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**Asia-Pacific
Economic Cooperation**

Advancing Free Trade
for Asia-Pacific **Prosperity**

Peer Review and Capacity Building on APEC Infrastructure Development and Investment: The Philippines

APEC Policy Support Unit
May 2017

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EXECUTIVE SUMMARY

Background

As a contribution to the implementation of the APEC Multi-Year Plan on Infrastructure Development and Investment and APEC Connectivity Blueprint 2015-2025, the Committee on Trade and Investment (CTI) in 2015 endorsed a proposal titled “Peer Review and Capacity Building to Advance Cross-Sectoral Issues on Physical Connectivity”. Later in the year, APEC Ministers welcomed the reference guide (titled “Reference Guide for Peer Review and Capacity Building on APEC Infrastructure Development and Investment”) which has been developed to implement the peer review and capacity building mechanism. With the reference guide in place, the next steps are to identify the volunteer economies, conduct peer reviews and capacity building activities from 2016 onwards.

The reference guide emphasizes the importance of ‘Quality of Infrastructure Development and Investment’ by making a strong reference to the “APEC Guidebook on Quality of Infrastructure Development and Investment.” The guidebook highlighted that there are three key elements of quality infrastructure: Life Cycle Cost (LCC), Environmental and Other Impacts and Safety Assurance. Focusing on these three key elements will secure the quality of service throughout the life of the subject infrastructure starting from the designing stage to the end of maintenance and operation stage.

During the first meeting of the CTI in Lima in February 2016, Japan as the lead economy reported that the Philippines will be participating in the Peer Review process as the reviewed economy with Japan as the facilitating economy and the APEC Policy Support Unit as the ad-hoc review team secretariat.

The Project Objective and Scope

The objective of the Peer Review and Capacity Building on APEC Infrastructure Development and Investment Project (the project) is to (i) conduct peer review on policies and practices, including relevant laws, regulations and guidelines relating to the planning, selection and implementation process of infrastructure projects; and (ii) identify capacity building needs of the reviewed economy through peer review and provide suggested capacity building activities based on the identified needs.

The Project Scope

The project scope has evolved since project commencement in August 2016 through a series of interactions with the stakeholders. Several discussions were held with Department of Public Works and Highways (DPWH) and the Public-Private Partnership (PPP) Center as the client organizations which resulted in adopting changes in the project scope that are more aligned with the challenges that both organizations face in developing competitive infrastructure for the Philippines.

The ToRs and the Report recognize the status of the Philippines and the skills and capacity that exist within DPWH and the PPP Center for infrastructure planning, development and delivery. The ToRs now include discussion two additional issues that both organizations face in the future that will affect the provision of roads infrastructure and its service delivery. From that approach, the scope of the Report was settled as follows:

- The Project ToRs were confirmed to be limited to national roads only in terms of both standard procurement and PPP procurement;
- The benchmarking study for cooperative infrastructure arrangements indicated in the project ToRs, would be undertaken but at a basic level and involve a brief comparison between the Philippines; Viet Nam; Indonesia; and Malaysia
- The review will follow the APEC Guidelines¹ and questionnaire approach;
- Value for Money (VfM) LCC will be tackled and together as a subject. It was noted that DPWH is very familiar with both concepts and incorporates them into all PPP proposals and LCC is also included in Official Development Assistance (ODA) procured projects. Other economies in ASEAN (Viet Nam; Cambodia; Laos; Indonesia; Myanmar; Brunei; and Malaysia) do not undertake VfM. LCC will be researched for practices and approaches that will assist DPWH. It will also focus on Availability Payments in the context of PPP.
- As a new issue, the ToRs include cooperative arrangements with local governments for road and infrastructure projects. The project will undertake a benchmarking exercise with the USA, Indonesia and South Africa. It will detail the South Africa experience as the economy that has a very organized structure for arrangements between national and sub-national governments.
- The interoperation and interconnection of tolled expressways has been added to the ToRs. Initial work has been undertaken and two issues will require investigation and support: structuring an interconnection policy and standard interoperation policy and mechanism through DPWH and one that provides DPWH sole responsibility as the road network manager;
- In addition to reviewing the operations of the PPP Center, a high-level review of the draft PPP law will also be conducted. It will be undertaken in the context of flexibility to cope with a fast-changing transaction market, transactions need to be defined more by risk and allocation of risk and the potential to introduce innovative method of transactions for infrastructure such as availability payment arrangements and blended financing between government and the private sector.

The Project Methodology

The methodology for the project was based on the APEC Guidebook on Quality of Infrastructure Development and Investment.

The methodology involved both DPWH and the PPP Center directly in the review and workshops were conducted with them to undertake the first review based on the Guidebook, followed by workshops on the results and on the capacity building issues raised by both organizations.

A major meeting was held with stakeholders, APEC, DPWH and the PPP Center on 15 December 2016, to conform what the stakeholders wanted to pursue as issues, how the issues were to be treated and what additional work was needed to complete the Project.

¹ APEC Reference Guide for Peer Review and Capacity Building on APEC Infrastructure Development and Investment.

The Report Conclusions

The conclusions of this Report are to identify further issues to pursue for both the DPWH and the PPP Center. The conclusions are based on the three core issues described in the APEC Guidelines (with the adjustments that have been agreed with the DPWH and the PPP Center):

- Quality infrastructure: technical assistance to DPWH in analyzing project LCC, Environmental and Other Impacts and Safety Assurance;
- Capacity Building and the development of key skills identified by the DPWH and the PPP Center to support their roles;
- Defining major issues to review and develop solutions within the roads infrastructure context.

Quality Infrastructure

LCC: DPWH undertakes LCC analysis as part of its project preparation. The organization possesses an inherent understanding of the LCC concept and its need. However, it is not practiced on every project and is largely limited to ODA and PPP roads, because of the detailed project preparation guidelines applying to those projects. A VfM analysis is undertaken for PPP projects in accordance with the National Economic and Development Authority (NEDA) project guidelines and requirements. The VfM analysis is based on a range of government cost assumptions and not on actual data because actual data is not available. LCC is not practiced for most budget funded roads because there is only one person within DPWH that has the skill to undertake the analysis.

Value Engineering is also recognized by DPWH as having a substantial impact on the initial construction parameters and costs for roads and therefore the life cycle costs as well. A manual for Value Engineering is in place but the practice has not been adopted universally for projects, again because of the lack of suitably qualified staff to undertake the value engineering analysis.

DPWH is fertile ground to further develop the adoption of LCC, VfM and Value Engineering for all three categories of budget: Government budget, ODA budget and PPP budget. DPWH is a willing partner to develop these practices and skills to use these tools for building, operating and maintaining quality roads infrastructure.

DPWH is the leading organization within the government on procurement practices. The way forward is to develop a specific program with DPWH on these three issues and to commit to its development jointly over a program time frame and not on a completed project basis². If this approach is adopted then it will link with the capacity building needs that DPWH has identified and create sustainable practices, expertise and skills for quality infrastructure development and delivery.

Capacity Building

DPWH and the PPP Center have demonstrated substantial capacity and enthusiasm to measure their core practices based on the experiences of other economies. The PPP Center has, for example, undertaken consistent ‘lessons learned’ reviews of PPP projects within the

² The meaning of this phrase is to commit to a sustained 2 to 3 year program with DPWH on quality infrastructure and not treat the concept as a project that has a definite start and finishing point within a project time frame of 12 months or less. It is this sustained effort that will produce the systems and skills that DPWH is looking to acquire.

Philippines and continuously informed itself about PPP practices in other economies. Indeed, it has reviewed the Draft PPP Law that was prepared in 2013 based on its continuing review of the Philippine and other economies' performances.

DPWH also understands its position within the region and within its own economy. During workshops with DPWH it was clearly cognizant of its own shortcomings and needs and what was needed to progress to developing roads as quality infrastructure. It understands this concept with all forms of funding: Budget funded, ODA funded, PPP funded and hybrid funded.

Given this context, and the specific workshop that was conducted with each organization, the capacity building needs³ encompass the following concepts:

- Technical capacity building for the development of quality infrastructure: DPWH and the PPP Center (within their role for PPP Projects) are the clients. The capacity building should be scoped and developed as a program and cover a 2 to 3 year period, so that skills and resources are developed and systems change for an increased focus on quality infrastructure. The focus is LCC, VfM and value engineering
- A review of the PPP risk management approach of the government is needed combined with a capacity building program. DPWH and the PPP Center understand that risk identification and allocation with PPP arrangements is central to a quality project and a quality outcome. However, there are system and approach differences within the deciding bodies such as NEDA and the approach needed by DPWH. Those differences need to be resolved and implemented with capacity building programs⁴.
- Ex-post evaluation has been identified by DPWH and the PPP Center as a skill that needs to be developed. Capacity exists within both organizations now but the systems applied in the DPWH are largely ODA based approaches and oriented towards the external funding party. The PPP Center appraisal guidelines are already in place as approved by the PPP Governing Board. The concepts within that approach are appropriate, but again, skill and capacity to develop a system for both organizations are required.
- Capacity building for the PPP Center on reviewing the PPP Law. The need for the PPP Center is to develop a law that is competitive in the PPP investment environment and one that adapts to the regular changes within the structuring of PPP transactions. The outcome will be a PPP law that suits the Philippines and is drafted for the Philippines. It will embrace key elements of international practice, such as risk identification and allocation, structured financing with good flexibility, and investment certainty for the market. The capacity building would also extend to the development of revised Implementing Rules and Regulations.
- The interoperation and interconnection of toll roads was a special issue for DPWH. The interconnection and operation is between roads operated by different companies under different concession contracts. The proliferation of toll booths to manage toll collection will lead to significant traffic problems within the toll network and the adjoining road network. This Report demonstrates that both issues will become chronic within the next

³ Fully articulated in the Capacity Building Part of this Report.

⁴ The difference in approaches on risk management may also be addressed by requiring strict compliance of agencies to the issued policy guidelines on risk allocation i.e. the Generic Preferred Risk Allocation Matrix.

2 to 3 years as toll roads in metro Manila begin to connect and operate and they will adversely affect the quality of service⁵. DPWH as the road network manager needs to develop a capacity soon that will establish a policy and practice/standard and an enforcement regime for the interoperation of toll roads. There is a low level of knowledge within the Philippines and less in terms of practice in relation to these two issues. DPWH could benefit from additional technical resources and capacity building program to develop the interoperation arrangements. This is a medium term commitment to create sustained quality approaches to the management of roads and the road network.

- A cooperative approach between government agencies for promoting PPP projects has been identified as a major gap in the Philippines current structure. While there is substantial cooperation between DPWH and the PPP Center, other government organizations do not have the same rapport. While using DPWH as the ‘ideal client’ and developing that relationship further, the lessons from and the structuring of that relationship will have beneficial effects for the PPP while program.

As mentioned before, the review and assistance needs to be on a sustained program basis and not focused on individual projects. The delivery method of the capacity building should be based on the use of technology to undertake training and education through mediums such as webinar based training, an increase in certificated training and a change in structure from classroom lecture to problem-solution based training and education.

Major Issues for Review

The major issues for review are derived from discussions with both DPWH and the PPP Center and principally from the meeting on 15 December 2016. They are issues that the respective agencies consider to be central to their operation and capacity to deliver quality infrastructure.

Toll Road Interoperation and Interconnection: Interoperation is the seamless movement of vehicles between different toll roads. There is no existing policy on interoperation of toll roads within the Philippines. Against an international background where interoperation of toll roads is normal practice, the Philippines is lagging. There is no capacity to transit from one toll road to another without stopping at a toll booth. The current position is a direct result of undertaking toll roads on a project by project basis instead of seeing them as a major part of the road network and managing them on a network basis. As the road network manager, the DPWH should be stepping in to undertake the development of the policy, regulation and enforcement of an interoperation policy.

Future technical support can be to assist DPWH to establish a policy and practices for interoperation and interconnection of toll roads. This may also help prepare DPWH in evaluating interoperability projects, in the event an unsolicited proposal is submitted by a private sector company.

Cooperative Infrastructure Arrangements with Local Government was raised by DPWH to begin a program with local government to develop infrastructure that took a holistic approach at a regional level. One where the integration of projects and their planning, budget and delivery cycles are connected and developed and there is national government and local

⁵ Note that NAIAX-CAVITEX-Skyway-MCX-SLEX-STAR and NLEX-SCTEX are working towards some form of interoperational arrangements.

government cooperation. Initial benchmarks to economies such as South Africa show a specific policy⁶ to be in place to establish cooperative and synchronous arrangements for infrastructure projects. The benchmark results showed that there was substantial economic benefit for programs and projects specifically designed for and targeted towards national/subnational cooperation and capacity development at the subnational level and to the allocation of resources toward the implementation of projects. The following questions are suggested for further work in this area:

- **The types of projects** to be the focus of cooperative approaches: Limited to major corridor development⁷ or a broad range of projects?
- **Potential to create a Special Purpose Vehicle (SPV)** for coordinated projects: Will cooperative arrangements need an SPV to be in place or simply a project leader/coordinator?
- **Blended funds** (pooling national and provincial funds) and separated funds (keeping fund streams but moved into a project in a coordinated method): Could the Philippines adopt a USA type approach for the issue of municipal bonds to fund coordinated infrastructure projects. What kinds of guarantees will need to be in place?
- **Linking projects** and not creating a ‘whole project’ with subcomponents. How would national and governments be able to create an environment that links projects and their timing and outcomes instead of creating project sub-components?

Review of the Draft PPP Law for the Philippines is a significant contribution to the opportunities for and the investment regime for PPP Projects. The predominant PPP projects are transport based and managed by either DPWH or the Department of Transportation (DOTr). The PPP Center has championed the review of the current BOT Law since 2013 and prepared a draft PPP Law that was deliberated during the 16th Congress⁸. The draft bill reached second and third reading in the Senate and House of Representatives, respectively, but fell short of enactment before the end of Congress ahead of the 2016 General Elections. The Draft PPP Law addresses many lessons learned from previous projects conducted in the Philippines and incorporates provisions from other economy Laws on PPP. It is highly specific and provides a detailed approach to PPP projects and the institutional arrangements of the PPP Center and a PPP project development and monitoring facility.

The Philippine Government wishes to pursue a revised PPP law (as opposed to a pure common law system that requires little or no parliamentary law). But the approach for that Law should be open for discussion and approach. The PPP market is constantly changing and the risk management approaches for PPP transactions as well as the funding approaches⁹ point to a need for the Philippines to adopt a more pragmatic and flexible approach to its PPP Law, rather than the highly specific approach it has now. Flexibility can be introduced through regulation and guidelines.

⁶ The Policy is explained in this Report in the Section: Cooperative Arrangements with Provinces.

⁷ As indicated in the Indonesia case study.

⁸ Note there are several Bills before Congress for amendment to the BOT Law. They have not been reviewed under this APEC project. Only the PPP Center Draft PPP Law has been reviewed.

⁹ Which now include blended funds and an increased use of availability payment arrangements for transport infrastructure.

To ensure flexibility, PPP transactions need to be defined more by risk and allocation of risk than by ‘pigeon holing’ into specifically described transactions. Blended finance or co-finance arrangements between government and the private sector could form a PPP transaction methodology, but there are constraints¹⁰ on the amount of funds the government can contribute to a project that may prevent well-structured projects from proceeding.

Assistance¹¹ in reviewing the Draft PPP Law from the existing policy base would be needed within the next 6 to 8 months, given the plan to represent a PPP Bill to the Congress in 2017.

¹⁰ The BOT Law limits government subsidies in PPP projects to 50% of the project cost. This limit is in the context of not allowing the government to ‘subsidise’ a project to more than 50% of its cost. Potentially, a Project with government funds of 70% and private funds of 30% wrapped in an Availability Payment, could not proceed in the Philippines. This type of co-financing is occurring in the PPP market now.

¹¹ As mentioned earlier, the assistance would extend to the preparation of revised Implementing Rules and Regulations.

1. PEER REVIEW ON POLICIES AND PRACTICES

1.1 BENCHMARKING THE PHILIPPINES ROAD SECTOR

The project scope sought to undertake a benchmarking exercise for the Philippines to selected economies (economy benchmarking). It was agreed to select economies within the ASEAN membership.

The economies selected as comparators are competitor economies for road sector investment. Indonesia was chosen because it is a relatively sophisticated economy and experienced growth in the higher standard roads over the past decade, especially in expressway development mainly delivered through State Owned Enterprises (SOEs). Viet Nam was chosen because it is an emerging economy and one that is starting to embrace PPP as one of the delivery modes for infrastructure. Malaysia was chosen because of its movement to developed nation in the past 15 years and its successful use of PPP as a delivery method for road infrastructure.

As a general assumption economies within the OECD spend between 1% and 6% of GDP on transport infrastructure¹². Roads expenditure falls within the definition of transport infrastructure and thus national road expenditure as a percent of GDP was chosen as a measure to indicate the commitment of economies to a developed road plan. The other measure was PPP progress in the roads sector and the position of each of the economies in progressing PPP as a transaction method.

Despite substantial research, no indicator from an authoritative source was found for ‘national road expenditure as a percent of GDP’ for the comparator economies. Data from OECD for eight APEC economies mentioned that road investment ranges from 0.5% to 1.3% of GDP¹³.

Economy	2012	2013	2014
	% of GDP	% of GDP	% of GDP
Australia	1.33	1.10	1.02
Canada	1.04	0.95	NA
Japan	0.77	NA	NA
Korea	0.55	0.62	NA
Mexico	0.43	0.46	NA
New Zealand	0.49	0.53	0.63
Russian Federation	0.55	0.59	NA
United States	0.51	0.49	0.49

Source: ITF Transport Outlook 2017 – OECD.

¹² International Transport Forum at the OECD 2013 Edition.

¹³ The data remains irregular even for those economies and is current up to 2014 only for some.

The benchmark on PPP as a road transaction method is contained in the following table:

Economy	PPP Progress
The Philippines	Restructure of PPP arrangements from 2010 to 2014, including the creation of a PPP Center ¹⁴ , Three successful tenders of toll roads from 2012 to 2015. PPP guidelines are in place. The current BOT Law has been reviewed and a draft PPP Law has been prepared to modernize the Government approach to PPP transactions.
Indonesia	Indonesia has implemented two successful PPP toll roads since 2004. Most are procured by SOEs. New Laws in 2014 for broader PPP options including the availability payment scheme. Government investment mechanisms are in place through PT Sarana Multi Infrastruktur, PT Indonesia Infrastructure Finance and project guarantee arrangements are in place through PT Penjaminan Infrastruktur Indonesia.
Viet Nam	Viet Nam has just commenced its PPP market. No sufficient data for market comparison. PPP laws and guidelines are in place.
Malaysia	Malaysia is a mature market of around 20-plus years for PPP. Numerous toll roads are in place. Interoperation systems and PPP guidelines are in place.

In relation to PPP transactions, the comparison shows:

- the Philippines has made substantial progress since 2010 against Indonesia and Viet Nam. The Philippines also indicates that it is willing to make changes and remain competitive as a PPP destination by undertaking a review of its law and regulations to bring them up to date with current market conditions. Indonesia has state owned infrastructure investment companies in place as well as state guarantee arrangements. Under its draft PPP Law, the Philippine Government is looking to establish government undertakings similar to those in Indonesia.
- Malaysia is a mature market and has been operating PPP arrangements for 20-plus years. It has a level of sophistication in providing quality infrastructure and operating its toll road system that is not reached by the Philippines.

The Philippines should also undertake its own benchmarking exercise using the OECD Transport Forum¹⁵ as a guide and accessing data through ASEAN on other ASEAN member economies.

It is suggested that both DPWH and the PPP Center establish a constant benchmarking program to test their position in a highly competitive market within a region that constantly has GDP growth between 6% and 9%. Benchmarking should not be confined to ASEAN, but include

¹⁴ Former BOT Center was renamed PPP Center in 2010. The Executive Order establishing the PPP Center was issued on 9 September 2010.

¹⁵ OECD International Transport Forum:
http://stats.oecd.org/Index.aspx?DataSetCode=ITF_GOODS_TRANSPORT

other leaders such as India and another OECD member economy that DPWH and the PPP Center agree as appropriate benchmarks.

1.2 REVIEW OF CURRENT PRACTICES: DPWH AND PPP CENTER

Focus of the Review

The review was undertaken based on available literature and direct involvement of DPWH and the PPP Center. The review followed the APEC Guidelines and questionnaire approach.

The focus of the review included:

- Standard roads procurement and the issues faced by DPWH with indications from DPWH about the potential changes it sees as necessary to be more efficient and more effective in its procurement process.
- PPP procurement and the issues for the PPP Center for better procurement practices and better investment prospects. The literature review included a review of the proposed amendments to the PPP Law.

Process of the Review

Standard Road Procurement: DPWH completed the standard procurement part of the APEC questionnaire that was prepared by the project team. It was agreed with DPWH to contain the number of issues to around 12 to 15 so that the number of issues remained manageable and have the potential for implementation.

Those issues are divided into three categories¹⁶:

- Issues requiring Law changes – these are significant impediments to current procurement efficiency or could significantly improve procurement effectiveness for DPWH. It is recognized that these issues may well prove to be difficult to resolve but it is critical to identify them.
- Issues requiring regulation or guidelines changes – these changes are within the control of DPWH to implement and require changes that are consistent with the Procurement Law but can bring about a good level of process change that leads to more efficient and transparent procurement. These issues will be easier to handle and have a higher chance of success.
- Issues requiring cooperation with another department or local government - these issues are partly focused on the revised ToRs for examining arrangements with local governments and the institutional and process arrangements that may be required for implementing regional infrastructure projects. It also examined existing arrangements (for example the arrangements with the Toll Regulatory Board (TRB) for the implementation of toll roads).

PPP Procurement: PPP Center completed the PPP procurement part of the APEC questionnaire that was prepared by the project team. The PPP Center identified key issues it currently faces in implementing project procurement for PPP roads. The categorization of issues largely followed the same structure as for standard road procurement outlined immediately above.

The Philippine BOT Law has had changes prepared for it during an ADB TA from 2012 to 2014. Those Law changes have yet to proceed. A high-level review was undertaken of the

¹⁶ As forecast in the Inception Report.

proposed changes and issues brought forward as appropriate. A general benchmark was adopted for the structuring of PPP projects as opposed a benchmark to PPP laws¹⁷.

It should be noted that the changes currently drafted to the Philippine BOT Law are to modernize it. However, since the time the changes were suggested, PPP transactions have continued to diversify and be more based on risk allocation that create ‘types’ of PPP transactions.

¹⁷ There was no benchmark to PPP Laws because different jurisdictions have different laws for varying reasons. Some jurisdictions like Australia, Canada, India, and the United Kingdom do not have PPP laws but operate through Treasury based guidelines. These economies are common law based and do not require a law for PPP to operate successfully, and not civil law where a PPP law of some kind is generally needed because of the economy jurisprudence.

1.3 PEER REVIEW RESULTS

The Overall View

The Philippine Government, through DPWH and the PPP Center, has in place the right ingredients for developing quality roads infrastructure. Using the APEC Peer Review Questionnaire, both organizations set out detailed answers to each review question and identified where there were issues and what the potential action could be, including law and guideline changes, capacity building needs and better inter-agency cooperation.

Measuring the Philippines against other economies, it largely has in place the tools that it needs to plan, deliver and manage roads. The law, standards and specifications cover all needed areas such as roads quality, safety, standards, operation and maintenance, procurement and the decision process for constructing a road.

The detailed review is contained in Appendix 1 as a combined document between DPWH and the PPP Center. It is based on the premise that there is a Philippine law, regulations or a standard in place that controls the particular activity within the APEC Review Questionnaire.

A Summary Table of Appendix 1 was prepared and follows the APEC guidelines format. It summarizes each APEC review criteria and identifies the issues raised by either DPWH or the PPP Center.

Summary Table

APEC Criteria	Issue raised by DPWH or PPP Center	Relevant Agency
General – Public Procurement	No issues to address	
General – Legal System, including PPP	<p>Foreign ownership limitations¹⁸ hinder development of PPP projects/investment. The constitutional limitation on foreign ownership of firms still hinder potential growth in the Philippines' infrastructure. DPWH: especially on toll operator status</p> <p>Amend PPP law to reflect current business landscape on PPP. Specifically, supports are needed for the proposed PPP Law: streamlining of the PPP process; management of unsolicited proposals; ensure competitiveness and transparency, strengthening of governance structure (i.e. PPP Center, PPP Governing Board, Project Development and Monitoring Facility (PDMF)), among others. There is a need to strengthen the PPP Center institutional set up because of PPP demands.</p>	<p>PPP Center and DPWH</p> <p>PPP Center</p>

¹⁸ The PPP Center is investigating improvements to the PPP business environment to make it attractive for investors including foreign investors.

	<p>Commission on Audit (COA) still has no clear-cut guidelines on the exercise of its auditing powers over PPP projects¹⁹.</p> <p>Tax Law: need to create clarity on the tax arrangements in the following areas:</p> <ul style="list-style-type: none"> • Tax rates applicable to projects • Capital gains tax obligations for land acquisition for projects and which party is obliged to pay – government of the land owner • Tax exemptions for PPP investments <p>Land acquisition Law: Land acquisition provisions require effective processes on Right-of-Way (ROW) and a range of technical issues for utilities relocation. These cause delays in the land acquisition process which delay the actual transfer of land for road projects, including clarifying the concept of ‘just compensation’. Among the major issues in land acquisition is the relocation of informal settlers’ families.</p>	<p>DPWH and PPP Center</p> <p>DPWH</p>
General – Accounting System	No issues to address	
Environmental and Social Assessment	No issues to address	
Funds	No issues to address	
Structure of Project Procurement	No issues to address	
Land Acquisition	<p>A range of issues are mentioned for land acquisition that involve law and guideline changes:</p> <ul style="list-style-type: none"> • Certificate of Ancestral Domain Title (CADT). The law does not specify the person/s to whom the just compensation shall be paid (Law change) • Lessen the documentary evidence for farmers obtaining land compensation for small holdings (rules and guidelines) • Allow filing of expropriation cases based on tax declarations (Law change or regulation instruction to Office of the Solicitor General) • Streamline the appointment of government appraisers for land valuations to produce a more efficient land acquisition process 	DPWH

¹⁹ Asian Development Bank assistance to COA on its role for PPP projects is under preparation but has not yet commenced.

	<ul style="list-style-type: none"> • Create higher levels of certainty for land acquisition funding. Need to provide adequate appropriations that will allow implementing agencies to acquire ROW locations for national government infrastructure projects in advance of project implementation <p>This issue is also raised in the Capacity Building section for additional specialist training on land acquisition process and management.</p>	
Foreign Exchange	<p>Need to clarify government obligations for the enforcement of foreign exchange differential provisions under both PPP and standard procurement arrangements.</p> <p>Clarifying rules are required.</p>	DPWH
Poor and Socially Vulnerable	No issues to address	
Bribery and Corruption	No issues to address	
Project Planning – Policy and Master Plan	The Philippine Government has a range of unconnected master plans for roads and transport. Specific coordination study is needed to connect the plans at a national and regional level. Key is to convert the plans to a strategic implementation approach.	DPWH
Project Planning – Economic Evaluation	Project Economic Internal Rate of Return (EIRR) is established as the ‘pass or fail’ standard for road projects. Need to investigate other international benchmarks for infrastructure projects including positive Project Net Present Value.	DPWH
Project Planning – Environmental and Social Assessment	No issues to address	
Feasibility Study – Project Achievement	See capacity building discussion on LCC, VfM and Value Engineering.	DPWH and PPP Center
Implementation of Environmental and Social Assessment	No issues to address	
Feasibility Study – Safety (includes disaster management etc.)	No issues to address	

Feasibility Study – Risk Management	<p>A risk plan is currently developed for all projects. Risk management and allocation require revision²⁰. The outcome of the revision will be included in contracts and standards and guidelines.</p> <p>There are system and approach differences within the deciding bodies such as Department of Finance (DOF) and the approach needed by DPWH. A review of the risk management approach of the government is needed but combined with a capacity building program²¹. Building the capacity and then developing a risk approach from that is critical to a sustainable reform process and outcome.</p> <p>Review risk allocations based on a broad international assessment to ensure internationally competitive risk arrangements.</p>	DPWH with contributions by PPP Center and NEDA
Feasibility Study – Private Market Assessment	No Issues to address	
Feasibility Study - Procurement	<p>This section includes VfM evaluations by government. The answered questions by DPWH and the PPP Center did not indicate an issue. During the discussion sessions, both agencies indicated additional assistance was needed to undertake VfM analysis based on factual data rather than assumptions</p> <p>VfM is required by Investment Coordination Committee (ICC, which is part of NEDA) for a positive project decision, but most government institutions do not have the raw data to develop a detailed VfM. Assumptions are used instead.</p> <p>Risk adjusted Public Sector Comparator results (based on assumptions) are generally favorable to PPP procurement.</p> <p>The role of VfM is already considered in the Project Appraisal Guidelines.</p> <p>Need to develop a specific VfM project to determine its role and structure.</p> <p>Need of PPP Center to establish baselines and bench marks on VfM analysis based on actual implementation of projects.</p>	DPWH and PPP Center

²⁰ The Generic Preferred Risk Allocation Matrix has been developed to manage these issues but DPWH indicates that more work is needed. (http://ppp.gov.ph/wp-content/uploads/2017/02/GPRAM_2Aug2016.pdf).

²¹ PPP Center suggests that the NEDA Investment Coordination Committee also be included in capacity building for risk assessment and risk allocation.

Procurement – Process, Prequalification, Evaluation, management and Contract Monitoring	<p>Issues to address related to proposal evaluation. Key issues relate to:</p> <ul style="list-style-type: none"> • A consolidated list of blacklisted companies is needed to reinforce anti-corruption initiatives • Develop assessment criteria for methodologies to achieve the stipulated service level in the tender • The exposure of government to contingent liabilities • The transition from approval to award as the current setup of contract drafting does not provide for a clear translation from the terms and the risk allocation approved by the relevant approving bodies to the final contract. A mechanism or guidelines for contract drafting may cover this. • The issuance of environmental and construction permits in terms of coordination with Local governments in the Philippines (LGUs). There seems to be a need to integrate such exemptions or automatic permits once the project is awarded. This can be considered in the PPP Act to fast track the implementation of projects • Include Environmental Risk Management as part of a bid evaluation • Initiate an Ex-Post Evaluation Manual to standardize criteria, concepts, principles, methodologies and ratings system for public sector projects 	DPWH and PPP Center in a support role
Ex-post Evaluation	<p>DPWH to discuss the issue of capacity needs on current projects.</p> <p>PPP Center monitors contract milestones and obligations to ensure they are being met. It has no direct role in contract management.</p>	DPWH

LCC, VfM and Availability Payment Transactions

Introduction

VfM and LCC issues have not been raised by either DPWH or the PPP Center within the context of the Peer Review process. At present, DPWH undertakes a base level VfM analysis. VfM and LCC are important tools to ensure that funds invested in the road sector yield the highest possible benefits. They are also highly relevant if DPWH intends to adopt Availability Payment mechanisms (these mechanisms are explained later in this section).

DPWH has considerable experience with the development of expressways in collaboration with the private sector. To date, most of these expressways have been developed under build-operate-transfer (BOT) and BTO (Build Transfer Operate) arrangements, through which private investors finance, operate and maintain an access-controlled toll roads in return for the right to collect tolls during a pre-agreed concession period. Although DPWH has been

successful in attracting private investment in the road sector through BTO contracts, this has placed constraints²² on DPWH's ability to optimize the functioning of the national road network. This section of the report describes an additional method of mobilizing private financing for the roads infrastructure, known as availability payments. This method has the potential to capture the benefits of BOT contracts whilst avoiding some of its drawbacks.

This section describes availability payments, including the adoption of VfM assessments and LCC analysis. It then outlines the potential benefits of availability payments compared to BOT/BTO arrangements and concludes with an overview of capacity building needs in DPWH to operationalize the method.

What are Availability Payments?

Definition of availability payments. At its most basic level, an availability payment is a contractually agreed payment from the Government to a concessionaire in return for making infrastructure available in a pre-agreed quality and quantity (for example, a four-lane road with an International Roughness Index²³ not exceeding 2.0 in any segment of the road). Availability payments are paid on periodic basis during the contract period, which typically ranges from 15 to 25 years), and start upon completion of infrastructure facility.

Key features of availability payment contracts. Contracts normally include penalty clauses that trigger a reduction in the periodic payment if, during the relevant period, the infrastructure was not made available at the contractually agreed conditions²⁴. Some contracts for availability payments contain clauses for performance bonuses if the infrastructure is provided at better-than-agreed conditions, although this is not common. Because the party that makes the infrastructure available is responsible for both the financing construction and the operations and maintenance (O&M) of the infrastructure, availability payments cover both capital and O&M costs.

Availability payments as risk allocation mechanism. Availability payments are not widely known in the Philippines as a form of private sector participation in the road sector. They are used extensively in India, the United Kingdom and Canada. Australia is beginning to embrace availability payment transactions for road projects. They can be seen as a variation on two PPP mechanisms that are commonly used for expressways: (i) design-build-operate (DBO), and (ii) BOT/concession (i.e. the model currently favored by DPWH).

Under a DBO arrangement, the public sector pays a private sector party for the design, construction and subsequent operations and maintenance of an expressway. The private sector party will not be responsible for the financing of the road, which therefore may but does not need to be tolled (this is because the private sector party will be paid by the public entity and not by tolls from road users). Under a BOT arrangement, the private sector is not only responsible for design, construction and operations and maintenance, but also for financing and

²² The constraints mostly result from the lack of integration of the toll roads into the road network and the lack of interoperation between them to facilitate optimised traffic flow.

²³ The International Roughness Index (IRI) is a scale for roughness based on the simulated response of a generic motor vehicle to the roughness in a single wheel path of the road surface. (Source: <http://www.dot.state.mn.us/materials/smoothnessdocs/IRIIntroduction.pdf>).

²⁴ DPWH PPP Contracts already require the Concessionaire to comply with Minimum Performance Standards and Specifications and KPIs.

toll collection. Because the BOT contractor will need to recoup its investment from tolls from road users, it is exposed to traffic demand risk.

From a risk allocation perspective, availability payments lie between a DBO and BOT arrangement. Unlike a DBO contractor, a private sector party that enters an agreement for availability payments is responsible for financing the road, but then it will recoup its investments from the availability payments themselves, and not from toll revenue. An availability payment contractor is therefore not exposed to traffic demand risk, and the public sector may (but does not need to) toll the road. Refer to Table 1 for an overview of PPP arrangements in the expressway sector.

Table 1: Allocation of Responsibilities between Public and Private Sector Parties for Selected Expressway Contracts

Contractual Arrangement	Design and Construction	Operations & Maintenance	Project Financing	Toll Collection	Traffic Demand Risk
Design-Build	Private	Public	Public	Public (if any)	Public
DBO	Private	Private	Public	Public (if any)	Public
Availability Payment	Private	Private	Private or Public/Private	Private or Public (if any)	Public
BOT/Concession	Private	Private	Private	Private	Private

Source: Consultant, based on *Availability Payment Mechanisms for Transit Projects* (KPMG, 2009)

International Experience with Availability Payments for Expressways.

Availability payments for expressways are widely used in Canada, the US and the UK (usually for expressway, railways and public transit systems), and have more recently been introduced in Australia and continental Europe. India has a history that goes back to 2006 for Availability payment contracts (called annuity contracts) and several Southeast Asian economies, including Indonesia and Viet Nam, have recently amended their legal frameworks to allow for availability payments for infrastructure services provided by the private sector.

To date, availability payments have not been applied in the Philippines for expressways (but have been applied for the financing of social infrastructure such as school buildings). As stated in the Consultant's Inception Report of November 2016, the Department of Budget and Management has recently issued a circular (DBM National Budget Circular No. 564 of 2016) that permits the Government to provide various forms of support to PPP projects, including availability payments.²⁵

What are the Benefits of Availability Payments?

Both a BOT contract and a contract for availability payments offer two important benefits that are not provided by DBO or traditional design-build contracts. Both types of contracts: (i) enable the public sector to mobilize private sector financing for the design, construction and

²⁵ *Peer Review and Capacity Building on APEC Infrastructure Development and Investment—Inception Report.* AARC Ltd. November 2016.

Operations and Maintenance (O&M) cost of an expressway, and (ii) provide an incentive to minimize the LCC of the expressway (assuming that the contract duration closely matches the economic lifetime of the project, which is usually the case). At the same time, a well-structured contract for availability payments will capture certain additional benefits that a BOT arrangement does not offer (or does not offer to the same degree). The most important of these benefits are:

- Improved risk allocation, which is attractive to the private sector and has the potential to reduce the overall cost of a road.
- Reduced negative externalities, notably avoidable congestion.
- Improved road network management, which is possible because would be no separation in the management of toll roads and other roads in the national network.

Each of these benefits are discussed in turn.

Improved Risk Allocation. To minimize the cost of an infrastructure project undertaken in a public-private partnership, risks should be allocated to the party that is best able to manage the risk. This is the reason why, for example, the public sector usually assumes the responsibility for land acquisition and assumes the related risks for delays and cost overruns in acquiring the necessary land for an expressway.

Assigning traffic demand risk to the private sector, as is the case for expressway BOT contracts in the Philippines, has the important advantage of insulating government budgets from any adverse changes to traffic demand (if actual traffic is lower than expected traffic, this will affect the revenue projections of the private sector, not of the public sector). However, projected traffic demand is heavily dependent on factors that are outside the control of the private sector, such as the construction of non-tolled alternative roads by the public sector, increases in gasoline prices or taxes on the ownership or use of vehicles.

Because private sector parties will need to cover this risk in their bid prices for a BOT contract, these prices (and the resulting toll rates) will normally be higher for BOT expressway than for an expressway under an availability payment contract. At the same time, the use of availability payments continues to enable the public sector to attract private sector financing for the design and construction of the road (unlike design-build or DBO contracts, which are directly funded by the public sector).

Reduced Negative Externalities. Under a BOT arrangement, the full cost of an expressway will be recovered from tolls that are charged to road users for the duration of the contract period. In economies where electronic tolling is not feasible, such as the Philippines, tolled expressways are access-controlled. Road users normally collect a ticket when entering the road and pay a user fee at a toll booth when leaving the road. In density populated urban areas, such as Metro Manila, the time need for ticket collection and toll payment increases congestion (and thereby, indirectly, air pollution and noise pollution), which is therefore a negative external effect of charging tolls. Using an availability payment contract gives the public sector the option to forego tolls, either on the entire road or on segments where negative externalities are especially prevalent, in order to improve public welfare.

Improved Road Network Management. Even if individual expressways managed under a BOT contract would not cause negative externalities, expressways under a contract with availability payments would nonetheless provide DPWH with additional flexibility in the management of the national road network. This is because availability payments would provide DPWH with the options to forego tolls or set tolls at different levels than stipulated in a BOT contract, and

these options may be instrumental in optimizing the overall traffic flow in the network.

Cost of securing the benefits from availability payments. The realization of the benefits from availability payments comes at a cost. When compared to BOT contracts, the most important of these costs are: (i) higher public expenditure (especially in the short term), and (ii) higher risks to the public sector. Although the benefits of availability payments may outweigh the costs, this is not necessarily the case for all expressways. For example, inner city expressways in heavily congested areas are more suitable for availability payments than intercity expressways with relatively predictable traffic demand.

It is not argued that DPWH should consider replacing BOT contracts with contracts for availability payments. Instead, availability payments should be considered as an alternative mechanism that could be used instead of a BOT, DBO or other PPP arrangement, depending on the characteristics of the individual expressway project, but taking the wider economic impacts of the expressway into consideration.

Interoperation and Interconnection of Toll Roads

Introduction: Defining the Toll Road Problems

As the road network manager, DPWH needs to address interoperation and interconnection issues for the PPP toll roads, for those operating on Luzon Island now and for toll roads that are planned for implementation over the next 5 years or so. The fundamental reasons to address this issue are:

- There are different toll road owners who interconnect and interoperate, but there is no seamless arrangement for travelling the toll roads.
- There is proliferation of toll booths (for each completed toll road project) that interrupt the free flow of traffic to, on and off the toll roads because they are mostly fitted with toll booths and operate on a 'pay as you go' system.
- Toll roads need road system management and integration with the surrounding network and should be integrated as part of the road network and not separate from it.
- There is no interoperation arrangement in place between different toll road owners, and even between toll roads that are under a common owner. There are limited RFID arrangements for the automatic payment of tolls by users.
- The toll road interconnection policy is managed on a project-by-project basis, without a standing policy being in place.
- There are potential significant traffic problems in urban Manila with the absence of interoperation arrangements.

Management of Toll Roads Planning and Implementation

An Australian Aid Project under the PEGR²⁶ Program in 2007/08 identified the lack of consistency between the DPWH and the TRB on toll road management. The solutions that were brought about by that program are discussed below.

²⁶ Philippine-Australia Partnership for Economic Governance Reforms Program.

The inconsistency issue had largely been resolved from 2008 to 2012/13 where two significant decisions were made:

- *Integrated Network Management*: The first decision was that all PPP roads were to proceed through DPWH and not through the TRB (through a Presidential Executive Order in 2007). The DPWH as the road network manager was given the responsibility for deciding PPP roads and managing the procurement and ongoing contract management. TRB's role was limited to existing franchise toll roads under the old Philippine National Construction Company franchise that expired in 2007.
- *Automatic Issue of Toll Operation Certificate and Toll Rate Adjustments*: In 2012/13, the TRB was controlled within new PPP contracts to the automatic issue of the required Toll Operation Certificate and the automatic adjustment of toll rates according to a parametric formula applied to toll rates bid by the winning Concessionaire.²⁷

These two policy stipulations are currently operating for all PPP roads. They operate to bring the Philippine system closer to international practice: under that policy, DPWH is the sole entry point for planning and determining the toll roads for the Philippines; and where the Concession agreement controls the operation and management of the PPP road there is to be no discretionary intervention by a third party.

That policy and arrangement has provided greater certainty in PPP Toll Road contracts within the Philippines.

The Interoperation Problem Defined

There are no government standards nor contractual measures in place for the interconnection and interoperation to work to international standards. The problem is compounded by the high number of pay-as-you-go toll booth transactions. With the continued introduction of PPP roads into the market and all being expressway standard, and with those PPP roads having different owners that interconnect and interoperate, traffic management and better integration with the road network needs attention by DPWH.

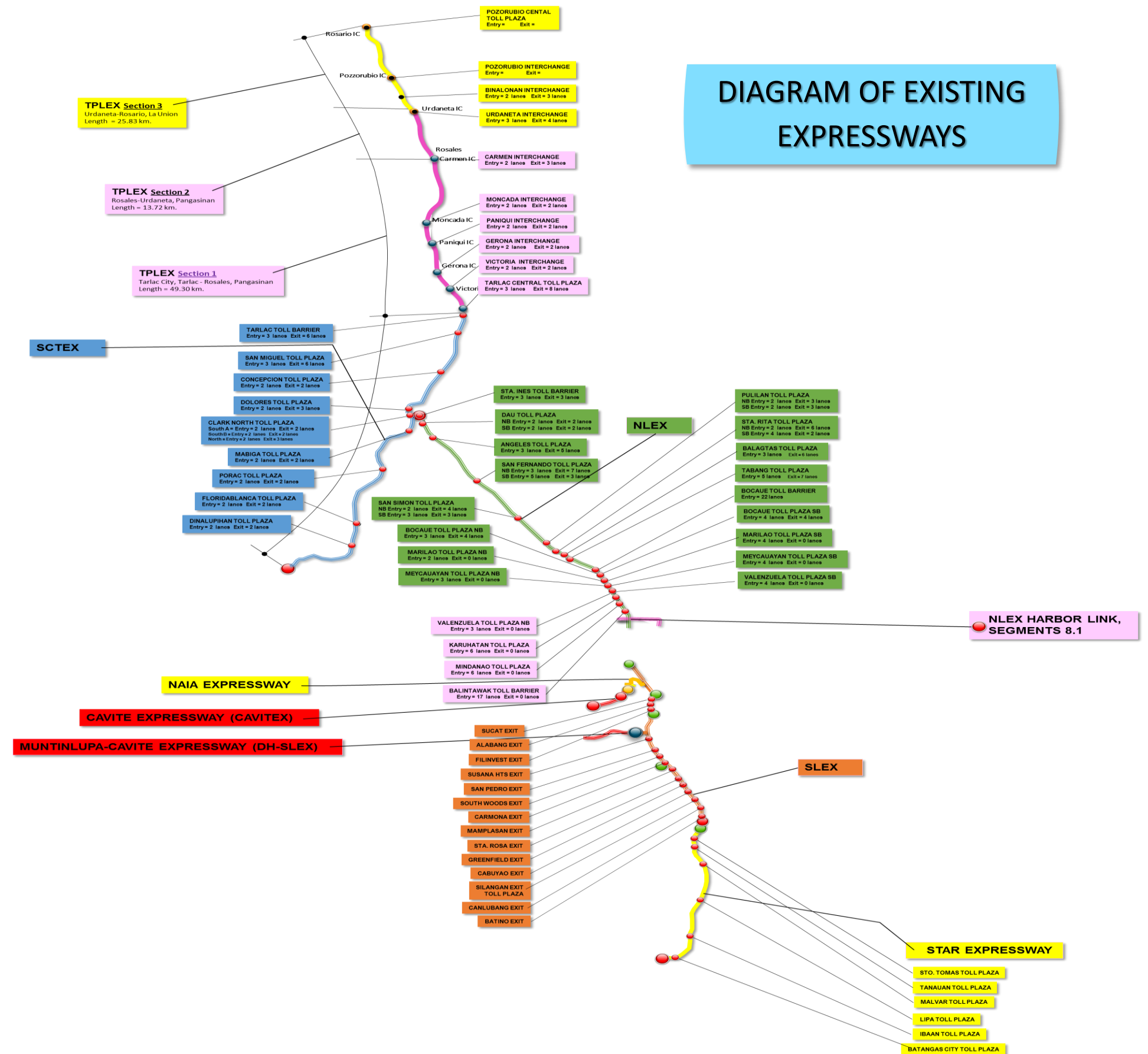
The problem of interoperation is best explained by diagram. Diagram 1 is the current network of PPP roads and how they do connect now or will connect when completed. The diagram shows the number of toll booths for each toll road. Diagram 2 shows the toll roads within Metro Manila and the areas where new toll booths are to be placed. It shows the mixed ownership and demonstrates the number of toll booths that are or will be in close proximity to each other.

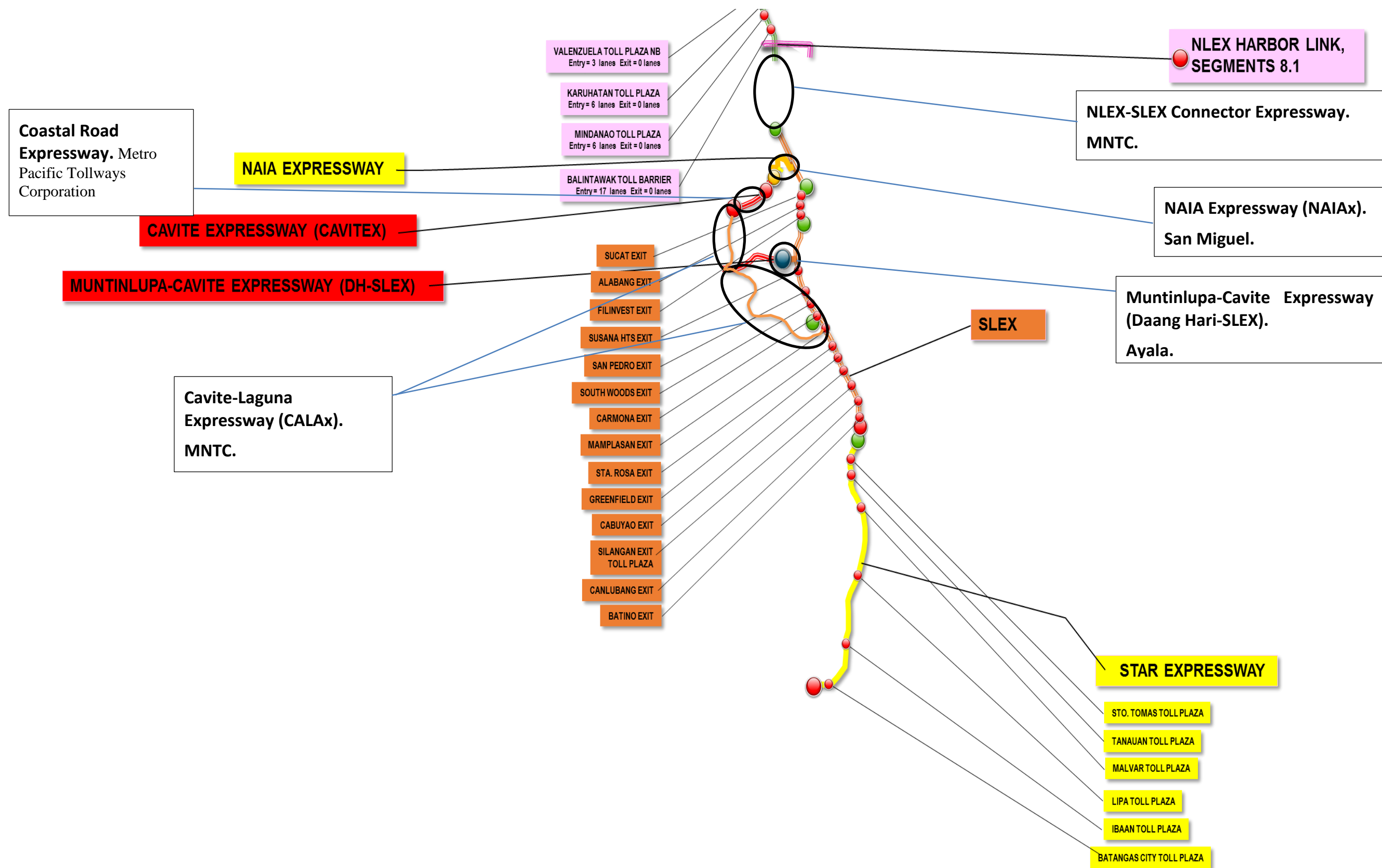
²⁷ This was done by incorporation into the Concession Contracts and a resolution of the TRB was appended to each Concession which showed the TRB resolution to automatically issue the TOC and adjust the toll rates according to a parametric formula.

The diagram shows all current toll roads and the toll booths per toll road.

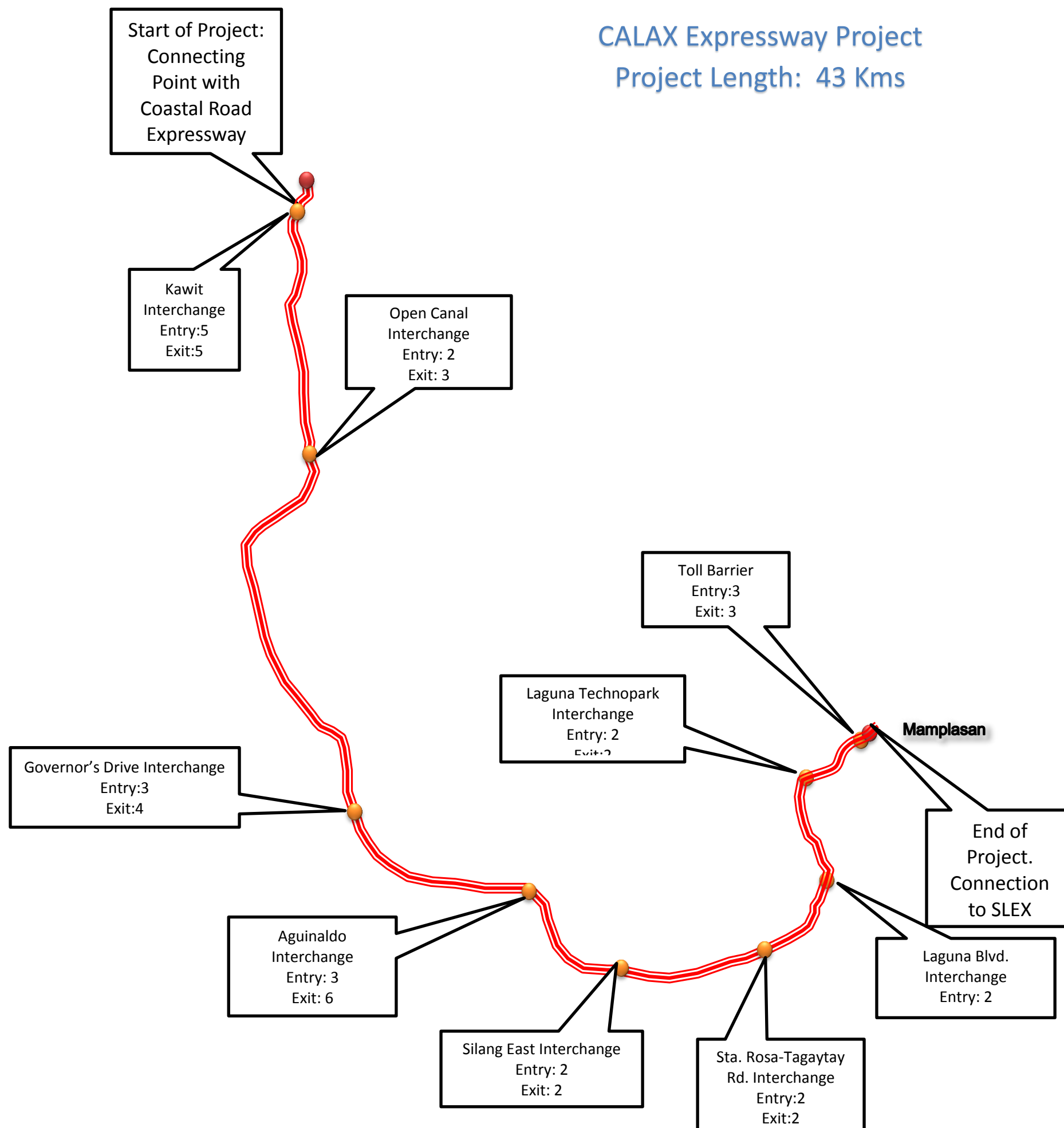
The diagram does not include:

- Metro Manila Skyway System (Existing Stages 1 and 2)
- Metro Manila Skyway Stage and C-6 Expressway (under construction)
- Proposed SLEX Extension
- CALAx (recently awarded)
- North-South Connector (NLEX to SLEX)
- Additional expressways planned by DPWH
- Recent Unsolicited proposal by MNTC for C5 Road
- Connecting C5 Road to Coastal Road Expressway









From the diagrams, the following conclusions can be drawn:

- There is a planned proliferation of toll booths that are likely to cause serious traffic problems within the expressway network. Toll booth delays are likely to become chronic.
- Toll booths are employed because there is no interoperation policy and there are now different owners connecting to each other's toll roads.
- The level of service expected of a PPP road will decrease.

As an example of the potential problem: on the NAIA expressway²⁸, there are three toll booths within 500 meters of each other even though the three connecting roads – Skyway and NAIA are owned by the San Miguel Corporation and the Coastal Road Expressway is owned by the Metro Pacific Tollway Corporation.

TRB controls the policy and requirements for toll booths but manages each toll road on a project basis and not on a network basis. This approach fails to consider the interoperation issues of a network. DPWH has a road network and connectivity role and needs to develop a set of standards for interoperation and interconnectivity that are based on international practice. This begins the process of managing the toll roads on a network basis.

The problem is likely to be compounded when the North-South Connector Road is built and the CALAX Expressway (which will be owned by MetroPacific) is connected to the San Miguel owned SLEX

This issue raises three significant questions that require policy decision and action:

- Structuring an interconnection policy and standard through DPWH for implementation in the next 18 months. One that gives DPWH as the road network manager sole responsibility for how it is structured and implemented;
- Structuring an interoperation policy and mechanism in the next two years. Again, that role should be allocated to DPWH with supporting standards and capacity building to undertake the role;
- The need to develop a plan to move most vehicles from the pay-as-you-go system to an automated system. Again, that involves DPWH creating an environment to establish an efficient way to gain that quantum change.

The impact on existing toll road concessions will require investigation. Discussions will be needed with existing concessionaires. The discussions should be led by DPWH and involve also the TRB and the Bases Conversion Development Authority (both of whom control some existing toll road concessions).

These issues also affect the toll road network in Jakarta. There is no interoperation policy and consequently no interoperation arrangements in place. This is creating and has created a position where there is substantial queueing for entry and exit to toll roads and at toll booths along differently owned sections of expressway.

²⁸ More information about the NAIA expressway project is available in the following APEC document: Infrastructure Public-Private Partnership: Case Studies of APEC Member Economies (2014/FMM/019).

The Way Forward Including Capacity Building

DPWH needs a policy and strategy for interoperation of the toll roads and an effective mechanism to bring them into the road network and manage them and their performance on that basis. Two issues need addressing:

- Capacity building and knowledge building on interoperation and interconnection to understand what the Philippine needs will be and how to adapt solutions to the Philippines;
- A technical study on how to introduce these two issues into the operating standards for all toll roads.

Review of the Draft PPP Law

The Philippine Legal System

The legal system of Philippines has a legal system of Civil, Common, Islamic, and Customary law²⁹. This notion is supported research in 2014 published in the *Philippine Journal of Labor and Industrial Relations* that summarizes the Philippine Legal System as follows:

“In some recent international literature on comparative law and economics, the Philippines has been misclassified as a civil law family country. This paper provides a corrective to this view by tracing the foreign influences on the Philippine legal system as a whole, and on the development of labor law specifically, to demonstrate that American common law influence has far outweighed that of the Spanish civil law heritage. However, this is only part of the story, as in the post-colonial era, the law of the Philippines has progressively reflected local political and economic conditions and in many instances, has developed without any direct reference to external models. Hence, ***this paper argues that the Philippines is more rightly classified as a hybrid legal system dominated by common law traditions, but that such a classification will still not adequately describe the nature of the current system*** (emphasis added by Author)”.³⁰

It is an important issue to assess the need for a Law in the Philippines. The legal system of the Philippines requires PPP transactions to be developed through Law. However, the way the Law is to be structured should be left open. It is the second part of this statement that forms the basis for the high-level review of the Draft Philippine PPP Law.

A Comparison to Other Economies

It is assumed that the Philippines will pursue a PPP Law.

The following table shows the position within several other economies. It shows that the approach to developing a PPP Law is not universal practice. It depends on the legal system of the particular economy.

²⁹LAWi Asian Encyclopedia of Law: <http://lawi.asia/philippine-legal-system/>

³⁰Classifying the Legal system of the Philippines: A Preliminary Analysis with Reference to Labor Law

Economy	Law ³¹ – Yes or No	Comments
Indonesia	Yes	New in 2014. A Presidential Decree. Prescribes transactions, risks and government decisions
Viet Nam	Yes	New 2015. A Decree. Prescribes transactions, risks and government decisions and industry sectors where PPP applies
European Economies	Yes (most)	Depends on whether the jurisdiction is civil or common law based.
Australia*	No. Guidelines (under National Public Private Partnerships Policy and Guidelines)	Comprehensive development, transaction, risk and monitoring guidelines
New Zealand*	No. the following government publications mandate the consideration of PPP procurement. <ul style="list-style-type: none"> • Cabinet Office Circular on Capital Asset Management – which sets out the government’s expectations for the approval of, and assurances relating to, major capital projects. • Government Rules of Sourcing – which govern the planning and execution of procurement by government agencies in New Zealand. 	As above
United Kingdom	No. Guidelines	As above
Canada*	No. Guidelines (under Financial Administration Act and Treasury Board Policy)	As above
South Africa	No. Guidelines	As above

Note: * Based on the Guidebook on PPP Frameworks in APEC Region, by APEC Investment Experts’ Group, May 2015.

³¹ In this table the definition of Law includes Parliamentary Law and Presidential Decree.

The question is, what sort of PPP Law is needed to bring the current new international practices in PPP to the Philippines. The PPP Center has continuously reviewed the PPP approach in the Philippines and learned from international benchmarks. That learning is in part incorporated into the Draft PPP Law.

The Current Law and the Proposed Law

The current BOT Law³² and the Implementing Rules and Regulations³³ describe in detail the types of PPP transactions that can be undertaken within the Philippines and the way the procurement is to be undertaken. The Law and the Regulations also specify base level contract provisions that are to be included within any BOT arrangement that is entered into by the government.

The Draft PPP Law is meant to achieve:

- Amending the current BOT Law to PPP Law;
- Utilizing a VfM approach in determining projects to be undertaken through PPP;
- Defining in detail more types of PPP transactions what base level conditions will apply to those transactions;
- Establishing the PPP Center and the PPP Governing Board, and their respective roles;
- Creating a Project Development and Monitoring Facility (PDMF) and institutional arrangements;
- Creating a more structured approach for the PPP environment and creating an attractive and lower risk investment climate for PPP;
- Enabling the fast-tracking of PPP projects that have significant impact to the economy;
- Redressing critical investment issues such as tax obligations and where they fall in a PPP Transaction;
- Establishing basic processes for procurement of PPP transactions and fix a range of issues in the procurement process that have been identified through practice since 2011;
- Creation of a Risk Management Program Fund that will enable the National Government to manage its fiscal risks and enhance its credibility among PPP proponents.

The PPP Center has continuously reviewed the PPP approach in the Philippines and learned from international benchmarks. That learning is, in part, incorporated into the Draft PPP Law. The type and size of PPP transactions in the Philippines have been quite large and the interest by the private sector has been strong. These are laudable improvements since 2010 when there was little to no interest in PPP within the Philippines either from the government sector or the private sector.

The Focus of the Draft Law Review

It is proposed to limit this review to just two policy considerations: what should the Draft PPP Law contain and how can that be achieved.

³² Republic Act 7718 The Build Operate Transfer (BOT) Law

³³ The BOT Law Implementing Rules and Regulations

The Philippines needs a PPP Law for PPP transactions to be undertaken. However, the Philippine system could learn from practices in common law systems and the way PPP transactions have moved and developed over the past 5 years. The key factor in the PPP market, especially well practiced markets such as India, Australia, the United Kingdom, New Zealand and Canada, is the flexibility that government has to enter into contracts and the flexible structure of those contracts. This principle is the key element in this discussion.

The Draft Law – Types of PPP Transactions

The Draft PPP Law now contains detailed types of PPP transactions that can be undertaken by the government. It defines those transactions and their basic structure and risk allocation. It also defines issues such as government subsidy and how much the government can place into a contract before the transaction becomes contrary to the Law.

The list of PPP transactions is comprehensive. But the fact of having a list of transactions and their structure within the Law is problematic. Internationally, PPP transactions are being applied in different ways. As PPP is applied and becomes more flexible, a rigid approach through Law becomes quite problematic and transactions that might be beneficial to the Philippines can become excluded because of their structure and risk allocation does not comply with the proposed Philippine PPP Law

As an example:

In Australia, the Government of Queensland has recently commissioned an Availability Payment PPP for a road outside its capital city Brisbane. The government has provided 70% of the capital for the road and the private sector is financing 30% of the capital. The government will make an availability payment to the private sector that covers:

- The financing by the private sector.
- Design and construction of the road.
- The operation and maintenance of the road.
- The availability of the road.

This is a form of ‘blended financing’ of the infrastructure.

This type of PPP arrangement is unlikely to be available to the Philippines under the currently defined transactions. It is also possible that the government contribution could be seen as a subsidy and the PPP Law limits subsidy arrangements to 50% of the project value.

What kind of Law is Needed?

The PPP Law of the Philippines should be one that is flexible and adaptive to the changing methods of procuring PPP projects³⁴. The Law must be flexible to cope with a fast-changing transaction market, as indicated with the example above from Australia.

To ensure flexibility, the transactions need to be defined more by risk and allocation of risk than by ‘pigeon holing’ into specifically described transactions. Issues like government subsidy

³⁴ The Draft PPP Law contains a ‘catch all’ provision that the Investment Coordination Committee of NEDA may approve a variation of a specified PPP transaction. That may provide some assistance with flexibility but the variation must be within the parameters of the Law and cannot override fundamental issues such as government support limitations of 50% of project value.

need to be flexible or defined very narrowly so that a blended finance arrangement between government and the private sector can form a transaction methodology.

The proposed PPP Law has been refiled with Congress in 2017. It is recommended that the Draft Law be reviewed (prior to its refiling with Congress) to establish a more flexible approach to PPP and one that can be competitive and focus on risk allocation and investment structures.

1.4 CAPACITY BUILDING

Capacity Building – a Key Pillar for Change

Capacity building is one of the key pillars in the review of the road infrastructure management arrangements for the Philippines. In that context, DPWH and the PPP Center undertake their own capacity building programs and have received substantial capacity building assistance. Over the past decade, DPWH capacity building has concentrated on road management from a policy and strategy perspective and from a technical perspective, including road feasibility analysis, PPP project development, value engineering which includes LCC and VfM. The PPP Center, since its formal establishment in 2012, has concentrated on developing its capacity based on international benchmarks in PPP transactions. It has also undertaken substantial training in contract and project management and understanding the fiscal and financial aspects of PPP transactions.

Capacity Building – Developing a Practical Approach

This aspect of the project is focused on the practical approaches that could be developed for DPWH and the PPP Center to enhance their skills and knowledge. The section concentrates on what each has put forward as a basis for a program that meets their needs over the next 2 to 3 years and will provide substantial assistance to meet the government's program to develop much improved infrastructure for the Philippines.

The delivery of the capacity building program also requires a more imaginative approach. The method needs to be both targeted and cost effective. It needs to change the standard approach of 'class lessons' and use more modern techniques that are problem solving based approaches³⁵ and as well as adopting webinar based delivery from training organizations.

To target capacity building that is both practical and desired by DPWH and the PPP Center, two workshops were held to review the initial assessments provided by both organizations. They were held on 16 and 17 January 2017 respectively. The format was structured around the APEC questionnaire and discussed openly with the participants. The assessment is based on three principles:

- the topic within the APEC questionnaire,
- the reason for the capacity building to give some scope to future terms of reference for capacity building programs; and
- an outline of the capacity building need to provide a focus for the development of the program.

The following tables are the result of the two workshops.

DPWH Capacity Building

The DPWH capacity building review was limited to raising no more than 8 to 10 issues to keep the needs within 'doable' boundaries. The focus therefore was on:

³⁵ Training Sessions for the PPP Center under an ADB TA used problem solving techniques for financial assessments, contract management and contract negotiations and disputes. Training assessments by participants indicated that the method was preferred to 'class lesson' type training.

- developing quality projects and enhancing the use of tools such as VfM, LCC and Value Engineering;
- structuring PPP expressway transactions to international benchmarks; and
- improving management tools for planning and evaluation of the road network and road projects.

Capacity Building Topic	What is Required
<p>Topic: Legal and Guideline Amendments to facilitate policy changes in PPP</p> <p>Reason:</p> <p>The PPP Unit has many new staff as a result of the DPWH rationalization plan. Knowledge and capacity building in PPP transactions needs substantial investment. It is at the coalface of the PPP transactions: designing, procuring, monitoring construction and managing implementation.</p>	<p>Broad Requirements:</p> <p>Capacity Building on Project Development, Construction Supervision, and O&M. Need to develop a Capacity Building program with the PPP Center.</p>
<p>Topic: Land acquisition provisions require effective processes on ROW and utilities relocation</p> <p>Reason:</p> <p>DPWH legal staff have no specialized training in ROW acquisitions, so they learn by practice. In general, they do workshops, read manuals. Specialized training is needed for land acquisition laws.</p> <p>There is lack of systems and coordination with utility providers for land acquisition in terms of utilities relocation.</p>	<p>Broad Requirements:</p> <p>Complete training in the legal issues related to land acquisition and briefing the Solicitor General in cases filed in the Courts.</p> <p>Develop a system to lessen the backlog of cases held by the Solicitor General that cause land acquisition delays for projects.</p> <p>Develop a coordinated database among agencies for utility locations.</p>
<p>Topic: Ex-post evaluation – implementation by agencies and capacity building</p> <p>Reason:</p> <p>ODA projects are required to undertake an ex-post evaluation but budget funded projects are not. For ODA, this is standard practice, but budget funded projects have no evaluation criteria. Criteria needs to be developed for budget funded projects.</p> <p>Need to focus on adaptive and mitigation measures as per Climate Change Commission. At the moment, this is taken at a Post-Evaluation level, because DPWH does not have a common measurement for M&E.</p>	<p>Broad Requirements:</p> <p>Develop post-evaluation guidelines, practices and increase Capacity Building on post-evaluation mechanisms. Use ODA funded project guidelines and practices as the benchmark, but not adopted because of differing requirements.</p> <p>Facilitate the development of budget funded evaluation criteria. Further assistance is needed to institutionalize Post-Evaluation.</p> <p>Capacity Building for infrastructure climate change compliance. The need for a Climate Change Office (or equivalent) for DPWH that</p>

Capacity Building Topic	What is Required
	can consolidate all measures being undertaken for compliance.
<p>Topic: Develop infrastructure delivery cycle</p> <p>Reason:</p> <p>DPWH has not developed a comprehensive masterplan for the whole Philippines. Any Agency can propose a project, then the ICC reviews the economic impact, but not how it fits within a broader strategic plan. There are different masterplans per department/agency and they are not interconnected (i.e. Masterplan for transport, PPP, NEDA, etc.).</p> <p>The current DPWH decision systems, do not coordinate with each other. DPWH needs management tools facilitate an interconnected road network.</p>	<p>Broad Requirements:</p> <p>Focus on a strategic approach for road network management with a range of delivery options from public funding to ODA funding and PPP delivery.</p> <p>Note: this concept is supported by the PPP Center from its Workshop.</p>
<p>Topic: Undertaking LCC Analysis</p> <p>Reason:</p> <p>DPWH resource capacity is low. One person undertakes LCC analysis.</p> <p>The concept of Value Engineering is part of the DPWH system, but not undertaken. A manual was developed in 2008 but current skill levels are low.</p> <p>Training was conducted in 2008 but no accreditation took place. There has been no training since then.</p>	<p>Broad Requirements:</p> <p>Develop accredited experts in Value Engineering and LCC analysis. Continuous training is required.</p> <p>A core group within DPWH is required.</p> <p>Note: If Availability Payment expressways are developed then value engineering, LCC and VfM will be important assessment tools.</p>
<p>Topic: Undertaking a VfM Analysis</p> <p>Reason:</p> <p>Analysis now is estimated (based on assumptions) and not factual. Need to develop an acceptable VfM approach for DPWH and adopt as the standard for decision making.</p> <p>Note: In NEDA ICC, issues were raised when the Plaridel By-pass road shifted from PPP to budget implementation (VfM was not factually justified).</p>	<p>Broad Requirements:</p> <p>As for LCC capacity building, undertake technical training in the development of VfM.</p> <p>Include within the training the development of a decision approach for DPWH and NEDA on the weighting for VfM as a part of the decision criteria.</p>

Capacity Building Topic	What is Required
<p>Topic: Toll Road Interconnection and Interoperation Issues</p> <p>Reason:</p> <p>DPWH and the TRB need a higher level knowledge of how to develop and implement a policy for the interoperation of toll roads³⁶. A complete policy is needed to institutionalize interoperation and interconnection of toll roads.</p> <p>Interoperation and interconnection policy and arrangements will be critical inputs to an effective expressway management system within Metro Manila.</p>	<p>Broad Requirements:</p> <p>Knowledge based training is needed on how to develop an interoperation system and monitor its implementation.</p> <p>Consider the inclusion of all the industry in the capacity building program. This approach potentially provides a foundation for an agreed implementation approach and standard.</p>
<p>Topic: Risk Identification and allocation approaches for types of road transactions.</p> <p>Reason:</p> <p>Risk analysis and allocation is being undertaken now for PPP roads. Risk assessment and allocation is undertaken using NEDA formats but they need to recognize different transactions.³⁷</p> <p>If availability payments are considered, risk allocation will be different. Training is needed to address this issue.</p>	<p>Broad Requirements:</p> <p>Revision training on risk identification and allocation on a project transaction basis.</p> <p>Revision of risk assessment documentation.</p>

PPP Center Capacity Building

The PPP Center capacity building review focused more on the overarching issues for PPP in line with its mandate. The key capacity building issues were:

- developing a PPP law that was flexible and internationally competitive;
- ex-post evaluation approaches for the PPP Center; and
- practices in PPP project promotion, especially with Departments that have little experience in PPP projects.

³⁶ Interoperation work for NAIAX-CAVITEX-Skyway-MCX-SLEX-STAR and NLEX-SCTEX is under progress now.

³⁷ A review of the Generic Preferred Risk Allocation Matrix has been suggested in this Report.

Capacity Building Topic	What is Required:
<p>Topic: Legal and Guideline Amendments to facilitate policy changes in PPP</p> <p>Reason:</p> <p>Review of the draft PPP law revision. The draft is based on lessons learned, facilitate those lessons learned to formulate guidelines, laws, and regulations.</p> <p>The PPP Center wish to implement a Law and legal structure that reflects modern practice and is competitive for PPP investment. The law, regulations and guidelines need flexibility to be adaptive for types of PPP transactions.</p>	<p>Broad Requirements:</p> <p>Review the law to determine which legal level for policy and how to structure and identify which policies are laws, regulations, or guidelines.</p> <p>Capacity Building on what transactions are and what conflict currently exists between the PPP laws and implementing organizations.</p>
<p>Topic: Ex-post evaluation – implementation by agencies and capacity building</p> <p>Reason:</p> <p>The PPP Center has the concept of lessons learned and has been using this approach but requires formal training on ex-post evaluation approaches and systems. This is a similar issue with DPWH.</p> <p>Note: The Department of Education Availability Payment PPP granted in 2014 has a monitoring system in place for the project implementation and quality management.</p>	<p>Broad Requirements:</p> <p>A system for ex-post evaluation is required. Capacity Building in both system development and system use is required. The training should incorporate contract management training.</p>
<p>Topic: Risk Identification and allocation approaches for types of road transactions</p> <p>Reason:</p> <p>The standard Government risk assessment approach and documentation managed through NEDA requires major updating to take incorporate international standard project transactions – e.g. Availability Payment risk allocations, analysis and mitigation.</p> <p>Need to ensure that the transaction risks and their management are clear and approved by NEDA and reflected in the transaction documents. Currently PPP Center advise that the position is not clear.</p>	<p>Broad Requirements:</p> <p>Capacity Building for benchmarked transaction risks and a regular update of international practices on risk definition, allocation and management.³⁸</p> <p>Include identification and management of contingent liabilities within the scope of the risk capacity building program.</p>

³⁸ Note earlier recommendation to include the NEDA Investment Coordination Committee in the capacity building program.

Capacity Building Topic	What is Required:
<p>Topic: Promotion of PPP projects requires greater interagency cooperation</p> <p>Reason:</p> <p>There is good cooperation with DPWH because it has a dedicated PPP Unit and understands the process. DOTr manages PPP on a per project basis. Institutional knowledge is not retained and continuity between project development and implementation is lost.</p> <p>Need better management of PPP projects where there is more than one relevant agency. For example, co-granting by the DOTr and the Light Rail Transit Authority (LRTA).</p>	<p>Broad Requirements:</p> <p>Benchmarking exercise first on good international practice. Develop a set of promotion protocols/guidelines and then undertake capacity building program.</p> <p>Specific risk training in the practice of co-grantors of PPP Contracts. Endeavor to eliminate the current Philippine practice.</p>

1.5 COOPERATIVE ARRANGEMENTS WITH PROVINCES

Introduction

The subject of cooperative arrangements was introduced by DPWH at the initial project meeting in September 2016.

DPWH is undertaking an expanded role in infrastructure provision and development. There have been recent Government decisions under infrastructure approval procedures that provide for an increased focus on infrastructure provision at local government level. This provides DPWH with a challenge in several respects, including establishing road projects that incorporate connectivity between infrastructure modes and regional development as major component of their purpose. Cohesive integrated rational plans will be required and that aspect is an area where DPWH does require assistance and options for creating a better project planning system, which will include institutional issues and capacity building.

The methodology for examining cooperative arrangements included the following steps:

- An international benchmark (based on available literature) for cooperative delivery mechanisms of infrastructure between national and sub-national governments. The benchmark will be based on funding arrangements, institutional arrangements and procurement process;
- An analysis of current policy in the Philippine national government for establishing cooperative arrangements;
- A potential approach for establishing cooperative arrangements, including funding mechanisms, types of projects, establishing special purpose vehicles, and changes to procurement policy and practice.

The Provincial Cooperation Benchmarking Exercise

This section is focused on how national Governments interact with regional, provincial, and municipal (local) Governments in the context of infrastructure implementation. Some commonalities between different economies are indicated, with an emphasis on successfully implemented projects and programs. This discussion is focused on the delivery of road projects. It is reasonable to extrapolate many of the presented data to other project types.

Some broad commonalities are evident from the research. Capital and large secondary cities in many developing nations have been subject to focused capacity development efforts for the past few decades, with broad success. Capacity exists in most developing economies to successfully finance, plan, and implement beneficial infrastructure in urban centers. For the purposes of this discussion, these large urban centers and associated representatives are assumed to take the “national” role in national/subnational cooperation.

Manila’s National Capital Region is a good example, with many large-scale infrastructure projects successfully placed in recent years - toll expressways, commuter rail expansion, and airport developments for some examples. While there are issues with planning, scaling, usage, etc. these may be more related to political and demographic forces than to the actual capacity for implementation. Rapid expansion in subnational urban centers is observed worldwide, particularly in cities of 1-5 million population, with commensurate pressure on infrastructure quality.

Substantial deficits in infrastructure service are observed in national urban centers worldwide, particularly with respect to transport networks. Few large urban centers efficiently manage traffic flows to the satisfaction of commuters. Utilities networks tend to have a restricting and inertial effect on other infrastructure systems, and suffer from obsolescence due to access problems and high access costs. With some exceptions, similar deficits are observed with subnational governments' capacity to successfully finance, administer, and maintain road networks and other infrastructure to acceptable service levels. Manila is widely regarded as having the worst traffic congestion in the world, though metadata is limited from some likely competitors such as Nairobi and Dhaka.

It is noteworthy that the USA has both some of the worst (Los Angeles, DC) and best (Phoenix) commuter satisfaction indices in the world, indicating that some municipalities are more capable of planning, financing, and procuring infrastructure than others under the same national umbrella. This reality indicates that some subnational entities are better than others at managing their own infrastructure and/or cooperating with national entities for long term success.

Appendix 2 contains the reference material for the provincial cooperation benchmarking exercise.

Analysis of Current Policy in the Philippines

Local Government Structure

LGUs are divided into three levels – provinces and independent cities; component cities and municipalities; and barangays. Section 17 of the Local Government Code stipulates that LGU's are responsible for the provision of infrastructure, including roads. In general, the nationally-administered Department of Public Works and Highways is responsible for national/subnational coordination of infrastructure implementation in the Philippines.

The Department of the Interior and Local Government (DILG) is commonly assigned coordination and oversight responsibility for federally funded infrastructure, and assumes a coordination role for projects funded by international donors. DPWH, DILG, and other agencies maintain regional offices economy-wide, though capacity to implement infrastructure varies widely between regions.

DPWH Policy and Powers

The declared State policy for the DPWH in the Philippines Revised Administrative Code (1987) states:

*“The State shall maintain an engineering and construction arm and continuously develop its technology, for the purposes of ensuring the safety of all infrastructure facilities and securing for all public works and highways the highest efficiency and the most appropriate quality in construction. The planning, design, construction and maintenance of infrastructure facilities, especially national highways, flood control and water resources development systems, and other public works in accordance with national development objectives, shall be the responsibility of such an engineering and construction arm. However, **the exercise of this responsibility shall be decentralized to the fullest extent feasible** (emphasis added).*

Powers and Functions of DPWH

*The Department, in order to carry out its mandate, shall: (1) Provide technical services for the planning, design, construction, maintenance, or operation of infrastructure facilities; (2) Develop and implement effective codes, standards, and reasonable guidelines to ensure the safety of all public and private structures in the country and assure efficiency and proper quality in the construction of public works; (3) Ascertain that all public works plans and project implementation designs are consistent with current standards and guidelines; (4) Identify, plan, **secure funding for, program**, design, construct or undertake prequalification, bidding, and award of contracts of public works projects with the exception only of specialized projects undertaken by Government corporate entities with established technical capability and as directed by the President of the Philippines or as provided by law; (5) Provide the works supervision function for all public works constructions and ensure that actual construction is done in accordance with approved government plans and specifications; (6) Assist other agencies, including the local governments, in determining the most suitable entity to undertake the actual construction of public works projects; (7) Maintain or cause to be maintained all highways, flood control, and other public works throughout the country except those that are the responsibility of other agencies as directed by the President of the Philippines or as provided by law; (8) Provide an integrated planning for highways, flood control and water resource development systems, and other public works; (9) Classify road and highways into national, regional, provincial, city, municipal, and barangay roads and highways, based on objective criteria it shall adopt; provide or authorize the conversion of roads and highways from one category to another; and (10) Delegate, to any agency it determines to have the adequate technical capability, any of the foregoing powers and functions; and (11) Perform such other functions as may be provided by law (Section 3, Ibid.).*

DPWH Delegation of Powers

DPWH's mandate, policies and functions comprehensively address the nation's infrastructure requirements, particularly with respect to national/subnational cooperation. In practice, DPWH has delegated a substantial portion of infrastructure budget and administrative responsibility over time, notably the Departments of Agriculture, Transportation and Communications, Tourism, Education, and other departments. DPWH has delegated approximately 52% of infrastructure spending to other agencies, largely without the commensurate increase in oversight and control necessary for an integrated approach.

Parallel and often insufficient oversight structures along with perceived accountability for success have accompanied the budget transfers. In particular, the Department of Agriculture has struggled to deliver the quantity and quality of farm-to market roads indicated by their portfolio of planned infrastructure. The 12 or so agencies that deliver infrastructure in the Philippines are all generally responsible for their own financing, procurement, supervision, and maintenance programs – resulting in duplication of use and counterproductive competition for scarce financial, management and technical resources.

ROW issues cause substantial delays for transport projects in the Philippines. RA 10752 ("Right-of-Way Act", 2016) may streamline the process. Importantly, LGU's are authorized to exercise RA 10752 for local eminent domain purposes (ref 10).

Multi-year, integrated planning is less robust in the Philippines than in most other ASEAN economies. This is particularly detrimental to the implementation of subnational infrastructure. Asynchronous national/subnational planning cycles can leave funds and other resources for

subnational projects stranded, and can lead to the implementation of obsolete, disconnected, or low priority projects.

National/Subnational Cooperation in the Philippines

National/Subnational cooperation in the Philippines is a complex topic indeed and does not appear to be structured in accordance with any federal legislation.

The Priority Development Assistance Fund (PDAF) was a discretionary fund available to members of congress established in 1990, with precursor programs as early as 1922. Many western governments have used a similar ‘legislator lobby’ model for funding subnational projects with national funds. PDAF was designed to allow legislators to fund small-scale infrastructure or community projects which fell outside the scope of the national infrastructure program, based on project funding requests from LGU’s in their district. As a lump-sum appropriation distributed to congressmen for discretionary spending, there is little government oversight on how the funds are used after appropriation. PDAF has been the subject of numerous investigations into alleged misuse of funds in recent years. In 2013 a Supreme Court Moratorium prevented any further release of PDAF funds and declared PDAF unconstitutional.

The Bottom-Up Budgeting (BuB) program, initiated in 2012, was a coordinated attempt to drive programming and procurement from the LGU level. While not explicit, it appears that BuB was implemented to fill the vacuum created by the PDAF moratorium. In concept BuB is commendable. The BuB website states that “anyone can take part in the FY2017 budget”, with procurement items originating at the provincial level for programming and budget allocation at the national level.

The BuB has been unsuccessful, most likely because BuB was not encoded in law as a requirement for federal funding and has been executed as a cooperative agreement by BuB supporters. Efforts to train subnational staff were underfunded and many proposals did not meet the minimum requirements to understand, program, fund and implement needed projects. The list of successfully implemented projects resembles that of an international donor’s program, indicative of the abstract availability of national funds without the commensurate applied expert capacity to assure implementation. In July 2016, the Budget Secretary announced that BuB, with a P24.7B PHP budget for FY 2016, would be discontinued.

It is not clear how formal national/subnational cooperative infrastructure projects will be initiated, programmed, financed, and implemented in the near term (most likely an adaptation of the discretionary fund approach). The 2017 budget does include an aggressive national and subnational infrastructure program that substantially exceeds infrastructure budgets from previous years.

International Benchmark

The Philippines Compared to ASEAN and Others

The Philippines has underspent substantially on infrastructure related to long term goals, budgetary planning, and by comparison to other ASEAN economies. Philippines infrastructure ranked 91st of 144 economies in the 2014-2015 World Economic Forum Global Competitiveness Index. It is important to observe that the Philippines has improved 50 places in the same index in the “institutions” category since 2010, and 54 places in the ethics and

corruption index (ref 7). These are all positive signs that recent Government reforms are working, and that investment in subnational institutions is likely to bear similar fruit.

According to the IMF 2015 study, the Philippines has the lowest percentage of GDP invested in public infrastructure of all ASEAN economies (2.5% as compared to the ASEAN average of 6.5%) and the lowest capital stock (35% vs 72% average) (ref 9). The latest figure of infrastructure investment in the Philippines is 4.3% of GDP as stated in the Philippine Development Plan 2017-2022 (NEDA).³⁹ A report by PwC on the outlook of South East Asian Infrastructure Spending by 2025, provides the following figures of projected annual growth.

Table: Projected annual growth of infrastructure spending by 2025

Economy	Projected annual growth, 2013-2025 (%)
Indonesia	7.0
The Philippines	10.0
Malaysia	9.0
Viet Nam	9.0

Source: A Summary of South East Asian Infrastructure Spending: Outlook to 2025, by PwC (2014).

South Africa's Situation, Methodologies, and Case Studies

South Africa has been confronted with obstacles to development similar to those in the Philippines. South Africa declared national independence in 1910 after centuries of colonial rule. A new constitution was adopted in 1993. In 1994, the government was transformed to majority rule via social action.

The national government is working to integrate diverse regions with millennia of traditional tribal rule into a comprehensive system of governance. The new constitution recognizes the status and roles of traditional leadership. Rural infrastructure services in South Africa lag significantly behind urban services, similar to the Philippines. National road networks are considered excellent by most international standards, subnational road networks are typically evaluated as poor or non-existent in rural areas.

Numerous scholars have recognized that national/subnational cooperation is essential to successful development of impoverished regions in South Africa, with many similarities to the economies and demographics of the Philippines. Given that South Africa does have the largest economy on the continent and has demonstrated notable development success in the past few decades, South Africa may be described as a reasonable benchmarking choice for this discussion – an interim nation somewhere between the Philippines and the most developed Western nations. South Africa's Global Competitive Index Rank is 56 (infrastructure 60), the Philippines is ranked 52 (infrastructure 91). South Africa has taken notable steps to improve national/subnational cooperation for infrastructure planning and implementation.

³⁹ A recent report from USAID (2017), noted that the Philippines has successfully reached financial closure on 59 projects representing US\$ 31.1 billion in the last ten years (data from World Bank's PPI Database).

The South African Department of Public Works has undertaken an aggressive Expanded Public Works Program (EPWP) since 2004, specifically targeted at creating subnational capacity for infrastructure implementation by engaging workers in rural areas on infrastructure projects. An important component of EPWP's success was new labor legislation that permitted the national government to employ workers on a short term temporary basis, common labor conditions for construction projects.

Developing and strengthening monitoring and evaluation processes and resources at the national level and implementing the system at the subnational level has also been crucial to the program's success. Large scale contractor and worker training programs have resulted in noticeably better quality of life from in-place infrastructure, immediate employment benefits, and long term skills development in the subnational workforce and at DPW. The EPWP is funded by a single budgeting process, with funds allocated to the Department of Provincial and Local Government which identifies, programs, and implements infrastructure projects in the provinces. A Targeted Procurement System specifies, monitors, and audits a set of socio-economic indicators throughout the program life cycle, applying objective criteria to the project selection and acceptance processes (ref 14).

A good example of national/subnational cooperation in South Africa is the Municipal Property Rates Act (2004), which provides a nationally uniform property tax framework for provincial governments and municipalities. Municipalities are responsible for imposing and levying the taxes themselves, applying simple formulae based on property class and use to the value of the property. This legislation provides reliable revenue and supports subnational development, using subnational funds. The national government is precluded, by law, from collecting tax on properties covered by the MPRA. This arrangement is typical of SA government structure, in that the national government provides a framework and monitors compliance, leaving subnational entities to develop and implement policy within the framework.

Some example projects for inter-government cooperation:

The South African Alexandra Renewal Project (ARP) has been successful in the past fifteen years. Starting in 2001, ARP addresses urbanisation issues with an integrated approach across all three tiers of government and community-based organizations, building housing, roads, sanitation, and other necessary infrastructure. ARP has successfully attracted private investors to relocate to the area.

Johannesburg, Jakarta, Bogota, and 183 other cities have implemented Bus Rapid Transit (BRT) systems over the past 40 years or so, extending lines well into rural areas in some cases. In essence, BRT's emulate train systems for a fraction of the cost, utilising dedicated bus lanes on the median with prepaid stations that facilitate rapid loading.

The success of BRT systems is a good example of municipal/national cooperation, with centralized control over bus lines and streamlining routing using modern traffic analysis technology. Manila, Cebu, Davao, and other urban centers in the Philippines appear to be good candidates for BRT. In medium or small municipalities, subnational entities may be more able

to overcome lobbies from entrenched, often duplicated, competitive transportation companies in the local context.

Municipal Bonds in the USA and the Philippines

Subnational governments in the USA frequently lack the liquid funds to finance necessary infrastructure. The process of selling a bond begins with a local government that designs a bond offering. A rating agency evaluates the government's fiscal condition and prior history of debt repayment, and assigns a summary risk rating to the bond. The bond is then sold to an underwriting firm or group of firms, who resell the bonds to investors at a profit. The underwriters may be selected through a competitive bid or chosen through negotiations.

It is important to note that municipal bonds have a long and uninterrupted history in the USA, starting around 1812. Thus surrounding legislation, risk history, regulation, etc. have been in place and mature for quite some time. Interest income from municipal bonds is often exempted from federal tax, a cooperative arrangement that provides significant incentive for investors. Bankruptcy protection for municipal bond holders is afforded by the US constitution and enshrined in federal law. While Public-Private Partnerships have seen some increased interest in recent years, the vast majority of publicly owned subnational infrastructure is funded by municipal bonds.

PPPs typically bear higher financing costs than bonds, and are risk-rated on a by-project/program basis. Thus PPPs are not supported by long term market strategy as bonds are. PPP is not attractive for small scale projects of the type often required by municipalities.

The long success of the bonds industry in the USA and elsewhere can largely be attributed to investors' trust in the cooperative arrangements between the national government and subnational municipalities, and the resulting stability of the market. In the USA, approximately USD 200Bn in municipal bonds was issued in 2014 alone (ref 15). Permitting reform is proposed as one strategy to further enhance the efficiency and Return of Investment (ROI) of municipal bonds.

While substantial regulated private resources exist in the developed Western economies to support the subnational bond industry, this is typically not the case in the Philippines subnational context. The 1991 Local Government Code does permit LGU's to issue bonds, subject to the regulations of the Central Bank and Securities Exchange Commission. However only a handful of municipal bonds have been issued nationwide, with mixed success. Notable projects funded by bond issues include Caticlan's Jetty Port, Tagaytay City Convention Center, and the Antipolo City Commercial Complex.

Research indicates that there is no national rating agency for municipal bonds in the Philippines, presenting a substantial opportunity for improvement. There is no regulated secondary market for bonds, another substantial cooperative opportunity. Pension funds, mutual funds, and similar entities would benefit from a stable secondary bond market, regulated at the national level. National tax exemptions would similarly promote the development of a stable bond market.

Potential Approach and Case Studies

An opportunity for a double benefit exists in national/subnational cooperation in that subnational needs may be better satisfied, simultaneously reducing population pressure on urban infrastructure in national centers. Demand for intercity travel and thus pressure on road

networks may be reduced if residents are more satisfied with the infrastructure in their home province. For paid services, revenue sharing between origin and destination is possible.

Iloilo City is generally considered a success story in Philippine municipal development and national/subnational cooperation. Iloilo uses a Local Governance Performance Management System to monitor performance metrics, promote transparency, and attract investment and national funding for infrastructure. Iloilo City's Development Plan appears to reasonably balance infrastructure investment with anticipated environmental and social demands. A critical element of success is the level of cooperation amongst barangay and business factions, streamlining eminent domain and planning processes. Iloilo City does experience traffic and other infrastructure pressure as a result of rapid population growth. An opportunity exists here for demonstrating sustainable, prudent development practices that may be transferable to other similar cities.

Pilots in subnational urban centers, aimed at demonstrating the feasibility of infrastructure programs at smaller scale. Jakarta, Johannesburg, Bogota, and 183 other cities have implemented Bus Rapid Transit (BRT) systems over the past 40 years or so. In essence, BRT's emulate train systems for a small fraction of the cost, utilizing dedicated bus lanes on the median with prepaid stations that facilitate rapid loading. The success of BRT systems is a good example of municipal/national cooperation in many regional cities, assuming centralized control over bus lines and streamlining routing using modern traffic analysis technology. Manila, Cebu, Davao, and other urban centers in the Philippines appear to be good candidates for BRT. Subnational entities may be more able to overcome lobbies from entrenched, often duplicate, competitive transportation companies in the local context, as Manila has been unable to do thus far.

Programs and projects specifically designed for and targeted towards national/subnational cooperation and capacity development at the subnational level. Promote the allocation of resources toward the implementation of projects, not the entrenchment of institutions. Acknowledge the need for permanent, sustainable maintenance infrastructure with conservative and realistic budget allocation.

Some initial key actions have been developed for further investigation:

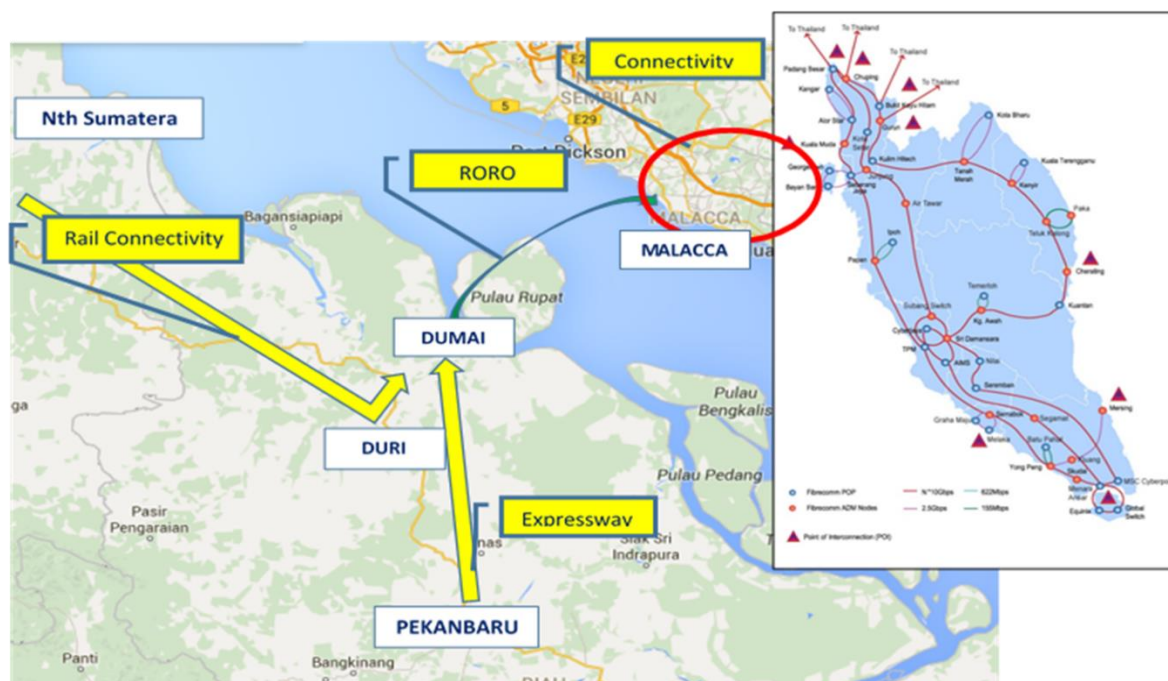
- Phase out/reduce infrastructure procurement and implementation for some redundant agencies as in Indonesia (ref 12).
- LGU's adopt and ratify the new ROW Act (2016) to streamline land acquisition and reduce project risk (ref 10).
- Reformed, comprehensive, normalized zoning laws and strengthened enforcement mechanisms for integrated planning, revenue generation, and public safety.
- National Governments and particularly ODA's should recognize the historical importance of local government in the Philippine context.

Indonesia as a Case Study

The Dumai- Malacca Corridor

Indonesia is about to pilot a cooperative project which has received ASEAN's approval as one of its Major Projects under the Master Plan on ASEAN Connectivity (MPAC). The project is based in northern Sumatera and it creates connectivity between Indonesia and Malaysia, access to the Singapore-Kunming rail route and to the Asia Highway Network (AHN).

The following diagram shows the connectivity for each component of the project



From Indonesia, the project involves:

- Department of Highways – Ministry of Public Works and Housing (MPWPH) for the expressway;
- Department of Rail – Ministry of Transportation (MoT) for the rail link to Dumai;
- Department of Water Transport – MoT for the RORO and port connections between Dumai to Malacca;
- Department of Customs – international connectivity for value added into the corridor for the movement of goods;
- City governments of Dumai and Pekanbaru for land planning, and complementary development.

Project Coordination is managed through Bappenas – Ministry of National Development Planning, Indonesia.

The project comprises several elements, some of which are existing projects and others are to be developed. The concept is to bring the projects together and have them work to achieve a higher level of economic impact and form part of the existing trade relationship between the economies of Indonesia and Malaysia. Key project development issues were:

- Establish a connected project timetable between three major projects: an expressway to the Dumai Port, a rail link to the Dumai Port and a port and RORO facility between Dumai and Malacca Malaysia;
- Enhance Indonesia's transport infrastructure connectivity to Malaysia: part of the value chain is to introduce bonded arrangements and customs arrangements that facilitate more efficient trade logistics between Indonesia and Malaysia;

- Create connectivity for Indonesia to the Kunming⁴⁰ rail link and greater access to the AHN.
- Create transport and goods movement options for Indonesia that does not involve Singapore as the main terminus for either rail or road.

The Institutional and Coordination Arrangements

The arrangements proposed for this corridor plan fit within the current governmental structure of Indonesia. There is no special government agency in place to deliver the project. The structure is basic and relies on Bappenas to play a coordination role and a role specifically targeted at developing the value-added components⁴¹ of the project. The structure is:

- **Institutional Arrangements:** Bappenas to lead the development of the value add components for the project.
- **Coordinated Development:** Develop an action plan to schedule and coordinate the infrastructure project components and the value add priorities. Rail freight facilitation to form part of the value add.
- **International Connectivity:** Create a counterpart arrangement with Malaysia (a two-nation protocol) to facilitate the value add components, combined with an investment plan.
- **Funding Arrangements:** Each agency retains its funds and applies its budget to the project. Bappenas monitors and manages issues and connectivity and budget spending arrangements to ensure project delivery is coordinated and on time.

Focus of Further Work for DPWH

To set out the potential opportunity for the Philippines to undertake cooperative road and infrastructure development projects with local governments, the following basic questions should be addressed:

- **The types of projects** to be the focus of cooperative approaches: would the coordination be limited to major corridor development as indicated in the Indonesia case study or a broad range of projects?
- **Potential to create an SPV** for coordinated projects: Will cooperative arrangements need an SPV to be in place or simply a project leader/coordinator like the Indonesia example?
- **Blended funds** (pooling national and local government funds) and separated funds (keeping fund streams but moved into a project in a coordinated method): Could the Philippines adopt a USA type approach for the issue of municipal bonds to fund coordinated infrastructure projects. What kinds of guarantees will need to be in place?
- **Linking projects:** Should projects be linked and not created a 'whole project' with subcomponents, like the Indonesian example.

To answer these questions, a benchmarking study that focuses on specific delivery approaches should be undertaken. An initial analysis is provided in the following table. The table indicates the benchmarks to be examined and the detail that is needed to develop implementable options.

⁴⁰ People's Republic of China.

⁴¹ Facilitating more efficient trade logistics between Indonesia and Malaysia.

Peer Review and Capacity Building on APEC Infrastructure Development and Investment
The Philippines

Table B1: National/Subnational Benchmarking Data

Comparison Measure	The Philippines	Indonesia	USA	South Africa
Administration Method - Subnational institutions that implement programs and projects	Municipal Development Fund (MDF) DILG (national) Provincial and Municipal LGU's (subnational) Ombudsman (oversight, national/subnational)	State Ministries Indonesia Infrastructure Guarantee Fund (World Bank supported PPP appraisals)	State/county/municipal road departments Office of Inspector General (national oversight) Ombudsman (subnational oversight)	Department of Cooperative Governance and Traditional Affairs Municipalities South African Local Government Association
National/Subnational Finance/Funding Arrangements -Methods of connecting funding sources to programs and projects	DPWH (48%) and 11 other departments +/- (national) Local Government Unit Guarantee Corporation (LGUGC) Subnational VAT sharing and turnover tax ODA funding, typically nationally administered Public/Private Partnerships	MPWPH, MOT, Ministry of Energy and Mineral Resources (MOEMR) (92%, up from 54% in 2014) ODA funding, typically nationally administered Property Taxes Public/Private Partnerships	Municipal Bonds Property Taxes Income taxes (Federal and Subnational)	Government Loans Benefit Taxation Public/Private Partnerships Income taxes (Federal and Subnational)
Infrastructure compliance criteria - Legislated requirements for acceptable, safe, sustainable infrastructure	National Building Code Non-integrated regulations, Decrees, Acts, and codes. Some ODA projects require compliance with the International Building Code (IBC). No formalized safety code. Particularly fragmented system of environmental requirements.	National Building Law 28/2002 Model building Codes Local Buildings Act 2005 (450 regions)	National, State, and Municipal Building Codes (adopted from IBC model code) Zoning Regulations	National Building Regulations Zoning Regulations City Council Requirements "Local Authorities"
Procurement methods -How projects are commonly contracted	Approved budget for contract	Approved budget for contract	Lowest technically qualified bid	Lowest technically qualified bid

Peer Review and Capacity Building on APEC Infrastructure Development and Investment
The Philippines

Table B1: National/Subnational Benchmarking Data

Comparison Measure	The Philippines	Indonesia	USA	South Africa
for construction, typically at the project level				
Inspection Criteria -How projects are permitted and approved for occupancy	Local Authority Having Jurisdiction	Regional Government	“Local Authorities”	“Local Authorities”

2. PROJECT IMPLEMENTATION

Project Meetings

The following table shows the meetings and discussions held during the project to date:

Date	Meeting/Discussion With	Subject
29 September 2016	APEC PSU	Discussions with DPWH for ToRs restructuring
30 September 2016	APEC PSU and DPWH and DTI	Restructuring project ToRs and timing
24 October 2016	APEC Project Team and DPWH	Completion of Questionnaire; facilitating formal access to PPP Centre via DPWH; Dates for December meeting with APEC Secretariat
28 October 2016	PPP Centre	Completion of Questionnaire, discussion on issues for PPP and proposed amendments to the Philippine BOT Law
14 November 2016	DPWH	APEC Review matrix. Additional issue for toll road interoperation policy review
15 December 2016	APEC, DPWH, DTI and PPP Centre	Progress and review of project. Presentation by APEC consultants
16 and 17 January 2017	DPWH and PPP Centre	Two workshops on Capacity Building requirements

Timetable

Since the meeting with DPWH, the project timetable has changed substantially. The project time-table is as follows:

Activity	Completion By
Literature review of current practices (DPWH assistance with review)	End October 2016
Research on provincial infrastructure development, institutional and capacity building	End November 2016
First Draft Report for DPWH and APEC	Mid December 2016
Draft Final Report in time for the APEC meeting in March 2017	End February 2017

Team Tasks

Project Team Member	Tasks Assigned
Peter Benson	<ul style="list-style-type: none">• Team Leader and review of PPP Procurement issues for DPWH. Review of the Draft PPP law for the Philippines. Report Preparation
Michelle Aguas	<ul style="list-style-type: none">• Preliminary research of online sources for the literature review and matrix; coordinated meetings and data requested with the stakeholders
Andre Oosterman	<ul style="list-style-type: none">• VfM Review with emphasis in LCC. Final report quality review
Ron Hunter	<ul style="list-style-type: none">• Benchmark on provincial and national government cooperation

APPENDICES

APPENDIX 1: COMPLETED APEC MATRIX – DPWH AND PPP CENTER

Criteria	Type	Name	Details	Issues	Action/s Needed
General - Public Procurement					
Is there a legal system in place on public procurement?	Law	Republic Act (R.A.) No. 9184 - “Government Procurement Reform Act”	- Public procurement in the Philippines is governed by Republic Act No. 9184 and the revised IRR-RA No. 9184 - RA No. 9184 applies to all procurement activities of the national government to include Infrastructure Projects, Goods and Services, and Consulting Services. This includes all departments, bureaus, offices, agencies and also State Owned Colleges and Universities, LGUs, GOCCs and government financial institutions.	None	
	Law	The revised IRR-RA No. 9184 - “Revised Implementing Rules and Regulations of Republic Act (R.A.) No. 9184”	- The revised IRR’s scope includes all local and foreign funded procurement activities (with exceptions, i.e. treaties or international / executive agreements). However, the IRR cannot be applied to the following: 1. Procurement funded from Foreign Grants covered by RA No. 8182 as amended by RA No. 8555 (Official Development Assistance Act of 1996).	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
			<p>2. RA No. 8974 (An Act to Facilitate the Acquisition of Right-of-Way Site or Location for National Government Infrastructure Projects and for Other Purposes).</p> <p>3. “Public-private sector infrastructure or development projects and other procurement” under RA No. 6957 as amended by RA No. 7718 (An Act Authorizing the Financing, Construction, Operation and Maintenance of Infrastructure Projects by the Private Sector and for other purposes).</p>		
General - Legal System related to PPP					
Is there a legal system in place related to PPP?	Law	Republic Act (R.A.) No. 6957 - “The Act Authorizing the Financing, Construction, Operation and Maintenance of Infrastructure Projects by the Private Sector,	<p>- Identifies the role of the private sector in national growth and development.</p> <p>- It gives the private sector the opportunity to build and develop infrastructures that are financed by the government. It also “provided a more focused framework in PPP infrastructure development”.</p>	<p>1. PPP Law needs to be amended to clarify certain issues such as but not limited to the following:</p> <p>a. After the statutory review, amendment in the draft contract, if warranted due to perceived violation of law, with due notice</p>	Amendment to the law

Criteria	Type	Name	Details	Issues	Action/s Needed
		and for Other Purposes”		to the approving body.	
	Law	Republic Act (R.A.) No. 7718 - “Build-Operate and Transfer (BOT) Law”	- Enhanced the coverage of other government agencies that can venture into PPP projects. This also broadened the schemes, arrangements and modalities in implementing PPP projects as well as the eligible types of PPP projects.	b. Term/period of and Original Proponent Status c. Clear cut criteria to require Special Purpose Company	
	Law	The 2012 Implementing Rules and Regulations (IRR) for Republic Act (R.A.) No. 7718 - “Build-Operate and Transfer (BOT) Law”	- “seek to identify specific incentives, support and undertakings, financial or otherwise, that may be granted to Project Proponents, provide a climate of minimum Government regulations, allow reasonable returns on investments made by Project proponents, provide procedures that will assure transparency and competitiveness in the bidding and award of projects, ensure that Contractual Arrangements reflect appropriate sharing of risks between the Government and the Project Proponent, assure close coordination between national government and Local	d. More clear definition of direct government guaranty, subsidy, equity e. Clarifying whether or not the review of the Concession agreement in solicited project and option, if necessary, in unsolicited project by DOF is mandatory f. Approval of Variations (Additional works) initiated by the	

Criteria	Type	Name	Details	Issues	Action/s Needed
			Government Units (LGUs), and ensure strict compliance by the Government and the Project Proponent of their respective obligations and undertakings and the monitoring thereof, in connection with or relative to Private Sector Infrastructure or Development Projects to be undertaken under this Act and these Revised IRR”.	Concessionaire and complying with the conditions in Section 12.11.	
	Executive Order	Executive Order (E.O.) No. 8 (series of 2010) and Executive Order (E.O.) No. 136 (series of 2013)	<ul style="list-style-type: none"> - Enabled PPP to be the “central coordinating and monitoring agency for all PPP projects in the Philippines”. - The PPP Center coordinates with the various Implementing Agencies (IA), National Government Agencies (NGAs), Government Owned and Controlled Corporations (GOCCs), Government Financial Institutions (GFIs), State Universities and Colleges (SUCs) and Local Government Units (LGUs) to facilitate, advise, monitor and empower agencies “through various capacity building” mechanisms. 	2. Authority of the PPP Center to look into the propriety of granting an Original Proponent Status by the implementing agency	

Criteria	Type	Name	Details	Issues	Action/s Needed
General - Accounting System					
Is there an accounting system in place?	Departmental Order	DPWH Department Order (D.O.) No. 176 (series of 2015)	- Provides the guidelines and procedures to be followed for Infrastructure Assets as per required by COA.	None	
	Departmental Order	DPWH Department Order (D.O.) No. 70 (series of 2011)	- Provides guidance on monitoring mechanisms to use such as eNGAS and eBUDGET.	e-Budget and e-NGAS Version 2 need to be rolled out in 199 offices but only 54 offices had implemented the system.	
	Guidelines	COA Annual Audit Reports	- Annual Audit Reports are provided by the Commission on Audit (COA) for each NGA (National Government Agency).	None	
General - Tax Law					
Is there a tax law in place?	Law	Republic Act (R.A.) No. 8424 - "Tax Reform Act of 1997"	- States the rate of Income Tax to be imposed	A formula for the computation of the Documentary Stamp Tax (DST) is provided for in RA No. 8424. However, no such formula can be found within its IRR.	Revise supporting guidelines

Criteria	Type	Name	Details	Issues	Action/s Needed
	Guidelines	NGA PPP Manual Volume 1 from the PPP Center	<p>- BOI Incentives availed may be of the following:</p> <ol style="list-style-type: none"> 1. Income tax holiday – BOI registered enterprises will be exempt from Income Taxes based on their status (pioneer, non-pioneer, expansion). 2. Additional deduction for labor expense. 3. Tax credit for taxes and duties on raw materials – may be granted to a registered enterprise. 4. Tax exemptions: imported spare parts, - registered enterprise will be exempt from taxes for importing spare parts and supplies. wharfage dues, export tax, duties, imposts and fees – all IPP registered enterprises will be exempt for 10 years for non-traditional export products. <p>- And other incentives as per list of the BOI.</p>	<p>Under RA No. 10752, if a property affected by a project is acquired through negotiated sale, the Capital Gains Tax (CGT) shall be paid by the government. If the same is acquired through expropriation, the CGT shall be paid by the property owner. However, the law is silent as to who shall pay the CGT in the event that the government and the property owner reach a compromise during the pendency of the expropriation proceedings.</p>	Amendment to the law

Criteria	Type	Name	Details	Issues	Action/s Needed
	Executive Order	Executive Order (E.O.) No. 226 (series of 1987)	- Public and private entities will be subject to tax. However, private entities registered with the BOI will be entitled to incentives. Incentives availed may be in the following forms: Tax Exemptions, Tax Credits, Additional deductions from taxable income, zero-rated VAT and other non-fiscal incentives.	It is not clear from the law whether legal interest on just compensation is subject to CGT.	Amendment to the law
General - Environmental and Social Assessment					
Are there laws and guidelines in place that stipulate the implementation of an environmental and social assessment for implementing infrastructure projects?	Law	Republic Act (R.A.) No. 10752 - "The Right-of-Way Act" an amendment of Republic Act (R.A.) No. 8974	- Before the project could be undertaken, provisions of RA No. 7160 (Local Government Code of 1991) shall be considered. The LGU will provide the necessary data or information for these assessments.	None	
	Departmental Order	DPWH Department Order (D.O.) No. 157 (series of 2016)	- Environmental Impact Assessment (EIA) for DPWH Infrastructure Projects and Tree Cutting Permit Application.	Funds for the conduct of an EIA should be included in the yearly GAA.	Revise Guidelines/Directive

Criteria	Type	Name	Details	Issues	Action/s Needed
	Report	World Bank: Philippines: Country Framework Report for Private Participation in Infrastructure (2000)	- Projects that may affect the environment also need to secure ECC (Environment Compliance Certificate) from DENR. In securing the ECC, certain conditions must be met such as a report of impact assessment to show possible effects of the project to the environment and if this is line with sustainable development. An endorsement from the LGU is also needed for ECC consideration. It also includes other applicable environmental laws and regulations for compliance by the investor.	None	
General - Funds					
Is there a structure in place for providing funds (e.g., funds for conducting a FS) for infrastructure projects?	Guidelines	DPWH Infrastructure Development Cycle (website)	- The annual funding requirements for the conduct of FS are being considered and included in the GAA each year.	None	
	Report	NEDA Annual Report for 2015	- NEDA was tasked to administer the fund for Feasibility Studies for non-PPP projects. This fund aims to “support pre-investment activities or feasibility studies for government projects”.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
Is there a structure in place for providing funds necessary for promoting PPP projects and for providing government guarantee?			Note: The Philippines does not guarantee projects at this stage, e.g. demand guarantees or Forex guarantees.	None	
General - Structure for Project Promotion					
Are there organizations in place for promoting infrastructure projects or PPP projects?	Guidelines	PhilGEPS (for all GOP projects) and DPWH (for road projects)		None	
General - Others					
Is there a system in place for protecting the private sector from arbitrary policies or changes in the system?	Law	IRR-RA No. 9184 - "Revised Implementing Rules and Regulations of Republic Act (R.A.) No. No. 9184"	<ul style="list-style-type: none"> - Arbitrary policies and changes in the system is in favor of the Government. It says that "the head of the procuring entity may terminate a contract for the convenience of the government" if the changes in national law and policies will make the project lose its viability. - The private sector, on the other hand, may also terminate its contract if the project is stopped for a continuous period of sixty (60) days for reasons such a security risks and failure of the 	There is an issue with regard to adherence to contractual stipulations, specifically, in connection with the enforcement of additional costs covered by applicable contracts (such as those resulting from subsequent legislation). While these are covered by applicable contracts	Revise supporting guidelines

Criteria	Type	Name	Details	Issues	Action/s Needed
			<p>counterpart to provide for its obligations as per contract.</p> <p>Note: There are change in Law provisions as well to allow compensation to the private sector. More detailed assessment to be provided.</p>	and may be addressed by the DPWH itself, incidents have occurred wherein the said claims are mistakenly characterized as against the government and wrongly referred to the Commission on Audit (COA).	
Is there a system in place relating to land acquisition?	Law	<p>Republic Act (R.A.) No. 10752 “The Right-of-Way Act” an amendment of Republic Act (R.A.) No. 8974 “An Act to Facilitate the Acquisition of Right-of-Way</p>	<p>- States that the National Government may acquire real property for right-of-way site or location for national government infrastructure projects through donation, sale, expropriation or any mode of acquisition as provided by law.</p> <p>-RA No. 10752 mandates that the replacement costs of improvements on affected landholdings are to be determined by (i) the implementing agency,</p>	There are cases wherein the property affected by a project is covered by a Certificate of Ancestral Domain Title (CADT). The law, however, does not specify the person/s to whom the just compensation shall be paid or how it is to be utilized.	Amendment to the law

Criteria	Type	Name	Details	Issues	Action/s Needed
		Site or Location for National Government Infrastructure Projects and for Other Purposes”	(ii) a GFI with adequate experience in property appraisal, and (iii) an independent property appraiser accredited by the Bangko Sentral ng Pilipinas (BSP). The use of the conjunction "and" clearly indicates that the said replacement costs must be determined jointly by the said three (3) entities, instead of just one (1) of them.	There are instances when the amount of just compensation for affected properties consist of small amounts, as in the case of farmers and their crops. Yet despite the small amount of money involved, numerous requirements are required from them such as tax identification numbers (TIN) and birth certificates. Given the socioeconomic conditions of these small claimants, obtaining these documentary requirements can be a challenge for them.	Amendment to the law

Criteria	Type	Name	Details	Issues	Action/s Needed
				RA No. 10752 mandates that the determination of just compensation for crops affected by the projects are to be determined with the aid of government financial institutions (GFIs), such as the Development Bank of the Philippines (DBP). Such entities, however, by their own admission, do not possess the resources and expertise to conduct such valuations.	Amendment to the law
				Despite the express provision found in the IRR of RA No. 10752 allowing the e General (OSG) refuses to initiate such cases.	Amendment to the law

Criteria	Type	Name	Details	Issues	Action/s Needed
				Despite the express objective of RA No. 10752 of expediting the implementation of projects, the procurement of appraisers, despite being a government to government transaction, is still required to undergo the rigid process laid out in RA No. 9184. Hence, the noble goal of RA No. 10752 is being hindered.	Amendment to the law

Criteria	Type	Name	Details	Issues	Action/s Needed
				Consequently, the requirement of the law, as stated, necessarily entails undue difficulties, such as additional costs and having to get all three (3) to agree on a common determination of replacement costs. Hence, there is a tendency for delays to occur in project implementation. Moreover, the DPWH is already well-equipped with the manpower and expertise to determine replacement costs, without having to seek the aid of other entities.	Amendment to the law

Criteria	Type	Name	Details	Issues	Action/s Needed
				<p>RA No. 10752 mandates that the government shall provide adequate appropriations that will allow implementing agencies to acquire right-of-way locations for national government infrastructure projects in advance of project implementation. Consequently, there have been cases wherein biddings were allowed despite the unavailability of right-of-way and funding, in violation of the requirements during pre-procurement conferences, which emphasize the need for the prior availability of right-of-way and funding.</p>	Amendment to the law

Criteria	Type	Name	Details	Issues	Action/s Needed
Is there a system in place relating to foreign exchange?	Regulations	BSP Foreign Exchange Regulations	- These are the legal basis concerning the need for registration and approval of foreign loans and other related transactions.	There is an issue with regard to adherence to contractual stipulations, specifically, with regard to the enforcement of foreign exchange differential provisions. There have been some instances in which the said claims have been mistakenly characterized as against the government and wrongly referred to the COA.	Revise Guidelines/Directive
	Law	Section 20, Article VII and Section 21, Article XII Philippine Constitution	- “pertaining to the authority of the President to incur and guarantee foreign loans on behalf of the Republic of the Philippines with prior concurrence of the Monetary Board (MB), and subject to such limitations as provided by law”.	In case of conflict between the terms and conditions of foreign loans contracted by the President and domestic laws, it is unclear as to which will prevail.	Amendment to the law

Criteria	Type	Name	Details	Issues	Action/s Needed
	Law	Republic Act (R.A.) No. 4860 - "Foreign Borrowings Act" dated 8 September 1966, as amended	- "authorizing the President to obtain, on behalf of the Republic of the Philippines, foreign loans and credits, among others".	None	
	Law	Republic Act (R.A.) No. 7653 - "The New Central Bank Act" dated 14 June 1993	- Provides, among others, that the BSP shall maintain international reserves adequate to meet any foreseeable net demands on the BSP for foreign currencies. The law also mandates the MB to provide written opinion on the monetary implications of a proposed credit operation of the government including its political subdivisions and instrumentalities before undertaking said credit operation".	None	
	Administrative Order	Letter of Instructions No. 158 dated 21 January 1974, as clarified by Administrative	- "requires all foreign borrowing proposals of the government, government agencies and financial institutions to be submitted for approval-in-principle by the MB before commencement of actual negotiations, or before issuing a	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
		Order No. 99 dated 28 November 1993	mandate of commitment to foreign funders/arrangers”.		
	Guidelines	Part Two, Chapter I of the FX Manual issued under Circular No. 645 dated 13 February 2009, as amended.		None	
	Regulations	BSP Foreign Exchange Regulations	<ul style="list-style-type: none"> - Updated in June 2016 for foreign exchange transactions. - Foreign loans need prior approval and registration from the BSP. Projects eligible for foreign financing are also listed. 	None	
	Guidelines	Generic Procurement Manual (Volume 3)	<ul style="list-style-type: none"> - BSP has relaxed forex transactions to encourage investors. Exchange rates by authorized agencies are take into account. Both local and foreign currency requirements are shown- <p>In the same manual, it is advised to include a currency valuation adjustment factor to hedge against any fluctuations in the rates between the planning and actual</p>	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
			procurement phase. BSP may provide guidance on this.		
	Guidelines	BSP (website)	- Policy amendments have also been introduced such as private sector loans not needing prior BSP approval and allowing documents concerning foreign loans, deferred payment and other foreign currency-related documents to be notarized.	None	
Are there policies and systems in place taking account of the poor, socially vulnerable, gender gap, etc.?	Law	Republic Act (R.A.) No. 7279 - "Urban Development and Housing Act of 1992"	- Wherein the government through the National Housing Authority and LGU shall provide resettlement sites for "underprivileged and homeless citizens". This is for lands that will be used for infrastructure projects. (This does not apply to so-called "professional squatters and squatting syndicates" as such parties are not qualified for benefits and subject to penalties).	None	
	Law	Republic Act (R.A.) No. 10651 - General Appropriations Act of 2015	- DPWH is mandated to abide by gender provisions and promote gender-responsive programs. - DPWH complied with implementing projects that would address the needs of senior citizens and PWDs.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
Are there laws and guidelines in place for preventing bribery and corruption?	Law	Republic Act (R.A.) No. 3019 - “Anti-Graft and Corrupt Practices Act”	- Provides guidelines and appropriate penalties for people and parties involved in bribery and corruption.	None	
	Law	IRR-RA No. 9184 - “Revised Implementing Rules and Regulations of Republic Act (R.A.) No. No. 9184”	- The provision of “three-strike” policy is also being enforced. Encounters with erring officials are encouraged to be reported.	None	
	Guidelines	DPWH (website)	- They have taken some measures to mitigate problems in bribery and corruption. For one, initiatives in the procurement process were taken to digitize and make an electronic database of contracts, contractors, and other related documents so that these may be tracked. - Regular assessment of projects is also being implemented as well as increased accreditation of companies involved in construction (testing, engineers,	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
			and materials) to ensure that the right people are used for the right projects. - Electronic means of procurement are also being developed to minimize any corrupt practices and collusion. The public is also being encouraged to report any dubious contracts and action encountered. IRR-RA 9184 is advocated and implemented.		
Project Planning - Consistency between Policy/Master Plan					
Are the current projects specified in the master plan and infrastructure development plan?	Departmental Order	DPWH Department Order (D.O.) No. 245 (series of 2004)	- States that projects should be part of Multi-Year Programming and Scheduling application (MYPS) as the official system for asset preservation and network development projects.	None	
In case the current projects are not specified in the master plan or the infrastructure development plan, has it been confirmed that the project will contribute to achieving the	Guidelines	Highway Planning Manual, Volume 1, Section 7.1	The Multi Year Programming and Scheduling Application (MYPS) is a computer application that interfaces with the other applications in order to produce the Annual and Medium Term (six years) Programs. With projected road and traffic data, MYPS applies Multi Criteria Analysis incorporating economic evaluation results, environmental and social	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
objectives of policies or goals?			aspects, Government policy on targeted poverty reduction, tourism, agricultural development, law and order issues, etc. in a complex scoring system.		
In case the current project is not specified in the master plan or the infrastructure development plan, have necessary measures been taken such as the amendment of the master plan or the infrastructure development plan?	Departmental Order	DPWH Department Order (D.O.) No. 153 (series of 2016)	- Mandates the use of Project IDs and Project Component IDs as a monitoring mechanism.	None	
Project Planning - Economic Evaluation					
Is it stipulated that the project's economic performance be quantitatively measured using measures such as EIRR?	Guidelines	Highway Planning Manual, Volume 1, Chapter 4, Section 4.5 Economic Evaluation	- States the different indicators that are commonly used to evaluate the economic return of each project under study: economic internal rate of return (EIRR), net present value (NPV), benefit/cost ratio (B/C), NPV/Cost ratio, Sensitivity indicator and Switching value.	Is the EIRR a pass/fail criterion? What if a project has a low EIRR (<10%) but can be justified by qualitative benefits?	

Criteria	Type	Name	Details	Issues	Action/s Needed
Is it stipulated that alternatives be considered and the better method adopted through comparing economic performance?	Guidelines	Highway Planning Manual, Volume 2, Chapter 12, Section 12.2	- “Alternative evaluation and ranking is an activity consisting of (i) normalizing evaluation indicators values to insure that each indicator has the same range of values; (ii) providing a weighting system associated to the evaluation indicators associated to each scenario, road section and alternative (this weighting system results in developing an overall evaluation indicator that is easy to use) ¹³ ; (iii) calculating the values of the overall evaluation indicator associated to each alternative summing the products of indicators and their weights; and (iv) finally summing the overall indicators associated to each alternative composing the scenario. This assigns a score to each alternative/scenario allowing a ranking structure among them”.	None	
Project Planning - Environmental and Social Assessment Considerations					
Are considerations of environmental and social assessment stipulated?			Note: To be discussed with DPWH on exact policy and process, including obtaining the Environmental	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
			Clearance Certificate (ECC) and responsibility for that.		
Feasibility Study - Clarification of the Project's Level of Achievement					
Is the minimum required level stipulated in accordance with relevant laws and regulations?	Guidelines	Department Order No. 102, series of 1988, Calibrated Actions on Contracts with Negative Slippages	The guideline instructs all concerned Project Managers, Regional Directors, and District Engineers to undertake calibrated actions whenever contracts for infrastructure projects reach the levels of negative slippage (attributable to the contractor) to ensure timely and effective remedial steps in response to delays in project implementation.	The Department Order no. 145, series of 2016, Prescribing a Consultant's Performance Evaluation System (ConsPES) for locally-funded infrastructure projects provided a consistent method of evaluating, measuring and rating a Consultant's performance, as compared with the previous years. There will be a database which shall include, among other things, the findings and performance ratings of the consultants evaluated for future references.	

Criteria	Type	Name	Details	Issues	Action/s Needed
				Delays due to reasons of force majeure should be well documented, accounting the exact days that the activities were withheld. These should be supported by the involved District Engineering Offices and Regional Offices. These delays should be considered in the calculation of accomplishment.	
Are specific levels of achievement specified using quantitative indicators?	Guidelines	Revised IRR of RA 9184, Rule XI, Section 37	The S-curve, PERT/CPM and other acceptable tools of project scheduling are required to be submitted by the winning bidder to form part of the contract, which shall then be the basis for the management of the project.	Sometimes, the Consultants do not give traceable/auditable copies of their S-curve. Hence, the submitted/claimed % accomplishment cannot be verified. The Implementing Office, thus, determines % accomplishment	

Criteria	Type	Name	Details	Issues	Action/s Needed
				based on the deliverables submitted by the Consultant.	
Is the lifecycle cost (LCC) calculation model specified?	Guidelines	Highway Planning Manual, Volume 1, Chapter 5, Section 5.2	The DPWH assess investments in asset preservation and road network development through the calculation and evaluation of costs of road construction, maintenance and rehabilitation, road user costs, and all other external or exogenous costs or benefits that can be directly attributed to the road project for a specified analysis period.	None	
	Guidelines	DGCS 2015, Volume 4 - Highway Design, page 2-37	The Highway Design guideline states that a period of 20 years is widely used as a basis for design of roads, for which the usual traffic increase on a highway improvement is in the range of 50 to 150%.	None	
Feasibility Study - Implementation of an Environmental and Social Assessment					

Criteria	Type	Name	Details	Issues	Action/s Needed
Is it stipulated that the treatment of workers and working conditions be considered in the environmental and social assessment?	Departmental Order	DOLE Department Order (D.O.) No. 13 (series of 1998)	- “Ensures the protection and welfare” of workers and the general public as well as provide guidelines of best industry practices and other government requirements.	None	
Is it stipulated that the Environmental contamination prevention/reduction and measures in case of contamination be considered in the environmental and social assessment?	Departmental Order	DENR Administrative Order No. 37 S. 1996	Art. I Sec. 3 Environmental Risk Assessment (ERA) involves the use of scientific methods and information to define the probability and magnitude of potentially adverse effects which can result from exposure to hazardous materials or situations.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
Is it stipulated that the Local community's sanitation/safety be considered in the environmental and social assessment?	Departmental Order	DENR Administrative Order No. 37 S. 1996	Art. V Sec. 4 Environmental Guarantee Fund (EGF)A significant public risk may be presumed by the DENR if anyof the following conditions exists:a. Presence of toxic chemicals and hazardous wastes as defined inRepublic Act No. 6969;b. Extraction of natural resources that requires rehabilitate orrestoration;c. Presence of structures that could endanger life, property, andthe environment in case of failure; ord. Presence of processes that may cause pollution as definedunder Pres. Decree No. 984, or other related pollution laws.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
Is it stipulated that the Land acquisition and inhabitants' relocation be considered in the environmental and social assessment?	Guidelines		<p>To address these concerns all projects that require Infrastructure Right-of-Way acquisitions, irrespective of being local or foreign-funded, must have Land Acquisition Plans and Resettlement Action Plans (LAPRAPs) formulated and prepared in accordance with the procedures in the Department's IROW Procedural Manual.</p> <p>The LAPRAP document describes the project, expected impacts and mitigating measures, socio-economic profile of project affected persons, compensation package, time-table of implementation, institutional arrangements, monitoring and evaluation arrangements, participation, consultation and grievance procedures.</p>	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
Is it stipulated that the Conservation of biological diversity and sustainable control of natural resources be considered in the environmental and social assessment?	Departmental Order	DENR Administrative Order No. 37 S. 1996	Art. I Sec. 3 The Environmental Impact Statement (EIS) System assesses the significance of the effects of any project or undertaking on the quality of the physical, biological and socio-economic environment, and designing appropriate preventive, mitigating and enhancement measures.	None	
Is it stipulated that the Respect for indigenous people and protection of cultural heritage be considered in the environmental and social assessment?	Departmental Order	DENR Administrative Order No. 37 S. 1996	Art. 3 Sec. 9 Contents of the EIS For projects located in ancestral lands or domains, as defined under DAO No. 2, series of 1993, or subsequently by law, of indigenous communities, a specific chapter in the socioeconomic impact assessment shall be devoted to a discussion of indigenous peoples' concerns and possible socio-economic, political and cultural impacts of the proposed project on such people.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
Is it stipulated that the Economic benefits (e.g., job creation for local residents), enhance resilience against disasters, building local residents' capacity be considered in the environmental and social assessment?	Law	IRR-RA No. 9184 - "Revised Implementing Rules and Regulations of Republic Act (R.A.) No. 9184"	- In certain appendices, economic benefits in terms of job creation are defined such as the kind of labor needed as well as the appropriate incentives and guidelines to be followed (i.e. wage, hiring system).	None	
Feasibility Study - Safety Considerations					
Are appropriate construction management and maintenance & operation management stipulated in terms of safety?	Departmental Order	Department Order No. 41 Series of 2012 (Annex "1")	Establishment of Highway Safety Design Standards The Highway Safety Design Standards (Manuals Part 1: Road Safety Design and Part 2: Road Signs and Pavement Markings Manual) were aimed to address the engineering aspect in the design of national roads and are strictly directed to be adopted in the planning, design and maintenance activities of the Department.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
	Departmental Order	Department Order No. 13, Series of 2008 (Annex "2")	Guidelines in the Procurement and Installation of Road Safety Devices and Facilities This Department Order was created to improve road safety in the national road network, Manuals Parts 1 and 2 are prescribed for all road safety projects, road construction and maintenance activities.	None	
	Departmental Order	Department Order No. 94, Series of 2014 (Annex "3")	Technical Manuals and Guidelines on Road and Bridge Maintenance and Inspection that includes Road Project Management and Supervision Manual, 2nd Edition, Volume I which provides safety provision on Road Safety Devices.	None	
Are Safety control for users and residents in neighboring area stipulated in terms of safety?	Departmental Order	Department Order No. 223, Series of 2001 (Annex "4")	Revised Guidelines in the Procurement of Road Maintenance and Traffic Control and Safety Products/DevicesThe revised guidelines were formulated/ issued to prevent possible delays by decentralizing the procurement of road maintenance and traffic control and safety products/devices.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
	Departmental Order	Department Order No. 135, Series of 2015 (Annex "5"	<p>Strict compliance to Road Works Safety and Traffic Management and Construction Safety and Health Requirements During Construction and Maintenance of Roads and Bridges</p> <p>Non-complying contractors shall be issued full work suspension with no entitlement of a time extension.</p>	None	
	Departmental Order	Department Order No. 99, Series of 2016 (Annex "6"	Creation of Roadworks Safety Assessment Teams to conduct periodic roadworks safety assessment on ongoing DPWH projects	None	
	a.) Buildings				

Criteria	Type	Name	Details	Issues	Action/s Needed
Are Resilience against disasters stipulated in terms of safety?	Memorandum Circular	Joint DENR-DILG-DND-DPWH-DOST Memorandum Circular No. 2014-01 dated November 05, 2014 - Adoption of Hazard Zone Classification in Areas Affected by Typhoon Yolanda (HAIYAN) and Providing Guidelines for Activities Therein (Annex "7")	Classification of hazard zones susceptible to the onslaught of typhoons, flooding, landslides, and other hydro-meteorological hazards to promote safety and protection of the people, particularly in the Yolanda (Haiyan) affected areas	None	
	Law	Republic Act (R.A.) 386 - Civil Code of the Philippines (Annex "8")	Art. 638 - The banks of rivers and streams, even if they are of private ownership, are subject throughout their entire length and within a zone of three meters along their margins, to the easement of public use in the general interest of	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
			navigation, floatage, fishing, and salvage.		
	Law	P.D. No. 1067 - Water Code of the Philippines (Annex "9")	The banks of rivers and streams and the shores of the seas and lakes throughout their entire length and within a zone of three (3) meters in urban areas, twenty (20) meters in agricultural areas, and forty (40) meters in forest areas, along their margins, are subject to the easement of public use in the interest of recreation, navigation, floatage, fishing, and salvage.	None	
	Law	P.D. No. 1096 - National Building Code of the Philippines (Annex "10")	Sect. 105 - Site Requirements. The land or site upon which will be constructed any building or structure, or any ancillary or auxiliary facility hereto, shall be sanitary, hygienic, or safe.	None	
	Law	P.D. No. 705 - Revised Forestry Code of the Philippines (Annex "11")	Sect. 16 - Areas needed for forest purposes. The following may not be classified as alienable and disposable lands: a. 20-meter strips of land along the edge of normal high waterline of rivers and streams with channels of at least 5-meter wide b. Strips of mangrove or swamplands at least 20-meter	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
			wide, along shorelines facing oceans, lakes, and other bodies of water, and strips of land at least 20-meter wide facing lakes.		
	Law	Republic Act (R.A.) 10121 - Philippine Disaster Risk Reduction and Management Act of 2010 (Annex "12")	Sect. 2 (g) - Mainstream disaster risk reduction and climate change in development processes such as policy formulation, socio-economic development planning, etc.	None	
	Law	National Structural Code of the Philippines 6th Ed. Vol. 1 - 2010 (Annex "13")	Chapter 2 - Minimum Design Loads Zone I (High Wind Zone) - basic wind speed of 250 kph. Covers mainly the eastern part of Luzon and Visayas. Zone II (Mid-wind Zone) - has basic wind speed of 200 kph. Covers the rest of Luzon and Visayas. Zone III (Low Wind Zone) - basic wind speed of 150 kph. Covers Palawan and the rest of Mindanao.	None	
	b.) Flood Control				

Criteria	Type	Name	Details	Issues	Action/s Needed
	Departmental Order	DPWH Memorandum dated June 21, 2011 - Upgrades on Flood Control and Road Drainage Standards (Annex "14")	Guidelines to be adopted in the design of flood control and road drainage facilities/structures.	None	
	Guidelines	Design Guidelines, Criteria and Standards: Volume 3 - Water Project Design (Annex "15")	Sect. 9.2.4.1 Changes to Extreme Rainfall Suggested Approach for Incorporating Changes to Extreme Rainfall. Sect. 9.2.4.2 Sea Level Rise Suggested Approach for Incorporating Sea Level Rise.	None	
	c.) Roads and Bridges				
	Guidelines	Design Guidelines, Criteria and Standards: Volume 4 - Highway Design (Annex "16")	Sect. 3.6.3.1 Gradient - In areas subject to inundation, grades should be established 0.50 m above maximum water level. Grades should be at least be above pipe culverts by 0.60 m. Grades of bridges should allow 1.50 m free board above the maximum flood water elevations to the bottom of	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
			girders for streams carrying debris and 1.00 m for others.		
	Departmental Order	Department Order No. 40, S. 2014 (Annex "17")	Prescribing minimum design standard for PCCP in Arterial and Secondary National Roads and Access Roads Leading to Ports.	None	
	Departmental Order	Department Order No. 22, S. 2011 (Annex "18")	Minimum Pavement Thickness and Width of National Roads.	None	
	Departmental Order	Department Order No. 93, S. 2014 (Annex "19")	Regular Pruning/Trimming and/or Cutting of Trees within the Road Right of Way of our National Roads to preclude accidents to motorists and pedestrians.	None	
Are Response in times of disaster or emergency stipulated in terms of safety?	Departmental Order	Department Order No. 15, Series of 2015 (Annex "20")	Guidelines to Ensure Disaster Preparedness of DPWH Field Offices in Promptly Responding to Typhoons and Other Calamities Including Criteria in the Release of Calamity Funds.	None	
	Departmental Order	Department Order No. 96, Series of 2014 (Annex "21")	Timely Submission of Calamity Damage Report on Infrastructure for Request for Calamity Funds.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
	Departmental Order	Department Order No. 18, Series of 2012 (Annex "22")	Creation of an Inter-Agency Technical Working Group for Water Sector (TWG-WS) in Relation to National Disaster Risk Reduction and Management Council (NDRRMC) Work Plan on Whole of Society Large Scale Disaster Response Planning, Strengthen Continuity of Essential Operations and Services	None	
	Departmental Order	Department Order No. 69, Series of 2010 (Annex "23")	Creation of a Committee to Study and Formulate Action Plans to Strengthen the DPWH Disaster Preparedness and Response Mechanism	None	
	Departmental Order	Department Order No. 38, Series of 2010 (Annex "24")	DPWH Disaster Preparedness and Response Mechanism During Typhoons and Other Natural Calamities	None	
	Departmental Order	Department Order No. 36, Series of 1998 (Annex "25")	DPWH Calamities and Disaster Preparedness and Control Plan (CDPCP)	None	
Feasibility Study - Risk Management					

Criteria	Type	Name	Details	Issues	Action/s Needed
Are Appropriate identification of risks assumed for individual projects stipulated?		NGA PPP Manual Volume 1 from the PPP Center	<p>Risk assessment is considered as a component of a properly prepared PPP project.</p> <p>Both the government and private sector are encouraged to brainstorm expected risks and properly allocate who is best to manage the possible risks. Usually, the private sector is responsible for the commercial risks while the government is in charge of legal and political risks.</p>	<p>As an example:</p> <p>The use of the facility / project site over the contract term has resulted in significant environmental liabilities (clean up or rehabilitation required to make the site fit for future anticipated use).</p> <p>During procurement, private partner must demonstrate financial capacity or support to deliver the site in the state required by government at the end of the contract; The government can require sinking funds if it is to resume the site and its use is liable to result in a significant clean up/rehabilitation cost; and conduct periodic</p>	Revise Guidelines/Directive

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Criteria	Type	Name	Details	Issues	Action/s Needed
				environmental audit during the contract period (e.g. environmental audit every three or five years) by the project management team of the agency or LGU concerned.	
Are Method for prioritizing identified risks stipulated?		NGA PPP Manual Volume 1 from the PPP Center	Both the government and private sector are encouraged to brainstorm expected risks and properly allocate who is best to manage the possible risks. Usually, the private sector is responsible for the commercial risks while the government is in charge of legal and political risks.	As an example: Difficulties or impossibility of acquiring part of the site. Government should define ROW as early as possible and allocate necessary funds and time to complete acquisition of the project site.	Needs agreement with the PPP Center

Criteria	Type	Name	Details	Issues	Action/s Needed
Are Measures against identified risks stipulated?		NGA PPP Manual Volume 1 from the PPP Center	Both the government and private sector are encouraged to brainstorm expected risks and properly allocate who is best to manage the possible risks. Usually, the private sector is responsible for the commercial risks while the government is in charge of legal and political risks.	As an example: Substandard or unsafe design incapable of delivering an intended level of service and Failure in passing required physical and operational tests.	Needs agreement with the PPP Center
				Liabilities (designer) derived from design defects. Define a detailed schedule for all design activities and employ firms with relevant job experience and will be subjected to consequences for failure to deliver the project as agreed.	Needs agreement with the PPP Center
				Where the design of the project or facility turns out to be defective or incapable of delivering the intended services at anticipated costs and	Needs agreement with the PPP Center

Criteria	Type	Name	Details	Issues	Action/s Needed
				a specified level of service, the concessionaire shall be responsible for any additional cost required to remedy the defective design and/or shall be liable for the resulting damages.	
				Designate an acceptable (for both Government and Concessionaire) third party to check significant elements in the project.	Needs agreement with the PPP Center

Criteria	Type	Name	Details	Issues	Action/s Needed
In case of a PPP project, is the appropriate risk-sharing between the public and private sectors stipulated?		PPP (website)	Guided by Generic Preferred Risks Allocation Matrix (GPRAM) for "consideration by the proponent agencies in the development and implementation of their projects".The matrix provides the preferences and measures to be considered.	As an example: Any change in law or policy of the Government, which could not have been anticipated at the time of the signing of the contract, which would have been an adverse capital expenditure or operating costs consequences for the concessionaire.	Needs agreement with the PPP Center
				Concessionaire to determine which entity/entities (such as local government units or national government) have jurisdiction over the infrastructure to minimize the project's exposure to the risk.	Needs agreement with the PPP Center

Criteria	Type	Name	Details	Issues	Action/s Needed
				The concessionaire to factor in the additional cost in the tariff/toll rate and pass on the additional cost to the end users but subject to the approval of the regulator.	Needs agreement with the PPP Center
				The project should be structured such that the financial returns on the project up to a certain threshold would still be sufficient notwithstanding any change in law or policy. Further, the project must be flexible to adopt certain changes to minimize the adverse financial effect on the Government.	Needs agreement with the PPP Center

Criteria	Type	Name	Details	Issues	Action/s Needed
				Require the private firm to conduct full financial diligence on both traffic demand and scope for toll tariff (including any regulatory requirements for setting/adjusting tolls).	Needs agreement with the PPP Center
Feasibility Study - Study on the Private Market					
Is it stipulated that consideration be given to the competitive environment based on hearings conducted on private entities regarding the contents of the project?				There are some suggestions from private sector that PPP projects should consider some improvements and dynamism. 1. Inviting or adding more partners whether domestic or foreign that might, among others, be co-founders or co-risk takers. 2. Current PPP projects can be a platform to future projects	

Criteria	Type	Name	Details	Issues	Action/s Needed
Feasibility Study - Selection of the Procurement Method					
Is it stipulated that review and selection of the project's procurement method be based on criteria such as VFM?	Guidelines	Generic Procurement Manual (GPM) Volume 1	<p>- In preparing the PPMP (Project Procurement Management Plan), VFM should be considered but not necessarily be restricted to price. It may cover other relevant cost aspects as well (i.e. acquisition, LCC, and the like).</p> <p>Note: VFM is not a fully used concept within the Philippines as yet.</p>	None	
Procurement - General					
Is it stipulated that the quality aspects of the project are to be focused in the procurement such as output specifications and/or service level specifications.	Law	IRR-RA No. 9184 - "Revised Implementing Rules and Regulations of Republic Act (R.A.) No. No. 9184"	Evaluation of quality is done during post-qualification. Here they verify the technical documents which includes the competence, experience, quality of equipment and work as per contract plan and specification.	The technical specifications of the project are issued as part of the bidding document which is to be implemented during construction stage.	

Criteria	Type	Name	Details	Issues	Action/s Needed
Is the use of appropriate incentives for procurement stipulated, such as applying performance based approach to contracts (e.g., contingency fee)?	Law	Section 42.5 of IRR of RA 9184	- States that “no incentive bonus, in whatever form or for whatever purpose, shall be allowed”.	None	
Is consideration for an appropriate risk-allocation in procurement specified?	Guidelines	Generic Procurement Manual (GPM) Volume 1	- In preparing the PPMP (Project Procurement Management Plan), the PMO or end user unit is encouraged to develop a risk assessment and management plan to address any risks that may be identified.	None	
Do laws and guidelines stipulate that not only the price be the basis of evaluation in tenders but the quality also be evaluated appropriately?	Law	IRR-RA No. 9184 - “Revised Implementing Rules and Regulations of Republic Act (R.A.) No. No. 9184”	- The Approved Budget of Contract (ABC) is the basis of evaluation. The evaluation of quality is done during post-qualification. Here they verify the technical documents which includes the quality of work as per contract plan and specification.	None	
Is there a standard form of an agreement to be executed; Does it reflect best practices?			The Standard Bidding Document provides the standard template of a contract agreement.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
Is it stipulated a competitive dialogue or similar procedures be taken as appropriate?	Law	IRR-RA No. 9184 - “Revised Implementing Rules and Regulations of Republic Act (R.A.) No. No. 9184”	<p>RA 9184</p> <p>It is the State policy that procurement of infrastructure projects, goods, and consulting services shall be competitive and transparent, and therefore shall go through public bidding.</p> <p>Rule VII Sec. 20</p> <p>Prior to the advertisement or the issuance of the Invitation to Bid/Request for Expression of Interest for each procurement undertaken through a public bidding, the BAC, through its Secretariat, shall call for a pre-procurement conference. The pre-procurement conference shall be attended by the BAC, the Secretariat, the unit or officials, including consultants hired by the procuring entity, who prepared the Bidding Documents and the draft Invitation to Bid/Request for Expression of Interest for each procurement.</p>	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
In developing an evaluation method, are economic benefits (e.g., job creation for local residents), enhancing resilience against disasters and building local residents' capacity taken into account?	Law	IRR-RA No. 9184 - "Revised Implementing Rules and Regulations of Republic Act (R.A.) No. 9184"	- In certain appendices, economic benefits in terms of job creation are defined such as the kind of labor needed as well as the appropriate incentives and guidelines to be followed (i.e. wage, hiring system).	None	
Procurement - Prequalification					
Are the Financial appropriateness clearly stipulated in the evaluation criteria, to be evaluated/confirmed?	Guidelines	Generic Procurement Manual (GPM) Volume 3	- Financial documents are also required that would show the financial capability of the prospective bidder (i.e. assets and liabilities) as accredited and authorized by counterpart institutions such as the BIR	None	
Are the Track record in sufficiently similar projects clearly stipulated in the evaluation criteria, to be evaluated/ confirmed?	Law	IRR-RA No. 9184 - "Revised Implementing Rules and Regulations of Republic Act (R.A.) No. 9184"	- Section 23 requires technical documents that would include statements of the prospective bidder of all its ongoing projects and its single largest completed contract. A Philippine Contractors Accreditation Board (PCAB) license and registration is also required for infrastructure projects.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
Are Keeping to construction schedule and appropriate cost control clearly stipulated in the evaluation criteria, to be evaluated/ confirmed?	Guidelines	DPWH Manual Volume 3	- Construction schedule is part of the Program of Works (POW) using a Program Evaluation Review Technique / Critical Path Method (PERT/CPM) diagram and in post-qualification a check on the construction schedule is done to see if it is consistent with the contract duration.	None	
Are Environmental impacts clearly stipulated in the evaluation criteria, to be evaluated/ confirmed?	Guidelines	DPWH Manual Volume 3	- An environment impact statement is prepared if a project is defined by DENR to be in a critical area before An ECC can be issued.	None	
Are Prevention of bribery (e.g., use of World Bank Listing of Ineligible Firms and Individuals) clearly stipulated in the evaluation criteria, to be evaluated/ confirmed?	Guidelines	Generic Procurement Manual (GPM) Volume 3	- Prospective bidders must submit a statement that it is not “blacklisted” by the government and not included in the consolidated blacklisting report by the GPPB. This statement is part of the class A legal documents.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
In confirming the above evaluation criteria, does the ordering party systematically accumulated data of past records (preferable to have a database set up)?	Guidelines	DPWH Department Order (D.O.) No. 6 (series of 2016)	- Implements the Project and Contract Management Procedures and Application (PCMA) to manage and monitor all civil works (infrastructure) projects for 2016 onwards. This replaces the Project Monitoring System (PMS) and Project Management Office Monitoring System (PMOMS) but this will continue to monitor projects in 2015 and previous years.	None	
Procurement - Proposal Evaluation					
Do evaluation criteria use methods such as LCC, so that the most economical proposal over the project period can be prioritized?	Law	IRR-RA No. 9184 - "Revised Implementing Rules and Regulations of Republic Act (R.A.) No. No. 9184"	The award of a contract is recommended to the lowest calculated responsive bidder. This means that the eligible bidder with the lowest Bid Price in comparison to the Approved Budget for the Contract (ABC) that passed the post qualification criteria takes the contract. The ABC is the ceiling of bid prices. Bid Prices above ABC are automatically rejected.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
In terms of the evaluation criteria, is the method for achieving the required service level stipulated?			The IRR of RA 9184 does not provide evaluation criteria on the method of achieving the required service level; however, one of the required documents in the completion of contract is the construction methodology.	Evaluation criteria do not include assessment of methodologies to achieve the required service level.	Revise supporting guidelines
In terms of the evaluation criteria, are keeping to construction schedule and appropriate cost control stipulated?			The IRR of RA 9184 does not provide evaluation criteria on construction schedule and appropriate cost control to the bid. However, part of the issued Bidding Documents to the bidders is the General Conditions of Contract and Special Conditions of Contract which contains standard terms and conditions such as Liquidated Damages and Variation Orders.	Evaluation criteria do not include provisions to which bidders will be required to comply with Construction Schedule.	Revise supporting guidelines
In terms of evaluation criteria, is environmental impact stipulated?			During the detailed engineering stage of infrastructure projects, Environmental Impact Statement is required by the DENR for critical projects.	Environmental Risk Management is not considered during bid evaluation	Revise supporting guidelines
In terms of evaluation criteria, is appropriate risk management stipulated?			One of the eligibility requirements is the Net Financial Contracting Capacity which must be at least equal to the ABC.	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
In the proposal evaluation, are technical aspects in the proposal also appropriately evaluated, in addition to the price (e.g., comprehensive evaluation, 2-envelope method)?	Law	IRR-RA No. 9184 - “Revised Implementing Rules and Regulations of Republic Act (R.A.) No. 9184”	- Stipulates the 2-envelope method. Bidders will submit the forms in 2 separate sealed bid envelopes at the same time. One envelope to contain the technical component, the other the financial component.	None	
Procurement - Management of Contract and Monitoring					
Are contract management and method of monitoring stipulated?	Departmental Order	DPWH Department Order (D.O.) No. 153 (series of 2016)	- The use of Project and Project Component IDs	As the current state of affair stand, there is yet no determination as to whether the mere delivery of materials to construction sites, without the same being installed or utilized, would already be deemed an accomplishment for the purpose of computing slippages and processing the progress billing of the contractor of such materials.	Revise Guidelines/Directive

Criteria	Type	Name	Details	Issues	Action/s Needed
	Departmental Order	DPWH Department Order (D.O.) No. 82 (series of 2013)	- The use of ePLC (electronic project life cycle) as a monitoring mechanism.	None	
	Departmental Order	DPWH Department Order (D.O.) No. 245 (series of 2004)	- The multi-year programming and scheduling application (MYPS) as the official system for asset preservation and network development projects.	None	
	Departmental Order	DPWH Department Order (D.O.) No. 6 (series of 2016)	- Implements the project and contract management procedures and application (PCMA) to manage and monitor all civil works (infrastructure) projects for 2016 onwards.	None	
Are penalties and incentives stipulated for management of contract and monitoring?			During the competitive stage of project procurement, efforts to disqualify or blacklist contractors for submitting spurious documents are plagued by the uncertainty as to which Bids and Awards Committee (BAC) has the jurisdiction to initiate such action. Prior to the actual bidding process, documentary requirements submitted by contractors are maintained in the Civil Works Registry (CWR) databank	This is not consistent with the IRR of RA No. 9184 since, instead of the DPWH CWR, it is the Philippine Government Electronic Procurement System (PhilGEPS) which is processing the Class A documents of bidders and issues a	Amendment to the law

Criteria	Type	Name	Details	Issues	Action/s Needed
			maintained in the head office and consequently, outside the control of BACs. Hence, jurisdiction over actions involving spurious documents kept in the said databank cannot be ascertained.	certificate of registration to the contractor(s). If the documents in support of the registration issued by the PhilGEPS turn out to be spurious, it is the particular BAC where such certificate of registration is submitted which should initiate the blacklisting proceedings against the concerned contractor.	
Ex Post Evaluation					
Is the method for ex-post evaluation stipulated?	Law	IRR-RA No. 9184 - "Revised Implementing Rules and Regulations of Republic Act (R.A.) No. 9184"	- The lowest calculated bid / highest rated bid shall undergo post-qualification to check its compliance to all the conditions and regulations as per the bidding documents. In the post-qualification, documentary requirements will be submitted to the BAC and these shall be verified and validated based on certain criteria and requirements	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
			(i.e. legal, technical, and financial). The next bidder will undergo the same process if the initial bidder fails the criteria for post-qualification.		
	Departmental Order	DPWH Department Order (D.O.) No. 99 (series of 2015)	<p>- There are requirements before the CoC (Certificate of Completion) and CoA (Certificate of Acceptance) can be issued. Once the contractor notifies DPWH of project completion, an inspection team will inspect the project to check for any defects and if it was completed based on contract and design. A final inspection report will be released but this is subject to any repairs seen during inspection.</p> <p>- The certificate of acceptance will be issued after the one year defects liability period and repairs (if any) have been done and found to be satisfactory by the inspectorate team. They will then make the final acceptance report, after which the CoA will be issued to the contractor.</p>	None	

Criteria	Type	Name	Details	Issues	Action/s Needed
	Report	NEDA Annual Report for 2015	- A plan has been initiated for an Ex-Post Evaluation Manual to standardize criteria, concepts, principles, methodologies and ratings system for public sector projects and programs two to three years after completion.	None	
	Guideline	DPWH Post Evaluation Guideline	A Post Evaluation Guideline was prepared by a unit in Planning Service in 2009. The Manual was based on Development Assistance Criteria (DAC) and the Benefit Monitoring and Evaluation Report prepared by a consultant of ADB and it serves as the basis in the conduct of Post Evaluation and in the preparation of Post Evaluation Report.	Several Post Evaluation Reports were prepared by Development Planning Division, Planning Service based on the prepared Manual where lessons Learned and recommendations were identified. Limited reports were prepared because of limited staffs and insufficient knowledge in the conduct of Post Evaluation. This activity is undertaken by four (4) personnel, three (3) permanent staffs and one (1) Job	The prepared Post Evaluation Manual and Post Evaluation Reports need to be reviewed for its veracity and modify if necessary. The staffs need to be trained in the conduct of Post Evaluation and in the preparation of Report including but not limited to the following: Tools in the conduct of Post Evaluation (Log Frame, Performance Indicators, Cost Benefit and Social Analysis), Data Gathering/Survey,

Criteria	Type	Name	Details	Issues	Action/s Needed
				Order. Two out of 4 staffs only have the experience in the conduct of post evaluation. Coaching and mentoring was conducted since this is a new activity for the other two staffs as they were involved in other discipline before.	Data Analysis and Technical Writing, etc.
Is it stipulated that objective data be accumulated in the project's ex-post evaluation to be used in the project of the next term?	Guidelines	Highway Planning Manual, Volume 1, Chapter 13	The DPD should consolidate both ex-post and ex-ante costs and scheduling data from CMS, and road and traffic data from RBIA. They should calculate KPIs based on similar time criteria through runs of the HDM-4. PD, BOC, BOM assist, approximately one year after project completion. In addition, the DPD should prepare evaluation indicators for each PRS in the project and for the project as such as well as cost flows and scheduling for the consolidated Post-Evaluation Report.	None	

REFERENCES

Agra, A. (2016). “Why audit of PPP contracts by COA the next hurdle” Business Mirror. Accessed <http://www.businessmirror.com.ph/2016/04/25/why-audit-of-ppp-contracts-by-coa-the-next-hurdle/> 15 July 2016

Baietti, A., Muir, R., Schwartz, J., Gray, P., Yamamoto, C. (2000). Philippines: Country Framework Report for Private Participation in Infrastructure, World Bank. Accessed <http://www.ppiaf.org/node/647> 13 July 2016

Bangko Sentral ng Pilipinas (2016). BSP Further Liberalized FX Rules [Media release]. Accessed <http://www.bsp.gov.ph/publications/media.asp?id=3996&yr=2016> 13 July 2016

Bangko Sentral ng Pilipinas (2016). BSP Further Relaxes Rules on Documentation of Foreign Loans and Other Obligations [Media release]. Accessed <http://www.bsp.gov.ph/publications/media.asp?id=4007&yr=2016> 13 July 2016

Bangko Sentral ng Pilipinas (2016). BSP Foreign Exchange Regulations June 2016. Accessed <http://www.bsp.gov.ph/downloads/Publications/FAQs/faqfxreg.pdf> 16 August 2016

Board of Investments (2013). Cost of Doing Business. Accessed <http://investphilippines.gov.ph/about-the-philippines/cost-of-doing-business/> 11 July 2016

Commission on Audit (2016). Consolidated Annual Audit Report (CAAR) on the Department of Public Works and Highways for Calendar Year 2015. Accessed <http://www.coa.gov.ph/index.php/national-government-agencies/2015/category/5869-department-of-public-works-and-highways> 15 July 2016

Congress of the Philippines (2003). Republic Act 9184 Government Procurement Reform Act. Accessed www.bsp.gov.ph/downloads/procurement/ra9184.pdf 11 July 2016

Congress of the Philippines (2009). Revised Implementing Rules and Regulations of Republic Act 9184. Accessed www.gppb.gov.ph/laws/laws/RevisedIRR.RA9184.pdf 11 July 2016

Congress of the Philippines (1960). Republic Act 3019 Anti-Graft and Corrupt Practices Act. Accessed www.dole.gov.ph/files/RA%203019.pdf 14 July 2016

Congress of the Philippines (2016). Republic Act 10752 The Right-of-Way Act.

Accessed www.gov.ph/2016/03/07/republic-act-no-10752/ 11 July 2016

Congress of the Philippines (1992). Republic Act 7279 Urban Development and Housing Act of 1992.

Accessed http://hlurb.gov.ph/wp-content/uploads/laws-issuances/mandates/ra_7279.pdf 14 July 2016

Congress of the Philippines (1991). Republic Act 7160 Local Government Code of 1991.

Accessed www.gov.ph/1991/10/10/republic-act-no-7160/ 14 July 2016

Congress of the Philippines (1990). Republic Act 6957 The Build-Operate-Transfer (BOT) Law.

Accessed www.gppb.gov.ph/laws/laws/RA_6957.pdf 14 July 2016

Congress of the Philippines (2012). Republic Act 7718 The Philippine Amended BOT Law and its Revised Implementing Rules and Regulations.

Accessed www.gov.ph/1994/05/05/republic-act-no-7718/ 8 August 2016

Congress of the Philippines (2000). Republic Act 8974 An Act to facilitate the acquisition of Right-Of-Way, site or location for national government infrastructure projects and for other purposes.

Accessed <http://ppp.gov.ph/wp-content/uploads/2015/01/Republic-Act-8974.pdf> 14 July 2016

Department of Budget and Management (2016). National Budget Circular 564 (series of 2016) Guidelines for Issuance of Letter of Commitment (LOC) Covering National Government Support for Multi-year Solicited Public-Private Partnership (PPP) Projects.

Accessed

[http://www.dbm.gov.ph/wpcontent/uploads/Issuances/2016/National%20Budget%20Circular/NBCNo564_GUIDELINES%20FOR%20ISSUANCE%20OF%20LETTER%20OF%20COMMITMENT%20\(LOC\).pdf](http://www.dbm.gov.ph/wpcontent/uploads/Issuances/2016/National%20Budget%20Circular/NBCNo564_GUIDELINES%20FOR%20ISSUANCE%20OF%20LETTER%20OF%20COMMITMENT%20(LOC).pdf) 16 August 2016

Department of Finance (2016). Duterte admin to speed up PPP projects [Media release].

Accessed <http://www.dof.gov.ph/index.php/duterte-admin-to-speed-up-ppp-projects/> 15 July 2016

Department of Finance (2016). Filipinos to expect massive infrastructure investments, tax reform under Duterte Administration [Media release].

Accessed <http://www.dof.gov.ph/index.php/filipinos-to-expect-massive-infrastructure-investments-tax-reform-under-duterte-administration/> 15 July 2016

Department of Labor and Employment (1998). Department Order 13 (series of 1998) Guidelines Governing OSH in the Construction Industry.

Accessed www.oshc.dole.gov.ph/UserFiles/oshc2010/file/DO_13_Salient_Features.pdf 8 August 2016

Department of Public Works and Highways. n.d. “Doing Business: Infrastructure Development Cycle”.

Accessed http://www.dpwh.gov.ph/doing_business/index.htm 11 July 2016

Department of Public Works and Highways. n.d. “About Us: Anti-Corruption Program”.

Accessed http://www.dpwh.gov.ph/about_us/reforms/ac_program.htm 11 July 2016

Department of Public Works and Highways (2005). DPWH Manual of Procedures for the Procurement of Locally-Funded Infrastructure Projects through Public Bidding Volume 3.

Accessed www.dpwh.gov.ph/doing_business/procurement/civil_works/.../pdf/vol.%203.pdf 18 July 2016

Government Procurement Policy Board. n.d. Generic Procurement Manual Volume 3: Procurement of Infrastructure Projects.

Accessed <http://www.gppb.gov.ph/downloadables/ProcurementManuals.html> 11 July 2016

Government Procurement Policy Board. n.d. “About GPPB”.

Accessed http://www.gppb.gov.ph/about_us/gppb.html 11 July 2016

National Economic and Development Authority. n.d. Annual Report 2015: Steering the Economy, Solidifying Structural Reforms.

Accessed <http://www.neda.gov.ph/2016/07/04/annual-report-2015-steering-the-economy-solidifying-structural-reforms/> 18 July 2016

National Economic and Development Authority (2016). Neda Board approves nine projects in first meeting; changes in the Investment Coordination Committee (ICC) review policies also green-lighted [Media release].

Accessed <http://www.neda.gov.ph/2016/09/15/neda-board-approves-nine-projects-in-first-meeting-changes-in-the-investment-coordination-committee-icc-review-policies-also-green-lighted/> 18 September 2016

Office of the Secretary, Department of Public Works and Highways (2015). Department Order 176 (series of 2015) Guidelines and procedures in the recognition and de-recognition of Infrastructure Assets.

Accessed http://www.dpwh.gov.ph/policies_procedures/Do/index.asp 13 July 2016

Office of the Secretary, Department of Public Works and Highways (2011). Department Order 70 (series of 2011) Adoption of eNGAS and eBUDGET Systems in the entire Department. Accessed http://www.dpwh.gov.ph/policies_procedures/Do/index.asp 1 August 2016

Office of the Secretary, Department of Public Works and Highways (2015). Department Order 40 (series of 2015) Requirements for Issuance of Certificate of Completion and Certificate of Acceptance for Infrastructure Contracts.

Accessed http://www.dpwh.gov.ph/policies_procedures/Do/index.asp 21 July 2016

Office of the Secretary, Department of Public Works and Highways (2016). Department Order 57 (series of 2016) Environmental Impact Assessment (EIA) for DPWH Infrastructure Projects and Tree Cutting Permit Application.

Accessed http://www.dpwh.gov.ph/policies_procedures/Do/index.asp 1 August 2016

Office of the Secretary, Department of Public Works and Highways (2004). Department Order 245 (series of 2004) Implementation of the Multi-Year Programming and Scheduling Application (MYPs).

Accessed http://www.dpwh.gov.ph/policies_procedures/Do/index.asp 1 August 2016

Office of the Secretary, Department of Public Works and Highways (2016). Department Order 153 (series of 2016) Procedures for Assignment and Use of Project IDs and Project Component IDs.

Accessed http://www.dpwh.gov.ph/policies_procedures/Do/index.asp 1 August 2016

Office of the Secretary, Department of Public Works and Highways (2016). Department Order 06 (series of 2016) Implementation of Project and Contract Management Procedures Application.

Accessed http://www.dpwh.gov.ph/policies_procedures/Do/index.asp 1 August 2016

Office of the Secretary, Department of Public Works and Highways (2013). Department Order 82 (series of 2013) Implementation of ePLC, Merged Monitoring Reports, and ePLC Exception reports.

Accessed http://www.dpwh.gov.ph/policies_procedures/Do/index.asp 1 August 2016

Office of the Secretary, Department of Public Works and Highways (2015). Department Order 99 (series of 2015) Requirements for Issuance of Certificate of Completion and Certificate of Acceptance for Infrastructure Contracts.

Accessed http://www.dpwh.gov.ph/policies_procedures/Do/index.asp 21 July 2016

Philippine Government Electronic Procurement System (PhilGEPS). n.d. “About PhilGEPS: Government’s Tool for Procurement Reforms and Transparency”.

Accessed

<http://philgeps.gov.ph/GEPSNONPILOT/aboutGEPS/aboutGEPS.aspx?menuIndex=5> 13 July 2016

President of the Philippines (2015). Republic Act 10651 General Appropriations Act 2015. Accessed www.gov.ph/featured/2015-gaa/ 14 July 2016

President of the Philippines (2013). Executive Order 136 (series of 2013) Amending certain sections of Executive Order No. 8 (S. 2010) which reorganized and renamed the Build-Operate and Transfer Center to the Public-Private Partnership Center of the Philippines and transferred its attachment from the Department of Trade and Industry to the National Economic and Development Authority, and for other purposes.

Accessed <http://ppp.gov.ph/wp-content/uploads/2015/01/Executive-Order-136.pdf> 8 August 2016

President of the Philippines (2010). Executive Order 8 (series of 2010) 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. Accessed <http://ppp.gov.ph/wp-content/uploads/2015/01/ExecutiveOrderNo8.pdf> 8 August 2016

President of the Philippines (1987). Executive Order 226 (series of 1987) The Omnibus Investments Code of 1987.

Accessed www.gov.ph/1987/07/16/executive-order-no-226-s-1987/ 21 July 2016

Public-Private Partnership Center. PPPGB Circulars and Issuances.

Accessed http://ppp.gov.ph/?page_id=28622 16 August 2016

Public-Private Partnership Center (2014). National Government Agency Public-Private Partnership Manual Volume 1.

Accessed <http://ppp.gov.ph/?publications=ppp-manual-for-national-government-agencies-ngas> 9 August 2016

Public-Private Partnership Center (2011). Project Development and Monitoring Facility (PDMF) Guidelines.

Accessed http://ppp.gov.ph/?page_id=88 24 July 2016

Public-Private Partnership Center (2016). Generic Preferred Risks Allocation Matrix (GPRAM).

Accessed http://ppp.gov.ph/?press_releases=generic-preferred-risks-allocation-matrix-gpram 21 July 2016

Republic Act 8424 Tax Reform Act of 1997.

Accessed <http://library.pcw.gov.ph/sites/default/files/republic-act-8424.pdf> 16 August 2016

APPENDIX 2: References for Cooperative Arrangements Between National and Provincial Governments

1. Timothy Layman (2003). “Intergovernmental Relations and Service Delivery in South Africa a Ten Year Review”
<http://www.sarpn.org/documents/d0000875/docs/Layman,%20Tim.pdf>
2. Priyanka Sood, Marshall M. Mays, and Michael R. Lindfield (2012) “Subnational Finance for Infrastructure: Potential Roles and Opportunities for ADB”
<https://www.adb.org/sites/default/files/publication/29768/adb-wp20-subnational-finance-infrastructure.pdf>
3. United Nations, (2014) “World Urbanization Prospects”
<https://esa.un.org/unpd/wup/Publications/Files/WUP2014-Highlights.pdf>
4. Philippines Republic Act 9184, “Government Procurement form Act” 2002
http://www.gppb.gov.ph/laws/laws/RA_9184.pdf
5. Adoracion M. Navarro and Gilberto M. Llanto “Financing Infrastructure Development in the Philippines: Fiscal Landscape and Resources Mobilization” (2014) Philippines Institute for Development Studies
<http://dirp3.pids.gov.ph/webportal/CDN/PUBLICATIONS/pidsdps1401.pdf>
6. Philippines Republic Act 7718 “The Philippines Build-Operate-Transfer Law and implementing rules and regulations” (1994)
<https://ppp.gov.ph/wp-content/uploads/2015/01/Republic-Act-7718.pdf>
7. Klaus Schwab et al, “The Global Competitiveness Report 2014-2015”, World Economic Forum
http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2014-15.pdf
8. 2013-2019 Iloilo City Comprehensive Development Plan
<http://iloilocity.gov.ph/images2013/2013-2019%20CDP.pdf>
9. Takuji Komatsuzaki, “Improving Public Infrastructure in the Philippines” International Monetary Fund 2016
<https://www.imf.org/external/pubs/ft/wp/2016/wp1639.pdf>
10. Republic Act No. 10752 ”The Right of Way Act” March 7, 2016
<http://www.gov.ph/2016/03/07/republic-act-no-10752/>

11. Republic Act No. 7160 "Local Government Code of 1991"
http://www.lawphil.net/statutes/repacts/ra1991/ra_7160_1991.html
12. "Indonesian Infrastructure: Stable foundations for growth" PwC Indonesia, 2016
<http://www.pwc.com/id/en/cpi/asset/indonesian-infrastructure-stable-foundations-for-growth.pdf>
13. "BRT Toolkit for Feasibility Studies Annex 5, Case Studies and Lessons" Asian Development Bank/Indian Ministry of Urban Development, 2008
https://sti-india-uttoolkit.adb.org/mod2/se3/005_5.html