates will be lowered. As a result, it may end with a reduction of VGF to be provided by the government.

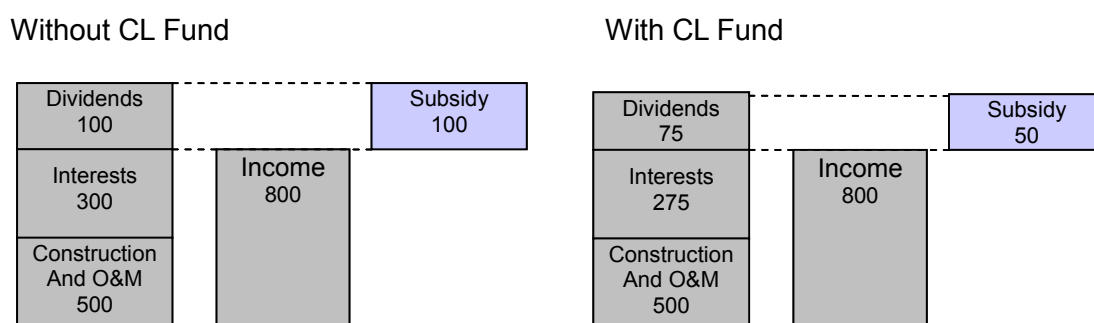
The following two ways are considered as practically possible to grasp the effects of decreasing rates of required equity IRR and interest rates:

- Option 1): Interviews with investors and lenders.
- Option 2): Estimate the government's risk exposure to CL based on the financial statements of the private proponents.

As for option 1), the JICA Study Team conducted interviews with investors and lenders having records of investments in PPP and related projects in the Philippines as well as abroad. And if these

investors/lenders have experiences of utilizing CL facilities and/or policies, the question was made on the kind of effects that had been brought to the project's financial procurement conditions.

As for option 2), the estimations were made in the amount of CL exposure by using the financial statements of the private proponent. To be more concrete, an assumption is made that a private proponent shoulders the CL risks where the government or IA is supposed to shoulder. This reflects the costs of shouldering the CL risk on the private proponent's financial plan or can be called as "risk premium". If the CL risk shouldered by the private proponent can be calculated, the private proponent's project costs and required returns when there is a CL Fund can reasonably be assumed and the private proponent do not have to shoulder the CL risk. It can reasonably be assumed that the required equity IRR and interest rates should be lowered if the investors and lenders are free from such kind of CL risk and this will end with a decrease or reduction of VGF (fixed debt). Figure 5.2-2 shows the effects of CL Fund. The figure also shows how dividends and interests are lowered, and subsidy reduced by introducing the CL Fund.



Source: JICA Study Team

Figure 5.2-2 Diagram of CL Fund Effects

In quantifying the risk, the most popular method is the Monte Carlo simulation. However, this requires detailed statistical information about the amount of damage and the probability of occurrence of risk, which are deemed not available in the analysis at this time. Thus, it is necessary to devise with another method. The following sentences explain how the CL quantitative analysis can be carried out in the Study.

Firstly, the detailed contents of the CL should be examined. According to past practices in PPP projects in the Philippines, the four risks listed below have relatively high possibility of occurrence and significance of impacts. CL I listed below is the cause of delay in tariff adjustment (Effect A in subsequent analysis), and CL I to III are the causes of delay in the commencement of operation (Effect B).

- CL I: Delay in the issuance of tariff adjustment approval
- CL II: Delay in ROW acquisition
- CL III: Delay in the issuance of construction permit
- CL IV: Delay in the issuance of completion certificates

In order to calculate the CL exposure on those risks, the following information (data) are required (see Formula 2) for the calculation of CL exposure:

- a) Probability of risk occurrence,
- b) Timing of risk occurrence, and
- c) Impact of risk occurrence (liquidated damage (LD)) including direct cost and indirect cost (lost profit).

Based on the above, the JICA Study Team devised with a calculation methodology, as discussed

below.

As for Effect A (delay in the approval of tariff adjustment), first, based on past experience of PPP projects in the Philippines, data on probability of occurrence and length of delay in the approval of tariff adjustment shall be collected and reasonable assumptions will be made. Timing of risk occurrence can be estimated from the tariff adjustment plan in the concession agreement or feasibility study. Impact of risk occurrence needs to be estimated as combination of direct and indirect costs (see Formula 3). In order to calculate indirect cost (lost profit), the amount of income increased by the tariff adjustment needs to be calculated through the financial projection model.

As for Effect B (delay in the commencement of operation), first, as mentioned in Effect A, information and data for items a)~c) above will be collected from past PPP experiences in the Philippines and analysis shall be made on the delay in the commencement of operation.

Impact of risk occurrence (LD) caused by the private proponent is calculated using the following formula:

LD=Direct Cost (Newly generated costs) + Indirect Cost (Lost of profit).....Formula 3

The value of damage should depend on the extent, effects, and causes of damage. Thus, it is necessary to have reasonable, logical, and practical support to estimate the values. The JICA Study Team based on the practices observed in the Philippines and abroad, identified the following major costs as direct cost (newly generated costs) due to the occurrence of CL risks (Note that these are not considered in the quantification exercise of this study due to data constraints):

- Costs for the amendment of the operator's business plan (including financial planning),
- Costs for the amendment of various business-related contracts,
- Costs for the amendment of the loan agreement with financial institution/commission, and
- Costs for the attorney's fees in accordance with the above transactions.

“Lost profit” means profit that a private proponent should have received if the risk did not occur. This can be calculated from the financial model of the future cash flow projection of a private proponent.

(3) Calculation of CL Fund Effect (Step 3)

The effect of the CL Fund is calculated by the following steps. First, the benefit of CL Fund (DL (VGF) reduction) will be calculated by the following formula:

Benefit of CL Fund (DL (VGF) reduction) = DL (VGF) without CL Fund – DL (VGF) with CL Fund.....Formula 4

Second, the cost of the CL Fund (CL payment) will be calculated using the following formula:

Cost of CL Fund (CL payment) = CL without CL Fund – CL with CL Fund.....Formula 5

Finally, effect of the CL Fund will be calculated using the following formula:

Effect of CL Fund = Benefit of CL Fund (DL (VGF) reduction) + Cost of CL Fund (CL payment).....Formula 6

A summary of the analysis output is shown in Table 5.2-5.

Table 5.2-5 Output Summary of the CL Fund Effect Calculation
(Case 1: The GoP does not shoulder CL risk without CL Fund)

	DL (VGF)	CL	Amount of Government Burden
Without CL Fund (A)	100	0	100
With CL Fund (B)	90	8	98
Effect of CL Fund (A)-(B)	10	-8	2

Source: JICA Study Team

This case assumed that the government does not shoulder CL risk. Logically and theoretically, it is assumed that the amount of the government burden will decrease in case of with CL Fund, because the financial requirements needed by the private side is lowered (therefore DL (VGF) amount will decrease) and the CL risk will be managed well by the government (therefore the CL risk itself will be smaller).

It is also possible to assume that the government now shoulders certain CL risks. In that case, the analysis result is shown in Table 5.2-6. As mentioned previously, the amount of CL without CL Fund was assumed as zero because CL, which is already borne by the government, will not be calculated as CL with CL Fund in the analysis.

Table 5.2-6 Output Summary of the CL Fund Effect Calculation
(Case 2: The GoP shoulders certain CL risk even without CL Fund)

	VGF	CL	Amount of Government Burden
Without CL Fund (A)	100	2	102
With CL Fund (B)	90	10	100
Effect of CL Fund (A)-(B)	10	-8	2

Source: JICA Study Team

5.3 Setting Assumptions and Project Selection for the Analysis

5.3.1 Assumptions of the Analysis

The CL evaluation is done using the cost benefit analysis. The benefits and costs of the GoP are estimated independently by making reasonable assumptions. The benefit is estimated by a contingent valuation method (CVM) in which the JICA Study Team interviewed and asked prospective investors on how much they are willing to push down costs of financing (interest rates and equity IRR) if appropriate budget is provided for CLs. The cost is estimated by a risk valuation method in which specific CLs are valued using three elements, i.e., scenario, probability, and impact.

First, the benefit side is considered. The interview survey conducted by the JICA Study Team revealed the following factors: i) the private investors are willing to lower the equity IRR by 2-4% for BOT type of projects should conceivable CLs are certain and time guaranteed, and ii) the lenders will lower the interest rates by 0.5-1.0% for build-transfer-operate (BTO) (annuity) type and zero for BOT (real toll). Accordingly, the JICA Study Team adopted the conservative figures of 2% and 0.5%, respectively. The lower cost of finance eventually reduces the GoP's expenditure for VGF. This reduction in VGF is recognized as a benefit for the GoP.

Afterward, the cost side is considered. The CL Fund guarantees the private sector against adverse impacts (losses) resulting from the GoP's non-performance of its obligations (generally on payment). This is defined as the CL realized. The CL Fund pays the private sector's claims for CL if it occurs. CL is a risk. Thus, the CL is determined by three elements, i.e., the scenario (risk event), probability of its occurrence, and the size of its impact if it happens. This calculation gives the payment amount for CL that is recognized as the cost for the GoP.

The CL risk is usually valued using either Monte Carlo simulation or expert's opinion. The JICA Study Team could not use the Monte Carlo simulation since data on probability distribution of each CL scenario is not available; therefore, the second method (expert opinion) is used. Here, a single value of probability is assigned to each occurrence scenario elicited from expert's opinion for each sector. The assigned values used are as follows: 100% for 'certain to occur' category, 50% for 'very high' category, 20% for 'high' category, and 5% for 'medium' category. 'Low' and 'very low' categories are not considered because of their insignificance. This categorization is determined considering the nature of the project (greenfield or brownfield) and/or track record of the scenario identified.

The JICA Study Team identified four major CL scenarios that will likely or frequently occur in cases of the GoP's non-performance. These are: i) delay in tariff adjustment, ii) delay in ROW acquisition, iii) delay in the issuance of construction permits, and iv) delay in the issuance of completion certificates. These scenarios lead to adverse impacts of (a) increase in investment costs, and (b) reduction of toll revenues. For example, the JICA Study Team assumed that scenario (i) occurs for 12 months every time with tariff adjustment (2–3 years interval). This would result to impact (b). Similarly, scenarios (ii), (iii), and (iv) cause impacts (a) and (b). The sum-product of probability assigned (100%, 50%, 20%, and 5%) and impacts of each scenario give the cost of the GoP.

5.3.2 Selection of Case Study Projects

The basic approach (methodology) of CL valuation proposed in Chapter 2 was applied to actual pipeline projects. The JICA Study Team selected six projects – two expressways (CALAx, NAIAX), three airport terminal projects (Tacloban, Zamboanga, and Visayas), and one railway (MRT 7). The project features are shown in Table 5.3-1. All of these require positive VGFs (capital subsidy) ranging from 16% (Visayas) to 54% (Tacloban) averaging 42% (MRT 7 which annuity payment method is excluded from the average) based on the assumptions (the ratio is the subsidy divided by the total project cost).

The data used in the case study are fictional and does not reflect the true values; this is only for case study purposes.

Table 5.3-1 Outline of Case Study Projects

Name	Project Costs in PhP (excluding IDC*)	Type of PPP Scheme	Concession Period (in years)	Debt/Equity Ratio (%)
CALA(Cavite Section Only) Expressway	27,159 million	BOT	36 years (6 years construction, 30 years operation)	70:30
NAIA Expressway	1,228 million	BOT	34 years (4 years construction, 30 years operation)	70:30
Tacloban Airport	1,581 million	BOT	26 years (4 years construction, 22 years operation)	70:30
Zamboanga Airport	2,387 million	BOT	25 years (5 years construction, 20 years operation)	70:30
Visayas Airport	2,198 million (Phase 1: 1,505 million , Phase 2: 692 million)	BOT	33 years (3 ys construction, 30 ys operation)	70:30
Metro Line 7	71,621 million (Government amortization: 97,438 million)	BTO	29 years (4 years construction, 25 years operation)	75:25

Note: *IDC- Interest during construction

Source: JICA Study Team

5.4 CL Analysis Results

5.4.1 Results of the CL Quantitative Analysis

Comparing the base case (without CL Fund) and Case 1(with CL Fund), the net-benefit (net savings in the GoP's expenditure) is positive for all six projects, with a combined total savings of PhP 6,005 million (present value discounted by 12%). The benefit-cost (B/C) ratio ranges from 1.3 to 2.3. The net benefit ratio to the total project cost (TPC) ranges from 1% to 8%. This concludes that CL Fund is worth doing and the GoP with CL Fund is coherent.

It is interpreted that the net benefit (benefit minus cost) reflects the 'option value' for private investors, taking the benefit as 'option price' and the cost as 'expected compensation'. Provision of a reliable CL Fund induces the private sector willingness to pay more than the CL risk revealed (cost). This is recognized by private investors as the 'option value' which is surplus enhancement above the revealed cost.

Table 5.4-1 Summary of Case Study Results

Base Case (Without GF)						(Present Value, Mil P)			
Case	GF	PIFFF	VGf Pool	Subsidy	Total Project Cost (A)	Subsidy/Total Project Cost	Benefit of GoP (B)	Cost of GoP (C)	Net Benefit of GoP (D)=(B)-(C)
CALAX	-	-	-	7,135	17,566	41%	-	-	-
NAIAX	-	-	-	4,155	8,646	48%	-	-	-
Tacloban	-	-	-	649	1,198	54%	-	-	-
Zamboanga	-	-	-	619	1,582	39%	-	-	-
Visayas	-	-	-	206	1,300	16%	-	-	-
MRT 7	-	-	-	42,021	58,279	72%	-	-	-
Total/Average	-	-	-	54,784	88,571	62%	-	-	-

Case 1 (With GF)						(Present Value, Mil P)					
Case	GF	PIFFF	VGf Pool	Subsidy	Total Project Cost (A)	Subsidy/Total Project Cost	Benefit of GoP (B) *1	Cost of GoP (C) *2	Net Benefit of GoP (D)=(B)-(C)	NB/TPC =(D)/(A)	B/C =(B)/(C)
CALAX	●	-	-	5,284	17,566	30%	1,850	1,009	842	5%	1.8
NAIAX	●	-	-	3,307	8,646	38%	848	431	417	5%	2.0
Tacloban	●	-	-	585	1,198	49%	64	47	16	1%	1.3
Zamboanga	●	-	-	507	1,582	32%	111	81	30	2%	1.4
Visayas	●	-	-	56	1,300	4%	150	64	86	7%	2.3
MRT 7	●	-	-	33,835	58,279	58%	8,186	3,572	4,614	8%	2.3
Total	●	-	-	43,574	88,571	49%	11,209	5,204	6,005	7%	2.2

*1: Benefit of GoP (Amount of Subsidy Reduction) = Subsidy of Base Case - Subsidy of Cases 1

*2: Cost of GoP (Cost of GoP to Guarantee CL) = Cost for Delay of Tariff revision + Delay of Commencement of Operation

Source: JICA Study Team

Table 5.4-2 shows the payment schedule for CLs of the six projects. As can be seen, the total payment varies yearly, and during peak times the annual amount reaches as high as the project cost of typical airport terminal projects (around PHP 2 billion). The table may help the GoP to identify a budget for payment for CLs and assess the fiscal impact and burden in terms of the GoP's overall budget for contingency funds.

Table 5.4-2 Payment Schedule for CLs in the Case Study Projects

Contingent Liability																		
	PV	Total	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027
CALAX	1,009	11,049	0	0	0	0	0	0	526	0	203	0	284	0	333	0	389	0
NAIAX	431	3,852	0	0	0	0	173	0	72	0	107	0	110	0	128	0	150	0
Tacloban	47	296	0	0	0	0	4	0	13	0	16	0	18	0	22	0	27	0
Zamboanga	81	377	0	0	0	0	0	71	0	0	26	0	0	37	0	0	43	0
Visayas	64	112	0	0	0	86	0	10	0	0	0	0	15	0	0	0	0	0
MRT 7	3,572	25,474	0	0	0	0	976	248	297	351	410	473	542	617	698	784	879	980
Total	5,204	41,161	0	0	0	86	1,153	330	909	351	761	473	969	653	1,180	784	1,487	980
(Mil P)																		
2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046
456	0	534	0	619	0	708	0	811	0	928	0	1,062	0	1,215	0	1,390	0	1,591
175	0	205	0	240	0	278	0	322	0	373	0	433	0	503	0	584	0	0
29	0	35	0	42	0	44	0	47	0	0	0	0	0	0	0	0	0	0
0	53	0	0	65	0	0	83	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1,028	1,080	1,134	1,191	1,250	1,313	1,378	1,447	1,520	1,596	1,676	1,759	1,847	0	0	0	0	0	0
1,689	1,133	1,908	1,191	2,215	1,313	2,408	1,530	2,699	1,596	2,976	1,759	3,342	0	1,718	0	1,974	0	1,591

Source: JICA Study Team

5.4.2 Expected Benefits of CL Fund to the GoP and Private Sector

Besides the effects of the reduction in government expenditure, it is expected that the CL Fund will bring the following benefits to the GoP, project service users, and the society as a whole.

(1) Increase in the number of bidders in PPP biddings

If the CL Fund is created, the confidence of business entities could be strengthened, and probably the number of bidders would increase. That will enhance more competition, and IAs might receive more advantageous proposals from the bidders.

(2) Decrease in tariff level (Results of more competitive biddings)

More active competitions result in making the bidders exert more efforts to squeeze the project costs, such as construction cost, operation cost, and financial cost. Because of these efforts, it might be possible to decrease the current tariff level.

(3) Improvement of business services (Results of more competitive bidding)

Same as the previous item, more competition will encourage active participation from the bidders to do more technical proposals, which might contribute in improving the service level of the projects. Also, in order to decrease the amount of VGF, bidders might seek all possible ways to maximize their revenues. This also may result in the increase of service level.

(4) Reduction of the possibility of risk occurrence (CL Fund is expected to provide stronger incentives to Implementing Agencies to manage well the risks)

If the CL Fund is created and eventually works very well, compensation to project proponents would be made and most probably, the payment amount will be coursed to IAs. It means that IAs will eventually be responsible in shouldering the compensation. It may work as incentive for IAs to avoid the risk occurrence or minimize the impact of the risk occurrence in order to mitigate IA's financial burden.

(5) Economic effects (As a result of an early and stable delivery of the project service)

If the CL Fund works well, then the construction works would go smoothly and the project would be operated steadily. It will support a stable business environment and activities, and it will eventually promote further economic growth in the surrounding regions.

5.5 Limitation of CL Fund and Further Issues

The Study Team believes the CL Fund will strengthen the confidence of private entities to certain extents and will promote more active competition in PPP biddings. However, it is also important to keep in mind that the CL Fund only covers CL, but not DL. The example of DL includes VGF, annuity payment, and land acquisition. It is true that in order for private entities to participate in a bid in a full confidence, they also wish to secure that DL payment will be made in appropriate timing and amount. In other words, there is a possibility that creation of CL Fund is not enough to secure full confidence of DL payment. Therefore, the Study Team recommends that while a CL facility shall be closely monitored, the necessity of establishing GF which also covers DL shall be recognized and discussed.

5.6 Summary

This chapter conducted a quantitative cost-benefit analysis of the CL Fund to illustrate the effects of the CL Fund.

As for the analysis framework, the Study Team classified “Direct Liability” and “Contingent Liability”. The former is the fixed liability, such as payment of VGF and Service Availability Payment. The latter is not a fixed liability but the one which can be fixed as a result of occurrence of certain event. In terms of the CL Fund, the Study Team assumed that it covers CL risks only and payment will be automatically done if a claim is raised by a project proponent.

As for the methodology, the Study Team has selected six existing (already started) PPP pipeline projects, and using the date of those projects, quantified four major risks, i.e. delay of land acquisition, delay of issuance of completion permit, delay of issuance of construction completion certificate, and delay of approval of tariff change.

The followings are the key messages of this chapter:

- It was found that currently, project proponents, as well as commercial banks, are taking account of “non-payment risks by IAs” and they are embedding some risk premiums on their financial costs, such as return on equity and interests cost. The CL Fund will transfer these risks on the public side and therefore help reduce these risk premiums.
- Reduction of risk premium will have an effect to reduce the amount of VGF, because the total project cost born by proponents will be smaller. This will be the gross benefit for the GoP.
- In fact, the quantitative analysis showed that comparing the base case (without CL Fund) and Case 1(with CL Fund), the net-benefit (net savings in the GoP’s expenditure) is positive for all six projects.
- The analysis also showed that the total net savings of the six projects is PhP 6,005 million (present value discounted by 12%).
- Based on the above results, it is concluded that creation of CL Fund will bring significant benefit to the GoP.
- The CL Fund will also bring benefits such as increase in number of bidders, decrease in tariff level, improvement of business service, reduction of risk materialization probability, and economic effects to the society.

Based on the result of the analysis, the Study Team concluded that the CL Fund will probably bring a great benefit to the Government, by reducing the risk premium costs, now being buried in the financial costs of projects.

It is worthwhile pointing out that the scope of the CL Fund is limited and it is not sufficient to secure the confidence of investors in terms of Direct Liability. Therefore, in order to further accelerate participation of investors, it is recommended to discuss further and establish a Guarantee Fund, which can also cover direct liabilities.

Chapter 6. PPP Capacity Development for Implementing Agencies

This chapter aims to identify the level of capacity and needs of IAs in conducting PPP. The Study Team assessed the “Capacity and Needs Assessment” for five (5) sectors (i.e. Road, Railway, Airport, Water and Energy) and also conducted “Trial PPP Capacity Development Training” for selected agencies. This Chapter demonstrates the results and lessons learned from these activities.

6.1 Introduction

The government’s institutional capacity is currently being strengthened in order to effectively promote and implement public-private partnership (PPP) projects in the Philippines. The Asian Development Bank (ADB) with AusAID and CIDA have been implementing jointly the capacity development technical assistance (CDTA), which aims to achieve a) capacity building of staffs to improve the government’s PPP systems and capacity to manage PPP projects, and b) funding of the Project Development and Monitoring Facility (PDMF) for i) PPP project preparation, ii) financial analysis, iii) preparation of bidding documents, and iv) support to bidding process and contract negotiations. Item a) above consists of the following four components: 1) strengthened PPP enabling framework, 2) strengthening the capacity of the PPP Center, and 3) capacity building of PPP-involved staff members of the National Economic Development Authority (NEDA), the Department of Finance (DOF) and line agencies in PPP processing.

Almost one and a half years have passed since the inception of CDTA in November 2011. The consultants of the technical assistance (TA) have been engaged in capacity building for the management as well as funding of the PDMF. During an interview with the PPP Center on December 4, 2012 in the course of the Study, it was reported that the training of staff of IAs would be conducted in the form of training of trainers (TOT) based on the national government agency (NGA) manual, which is now under preparation. There seems to be no clear guidelines on capacity development of IAs staff.

Under such circumstances, the previous JICA Study entitled the “Study on PPP Institutional Improvement in the Philippines” (which can be called as Phase 1, considering this Study as Phase 2 in continuity), which started in April 2011, recommended capacity development of IAs in the area of PPP project preparation for the key sectors (toll road, airport, railway, water supply, and energy). Then in August 2012, “The Study on Institutional Building in the Philippines (Phase 2)” has started. In this study, a capacity and needs assessment survey and trial training courses for IAs in the key sectors were conducted. One of the special topics included in the training courses was on mitigation of risks including CL. The input of JICA in this trial training was successful in terms of direct benefits to IAs staff in the key sectors. This chapter discusses the capacity and needs assessment, trial training courses, and way forward for further capacity development.

6.2 PPP Capacity and Needs Assessment of IAs

6.2.1 Target, Methodology, and Assessment Items

The JICA Study Team collected the assessments of IAs officers-in-charge of PPP regarding the capacity and needs of PPP related operations. This was an important step in planning the appropriate PPP capacity development programs for the key IAs in the course of the Study. The assessment was mainly conducted through the form of questionnaire complemented by interviews. The assessments

were conducted for the following IAs based on the terms of reference (TOR) of this Study:

- Road sector (Department of Public Works and Highways (DPWH));
- Railway sector (DOTC) and Light Rail Transit Authority (LRTA));
- Airport sector (DOTC, Mactan-Cebu International Airport Authority (MCIAA), Manila International Airport Authority (MIAA), and Civil Aviation Authority of the Philippines (CAPP));
- Water sector (Metropolitan Waterworks and Sewerage System (MWSS) and Local Water Utilities Administration (LWUA)); and
- Energy sector (Department of Energy (DOE) and Philippine National Oil Corporation (PNOC)).

Questionnaires were provided to management level officers (sub-directors and managers) who are supposed to have experiences in project preparation, such as study, formulation, planning, transaction or monitoring, of PPP projects. The positions of the officers who answered the questionnaires are indicated in the following sections in the analysis results of each IA.

The questionnaire consists of three parts: (1) Present Capacity Level (Self Evaluation), (2) Needs for Capacity Development, and (3) Current Issues. The questions in (1) and (2) involve the following ten items, all of which are deemed essential for the formulation, planning, transaction, and implementation of PPP projects: General Principles of PPP

Table 6.1-1 Contents of the Questionnaire

1	Knowledge on principles of partnerships, appropriate risk sharing, project financing	PPP Project Selection/Identification
2	Knowledge on PPP project selection/identification process, methodologies, and criteria	Business Case Study, Knowledge and skills on objective, study items, and methodologies of business case study
3	Financial Analysis	Knowledge and skills on financial statements, financial analysis, and value for money (VFM) analysis
4	Risk Analysis	Knowledge and skills on risk allocation, quantification, and mitigation
5	Project Scheme Analysis	Knowledge and skills on PPP modality and modality selection criteria
6	Bid Document Preparation	Knowledge on necessary bid documents, their contents and preparation process
7	Proposal Evaluation	Knowledge on appropriate proposal evaluation procedure and criteria
8	Project Monitoring (Construction)	Knowledge and skills on monitoring during project construction stage
9	Project Monitoring (Operation)	Knowledge and skills on monitoring during project operation stage

The assessment results of each agency are shown in the successive sections.

6.2.2 Assessment Results: Road Sector (DPWH)

In the road sector, the capacity and needs assessments were conducted by means of questionnaire and interview survey of six staff from the Project Management Office-Build-Operate-Transfer (PMO-BOT) and Project Management Office-Feasibility Study (PMO-FS) of DPWH. The sections and positions of the respondents are shown in 6.2-1.

Table 6.2-1 Section and Position of Respondents (Road Sector)

Agency	Section	Position
DPWH	PMO-BOT	Head
DPWH	PMO-FS	OIC Planning Office II
DPWH	PMO-BOT	Project Management
DPWH	PMO-BOT	PM-1
DPWH	PMO-BOT	Engineer V
DPWH	PMO-BOT	Engineer V

Source: JICA Study Team

The results of the capacity and needs assessment of the road sector are discussed below.

(1) Present Capacity Level

The JICA Study Team asked the respondents to score the present capacity level of the road sector staff regarding the ten check items. The results are shown in Table 6.2-2.

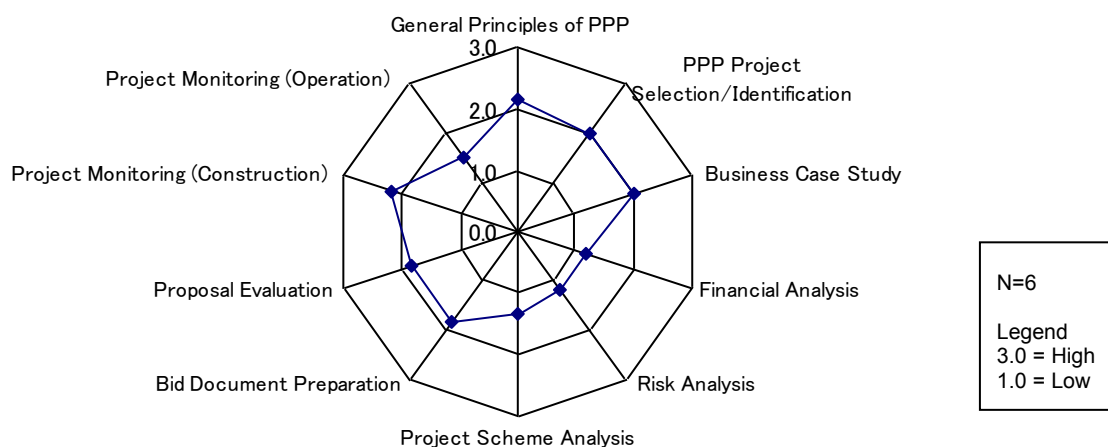
Table 6.2-2 Capacity Assessment Results (Road Sector)

Check Item	Respondents (Six Persons)						Average	Rank
	A	B	C	D	E	F		
General Principles of PPP	2	2	3	2	2	2	2.17	1
PPP Project Selection/Identification	2	2	2	2	2	2	2.00	3
Business Case Study	2	2	2	2	2	2	2.00	3
Financial Analysis	1	1	1	2	1	1	1.17	8
Risk Analysis	1	1	1	2	1	1	1.17	8
Project Scheme Analysis	1	1	1	2	1	2	1.33	10
Bid Document Preparation	2	1	2	2	2	2	1.83	5
Proposal Evaluation	2	1	2	2	2	2	1.83	5
Project Monitoring (Construction)	3	1	2	2	3	2	2.17	1
Project Monitoring (Operation)	2	1	2	2	1	1	1.50	7

Note: High Level = 3.0, Middle Level = 2.0, Low Level = 1.0

Source: JICA Study Team

A graph of the capacity assessment results is shown in Figure 6.2-1.



Source: JICA Study Team

Figure 6.2-1 Capacity Assessment Results (Road Sector)

The capacity levels of the following were rated as middle level: business case study (for selection of the best PPP modality), bid document preparation, bid evaluation, and project monitoring (construction). This reflects that the PMO-BOT basically has well-trained staff responsible for works from the study to the monitoring stages. On the other hand, their knowledge and understanding in the three areas (financial analysis, risk analysis, and project scheme) were low mainly because these areas are usually carried out by consultants.

(2) Needs for Capacity Development

The JICA Study Team asked the respondents to check the top three items necessary for the improvement of PPP capacity. The results are shown in Table 6.2-3.

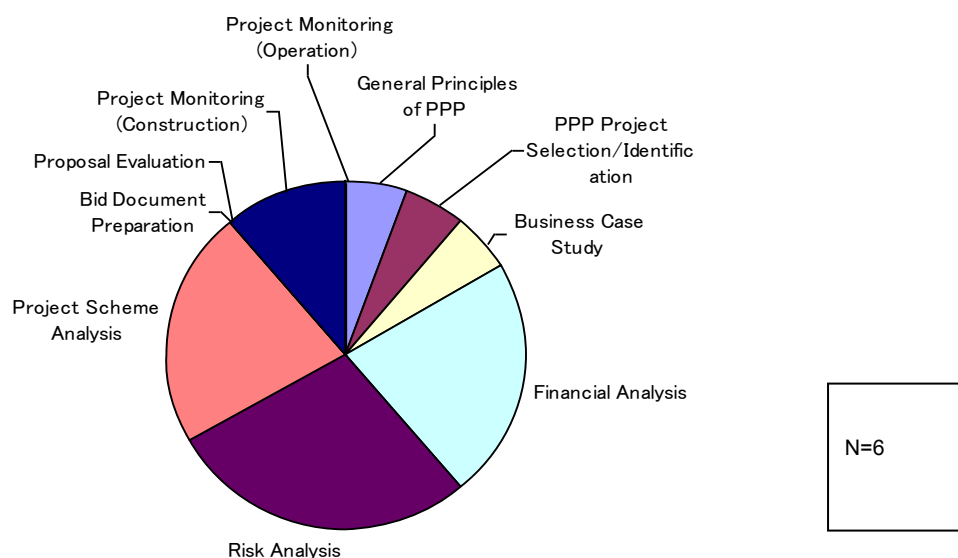
Table 6.2-3 Needs Assessment Results (Road Sector)

	Respondents (Six Persons)						Total Score	Rank (Needs)
	A	B	C	D	E	F		
General Principles of PPP						1	1	5
PPP Project Selection/Identification						1	1	5
Business Case Study						1	1	5
Financial Analysis	1	1	1		1		4	2
Risk Analysis	1	1	1	1	1		5	1
Project Scheme Analysis	1	1		1	1		4	2
Bid Document Preparation							0	-
Proposal Evaluation							0	-
Project Monitoring (Construction)			1	1			2	4
Project Monitoring (Operation)							0	-

Note: Five respondents checked the top three needs for PPP capacity development according to them. In the figure, a higher score indicates higher need.

Source: JICA Study Team

A graph of the needs assessment results is shown in Figure 6.2-2.



Note: Five respondents checked the top three needs for PPP capacity development according to them. In the figure, a higher percentage indicates higher need.

Source: JICA Study Team

Figure 6.2-2 Needs Assessment Results (Road Sector)

Clearly, the needs of respondents for capacity development were high in the three areas where their capacity levels were low. Financial analysis of PPP projects from investors' viewpoint appears to be complex, demonstrating equity internal rate of returns (IRRs) of the different cash flows based on a combination of amount of equity and subsidy, financial impact on IRR by lending condition of debt portion. As such, a comprehensive financial analysis is quite new to staff members of the PMO-BOT. There turns out to be no need for i) bid document preparation, ii) proposal evaluation, and iii) project monitoring (operation). This is because bid documents preparation and proposal evaluation are being fully assisted by DOF and the PPP Center, while project monitoring is under the responsibility of the Toll Regulatory Board (TRB).

Aside from the needs for capacity development in PPP processing, DPWH, as the agency responsible for road development, exposes and takes the risks of CL caused by delay in right-of-way (ROW) acquisition, issuance of construction permission and final completion. This agency, including the PMO-BOT, requires efforts to reduce occurrence of CL and must quantify the cost of government guarantee to compensate liquidity damages, which are otherwise burdened by private proponents.

(3) Issues

The respondents raised the following issues:

- Inadequate know-how on financial analysis and tools (risk analysis software and financial model);
- Legal interpretation of government subsidy, undertakings and variations;
- Lack of traffic demand software and simulation model;
- Not enough knowledge on BOT scheme;
- Insufficient number of staff members; and
- Not enough knowledge on risk analysis and inadequate parameters for project monitoring.

6.2.3 Assessment Results: Railway Sector (DOTC and LRTA)

In the railway sector, the capacity and needs assessments were conducted by means of questionnaire and interview survey of two staff from DOTC and three staff from the LRTA. The sections and positions of the respondents are shown in Table 6.2-4.

Table 6.2-4 Sections and Positions of Respondents (Railway Sector)

Agency	Section	Position
DOTC	Rail Transport Program Division	Sr. Transportation Development Officer
DOTC	Railway Transportation Planning Division	Chief of Division
LRTA	Planning Department	Planning Dept. Manager
LRTA	Planning Department	Corporate Planning and Research Division
LRTA	LRTA - PMO	Principal Engineer

Source: JICA Study Team

The results of the capacity and needs assessment of the railway sector are discussed below.

(1) Present Capacity Level

The JICA Study Team asked the respondents to score the present capacity levels of the railway sector staff regarding the ten check items. The results are shown in Table 6.2-5.

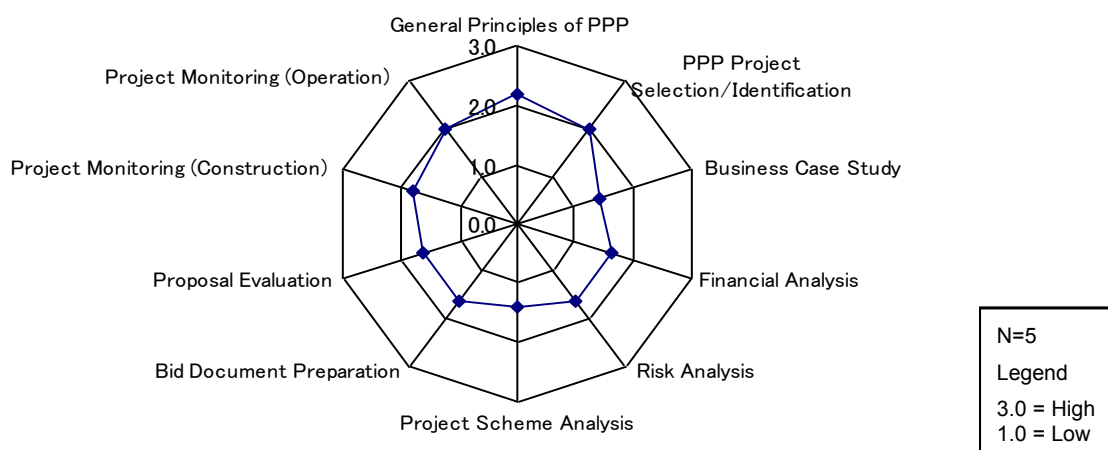
Table 6.2-5 Capacity Assessment Results (Railway Sector)

Check Item	Respondents (Five Persons)					Average	Rank
	A	B	C	D	E		
General Principles of PPP	1	3	2	2	3	2.2	1
PPP Project Selection/Identification	1	3	2	2	2	2.0	2
Business Case Study	1	2	1	1	2	1.4	9
Financial Analysis	1	2	1	1	3	1.6	5
Risk Analysis	1	2	1	2	2	1.6	5
Project Scheme Analysis	1	2	1	1	2	1.4	9
Bid Document Preparation	1	1	1	2	3	1.6	5
Proposal Evaluation	1	3	1	1	2	1.6	5
Project Monitoring (Construction)	1	2	1	2	3	1.8	4
Project Monitoring (Operation)	1	2	2	2	3	2.0	2

Note: High Level = 3.0, Middle Level = 2.0, Low Level = 1.0

Source: JICA Study Team

A graph of the capacity assessment results is shown in Figure 6.2-3.



Source: JICA Study Team

Figure 6.2-3 Capacity Assessment Results (Railway Sector)

The capacity level was rated as low level in the stages of PPP processing from project identification to project evaluation. This is because majority of the respondents are from the Railway Planning Division (RPD), which is primarily responsible for the sector plan. The capacity level in project monitoring is comparatively high because staff of the RPD currently conducts monitoring of railway projects. The problem is the weak capacity of staff of the Project Development Team (PDT) in terms of railway sector specific PPP processing because the current PDT staff working in the project development stage have little knowledge about any specific sector such as railway. The assessment of the present capacity of respondents is shown in Figure 6.2-3.

(2) Needs for Capacity Development

The JICA Study Team asked the respondents to check the top three items necessary for the improvement of PPP capacity. The results are shown in Table 6.2-6.

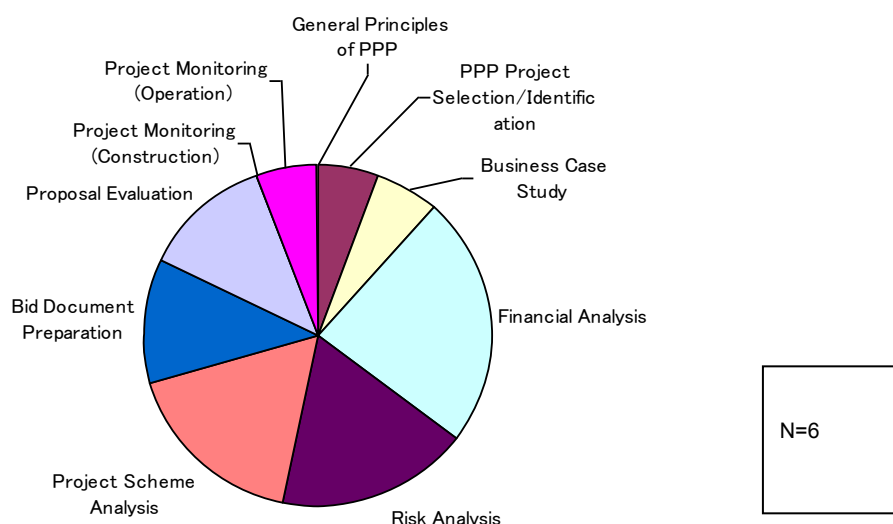
Table 6.2-6 Needs Assessment Results (Railway Sector)

	Respondents (Six Persons)					Total	Rank
	A	B	C	D	E		
General Principles of PPP						0	-
PPP Project Selection/Identification					1	1	6
Business Case Study					1	1	6
Financial Analysis	1	1	1	1		4	1
Risk Analysis	1	1	1			3	2
Project Scheme Analysis	1			1	1	3	2
Bid Document Preparation	1	1				2	4
Proposal Evaluation	1			1		2	4
Project Monitoring (Construction)						0	-
Project Monitoring (Operation)			1			1	6

Note: Five respondents checked the top three needs for PPP capacity development according to them. In the figure, a higher score indicates higher need.

Source: JICA Study Team

A graph of the needs assessment results is shown in Figure 6.2-4.



Note: Five respondents checked the top three needs for PPP capacity development according to them. In the figure, a higher percentage indicates higher need.

Source: JICA Study Team

Figure 6.2-4 Needs Assessment Results (Railway Sector)

According to the results of the capacity and needs assessments of staff of DOTC and LRTA conducted in October 2012, DOTC has little experience of PPP project implementation in the railway sector. As observed in Figure 6.2-4, the items that are highly needed for capacity development in the railway sector are in the areas of business case study, financial analysis, risk analysis, and project scheme analysis. Besides that, there is a high demand for capacity development programs on practical contents such as parametric formula, penalties, minimum standards, termination payments under concession agreement, etc.

(3) Issues

Among the issues to be listed below, the survey revealed the discontinuity by the changes in the administration and the absence of in-house capacity as urgent issues.

Therefore, in addition to securing and developing human resources, the establishment of a consistent organization and a definite procedure for PPP project promotion in DOTC are needed. The followings are the main issues on PPP project implementation in DOTC Railway sector.

- Change of administration
- No continuity in project planning and implementation.
- Lack of in-house capacity in all aspects
- Difficulty of ROW acquisition
- Re-evaluation of ROW claimants, expropriation proceedings on ROW, and resettlement of informal settlers

The demarcation of responsibilities among sections in the railway division of DOTC appears to be unclear. As clarified in the comment made by the Assistant Secretary for Planning in the Study, the agency intends to strengthen its project development functions (PDT). More important is the consistency of PPP processing from entry (planning) to preparation (project development). The key point will be the clarification of the roles of organizations in the railway division with respect to PPP processing.

The railway sector encounters delay in ROW acquisition and high ridership risk. The former is exemplified by the LRT 1 South Extension Project wherein it was difficult for the private sector to qualify for bidding as heard from private sectors during the Team's hearing survey. Meanwhile, the latter is stressed on by a private investor saying that revenue lower than what was originally estimated brings about a serious drawback to investors. It implicates the government compensation for minimum revenue guarantee (direct liability).

6.2.4 Assessment Results: Airport Sector (DOTC, MCIAA, MIAA, and CAPP)

In the airport sector, the capacity and needs assessments were conducted by means of questionnaire and interview survey of seven staff in total from: i) the Air Transport Planning Division (ATPD) of DOTC, ii) MCIAA, iii) MIAA, and iv) CAAP. The sections and positions of the respondents are shown in Table 6.2-7.

Table 6.2-7 Sections and Positions of Respondents (Airport Sector)

Agency	Section	Position
DOTC	Air Transport Planning Division	Chief, Transport Development Officer (TDO)
DOTC	Planning Service - Air Transportation Planning Division	Supervising TDO
MCIAA	Legal and Finance	Legal Manager and Finance Dept.
MCIAA	Legal Office	Corporate Attorney
MIAA	Plans and Programs Division	OIC-PPP
CAAP	Admin and Finance Service	OIC, Admin and Finance
CAAP	Engineering Department	Accounting Department Manager

Source: JICA Study Team

The results of the capacity and needs assessment of the airport sector are discussed below.

(1) Present Capacity Level

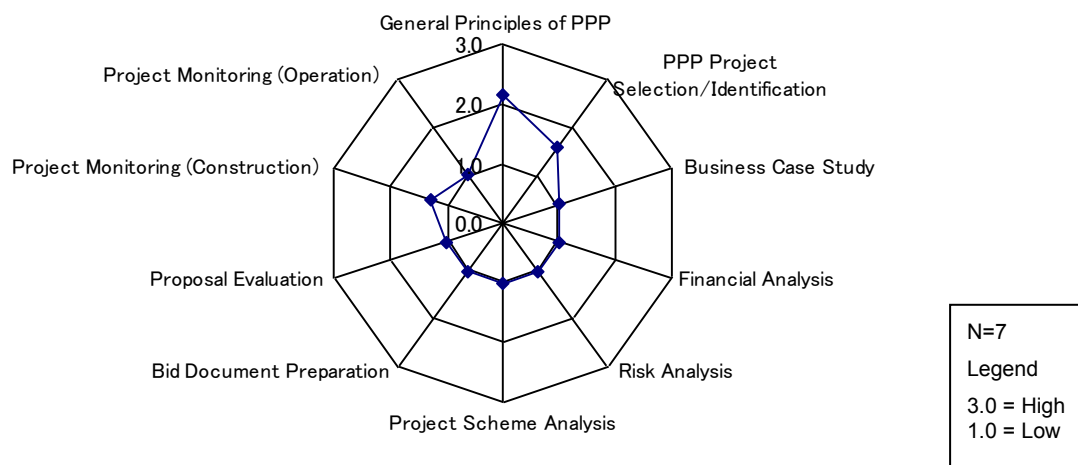
The JICA Study Team asked the respondents to score the present capacity levels of the staff of the relevant agencies regarding the ten check items. The results are shown in Table 6.2-8.

Table 6.2-8 Capacity Assessment Results (Airport Sector)

Check Item	Respondents (Seven Persons)							Average	Rank
	A	B	C	D	E	F	G		
General Principles of PPP	2	2	3	3	2	1	2	2.1	1
PPP Project Selection/Identification	1	2	2	2	2	1	1	1.6	2
Business Case Study	1	1	1	1	1	1	1	1.0	4
Financial Analysis	1	1	1	1	1	1	1	1.0	4
Risk Analysis	1	1	1	1	1	1	1	1.0	4
Project Scheme Analysis	1	1	1	1	1	1	1	1.0	4
Bid Document Preparation	1	1	1	1	1	1	1	1.0	4
Proposal Evaluation	1	1	1	1	1	1	1	1.0	4
Project Monitoring (Construction)	1	2	1	1	2	1	1	1.3	3
Project Monitoring (Operation)	1	1	1	1	1	1	1	1.0	4

Legend: High Level = 3.0, Middle Level = 2.0, Low Level = 1.0
 Source: JICA Study Team

A graph of the capacity assessment results is shown in Figure 6.2-5.



Source: JICA Study Team

Figure 6.2-5 Capacity Assessment Results (Airport Sector)

The capacity level was rated as low level in all stages of PPP processing. This is because majority of the respondents are responsible for national aviation planning (ATPD) and monitoring of project construction, and operations and maintenance (O&M) (other institutions).

(2) Needs for Capacity Development

The JICA Study Team asked the respondents to check the top three items necessary for the improvement of PPP capacity. The results are shown in Table 6.2-9.

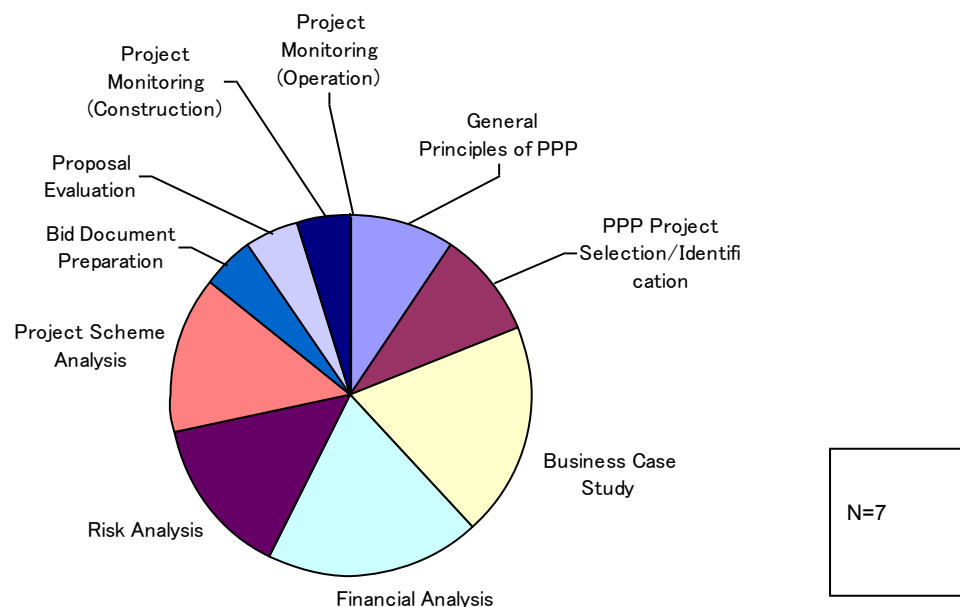
Table 6.2-9 Needs Assessment Results (Airport Sector)

	Respondents (Seven Persons)							Total Score	Rank (Needs)
	A	B	C	D	E	F	G		
General Principles of PPP						1		1	6
PPP Project Selection/Identification	1					1		2	5
Business Case Study	1	1				1	1	4	1
Financial Analysis		1	1	1			1	4	1
Risk Analysis		1	1	1				3	3
3Project Scheme Analysis	1		1	1				3	3
Bid Document Preparation					1			1	6
Proposal Evaluation					1			1	6
Project Monitoring (Construction)							1	1	6
Project Monitoring (Operation)								0	-

Note: Five respondents checked the top three needs for PPP capacity development according to them. In the figure, a higher score indicates higher need.

Source: JICA Study Team

A graph of the needs assessment results is shown in Figure 6.2-6.



Note: Five respondents checked the top three needs for PPP capacity development according to them. In the figure, a higher percentage indicates higher need.

Source: JICA Study Team

Figure 6.2-6 Needs Assessment Results (Airport Sector)

The need for capacity development was high in the areas of business case study, financial analysis, risk analysis, and project scheme analysis, while the need was low for bid document preparation, project evaluation, and project monitoring (construction and operation) because most of the respondents are engaged in such works. The skills and expertise on PPP projects preparation, particularly in the early stage (business case study, PPP feasibility study, and financial analysis) are needed.

A typical PPP modality of an airport project would be separation of airport services between landside (private proponent) and airside (government). Staff members in the airport sector are looking for successful PPP projects, such as an international airport handling millions of passengers that is expected to receive ample revenue that may be suitable for a build-operate-transfer (BOT) scheme.

The respondents answered the following airport projects in connection with training of relevant staff for PPP processing.

- Mactan-Cebu International Airport Passenger Terminal Building;
- O&M of Laguindingan Airport ;
- O&M of Puerto Princesa Airport;
- Kalibo International Airport; and
- Caticlan Airport.

(3) Issues

The airport sector in the Philippines has undertaken only two PPP projects in the recent past. These are the NAIA Terminal 3 BOT Project in 1997-2008, and the Caticlan Airport Project in 2008. The NAIA Terminal 3 Project, which is the first PPP airport project in the country, encountered numerous problems. This project left various lessons related to concession agreement. On the other hand, the second PPP airport project, the unsolicited Caticlan Airport Project, has less legal and technical issues so far.

DOTC has learned lessons from these two PPP projects. Currently, however, the progress of the promotion and implementation of PPP airport projects is still slow. Capacity development appears to be necessary in the area of selection and identification of PPP airport projects, including business case studies.

The two different sets of PPP rollout airport projects in 2011 and 2012 also gives an indication that there is no established selection system for airport PPP projects in DOTC. The results of the capacity building assessment survey also attest to the necessity for PPP project selection and identification.

Of particular interest and significance to DOTC are topics involving business case studies, financial analysis and risk analysis, and project scheme analysis toward PPP project development and implementation.

Considering the long gestation period of PPP projects based on the project cycle, i.e., from project identification to preparation of proposals and draft concession agreements, the JICA Study Team recommends that appropriate sector specific capacity development programs for selected DOTC staff should be developed and implemented. Participants to these training programs should involve not only members of the Project Development Team (PDT) under the Office of the Assistant Secretary for Planning but also staff from DOTC's ATPD and Project Management Service (PMS), CAAP's Aerodrome Development and Management Service (ADMS), MIAA's Plans and Programs Department (PPD), and an appropriate department of MCIA .

6.2.5 Assessment Results: Water Sector (MWSS and LWUA)

In the water sector, the capacity and needs assessments were conducted by means of questionnaire and interview survey of four staff from MWSS and five staff from LWUA. The sections and positions of the respondents are shown in Table 6.2-10.

Table 6.2-10 Section and Position of Respondents (Water Sector)

Agency	Section	Position
MWSS	Engineering and Operations	Deputy Administrator
MWSS	Engineering and Project Management Dept. (EPMD)	PMO-A
MWSS	EPMD	PMO-A

MWSS	EPMD	PMO-A
LWUA	AG Operations, Planning/Design	Division Manager
LWUA	Area G	Acting Manager
LWUA	Special Project Officer	Acting Department manager
LWUA	Loans and Water Rates Evaluation - Luzon Area 1	Acting Manager Area 1
LWUA	Area Operations Visayas	Project Planning Division Acting Division Manager

Source: JICA Study Team

(1) Present Capacity Level

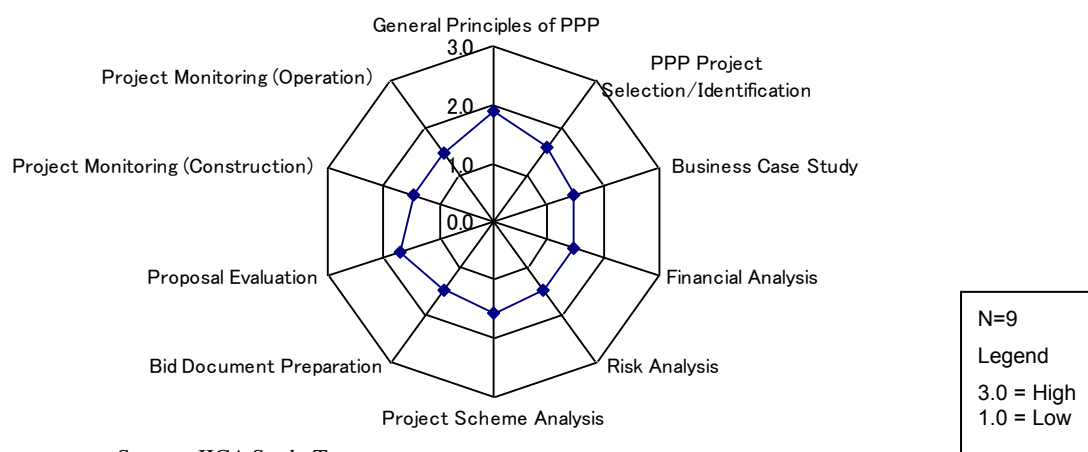
The JICA Study Team asked the respondents to score the present capacity level of the water sector staff regarding the ten check items. The result is shown in the Table 6.2-11

Table 6.2-11 Capacity Assessment Results (Water Sector)

Check Item	Respondents (Nine Persons)									Average	Rank
	A	B	C	D	E	F	G	H	I		
General Principles of PPP	3	2	2	3	1	1	2	2	1	1.9	1
PPP Project Selection/Identification	2	2	2	3	1	1	1	1	1	1.6	3
Business Case Study	3	1	2	2	1	1	1	1	1	1.4	5
Financial Analysis	3	1	2	2	1	1	1	1	1	1.4	5
Risk Analysis	3	1	2	2	1	1	1	1	1	1.4	5
Project Scheme Analysis	2	2	2	3	1	1	1	1	1	1.6	3
Bid Document Preparation	2	1	2	2	1	1	2	1	1	1.4	5
Proposal Evaluation	3	1	3	3	1	1	1	1	1	1.7	2
Project Monitoring (Construction)	2	2	2	2	1	1	1	1	1	1.4	5
Project Monitoring (Operation)	2	2	2	2	1	1	1	1	1	1.4	5

Source: JICA Study Team

A graph of the present capacity levels of respondents is shown in Figure 6.2-7.



Source: JICA Study Team

Figure 6.2-7 Present Capacity Level (Water Sector)

(2) Needs for Capacity Development

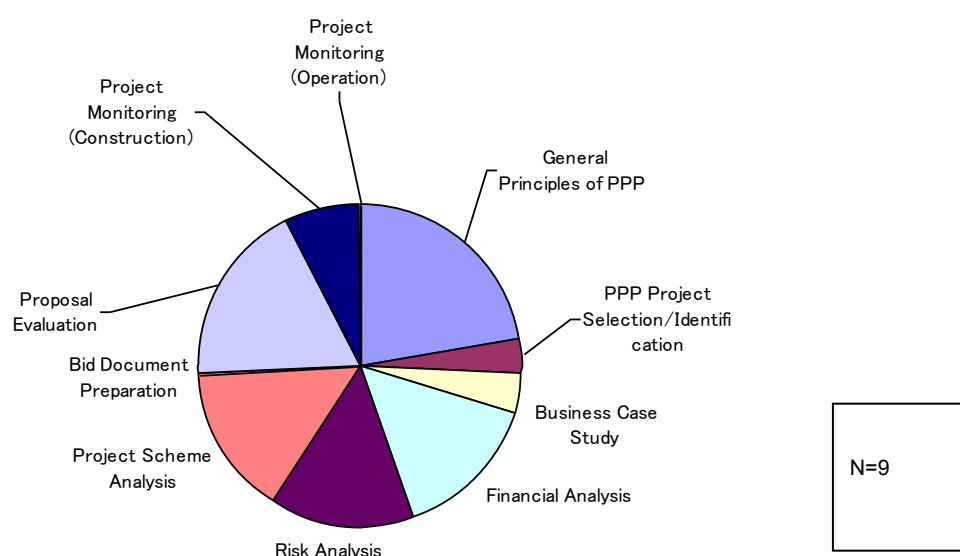
The JICA Study Team asked the respondents to check the top three items necessary for the improvement of PPP capacity. The results are shown in Table 6.2-12.

Table 6.2-12 Needs Assessment Results (Water Sector)

	Respondents (Nine Persons)									Total	Rank
	A	B	C	D	E	F	G	H	I		
General Principles of PPP			1		1	1	1	1	1	6	1
PPP Project Selection/Identification							1			1	7
Business Case Study								1		1	7
Financial Analysis	1	1				1		1		4	3
Risk Analysis	1	1		1			1			4	3
Project Scheme Analysis	1		1		1				1	4	3
Bid Document Preparation										0	-
Proposal Evaluation		1		1	1	1			1	5	2
Project Monitoring (Construction)			1	1						2	6
Project Monitoring (Operation)										0	-

Source: JICA Study Team

A graph of the needs assessment results is shown in Figure 6.2-8.



Source: JICA Study Team

Figure 6.2-8 Needs Assessment Results (Water Sector)

The need for capacity development was recognized for each field in PPP processing, which implies that MWSS is ready for strengthening the capacity of their staff on PPP project preparation. Under such circumstance, a seminar on studying new bulk water supply projects involving existing reservoirs under BOT contract scheme would help them in the preparation of upcoming PPP water supply projects. This could contribute to business expansion of MWSS, and enhancement of their capacity development. The needs assessment results are shown in Figure 6.2-8.

(3) Issues

A growing demand for new bulk water supply projects, including dam construction, highlights the role of MWSS as an implementing agency under BOT scheme; however, private proponents are reluctant to commit themselves to such greenfield projects mainly because of financial infeasibility. MWSS needs very concessional loans (i.e., ODA loan) particularly for financing dam construction; however, MWSS has been constrained by a government policy aimed at reducing its borrowing of ODA loans from donors. Under such circumstance, a hybrid type of water supply project comprising dam construction, financed by ODA loan, and water transmission facility, financed by private proponent, would be preferable as a pipeline project in the water sector.

6.2.6 Assessment Results: Energy Sector (DOE)

In the energy sector, PPP or its projects are not in the mainstream so that the target to be interviewed is not DOE but its affiliate organ where the likely PPP project is to be implemented. The capacity and needs assessments were conducted by means of questionnaire and interview survey of five staff from PNO. The sections and positions of the respondents are shown in Table 6.2-13.

Table 6.2-13 Sections and Positions of Respondents (Energy Sector)

Agency	Section	Position
PNO	Corporate Planning Department	Manager
PNO	Engineering	Manager
PNO	Treasury Department	Deputy Manager
PNO	Management Service	Vice President
PNO	Legal Department	OIC-Manager

Source: JICA Study Team

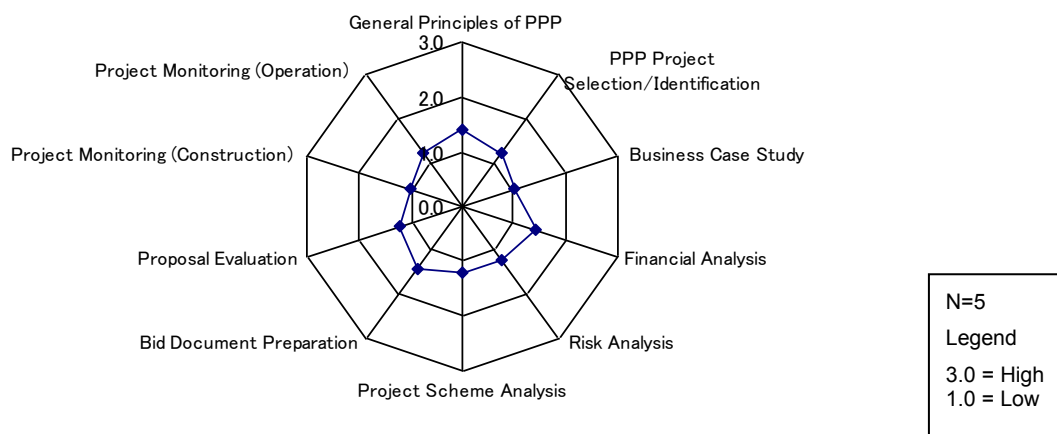
(1) Present Capacity Level

The JICA Study Team asked the respondents to score the present capacity levels of the energy sector staff regarding the ten check items. The results are shown in Table 6.2-14.

Table 6.2-14 Capacity Assessment Results (Water Sector)

Check Item	Respondents (Five Persons)					Average	Rank
	A	B	C	D	E		
General Principles of PPP	2	1	1	1	2	1.4	1
PPP Project Selection/Identification	2	1	1	1	1	1.2	4
Business Case Study	1	1	1	1	1	1.0	9
Financial Analysis	3	1	1	1	1	1.4	1
Risk Analysis	1	1	1	1	2	1.2	4
Project Scheme Analysis	2	1	1	1	1	1.2	4
Bid Document Preparation	2	1	1	1	2	1.4	1
Proposal Evaluation	2	1	1	1	1	1.2	4
Project Monitoring (Construction)	1	1	1	1	1	1.0	9
Project Monitoring (Operation)	2	1	1	1	1	1.2	4

Source: JICA Study Team



Source: JICA Study Team

Figure 6.2-9 Present Capacity Level (Energy Sector)

(2) Needs for Capacity Development

The results of the needs assessment are shown in Figure 6.2-10. The fundamental issues regarding the needs for capacity development on PPP are the following:

First, PNOC is preparing the Batangas-Manila Natural Gas Pipeline (BATMAN) 1 Project. For instance, PNOC, as the implementing agency, would be responsible for the ROW acquisition needed for the installation of gas pipelines along national roads from Batangas to Metro Manila. However, PNOC has no experience of ROW acquisition, thus DPWH may assist it in such.

In addition, gas development in the country is not an issue of one project but that of the whole industry. The DOE will need the following information and expertise in establishing a gas industry suited for the Philippine business environment:

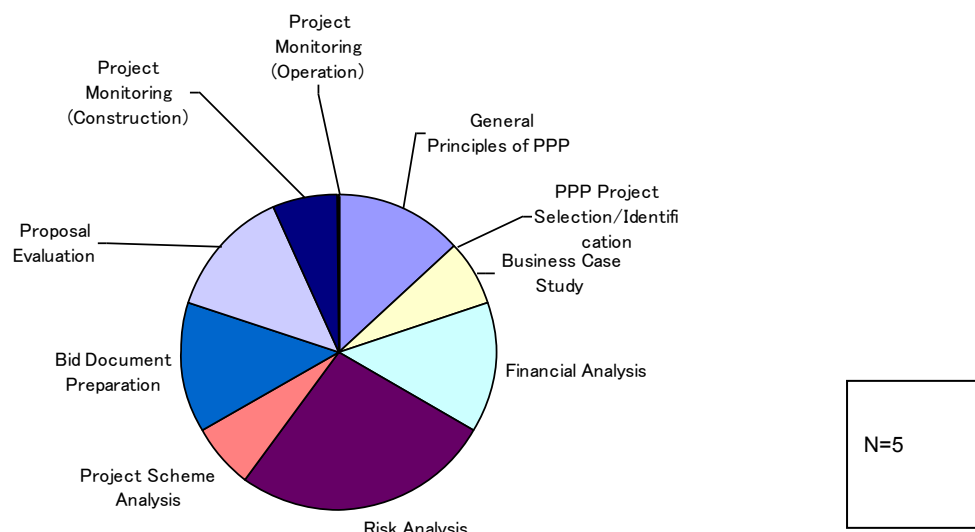
- Regulations (private companies entering gas business and prices) on gas industry (DOE);
- Organization and tasks to be entrusted to a special company for gas industry under PNOC; and
- TOR of the FS of the BATMAN 1 Project particularly detailed financial analysis of the PPP model for BATMAN and other projects.

Table 6.2-15 Needs Assessment Results (Water Sector)

	Respondents (Five Persons)					Total	Rank
	A	B	C	D	E		
General Principles of PPP		1		1		2	2
PPP Project Selection/Identification						0	-
Business Case Study	1					1	6
Financial Analysis			1	1		2	2
Risk Analysis	1	1	1		1	4	1
Project Scheme Analysis			1			1	6
Bid Document Preparation				1	1	2	2
Proposal Evaluation		1			1	2	2
Project Monitoring (Construction)	1					1	6
Project Monitoring (Operation)						0	-

Source: JICA Study Team

A graph of the needs assessment results is shown in Figure 6.2-10.



Source: JICA Study Team

Figure 6.2-10 Needs Assessment Results (Energy Sector)

(3) Issues

The country is still facing chronic problems such as: i) combined market power across power generation and distribution in the Luzon grid, ii) energy insecurity particularly in Mindanao, and iii) high level of debt of the National Power Corporation (NPC). Accordingly, DOE is expected to take a leadership role in solving these issues. The fundamental approach is to determine up to what extent the government should be responsible for such issues under the Electric Power Industry Reform Act (EPIRA).

6.3 Trial Implementation of PPP Capacity Development Training

6.3.1 Planning and Implementation of Trial PPP Capacity Development Training

According to the prior surveys, the current PPP trainings provided by ADB are mainly focused on oversight agencies, such as the PPP Center and DOF. The JICA Study Team identified that IAs has potentially great needs for PPP capacity development.

Based on this finding and recognition, a trial PPP capacity development training for selected IAs, i.e., DPWH, DOTC (Airport and Railways), and MWSS/LWUA, was planned in the Study. The objectives of the training are (1) to answer the urgent needs for PPP capacity development of each IA, and (2) to grasp IA's real capacity and needs with regard to PPP.

The JICA Study Team tried to plan "tailor-made" programs that would specifically meet the needs and expectations of each agency. The findings regarding the capacity and needs of the selected agencies, as taken from the needs and capacity assessments conducted by the JICA Study Team, are shown in the Table 6.3-1.

Table 6.3-1 Findings from the Capacity and Needs Assessments

Agency	PPP Capacity	Training Items of High Need
DPWH	Relatively High	1) Risk Analysis including CL 2) Financial Analysis 3) Project Scheme Analysis
DOTC	Middle	1) Risk Analysis including CL 2) Financial Analysis 3) Project Scheme Analysis
MWSS and LWUA	Relatively Low	1) General Principles of PPP 2) Proposal Evaluation 3) Financial Analysis, etc.

Source: JICA Study Team

The training programs were prepared to meet those levels and needs. Also, in the process of preparation, further discussions and consultations were made among the following key persons of each agency:

- DPWH: Head of BOT-PMO
- DOTC: Undersecretary and Assistant Secretary
- MWSS: Undersecretary and Deputy Administrator

After going through these processes, the JICA Study Team arranged the tailor-made training programs, as shown in Table 6.3-2, and carried them out as planned. Generally, members of the JICA Study Team served as lecturers of each course; however, officers of DPWH also conducted some parts of the program such as the workshops for the road sector.

Table 6.3-2 Contents of Trial Capacity Development Training

Sector/ IA	Training Contents		
	Date	Program	Contents
Road (DPWH)	DAY 1 March 12, 2013	(1) Toll road PPP modality (2) Project implementation/monitoring (3) Issues/problems encountered (workshop)	(1) PPP modalities with respect to profitability and public sector involvement (2) Responsibility of DPWH at each stage of project preparation (3) Various issues raised during trainees' group discussion.
	DAY 2 March 13, 2013	(1) CL of the Government of the Philippines (the GoP) and TCA (2) Impact of government risk to financial conditions of proponent (3) Measures to reduce CL risks (workshop)	(1) How is CL specified in Toll Concession Agreement? (2) Simulation of the government Payment for CL risks. (3) Trainees' group discussion about how to reduce costs caused by delay in ROW acquisition.
	DAY 3 March 14, 2013	(1) Financial basics and exercises	(1) Basic financial analysis (2) Exercise of financial models for case studies (road projects)

Railway and Airport (DOTC)	DAY 1 March 14, 2013	(1) PPP modality and BCS (2) PPP project risk management	(1) Modality selection examples (2) Revenue risk management. (3) Appropriation risk undermining CL payment
	DAY 2 March 15, 2013	(1) Financial basics and exercises	(1) Basic financial analysis (2) Exercise of financial models for case studies (railway and airport)
Water (MWSS and LWUA)	DAY 1 March 19, 2013	(1) Global trend of PPP in water sector and good practice (2) PPP project cycle management, (3) PPP modality (bulk water supply) (4) Financial analysis (5) CL analysis	(1) Water PPP project trend by region and modality (2) What to do at each stage of project preparation (3) Water PPP modality options (4) Basic financial analysis/Exercise of financial models for case studies (5) Quantification of CL

Note: BCS stands for business case study, and TCA means toll concession agreement.

Source: JICA Study Team

A three-day course was held for the road sector staff because their capacity level was relatively high and there was a strong request to DPWH to conduct three-day training. A two-day course was jointly held for the railway and airport sectors, and a one-day course was held for the water sector. These also reflected the current needs of related agencies.

Table 6.3-3 shows the number of participants from each agency.

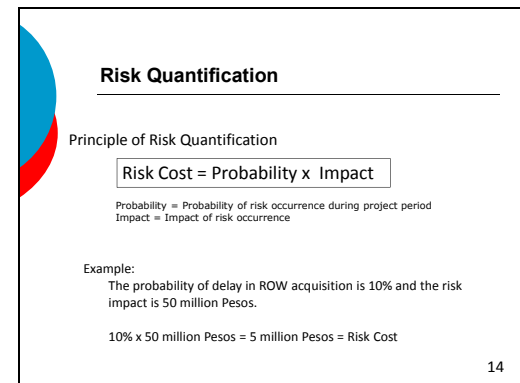
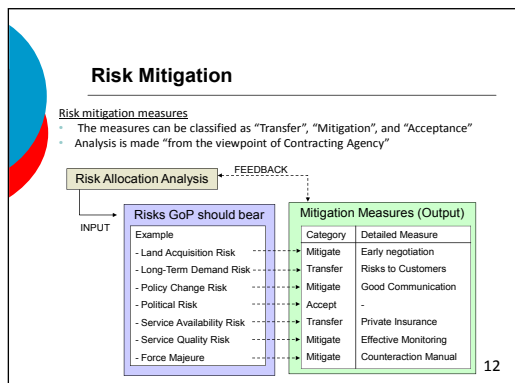
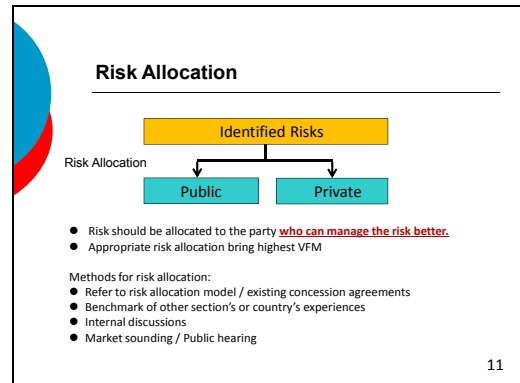
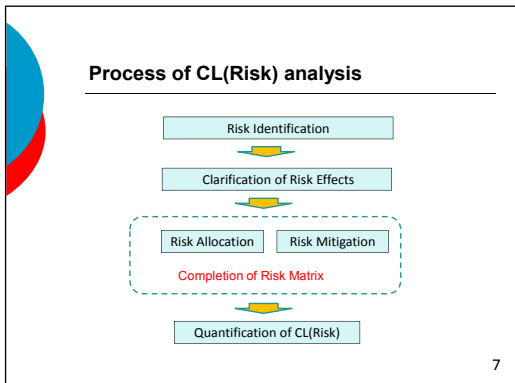
Table 6.3-3 Participants of the Trial Capacity Development Training

Sector	Number of Participants	Participating Agencies
Road Sector	27	DPWH and the PPP Center
Railway and Airport Sectors	22	DOTC and the PPP Center
Water Sector	35	MWSS and LWUA

Source: JICA Study Team

Some excerpts of the materials used for the training are shown below.

(1) Materials Used for CL Analysis at MWSS (Excerpt)



(2) Materials Used for Financial Analyses at MWSS (Excerpt)

1. Key Points

- The purpose of financial analysis is to produce results that can be used to make or confirm decisions about the financing of a given project.
- The conditions to be met for viability

For private sector

- Condition 1 : Project IRR ≥ WACC
- Condition 2 : Equity IRR ≥ cost of equity
- Condition 3 : DSCR ≥ 1.0 → loan is repayable

For government

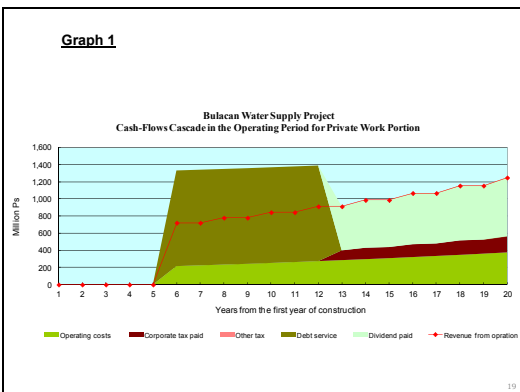
- Condition 4 : Government support (VGF, guarantee) to be provided if GoP has an incentive (VFM) to do so:
PV (tax revenue) ≥ PV (cost of support)

FIRR Calculation

Cashflow for Government Work Portion (1/2)

Cashflow Projection for Government Work Portion of Bulacan Water Supply Project

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026
Revenue	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Operating costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Capital costs	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other tax	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Debt service	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dividend paid	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Revenue from operation	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Net cashflow	0	0	0	0	0	0	0	0	0	0	0	0	0	0



The following are some photos taken during the training.

(1) DPWH



(2) DOTC



(3) MWSS



Source: JICA Study Team

At the completion of training for each sector, the JICA Study Team conducted a simple questionnaire survey, asking the participants' opinions and feedback about the program. The following are the opinions obtained from the participants.

DPWH (Road Sector)**Comments:**

1. The topics on PPP capacity development were well-appreciated.
2. Gained enough understanding on BOT law.
3. The topics were good but there was limited time.
4. Financial analysis should be separated from other topics due to wider coverage.
5. The workshop (capacity building) was a big help to the participants to learn ideas.
6. We now have a better understanding on financial analysis. By using the trial and error in the financial model provided, we are able to determine the relationship of the viability gap fund (VGF) and the IRR, thus, we can analyze which financial model will meet the requirements of PPP projects.
7. This type of seminar is recently the most interesting as such has become a more and more popular project concept thrust by the government.
8. The seminar was very interesting and informative.
9. Thanks a lot to JICA for conducting the capacity development program.

Suggestions:

1. The JICA Study Team should have provided exercises on how to quantify/value CL.
2. Capacity building with regards to quantification of risks is also necessary.
3. Needs further capacity building on the following:
 - a. Traffic study,
 - b. Minimum performance standards and specifications (MPSS) and key performance indicators (KPIs),
 - c. Toll system including toll plaza, and
 - d. Concession agreement.
4. Thorough discussion on the following:
 - a. Limitation of VGF to be provided,
 - b. Financial evaluation from scratch using sample infrastructure projects (no values yet indicated in the excel worksheet),
 - c. Recommendations from consultants on how to avoid CL,
 - d. Risk management,
 - e. STRADA, and
 - f. Traffic simulation.
5. At least one week before the seminar, it may be better to furnish participants the handouts/topics for discussion, or a brief summary of topics to be tackled.
6. Furnish in advance (at least one week before) to participants a glossary/definition of terms/acronyms for easier comprehension.
7. Since it takes time to create/understand scenario of the financial model, maybe a longer time is needed for understanding.
8. Topics dealing with different subject/s such as financial, technical, etc., should be conducted separately for different participants per subject.
9. Regarding risk management, maybe a systematic approach on how to lessen a stakeholder's risk could be provided by showing some values or quantitative analysis.
10. More demonstrative/illustrative examples must be considered for every details being discussed.
11. Financial terminologies should be adequately explained in layman's terms.
12. Ample time should be given for exercises.
13. If we could have instructional guidelines on computations in financial analysis.
14. Further financial model application through more seminars.
15. Prepare and provide the participants instruction manuals on how to use the model.
16. Even it took time to learn how to run the financial model, the model was created but clueless where the figures came from.
17. A more detailed and probably longer session for the financial analysis is needed.
18. Discussion on standard provisions for PPP contracts.
19. Capacity development on contract negotiation management.

DOTC (Railway and Road Sectors)**Comments:**

1. The training was very interesting and educational.
2. The staffs were very friendly and accommodating.
3. The resource persons were good and have demonstrated their knowledge in the subject.

Suggestions:

1. Two days is very short to make a significant impact on the improvement of PPP capabilities of the agencies.
2. The JICA program seemed to focus on financial modeling, which is not bad, but [I expect to have trainings on] risk sharing, transaction structuring, and skills in contract drafting and negotiations.
3. I am looking forward that more training and seminars will be conducted, especially in the field of rail operations and project management.

MWSS/LWUA (Water Sector)**Comments:**

1. The topics presented were very useful for the proposed PPP projects of MWSS.
2. The training gave additional insights on PPP which helped us appreciate it better.
3. As a Bids and Awards Committee (BAC) member of a PPP project, I want to learn more on this topic especially.
4. The seminar was brilliant and very helpful.
5. Presentations were very clear.
6. It was quite interesting.

Suggestions:

1. Topics to Cover:
 - a. There should be further discussions/learning sessions on CL analysis. I would like to learn more about CL.
 - b. There should be a seminar on risk allocation.
 - c. International experiences and/or standards regarding CL should be discussed.
 - d. Discussion on VFM and risk allocation should be included.
 - e. Should cover monitoring, such as compliance with KPIs.
2. On the Financial Model Exercise
 - a. The “goal seek” function in excel should be used to determine equity internal rate of return (EIRR) (like in the case study) instead of “find and error”.
 - b. I would like to know the specific locations of projects where the financial models were applied.
 - c. Limitations of the financial models should be discussed.
 - d. Wish there were more clarifications and clear explanations especially on the financial analysis topic.
3. Duration
 - a. Duration of the seminar was not enough.
 - b. The seminar covered a lot of topics but the time was limited.

6.3.2 Lessons and Feedback from the PPP Capacity Development Program

This PPP capacity development training was taken as a trial demonstration, from which lessons are learned and the feedback applied for more effective capacity development of IAs.

The trial training prepared based on the needs assessment survey was successful to some extent in terms of i) enhancement of knowledge and expertise and ii) active communication between trainees coming from the different sections. The more positive outcome expected from the capacity development training would be the direct benefits on the current task of staff members engaged in PPP project preparation in terms of the following: i) improvement of PPP processing task, ii) establishment of risks mitigation method, and iii) communications network with the PPP Center.

Based on the trial PPP capacity development program, the JICA Study Team realized the following areas which need to be improved with high priority at present for better planning and implementation of PPP projects.

(1) PPP Projects Preparation Knowledge and Skills

a. Business Case Study (PPP Modality Selection)

The significance of the selection of the best PPP modality was acknowledged by all trainees, but a business case study (BCS) for modality selection has not been institutionalized in the process of PPP project preparation in IAs except DPWH. Accordingly, the target of the training should include staff members at the management level (directors) in order to institutionalize a BCS in the process of PPP project preparation. A BCS may lead to a PPP feasibility study (FS) financed by the PDMF under the management of the PPP Center. In this respect, training should include staff members of the PPP Center to discuss linkage with PDMF.

b. Financial Simulation

Many comments from the trainees are concentrated on financial analysis and the model applied in the case studies presented in the training course. The reason for it is supposed to be the peculiarity of financial analysis of PPP projects, which is VFM, equity IRR, quantification of risks anticipated, and amount of subsidy. Moreover, financial analysis of PPP projects is different by sector or project because of the different modality selected and sectors' characteristics.

A short-day training on financial simulation of PPP projects is not enough for trainees to understand the basic of PPP financial analysis. An appropriate guidebook used mainly for training of staff members of IAs even those of the PPP Center will be necessary for trainees to understand the financial analysis of PPP projects.

(2) Risk Management Knowledge and Skills

Effective training on risk management would be possible only if trainees are involved in active discussion on how to reduce or mitigate risks (including CL) anticipated. The group discussion was conducted about problems/risks at the stages of ROW acquisition, detailed design, construction and O&M in the training course of the PMO-BOT of DPWH. Such discussion results would be useful in the compilation of a manual on risk management.

(3) Contract Development and Management Skills and Knowledge

A PPP agreement is the key document which is agreed upon by the government agency and private

proponent regarding major clauses such as duties and obligations owed by contractors. The contracting agency (IA) is particularly sensitive to direct and contingent liabilities owed by IA, but there are few standard models of contract so far. Under such circumstance, the preparation of a model contract was part of the scope of works of the FS of a PPP toll road project (DPWH).

The request for training of staff in IAs regarding specific issues (i.e., penalty, compensation for CL, and termination payment) stipulated in the contract was actually made by DOTC and DPWH in the course of the Study; however, all of IAs' requests were not met due to the short duration of training and the limited number of trainers (the JICA Study Team). Legal advisors working at each IA could be appropriate target for training of trainers (TOT) to give instructions on making improvements in model contracts so that donor financed PPP FSs would emphasize the subject of a model contract for which foreign consultants cooperate with local legal advisors.

6.4 Summary

This chapter showed the results of the capacity and needs assessment as well as "Trial PPP Capacity Development Training". The capacity and needs assessment was conducted for five sectors, i.e. Road, Railway, Airport, Water and Energy in the form of questionnaire. Trial PPP Capacity Development Trainings were conducted for four agencies, i.e. DPWH, DOTC, and MWSS/LWUA. The followings are the key messages obtained from the above-mentioned activities.

- The capacity and needs assessment survey conducted in the Study revealed that respondents (staff) of IAs have a weakness in PPP processing, particularly in the fields of i) business case study, ii) financial analysis, iii) risk analysis, and (iv) project scheme analysis. Since DPWH takes a lead for organizational setup for PPP projects, staff's capacity appears to be higher than other agencies. The capacities of MWSS and DOE are assessed to be at initial stage.
- The assessment result also shows that need for capacity development was assessed to be relatively high in the same fields where respondents' capacity was weak.
- The trial capacity development programs were conducted for key agencies for one to three days. The program was made based on the results of the capacity and needs assessment and focused on the planning stage, including subjects such as financial analysis, risk analysis, and modality analysis. Although the training days were very limited, the participants were very active in learning new knowledge and skills on PPP.
- Based on the written comments and ex-post interviews with the participants of the training, it was revealed that implementing agencies continuously need training for capacity development. Some IAs, particularly DPWH and DOTC, have shown strong interests in receiving JICA's technical assistance for PPP capacity development.
- It was also found from the study that the capacity development program which is currently provided by ADB focuses on oversight agencies, such as the PPP Center, rather than IAs. It was widely heard among stakeholders, including OA, IAs and ADB that JICA's possible PPP TA, if it is targeted at IAs, will produce a great synergy with ADB's TA.

Conclusions

1. Findings

(1) Current Status of PPP Program

The Philippines was one of the leading countries in PPP, which adopted BOT in the early 1990s. However, after the Asian financial crisis in the late 1990s and political instability, the government has been facing difficulties to take full advantage of PPP.

In this circumstance, the new Aquino administration has launched a new PPP initiative in 2010, and governing rules and organizations for PPP have been reviewed and improved since then. As of April 2013, three projects have been successfully bid out, though those are out of more than fifty pipeline projects. The government is not yet satisfied with the progress of PPP project implementation. There are still many hurdles to be overcome, including the aspect of legal, organizational and human resource. The followings are the major defects identified at the stages of PPP processing

- Difficulty in PPP project identification
- IA's insufficient capacity for PPP/FS
- Lengthy process of review and approval of PPP projects
- Unclear interpretation of related laws and regulations
- Limited number of bidders
- Weak contract compliance and monitoring of the government

(2) Current Status of PPP by Sector

The review of PPP in the five sectors revealed the different status/process of PPP projects implementation in terms of i) organizational development in conducting PPP projects, ii) PPP track records, and iii) sectors' specific situation. The followings are the main finding in the sector movements.

- DPWH already has PPP project track record and appears to take the lead in the organizational setup for PPP projects.
- DOTC has no track record yet and is still at the development stage for strengthening its PPP unit (Project Development Team).
- In water sector, PPP experience can be traced back to concession schemes (brownfield) in Metro Manila in the 1990s, and the recent greenfield projects for water supply, particularly in the form of bulk water sale, could be the candidate PPP projects.
- It was observed through the interviews and questionnaires made by the JICA Study Team that the officers of DPWH, DOTC and MWSS strongly feel the necessity of capacity development.
- In energy sector, the GoP currently faces new challenges, in particular, in promoting new investments in the fields of renewable energy and gas.

(3) Necessity of Integrated Master Plan

Currently, agencies such as NEDA, DPWH, and DOTC develop master plans in their sector in charge together with national development plan. However, those master plans are not explicitly intended to formulate PPP projects. Relevant agencies, including oversight agencies and implementing agencies, are facing with the following issues:

- It is difficult to prioritize projects across sectors.
- It is difficult to justify the needs and importance of particular projects based of wider perspective.
- Infrastructure projects developments are done project by project in a piecemeal (not strategic) manner.
- It often requires huge costs for adjustment when plural projects produce physical and functional conflicts.
- The necessary budget for PPP as a whole cannot be estimated at once.

Based on the recognition of these difficulties above, the JICA Study Team proposes a master plan (it is tentatively called as an “Integrated Master Plan for Strategic Infrastructure Development).

Integrated Master Plan is to aims to prioritize infrastructure projects and formulate their financing methods. The Plan should cover the entire transport sector of being as public goods, including Road, Railway, Airport and Seaport sectors. Other critical sectors should also be covered which include but not limited to Water, Flood Control, and Waste. Its financial source expected to refer to specific condition required by potential financial sources, such as IFIs and JICA.

(4) Analysis on Public Financial Framework for PPP

In general, there are four functions defined to be necessary for government institutional support to promote PPP, namely, project development, subsidy, concessional loan, and guarantee. India, where the PPP environment is well-developed, holds the first three systems. Indonesia has all the four, though its track record is still limited. The Philippines has a project development facility called PDMF and a mechanism for delivering subsidies, but the remaining two are not established yet. PDMF has activated its function by receiving additional funding of 9 million (total available revolving fund \$22 million with original fund) from ADB/ AusAID.

Compared with other countries, there are two kinds of uniqueness in the Philippines. First, while the acquisition of ROW is the responsibility of the GoP (same as other countries), there was a time that the GoP relied on the private component to initially acquire ROW and simply provided reimbursement, which is viewed as subsidy for ROW. This resulted in the recognition of a large amount of subsidy that is provided to one project. Second, other countries usually include not only CL but also direct liabilities within the coverage of guarantee. The Philippines, on the other hand, does not have a guarantee function neither for CL nor direct liabilities in a strict sense. The GoP is now attempting to set up a CL fund, while facility for direct liabilities is remained untouched.

The GoP does not seem to recognize the necessity of utilization of concessional loan at this moment. One of their reasons is rooted to the concerns for fiscal waste and leakages to non-target beneficiaries. Another reason is that considering the liquidity-rich local financial market with record-low interest rates, the GoP thinks private financiers are able to meet loan demands. The GoP once welcomed the idea of the Private Equity Fund (PEF) of the Government Service Insurance System (GSIS), which they thought sufficient for a long-term financing system. However, it has to be noted that even under the current financial market conditions, there is a certain value having concessional loan because the market provides the maximum loan term is 13 to 14 years at longest, which is only half of the typical 25- to 30-year concession period, which leaves unquantifiable refinance risk for the investors.

(5) Benefit of CL Fund and Needs of Guarantee Function

As requested by the GoP, the JICA Study Team demonstrated the positive impacts of the CL Fund by making quantitative assessment of cost/benefit analysis. In this regard, one of the benefits of creating CL Fund is the reduction in VGF required. VGF would be reduced because of the equity IRR expected lower. The cost for CL risks, should it occur, is paid by the GoP. The analysis demonstrated that the average benefit ratio of the CL Fund, which is the ratio of net benefit of the CL Fund against the

amount of initial investment costs for the six recent PPP projects (CALAx, NAIAX, MRT7, etc.), was as high as 7%.

While a function for CL is now planned to be established, there is no guarantee fund for direct liabilities obligations. If the GoP wishes to invite foreign companies to infrastructure projects, it would be worth considering to establish a function for direct liabilities.

(6) PPP Capacity Development

The JICA Study Team observed, through capacity development trainings, that officers of IAs have some weakness in managing a PPP project, including implementation of a PPP F/S, and officers are willing to receive trainings on this regard. A feasibility study on PPP project is different from that of conventional project in various terms including project financing, risk analysis and modality selection. Due to the lack of experience in those tasks, it is often the case that a PPP F/S is not satisfactory, and appropriate project planning is not realized. When appropriate project planning is not conducted, the project might not be materialized as a PPP project due to, for example, low interest on private side. In order to tackle these issues, the GoP is utilizing PDMF. It is surely working but still not comprehensive enough to improve the capacity of officers and staff of IAs. More strategic programs, therefore, is required which is specifically designed for staffs in IAs.

2. Recommendations

The JICA Study Team identified the followings as important actions to take, if possible suggests as solutions.

(1) Short-term (Immediate) actions

a. Materialization of CL Fund

Since the GoP recently announced an initiative to establish a “standby function” for CLs with an initial amount of about PhP 30 billion, it is advised to evolve the initiative into a mechanism for managing fiscal risk exposure and to create an independent institution (or “Fund”) to manage fiscal risk arising from CLs, particularly for those associated with PPP.

It is also recommended more immediate measures be taken to attract a wider pool of investors. This may include: (i) strengthening contract provisions for guarantees in terms of identifying clearly the event triggers, such as how these are defined and have rules on compensation amounts to minimize the sources of dispute that leads to delay in payment; and (ii) strengthening of dispute settlement mechanisms by promulgating the implementing rules and regulations of Executive Order No. 78 by possibly requiring uniform contractual clauses on the Alternative Dispute Resolution (ADR), and that the government be able to draw from the CL Fund to ensure immediate payment of an arbitral award even if the court confirmation of such award is pending (but without prejudice to the government’s right to recover payment if the award is subsequently not confirmed).

b. Development of Integrated Master Plan for PPP Infrastructure Projects

This master plan intends to integrate national and local government plans and programs/projects, and coordinate infrastructure physical plans and financing plans in order to attain adequate and reliable funding for construction and development of PPP infrastructure projects. It would be valuable for the GoP to develop the integrated master plan in order to conduct project prioritization across sectors as well as an analysis of commercial viability more efficiently and rationally. In fact, the lack of integrated master plan, especially a cross sector infrastructure development and investment plan, stays

as an obstacle for the smooth identification and formulation of PPP project pipeline.

c. Implementation of PPP Capacity Development

Considering the findings and feedback obtained from the trial training programs for IAs for economic infrastructure, it is recommended to conduct longer (more time) and more in-depth capacity development programs, under TA from JICA, for the target agencies (DPWH, DOTC, MWSS, etc.). It is also advised to expand such capacity development to IAs social infrastructure (schools, hospitals, prisons, etc.). The expected outcomes from this capacity development are as follows: (i) IAs acquiring basic knowledge and skills on PPP development and (ii) development of guidelines and manuals useful for PPP project identification, preparation, tendering, bid preparation and selection, financing, implementation, and O&M, which would lead to increase the number of projects to be listed on the pipeline.

(2) Medium- and Long-Term Actions

a. Continuous Study of Long-term Financial Framework and VGF Pool

Some of the upcoming projects will be less commercially viable, and there will be a need for strong support from the GoP through both long-term public financial framework and VGF pool. The GoP is advised to explore the possibility of these financial facilities in preparation of the upcoming projects, since the benefit of the government was the highest when all three financial mechanism (notably, VGF, CL Fund and Long Term Financial Framework) were in place, according to the quantitative analysis conducted in Chapter 5.

b. Continuous Study of Guarantee Function

The JICA Study Team believes that in order for the GoP to attract more foreign direct investment (FDI), improve competition, and generate greater value for money for the public, more robust guarantee arrangements would need to be put in place. This would also help promote development of non-recourse financing and project bonds in light of bank lending limits/borrowing capacity of dominant players. The guarantee function should cover not only CLs but also direct liabilities. This guarantee function is being used by a number of countries, such as the Government of Indonesia, with its establishment of the Indonesia Infrastructure Guarantee Fund (IIGF). The creation of such guarantee function encourages more investment to PPP infrastructure projects. The GoP may strongly wish to explore this mechanism.

Annex

Annex

Annex 1. List of PPP Projects

Table A.1-1 List of PPP Projects (as of September 4, 2013)

Project		Estimated Cost	IA	Type of PPP	Concession Period	Status
A.) Awarded Projects						
1	Daang-Hari-SLEX Link Road	USD46.6 Mn	DPWH	BTO	30 years	30.205% complete; ahead of schedule by 2.242% as of August 25, 2013
2	PPP for School Infrastructure Project (Phase 1)*	PHP16.42 Bn USD389 Mn	DepEd	BLT	10 years	73 sub-projects (239 classrooms) have been completed 845 sub-projects (2,725 classrooms) have started construction Notices to Proceed (NTPs) to 1,134 sub-projects (4,117 classrooms) issued
3	NAIA Expressway Project**	PHP15.86Bn USD377.6Mn	DPWH	BTO	30 years inclusive of construction	Ongoing preparation of Detailed Engineering Design (DED); Target construction period January 2014 to September 2015.
B.) Projects with Live Bidding						
1	LRT Line 1 Cavite Extension and O & M	PHP59.20Bn USD1.25Bn	DOTC	Extension and O&M	35 years inclusive of construction	For rebidding
2	Modernization of the Philippine Orthopedic Center (MPOC)	PHP5.70Bn USD135.5Mn	DOH	BOT	25 years inclusive of construction	For ICC-Cabinet Committee approval of bid
3	Rehabilitation, Operation & Maintenance of Angat Hydro Electric Power Plant (AHEPP) Auxiliary Turbines 4 & 5	PHP1.155Bn USD27.5Mn	MWSS	ROM	20 years inclusive of construction	For Prequalification
4	PPP for School Infrastructure Project (Phase II)	PHP 8.8 Billion	DepEd	BT		Submitted bids under evaluation
5	Automatic Fare Collection System (AFCS)*	PHP1.722Bn USD42.9Mn	DOTC		10 years inclusive of 2 years development/delivery	Bidders due diligence ongoing
6	Mactan-Cebu International Airport Passenger Terminal Building (MCIA)*	Phase1: (Initial Investment) PHP8.873Bn; Phase2: (Future Expansion) PHP8.647Bn	DOTC	BROT	20 years with terminal creation/expansion envisaged across 2 Phases with design years of 2023 and 2033	Bidders due diligence ongoing
7	CALA Expressway (Cavite and Laguna Side)	PHP43.33 Bn USD1.01Bn; PHP21.71Mn USD504.833 (Private Sector)	DPWH	BTO	35 years inclusive of design and construction	Invitation to Prequalify to Bid (ITPB) published on July 22, 2013.
C.) NEDA						

Board-Approved Projects						
1	NLEX-SLEX Connector Road	PHP21.20Bn USD504.8Mn	DPWH	BOT	35 years exclusive of 2.5 years construction	Approved by NEDA-Board on January 18, 2013
2	Talisay City Plaza Complex Heritage Restoration and Redevelopment	PHP 198Mn	LGU			Project already approved by the Regional Development Council (RDC) (as of March 4, 2013)
D.) For Evaluation and/or Approval of Relevant Government Bodies						
1	Integrated Transport System (ITS) Project*	PHP 5.06 Billion	DOTC			Ongoing evaluation of NEDA Board
2	Civil Registration System–Information Technology Project Phase II	To be determined (TBD)	NSO			On-going NEDA-ICC Approval
3	Vaccine Self-Sufficiency Project Phase II (VSSPII)	PHP453Mn USD10.8Mn	DOH			
4	Grains Central Project	PHP400Mn USD9.30Mn	DA			On-going NEDA-ICC Approval
E.) Project Structure Being Finalized						
1	Enhanced O & M of the New Bohol (Panglao) Airport*	USD 190.50 Mn	DOTC			Ongoing finalization of project structure
2	Operation & Maintenance of the Laguindingan Airport*	USD 42.9 Mn	DOTC			Ongoing finalization of project structure
3	Establishment of Cold Chain Systems Covering Strategic Areas in the Philippines*	PHP683.70 M USD35.7Mn	DA			Ongoing finalization of project structure
4	New Centennial Water Supply Source Project*	To be determined (TBD)	MWSS			Ongoing finalization of project structure
5	Bulacan Bulk Water Supply Project*	To be determined (TBD)	MWSS			Ongoing finalization of project structure
F.) On-going Studies						
1	Operation & Maintenance of LRT Line 2	To be determined (TBD)	DOTC			On-going preparation of Feasibility Study
2	Operation & Maintenance of the Puerto Princesa Airport	To be determined (TBD)	DOTC			On-going preparation of Feasibility Study
3	Davao Sasa Port	To be determined (TBD)	DOTC			On-going preparation of Feasibility Study
4	Integrated Luzon Railway Project *	To be determined (TBD)	DOTC			On-going preparation of Feasibility Study
5	Manila-Makati-Pasay-Paranaque (MMPP) Mass Transit System	To be determined (TBD)	DOTC			On-going preparation of Feasibility Study

	(MTS)					
6	Regional Prison Facilities through PPP*	To be determined (TBD)	DOJ			On-going preparation of Feasibility Study
7	C-6 Extension: Laguna de Bay Flood Control Dike Expressway	To be determined (TBD)	DPWH			On-going preparation of Feasibility Study
8	Calamba-Los Baños Toll Expressway Project	To be determined (TBD)	DPWH			On-going preparation of Feasibility Study
9	Rehabilitation of Quirino Highway Project*	To be determined (TBD)	DPWH			On-going preparation of Feasibility Study
10	El Nido Water Supply and Sanitation System Project*	To be determined (TBD)	LGU			On-going preparation of Feasibility Study
G.) PDMF/Other Multilateral Agencies-Supported Projects						
<i>For Procurement of Advisors</i>						
1	Plaridel Bypass Toll Road*	To be determined (TBD)	DPWH			Procurement of transaction advisers
2	Batangas-Manila (BatMan) 1 Natural Gas Pipeline Project*	To be determined (TBD)	PNOC			Procurement of transaction advisers
3	LRT-1 Extension to Dasmariñas*	To be determined (TBD)	DOTC			Procurement of transaction advisers
4	Manila Bay-Pasig River-Laguna Lake Ferry System Project*	To be determined (TBD)	DOTC			Procurement of transaction advisers
5	Operation and Maintenance of Iloilo, Davao and Bacolod Airports*	To be determined (TBD)	DOTC			Procurement of transaction advisers
6	Upgrading of San Fernando Airport Project*	To be determined (TBD)	BCDA			Procurement of transaction advisers
7	Modernization of the National Center for Mental Health	To be determined (TBD)	DOH			Procurement of transaction advisers
8	Motor Vehicle Inspection System Project	To be determined (TBD)	DOTC			Procurement of transaction advisers
H.) Other Projects Monitored by the PPP Center						
1	Skyway Stage 3		TRB			Under further evaluation
2	MRT Line-7		DOTC			Under further evaluation

Source: PPP Center (as of September 4, 2013)

*Approved PDMF Support; **Successfully bid out 15 April 2013 and to be officially awarded 14 May 2013

Annex 2. Case Studies for Long-term Public Financial Facility

The purpose of this annex is to verify the usefulness and benefits of long-term public financial facility through case study of potential projects. Candidate projects are chosen from two sectors (expressways and airport) mainly on the grounds of availability of reliable F/S data. The sector report of Chapter 5 mentions briefly outline of the candidate projects. The case study is conducted by rigorous financial analysis technique using reliable F/S data.

(1) Assumptions and Criteria

The projects chosen are mostly of BOT type in which the project cost is basically funded by the private sector. The government support is minor in contribution in kind (provision of land) and/or cash (construction subsidy).

The project cost is funded by two sources: equity and loans. The equity/loan ratio is 25/75 to 30/70. There are two types for loan: commercial loan and public long-term loan.

The commercial loan terms are tenor of 10-12 years at 200-300 bp over PHIBOR⁵⁵ (7-8% based on current market). Here it is assumed the tenor is 12 years (including grace period of 5 years) and the interest rate varies from 9% to 11% depending on project riskiness: 9% for low risk, 10% for medium risk and 11% for high risk considering current market responses.

The public long-term loan terms are assumed at tenor of 25 years (including of 10-year grace period) and the interest at 50% of that of the counterpart commercial loans: 4.5% for low risk, 5% for medium risk and 5.5% for high risk.

Then the following requirements are set as the financial conditions to be met.

For financial viability of private investment

- Debt service cover ratio (DSCR) \geq 1.0
- Equity IRR \geq Cost of equity required
- Project IRR \geq Weighted Average of Cost of capital (WACC)

Condition 1 is for loans to be repayable. Condition 2 is for provision of equity with a reasonable return. Here Equity IRR required is assumed as 15% for low risk, 16% for medium risk and 17% for high risk based on current market demands. Condition 3 is for basic requirement of financial feasibility (return $>$ cost). WACC is calculated by the formula:

$$WACC = PD \times CD + PE \times CE$$

Where, PD: proportion of debt (70-75%)
 CD: cost of debt
 PE: proportion of equity (25-30%)
 CE: cost of equity

Tax effect is not considered in calculation of WACC for conservatism.

Here CD is calculated at 100% of commercial loan rate for only commercial loan cases; and average of commercial loan rate and public long-term loan rate for public long-term loan cases. The hybrid loan assumes 50% commercial and 50% public long-term financing.

For government support limitation

⁵⁵ Philippines Inter Bank Offered Rate

VGf (in cash/kind) <= 30% of project cost

This 30% hurdle ratio is desired for the GoP to maintain a positive cash flow (the tax revenue minus government expenditure) based on the anecdotal evidence.

The results of case study for the selected projects follow.

(2) CAVITE Expressway

The CAVITE Expressway is the Cavite section of CALAX (Cavite-Laguna Expressway). Reliable data are available from JICA F/S conducted in 2012. The project cost (base cost) is estimated at Phs.22,652 m. The project riskiness is assumed as ‘low’ since the ROE acquisition is likely to go easily, and cost estimation and traffic forecast is robust. The debt/equity ratio is at 70:30. The FIRR is calculated at 11.2%.

Thus, the viability conditions are set:

- Project IRR >= 10.8% (commercial loan only) and 9.2% (hybrid loans)
- Equity IRR >= 15%
- DSCR >= 1.0

The results of financial analysis are summarized below.

Table A.2-1 Summary of CAVITE Expressway Project

Case 1 (use commercial loan only)			Case 2 (use			Case 3 (commercial loan with VGf)		
Work sharing			Work sharing			Work sharing		
GoP work portion	ROW		GoP work portion	ROW		GoP work portion	ROW, VGf	
Private work portion	Construction		Private work portion	Construction		Private work portion	Construction	
Project cost (M.Ps)			Project cost (M.Ps)			Project cost (M.Ps)		
24,761			24,406			24,500.0		
Fund source (M.Ps)			Fund source (M.Ps)			Fund source (M.Ps)		
Private	19,147	Share 77.3%	Private	17,895	Share 73.3%	Private	14,903	Share 60.8%
ODA loan	0		ODA loan	0		ODA loan	0	
GoP budget	5,613	22.7%	GoP budget	6,511	26.7%	GoP budget	9,597	39.2%
Total	24,761		Total	24,406		Total	24,500	
Revenue share			Revenue share			Revenue share		
Private sector	86.0%		Private sector	86.0%		Private sector	86.0%	
Government	14.0%		Government	14.0%		Government	14.0%	
Debt service subsidy (M.Ps)			Debt service subsidy (M.Ps)			Debt service subsidy (M.Ps)		
for private loan	0		for private loan	0		for private loan	0	
Financial indicators			Financial indicators			Financial indicators		
Indicator	Private Portion	GoP Portion	Indicator	Private Portion	GoP Portion	Indicator	Private Portion	GoP Portion
Project IRR (before tax)	12.1%	9.0%	Project IRR (before tax)	12.7%	8.1%	Project IRR (before tax)	14.4%	6.0%
Project IRR (after tax)	10.4%	9.0%	Project IRR (after tax)	10.9%	8.1%	Project IRR (after tax)	12.4%	6.0%
Equity IRR (after tax)	11.7%	9.0%	Equity IRR (after tax)	15.0%	8.1%	Equity IRR (after tax)	15.0%	6.0%
DSCR (Average)	1.00		DSCR (Average)	1.17		DSCR (Average)	1.04	
DSCR (Minimum)	1.00		DSCR (Minimum)	1.00		DSCR (Minimum)	1.00	
VFM indicators			VFM indicators			VFM indicators		
NPV of gov't cashflow (M.Ps)	1,137	(12% discount)	NPV of gov't cashflow (M.Ps)	142	(12% discount)	NPV of gov't cashflow (M.Ps)	▲ 3,038	(12% discount)
PI of gov't cashflow	1.16	(12% discount)	PI of gov't cashflow	1.02	(12% discount)	PI of gov't cashflow	0.74	(12% discount)
Unacceptable for private			Acceptable both for private and GoP			Acceptable for private, but not for GoI		

Source: JICA Study Team

The study reveals:

- 1) Case 1 (commercial loan only) will not be doable since the equity IRR are less than the hurdle rate (15%).
- 2) Case 3 (commercial loan with VGf) will not be doable since VGf is needed at 39.2% of project cost.
- 3) The only solution is Case 2 (use of public long-term loan). There is no VGf (subsidy for

construction cost) required for this case except for payment for ROE acquisition.

Therefore, the usefulness of public long-term loan is proved for this project.

(3) NAIA Expressway

Reliable data are available from JICA F/S conducted in 2012. The project cost (base cost) is estimated at Ps.13,608m. The project riskiness is assumed as 'medium'. The debt/equity ratio is at 70:30. The FIRR is calculated at 10.2%.

Thus, the viability conditions are set:

- Project IRR >= 11.5% (commercial loan only) and 9.6% (hybrid loans)
- Equity IRR >= 16%
- DSCR >= 1.0

The results of financial analysis are summarized below.

Table A.2-2 Summary of NAIA Expressway Project

Case 1 (Commercial loan without VGF)			Case 2			Case 3 (Commercial loan with VGF)		
Work sharing			Work sharing			Work sharing		
GoP work portion	ROW		GoP work portion	ROW, VGF		GoP work portion	ROW, VGF	
Private work portion	Construction		Private work portion	Construction		Private work portion	Construction	
Project cost (M.Ps)			Project cost (M.Ps)			Project cost (M.Ps)		
14,111			13,805			13,910		
Fund source (M.Ps)			Fund source (M.Ps)			Fund source (M.Ps)		
Private	12,998	Share 92.1%	Private	10,193	Share 73.8%	Private	7,799	Share 56.1%
ODA loan	0		ODA loan	0	26.2%	ODA loan	0	43.9%
GoP budget	1,113	7.9%	GoP budget	3,612		GoP budget	6,111	
Total	14,111		Total	13,805		Total	13,910	
Revenue share			Revenue share			Revenue share		
Private sector	100.0%		Private sector	100.0%		Private sector	100.0%	
Government	0.0%		Government	0.0%		Government	0.0%	
Debt service subsidy (M.Ps)			Debt service subsidy (M.Ps)			Debt service subsidy (M.Ps)		
for private loan 0			for private loan 0			for private loan 0		
Financial indicators			Financial indicators			Financial indicators		
Indicator	Private Portion	GoP Portion	Indicator	Private Portion	GoP Portion	Indicator	Private Portion	GoP Portion
Project IRR (before tax)	10.7%	12.4%	Project IRR (before tax)	12.8%	8.0%	Project IRR (before tax)	15.4%	5.5%
Project IRR (after tax)	9.4%	12.4%	Project IRR (after tax)	11.0%	8.0%	Project IRR (after tax)	13.5%	5.5%
Equity IRR (after tax)	9.5%	12.4%	Equity IRR (after tax)	16.0%	8.0%	Equity IRR (after tax)	16.0%	5.5%
DSCR (Average)	1.00		DSCR (Average)	1.33		DSCR (Average)	1.14	
DSCR (Minimum)	1.00		DSCR (Minimum)	1.05		DSCR (Minimum)	1.00	
VFM indicators			VFM indicators			VFM indicators		
NPV of gov't cashflow (M.Ps)	658	(12% discount)	NPV of gov't cashflow (M.Ps)	▲ 535	(12% discount)	NPV of gov't cashflow (M.Ps)	▲ 2,128	(12% discount)
PI of gov't cashflow	1.71	(12% discount)	PI of gov't cashflow	0.80	(12% discount)	PI of gov't cashflow	0.51	(12% discount)

Source: JICA Study Team

Unacceptable for private
Acceptable for both private and GoP
Acceptable for private, but not for GoP

The study reveals:

- 1) Case 1 (commercial loan only) will not be doable since the project IRR and the equity IRR are less than the hurdle rates.
- 2) Case 3 (commercial loan with VGF) will not be doable since VGF is needed at 43.9% of project cost.
- 3) The only solution is Case 2 (public long-term loan with VGF). The VGF required is 26.2% of project cost.

Therefore, the usefulness of public long-term loan is proved for this project.

(4) SLEX Extension Road

Reliable data are available from JICA F/S conducted in 2010. The project cost (base cost) is estimated at Ps.13,835m. The project riskiness is assumed as 'low' since the ROW has been mostly acquired and cost estimation and traffic forecast is robust. The debt/equity ratio is at 70:30. The FIRR is calculated at 9.2%.

Thus, the viability conditions are set:

- Project IRR \geq 10.8% (commercial loan only) and 9.2% (hybrid loans)
- Equity IRR \geq 15%
- DSCR \geq 1.0

The results of financial analysis are summarized below.

Table A.2-3 Summary of SLEX Extension Project

Case 1 (Commercial loan without VGF)			Case 2			Case 3 (Commercial loan with VGF)		
Work sharing			Work sharing			Work sharing		
GoP work portion	ROW		GoP work portion	ROW, VGF		GoP work portion	ROW, VGF	
Private work portion	Construction		Private work portion	Construction		Private work portion	Construction	
Project cost (M.Ps)			Project cost (M.Ps)			Project cost (M.Ps)		
14,624			14,309			14,290		
Fund source (M.Ps)			Fund source (M.Ps)			Fund source (M.Ps)		
		Share			Share			Share
Private	14,169	96.9%	Private	11,365	79.4%	Private	8,176	57.2%
ODA loan	0		ODA loan	0		ODA loan	0	
GoP budget	454	3.1%	GoP budget	2,943	20.6%	GoP budget	6,114	42.8%
Total	14,624		Total	14,309		Total	14,290	
Revenue share			Revenue share			Revenue share		
Private sector	100.0%		Private sector	100.0%		Private sector	100.0%	
Government	0.0%		Government	0.0%		Government	0.0%	
Debt service subsidy (M.Ps)			Debt service subsidy (M.Ps)			Debt service subsidy (M.Ps)		
for private loan 0			for private loan 0			for private loan 0		
Financial indicators			Financial indicators			Financial indicators		
Indicator	Private Portion	GoP Portion	Indicator	Private Portion	GoP Portion	Indicator	Private Portion	GoP Portion
Project IRR (before tax)	9.1%	16.3%	Project IRR (before tax)	11.0%	7.3%	Project IRR (before tax)	14.3%	3.4%
Project IRR (after tax)	7.7%	16.3%	Project IRR (after tax)	9.4%	7.3%	Project IRR (after tax)	12.6%	3.4%
Equity IRR (after tax)	7.9%	16.3%	Equity IRR (after tax)	15.0%	7.3%	Equity IRR (after tax)	15.0%	3.4%
DSCR (Average)	1.00		DSCR (Average)	1.19		DSCR (Average)	1.00	
DSCR (Minimum)	1.00		DSCR (Minimum)	1.10		DSCR (Minimum)	1.00	
VFM indicators			VFM indicators			VFM indicators		
NPV of gov't cashflow (M.Ps)	1,005	(12% discount)	NPV of gov't cashflow (M.Ps)	▲ 331	(12% discount)	NPV of gov't cashflow (M.Ps)	▲ 2,349	(12% discount)
PI of gov't cashflow	3.68	(12% discount)	PI of gov't cashflow	0.83	(12% discount)	PI of gov't cashflow	0.40	(12% discount)
Unacceptable for private			Acceptable for both private and GoP			Acceptable for private, not acceptable for GoP		

Source: JICA Study Team

The study reveals:

- 1) Case 1 (commercial loan only) will not be doable since project IRR and equity IRR are less than the hurdle rates.
- 2) Case 3 (commercial loan with VGF) will not be doable since VGF is needed at 42.8% of project cost, which exceeds 30% limit.
- 3) The only solution is Case 2 (public long-term loan with VGF). The VGF required is 20.6% of project cost.

Therefore, the usefulness of public long-term loan is proved for this project.

(5) Visayas Airport (Landside work)

Reliable data are available from JICA F/S completed in August 2012. The project cost (base cost) is estimated at Ps.2,197m. The project riskiness is assumed as 'medium'. The debt/equity ratio is at 75:25. The FIRR is calculated at 13.7%.

Thus, the viability conditions are set:

Project IRR \geq 11.5% (commercial loan only) and 9.6% (hybrid loans)
 Equity IRR \geq 16%
 DSCR \geq 1.0

The results of financial analysis are summarized below.

Table A.2-4 Summary of Visayas Airport (Landside work)

Case 1 (Commercial loan without VGF)	Case 2	Case 3 (Commercial loan with VGF)
Work sharing	Work sharing	Work sharing
GoP work portion: None	GoP work portion: None	GoP work portion: VGF
Private work portion: Construction	Private work portion: Construction	Private work portion: Construction
Project cost (M.Ps)	Project cost (M.Ps)	Project cost (M.Ps)
1,647.3 (Phase 1)	1,609.4 (Phase 1)	1,621.8 (Phase 1)
Fund source (M.Ps)	Fund source (M.Ps)	Fund source (M.Ps)
Private: 1,647.3 (100.0%)	Private: 1,609.4 (100.0%)	Private: 1,350.8 (83.3%)
MoF loan: 0.0 (0.0%)	MoF loan: 0.0 (0.0%)	MoF loan: 0.0 (0.0%)
GoP budget: 0.0 (0.0%)	GoP budget: 0.0 (0.0%)	GoP budget: 271.0 (16.7%)
Total: 1,647.3	Total: 1,609.4	Total: 1,621.8
Revenue share	Revenue share	Revenue share
Private sector: 100.0%	Private sector: 100.0%	Private sector: 100.0%
Government: 0.0%	Government: 0.0%	Government: 0.0%
Debt service subsidy (M.Ps)	Debt service subsidy (M.Ps)	Debt service subsidy (M.Ps)
for private loan: 0.0	for private loan: 0.0	for private loan: 0.0
Financial indicators	Financial indicators	Financial indicators
Indicator	Indicator	Indicator
Private Portion	Private Portion	Private Portion
GoP Portion	GoP Portion	GoP Portion
Project IRR (before tax): 13.0%	Project IRR (before tax): 13.2%	Project IRR (before tax): 14.9%
Project IRR (after tax): 11.1%	Project IRR (after tax): 11.4%	Project IRR (after tax): 12.9%
Equity IRR (after tax): 12.9%	Equity IRR (after tax): 16.3%	Equity IRR (after tax): 16.0%
DSCR (Average): 1.07	DSCR (Average): 1.41	DSCR (Average): 1.16
DSCR (Minimum): 1.00	DSCR (Minimum): 1.21	DSCR (Minimum): 1.00
VFM indicators	VFM indicators	VFM indicators
NPV of gov't cashflow (M.Ps): 409.1 (12% discount)	NPV of gov't cashflow (M.Ps): 400.0 (12% discount)	NPV of gov't cashflow (M.Ps): 198.1 (12% discount)
PI of gov't cashflow: #DIV/0! (12% discount)	PI of gov't cashflow: #DIV/0! (12% discount)	PI of gov't cashflow: 1.90 (12% discount)
Unacceptable for private sector	Acceptable for both private and GoP	Acceptable for both private and GoP

Source: JICA Study Team

The study reveals:

Case 1 (commercial loan only) will not be doable since the equity IRR are less than the hurdle rate (16%).

Case 3 (commercial loan with VGF) will be doable and the VGF is needed at 16.7% of project cost.

Case 2 (public long-term loan without VGF) will also be doable since the conditions on project IRR and equity IRR are cleared.

Use of public long-term financing pushes down the VGF from 16.7% of project cost to zero (no need of VGF).

Therefore, the usefulness and the benefit of public long-term loan are confirmed for this project.

(5) Zamboanga Airport (Landside work)

We reviewed and updated the data of DOTC F/S (2010). The project cost (base cost) is estimated at Ps.2,387m. The project riskiness is assumed as 'medium'. The debt/equity ratio is at 75:25. The FIRR is calculated at 10.4%.

Thus, the viability conditions are set:

Project IRR \geq 11.5% (commercial loan only) and 9.6% (hybrid loans)
 Equity IRR \geq 16%

DSCR \geq 1.0

The results of financial analysis are summarized below.

Table A.2-5 Summary of Zamboanga Airport (Landside work)

Case 1 (Commercial loan without VGF)			Case 2			Case 3 (Commercial loan with VGF)		
Work sharing			Work sharing			Work sharing		
GoP work portion	None		GoP work portion	VGF		GoP work portion	VGF	
Private work portion	Construction		Private work portion	Construction		Private work portion	Construction	
Project cost (M.Ps)			Project cost (M.Ps)			Project cost (M.Ps)		
2,571.7			2,488.3			2,496.8		
Fund source (M.Ps)			Fund source (M.Ps)			Fund source (M.Ps)		
Private	2,571.7	Share 100.0%	Private	1,882.1	Share 75.6%	Private	1,530.2	Share 61.3%
MoF loan	0.0	0.0%	MoF loan	0.0	24.4%	MoF loan	0.0	38.7%
GoP budget	0.0		GoP budget	606.2		GoP budget	966.6	
Total	2,571.7		Total	2,488.3		Total	2,496.8	
Revenue share			Revenue share			Revenue share		
Private sector	100.0%		Private sector	100.0%		Private sector	100.0%	
Government	0.0%		Government	0.0%		Government	0.0%	
Debt service subsidy (M.Ps)			Debt service subsidy (M.Ps)			Debt service subsidy (M.Ps)		
for private loan 0.0			for private loan 0.0			for private loan 0.0		
Financial indicators			Financial indicators			Financial indicators		
Indicator	Private Portion	GoP Portion	Indicator	Private Portion	GoP Portion	Indicator	Private Portion	GoP Portion
Project IRR (before tax)	9.7%		Project IRR (before tax)	12.9%	7.6%	Project IRR (before tax)	15.3%	4.8%
Project IRR (after tax)	7.9%		Project IRR (after tax)	10.9%	7.6%	Project IRR (after tax)	13.0%	4.8%
Equity IRR (after tax)	7.9%		Equity IRR (after tax)	16.0%	7.6%	Equity IRR (after tax)	16.0%	4.8%
DSCR (Average)	1.00		DSCR (Average)	4.03		DSCR (Average)	1.00	
DSCR (Minimum)	1.00		DSCR (Minimum)	1.00		DSCR (Minimum)	1.00	
VFM indicators			VFM indicators			VFM indicators		
NPV of gov't cashflow (M.Ps)	350.7	(12% discount)	NPV of gov't cashflow (M.Ps)	4.2	(12% discount)	NPV of gov't cashflow (M.Ps)	▲ 181.5	(12% discount)
PI of gov't cashflow	#DIV/0!	(12% discount)	PI of gov't cashflow	1.01	(12% discount)	PI of gov't cashflow	0.70	(12% discount)
Unacceptable for private sector			Acceptable for both private and GoP			Acceptable for private, but not for GoP		

Source: JICA Study Team

The study reveals:

Case 1 (commercial loan only) will not be doable since project IRR and equity IRR are less than the hurdle rates.

Case 3 (commercial loan with VGF) will not be doable since VGF is exceeding 30% limit.

Case 2 (public long-term loan with VGF) will be doable since VGF needs is below 30% limit.

So Case 2 is the only option which brings win-win solution.

Therefore, the usefulness of public long-term loan is proved for this project.

(6) Tacloban Airport (Landside work)

We reviewed and updated the data of DOTC F/S (2009). The project cost (base cost) is estimated at Ps.1,581m. The project riskiness is assumed as 'medium'. The debt/equity ratio is at 75:25. The FIRR is calculated at 7.7%.

Thus, the viability conditions are set:

Project IRR \geq 11.5% (commercial loan only) and 9.6% (hybrid loans)

Equity IRR \geq 16%

DSCR \geq 1.0

The results of financial analysis are summarized below.

Table A.2-6 Summary of Tacloban Airport (Landside work)

Case 1 (Commercial loan without VGF)			Case 2			Case 3 (Commercial loan with VGF)		
Work sharing			Work sharing			Work sharing		
GoP work portion	None		GoP work portion	VGF		GoP work portion	VGF	
Private work portion	Construction		Private work portion	Construction		Private work portion	Construction	
Project cost (M.Ps)			Project cost (M.Ps)			Project cost (M.Ps)		
1,738.6			1,637.2			1,643.5		
Fund source ((M.Ps)			Fund source (M.Ps)			Fund source (M.Ps)		
Private	1,738.6	Share 100.0%	Private	1,017.8	Share 62.2%	Private	869.3	Share 52.9%
MoF loan	0.0	0.0%	MoF loan	0.0	37.8%	MoF loan	0.0	47.1%
GoP budget	0.0		GoP budget	619.4		GoP budget	774.2	
Total	1,738.6		Total	1,637.2		Total	1,643.5	
Revenue share			Revenue share			Revenue share		
Private sector	100.0%		Private sector	100.0%		Private sector	100.0%	
Government	0.0%		Government	0.0%		Government	0.0%	
Debt service subsidy ((M.Ps)			Debt service subsidy (M.Ps)			Debt service subsidy (M.Ps)		
for private loan 0.0			for private loan 0.0			for private loan 0.0		
Financial indicators			Financial indicators			Financial indicators		
Indicator	Private Portion	GoP Portion	Indicator	Private Portion	GoP Portion	Indicator	Private Portion	GoP Portion
Project IRR (before tax)	6.9%		Project IRR (before tax)	11.7%	1.7%	Project IRR (before tax)	13.4%	0.6%
Project IRR (after tax)	5.7%		Project IRR (after tax)	10.3%	1.7%	Project IRR (after tax)	11.9%	0.6%
Equity IRR (after tax)	5.5%		Equity IRR (after tax)	16.0%	1.7%	Equity IRR (after tax)	16.0%	0.6%
DSCR (Average)	1.00		DSCR (Average)	3.77		DSCR (Average)	1.07	
DSCR (Minimum)	1.00		DSCR (Minimum)	1.00		DSCR (Minimum)	1.00	
VFM indicators			VFM indicators			VFM indicators		
NPV of gov't cashflow (M.Ps)	119.4	(12% discount)	NPV of gov't cashflow (M.Ps)	▲ 315.6	(12% discount)	NPV of gov't cashflow (M.Ps)	▲ 425.5	(12% discount)
PI of gov't cashflow	#DIV/0!	(12% discount)	PI of gov't cashflow	0.32	(12% discount)	PI of gov't cashflow	0.26	(12% discount)
Unacceptable for private sector			Acceptable for private, but not for GoP			Acceptable for private, but not for GoP		

Source: JICA Study Team

The study reveals:

Case 1 (commercial loan only) will not be doable since project IRR and equity IRR are less than the hurdle rates.

Case 3 (commercial loan with VGF) will not be doable since VGF exceeds the 30% limit.

Case 2 (public long-term loan with VGF) will also not be doable since VGF exceeds the 30% limit.

Therefore this project is no longer PPP-able. This is because the FIRR is as low as 7.7%. This implies the projects with FIRR 8% or less should go to the traditional public procurement route.

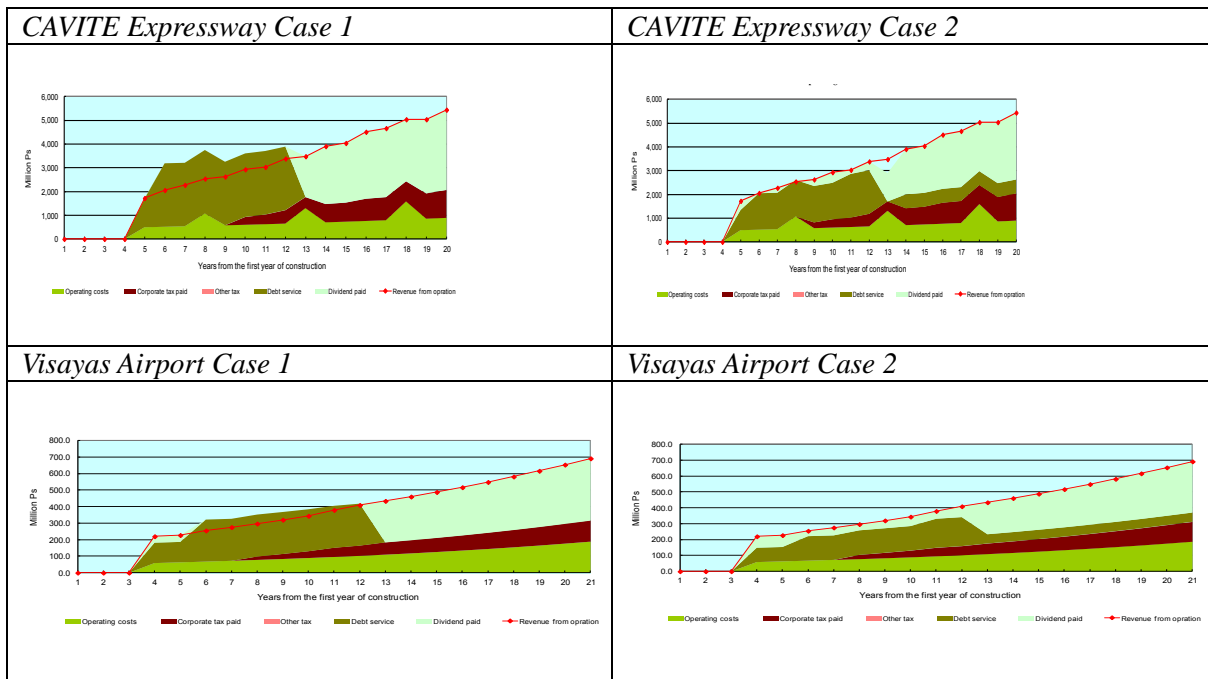
(7) Findings from the Case Study

We can summarize key points from this case study as follows.

The PPP-able projects case-studied (leaving Tacloban) are low profitable one with FIRRs ranging from 13.7% (Visayas) to 9.2% (SELEX), averaging at 10.9%. In order for such low profitable projects to pay back loans for as long as 30-year operation periods, it is obvious that long-term loan financing like public long-term financing is required to avoid the liquidity problem.

The basis of this finding is illustrated below by comparing the cash flows for commercial loan only case (case 1) and those for hybrid loans (Case 2: 50% commercial and 50% public long-term financing) for two typical projects: CAVITE Expressway and Visayas Airport.

The charts indicate the debt service shortfall for Case 1 (commercial loan only) is clearly disappeared by providing the public long-term loan (Case 2) which enables to repay the debt and to provide equity with a reasonable return simultaneously. The finding helps in confirming the necessity of soft loans represented by public long-term loans for coming pipeline projects most likely with low profitable projects taken up here. The case study also stresses the need for introducing the public long-term financing mechanism in the medium and long-term perspectives.



Source: JICA Study Team

Figure A.2-1 Cash flow profiles of Case 1 (100% commercial loan) & Case 2 (use of public long-term loan)