Japan International
Cooperation Agency
(JICA) Myanmar Office

Directorate of Investment
and Company Administration
(DICA)

Financing Infrastructure Development
and
Public-Private-Partnership (PPP) Framework
for
Myanmar

Analytical Paper based on

DICA-JICA Discussion Series on PPP for Infrastructure

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Preface

Over the past several years, Myanmar has launched numerous initiatives to embark on a comprehensive set of reforms. Such initiatives target not only the public sector, such as efforts for political and administrative reforms, but also measures to stimulate the activities of the private sector. Without private sector development, transforming Myanmar into a modernized economy that creates job opportunities to improve the livelihood of many citizens will not be sustainable. In order to enhance private sector development, it is vital to increase capital investment that enhances quantity, quality and efficiency of industrial and agricultural production, utilizing domestic and foreign resources.

Investment in infrastructure is particularly crucial for enhancing production. Absence of sufficient and reliable infrastructure services makes it harder for the private sector to manufacture, transport and sell products at reasonable cost. In addition, private sector investment in infrastructure is also sought in view of the huge demand and limited fiscal space. Appropriate risk and cost sharing is required to attract private sector investment. In this regard, with the support of Japan International Cooperation Agency (JICA), the Directorate of Investment and Company Administration (DICA) prepared the Long-term Foreign Direct Investment Promotion Plan (FDIPP) in 2014, including recommendations for actions to promote Public-Private Partnership (PPP) for infrastructure development.

In September 2015, DICA and relevant ministries/organizations of the government of Myanmar formulated the PPP Task Force for infrastructure based on the FDIPP. Since its establishment, the Task Force, in cooperation with JICA, has had a series of discussion with international experts and officials from the governments of the Philippines and Indonesia on various aspects of infrastructure finance including a framework for PPP, learning from the challenges and successes in peer ASEAN countries. This paper summarizes the discussions by the PPP Task Force and offers recommendations based on technical analysis by participants from JICA. We sincerely hope that this paper will light the way forward for Myanmar's continued efforts to finance infrastructure development, including the initial steps to make gradual but steady progress toward a functioning PPP framework.

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Executive Summary

The coverage and quality of infrastructure in Myanmar is low compared to other developing countries, including its peers in Southeast Asia. Due to limitations in data availability and transparency, especially for those activities implemented off-budget, the entire picture of how infrastructure development is financed currently is unknown. Despite some good recent achievements, Myanmar has a long way to go before enjoying a well-established framework for financing the huge infrastructure investment demand.

Based on the lectures and discussions under the DICA-JICA Discussion Series on PPP for Infrastructure, the co-authors highlight six key pillars of a functioning PPP framework for financing infrastructure development in Myanmar. They are: (a) consolidated and prioritized infrastructure development plan, (b) options and risk management for financing infrastructure development, (c) political commitment, and regulatory and institutional framework, (d) processing individual PPP transaction, (e) information management, ex-post evaluations/audits and oversight, and (f) support from development partners. For each of the six pillars, (i) elements for a functioning PPP framework, (ii) practice in peer ASEAN countries, and (iii) current situation and way forward for Myanmar are analyzed and discussed.

While it is highly improbable for Myanmar to be able to possess the full range of required elements in an instant, and also quite challenging to draw a realistic roadmap in the medium- to long-term due to the rapidly changing circumstances, some key initial steps that would serve as the cornerstone of future PPP framework for infrastructure development in Myanmar can be recommended based on the past mistakes and successes in peer ASEAN countries.

Pillar 1 Consolidated and Prioritized Infrastructure Development Plan	#1 Myanmar needs to develop a multiple-year, consolidated and prioritized infrastructure investment plan (cross-sector, cross-ministry project list) consistent with national development strategies and medium-term fiscal framework, including those financed by both public funds and private funds (such as PPPs). Unsolicited proposals may not be recommended in the initial stages of PPP framework development to avoid confusion.
Pillar 2 Options and Risk Management for Financing Infrastructure Development	#2 Based on a multiple-year, consolidated list of national priority infrastructure projects, the government of Myanmar is recommended to conduct a macro-level simulation to understand the rough aggregate funding requirement amount from (a) the private sector (including those in the form of PPP) to fulfill the investment needs, taking into account the projection of other source of funds including (b) Union and State/Region budget, (c) inputs from state economic enterprises (SEEs), and (d) sovereign concessional loans available for infrastructure during the same period. #3 It is advisable that the government of Myanmar establish a mechanism to provide appropriate fiscal support for and analyze the fiscal implications of implementing infrastructure projects, not just for PPPs but also for those financed and run by the public sector, by involving the fiscal authorities in the decision making process of user fee levels and in the monitoring and management of concerned SEEs.

Pillar 3 Political Commitment, and Regulatory and Institutional Framework for PPP	#4 Myanmar will eventually require specific legislation to fully utilize PPP. However, it will take time to prepare and enact the PPP law that sufficiently reflects both international practices and Myanmar context. A tentative alternative is to provide a lighter but explicit basis for the PPP program, such as through regulations and policy papers issued by the President or guidance notes on the details of PPP transactions. The government must clarify for what purposes and how the government intends to promote PPP. #5 Myanmar needs to establish (or realign) government institutions with different roles to enable balanced decision-making on infrastructure finance (such as those that (a) prepare prioritized infrastructure development plans, (b) assess and manage fiscal risks, (c) manage the process of PPP, (d) deliver infrastructure services, and (e) promote domestic and foreign investment).
Pillar 4 Processing Individual PPP Transactions	#6 Based on efforts to improve and integrate national development planning and fiscal management, a uniform screening, appraisal and management process for all infrastructure investment projects including both public investment and private sector-led Initiatives (including those in the form of PPPs) should be established. Guidelines for key documents required for such integrated process, such as pre-feasibility studies (Pre-F/S), F/S, environmental and social impact assessment (ESIA), etc., will facilitate its operationalization. Land issues and available options to solve land issues need special attention of the government and should be clarified in detail in relevant laws and regulations. #7 Tentative rules to clarify a single, standard bidding process and templates for key transaction documents (such as power purchase agreement (PPA), performance guarantee document, etc.) would be required to streamline the transactions under PPP.

Pillar 5 Information Management, Ex-post Evaluations / Audits and Oversight	#8 A comprehensive study to understand the fiscal impact resulting from decisions to implement on-going and past infrastructure PPP projects may help raise awareness of the higher authorities in the government about the significance of making such decisions. Studying the different types of financial structure (Build-Operate-Transfer (BOT), Build-Transfer-Operate (BTO), Joint Venture (JV), etc.) and their suitability to various sectors / sub-sectors, as well as the cost and risks for the private sector in each structure, could be useful to guide future systematic decisions.
Pillar 6 Support from Development Partners	#9 While learning-by-doing approach appears to be more realistic in the near term, technical and financial support offered by development partners, particularly those related to individual PPP transactions, should be aligned to the efforts by the government to formulate a single framework and a unified set of rules for PPP, rather than a one-off support. #10 In view of the limited capacity and tremendous amount of work required to pave the way for a complete set of functioning PPP framework, gradual mobilization of larger private sector resources is realistic, starting from a few pilot cases with transparent competitive process with strong support from development partners. In the interim, Myanmar should actively seek highly concessional financing from developments based on careful assessment of debt sustainability to fulfill the enormous and urgent need for infrastructure development.

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1. Introduction

"DICA-JICA Discussion Series on Public-Private Partnership (PPP) for Infrastructure" started in September 2015 as a part of the program aiming at providing technical inputs with an inter-ministerial PPP Task Force established based on the Long-Term Foreign Direct Investment Promotion Plan (FDIPP) prepared in 2014. FDIPP is an initiative taken by Directorate of Investment and Company Administration (DICA), which functions as the Secretariat to the Myanmar Investment Commission (MIC) while also belonging to the Ministry of National Planning and Economic Development (MNPED). Japan International Cooperation Agency (JICA) has been supporting DICA for drafting and implementing FDIPP, which includes action plans to promote Foreign Direct Investment (FDI) for utilizing PPP to develop infrastructure in Myanmar.

During the Fiscal Year 2015/16, the PPP Task Force members, with the support and jointly with participants from JICA, learned various aspects of PPP in infrastructure development, including experiences in peer ASEAN countries. The PPP Task Force members and JICA participants had the opportunities to listen to lectures from and have discussions with experts from both the public and the private sectors specializing in banking and finance, fiscal issues, legal framework, project planning and development, transport and power sector, etc., including officials from relevant ministries/departments of the governments of Indonesia and the Philippines.

This analysis paper is written based on the lectures and discussions in this series, with an aim to provide an analysis on the six pillars of a functioning PPP framework for financing infrastructure development in Myanmar, followed by recommendations on the key initial steps that could serve as the cornerstone of future PPP framework for infrastructure development in Myanmar.

2. Financing Infrastructure Development and Public-Private-Partnership (PPP) in Myanmar: an Overview and Assessment of the Current Situation

2.1 Infrastructure Development Needs in Myanmar

The coverage and quality of infrastructure in Myanmar is low compared to other developing countries, including its peers in Southeast Asia. According to the Global Competitiveness Index 2015-2016, Myanmar ranked 134th out of 140 countries in terms of infrastructure quality (Schwab (2015)).

Access to electricity nationwide is 52% in 2012, with a significantly less value of 31% in the rural areas. Electric power transmission and distribution loss account for more than 25% of the output in 2012. Quality of electricity supply in Myanmar based on survey results ranks 118th out of 140 countries. Electric power consumption is only 153 kWh per capita in 2012, which is just above 5% of the average level of developing countries in East Asia and the Pacific. Lack of sufficient and stable electricity is a major bottleneck not just for the households but also for promoting investment for industrial development.

Myanmar's road length is 150,816 kilometers with only 33,014 kilometers of paved roads (21.9%). Quality of port and air transport infrastructure rank at 123rd and 132nd respectively out of 140 countries. Quality of railroad infrastructure ranks higher at 96th, but the score based on survey (1.8) is close to the worst score in a scale from 1 to 7 (best score). Poor network of transport infrastructure hinders logistic performance and market connectivity. Large cities such as Yangon and Mandalay have outdated infrastructure and cannot cope with the rapid rise in demands, resulting in traffic congestion and power shortages.

Myanmar is also one of the few non-African countries with the ratio of population with access to improved drinking water source not reaching the global average of around 90% (80.6% in 2015). In rural areas, the number drops to 74.4% (WHO/UNICEF (2015)).

According to Chhor et al. (2013), the required infrastructure investment to sustain an average 8% annual economic growth up to 2030 was estimated at USD 320 billion, including about 60% of the investment needed for residential and commercial real estate. Based on more detailed sector specific studies supported by JICA and the World Bank, the investment demand for electricity power and the transport system is as follows.

- Power generation, transmission and distribution (residential on- and off-grid residential only) facilities up to 2030: USD 66.6 billion
- National network transport infrastructure up to 2030: Myanmar Kyat 48 trillion (roughly

USD 40 billion)

In addition to the aggregate financing requirements, there are many non-financial needs to modernize and streamline implementation of infrastructure development. According to the Background Paper of the Joint Country Portfolio Review 2015 (ADB, JICA and World Bank (2015)), there are five types of pertinent cross-cutting challenges that impact the performance and administration of projects supported by these development financial institutions with a combined active lending portfolio of approximately USD 2 billion as of June 2015. The five challenges are operating procedures, financial management and auditing, procurement processes, environmental and social safeguards, and monitoring and evaluation.

2.2 Overview: How is Infrastructure Development Financed in Myanmar?

Due to limitations in data availability and transparency, especially for those activities implemented off-budget, the entire picture of how infrastructure development is financed currently is unknown. Capital expenditure is currently at 5.6% of the GDP, which is significantly lower than the required infrastructure investment needs. Myanmar now has access to concessional finance from multilateral development banks such as ADB and the World Bank and other international development finance institutions such as bilateral development partners, and agreed to receive over USD 3 billion at very generous terms and condition since 2013. Myanmar also benefits from various technical supports attached to these concessional lending programs to implement infrastructure projects effectively and efficiently. A recent IMF estimate shows that roughly USD 2.1 billion of concessional loans will be disbursed to Myanmar annually by 2025/26 (IMF (2015)), which can be used to fund high priority infrastructure projects. However, these concessional financing, combined with government expenditure, will still fall short of the huge investment needs. According to the World Bank, in FY2013/14, the shares of capital spending by major ministries are Defense (38 percent), Construction (9 percent), Agriculture and Irrigation (8 percent), Border Affairs (8 percent), Education (8 percent), and Health (7 percent). It is noticeable that while Defense's share remains relatively unchanged, Border Affairs, Education, and Health capital spending have grown significantly from FY2009/10.

Sector-wise, according to the Ministry of Electric Power, out of the total generation capacity of 4,412 MW as of April 2014, around 10% or 440 MW is run by independent power producers (IPPs), and roughly 20% or 840 MW is run by JV between the private sector and the government. Recently, multilateral development banks supported the formulation of the Myingyan gas thermal power plant as a pioneering case of IPP project whose process is in line with international practices. In the road sector, there have been many PPPs since 1996. As of March 2013, a total of 61 BOT concessions contract over a period of 40 years have been awarded to 29 private companies, covering approximately 5,585km. In the airport sector, Mandalay is currently run by a group of Japanese private companies, and expansion of the terminal capacity of the existing Yangon International Airport is being implemented by the private sector. The new airport of Hanthawaddy near the city of Bago is in the planning stage, with participation from the private sector. There are several river ports in the Yangon area operated by mostly local private companies over a concession period of 25 to 30 years.

2.3 Assessment: What is Currently Lacking in Myanmar?

Over the past several years, there has been some progress in Myanmar toward the establishment of a framework to meet the growing demand for financing infrastructure development. With the help of development partners such as ADB, JICA and the World Bank, the government prepared several sector, spatial and thematic masterplans with recommendations on future investment projects, including electricity generation and transmission, electrification (distribution), national transport network, Yangon urban development and urban transport development, and FDI (FDIPP). The country now has the Public Debt Management Law enacted to allow the fiscal authority to supervise and monitor domestic and external government debt. Based on the reform initiated after 2011 and the subsequent arrears clearance operation, Myanmar now has access to highly concessional loans available from multilateral development banks and other international financial institutions under a closely monitored debt sustainability framework. In addition to access to the generous funding from these banks and institutions, Myanmar is in the process of learning how to implement and manage infrastructure projects, through initiatives such as the Joint Country Portfolio Review conducted by ADB, JICA and the World Bank. There are already a few successful cases of private sector participation for development and operation of key infrastructure, including the Myingyan gas thermal power plant described above and the telecommunication sector.

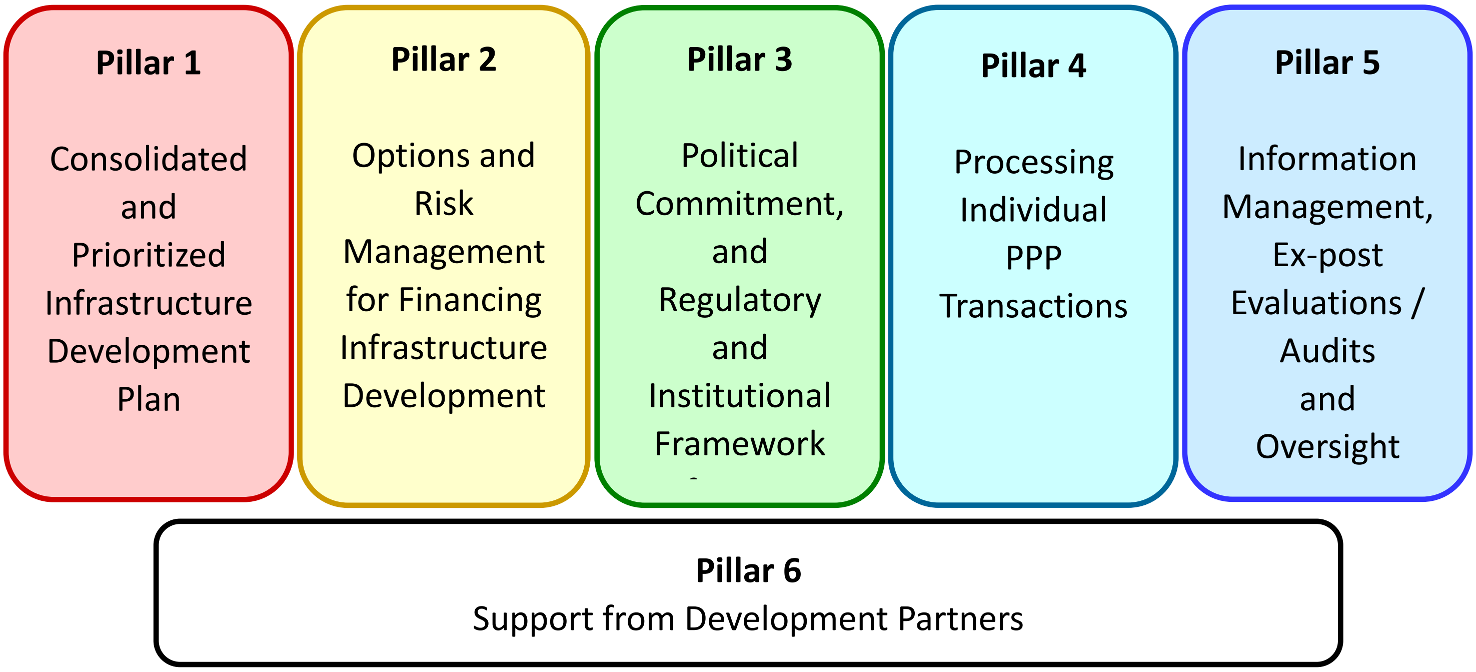
Despite these good achievements, Myanmar has a long way to go before enjoying a well-established framework for financing the huge infrastructure investment demand. First, the country currently does not have a multiple-year, prioritized infrastructure investment strategy that is linked to financing plans including the medium-term fiscal framework (MTFF). This hinders systematic and timely allocation of appropriate financial and fiscal resources to nationally and locally important infrastructure. Second, there are no laws, regulations and policies regarding the systematic use of PPP and private sector finance across the sector for infrastructure development. This makes decision to use private sector resources ad-hoc, and the rules of private sector participation variable across projects and sectors. Third, the fiscal authority is currently not involved in the decision-making of the mode of financing (public funds or private funds, including those in the form of PPP). This leads to an absence of assessment and management of fiscal impact, risks and liabilities associated with financing and implementing infrastructure projects. Fourth, there are no institution with qualified staff and sufficient capability to promote the use of PPP for infrastructure. This is resulting in inconsistent and ad-hoc rules applied to private sector participation. Last but not least, PPP projects in the past were awarded to investors without going through a transparent competitive process, and there is a room for improving efficiency of SEEs engaged in planning, constructing and operating / maintaining infrastructure assets.

3. Functioning PPP Framework for Financing Infrastructure Development in Myanmar

Based on the lectures and discussions under the DICA-JICA Discussion Series on PPP for Infrastructure, the co-authors highlight six key pillars of a functioning PPP framework for financing infrastructure development in Myanmar. They are: (a) consolidated and prioritized infrastructure development plan, (b) options and risk management for financing infrastructure development, (c) political commitment, and regulatory and institutional framework, (d) processing individual PPP transaction, (e) information management, ex-post evaluations/audits and oversight, and (f) support from development partners.

For each of the six pillars, (i) elements of a functioning PPP framework, (ii) practice in peer ASEAN countries, and (iii) current situation and way forward for Myanmar are analyzed and discussed.

Figure 1 The Six Pillars of a Functioning PPP Framework for Infrastructure Development



(Source) Co-authors

3.1 Consolidated and Prioritized Infrastructure Development Plan

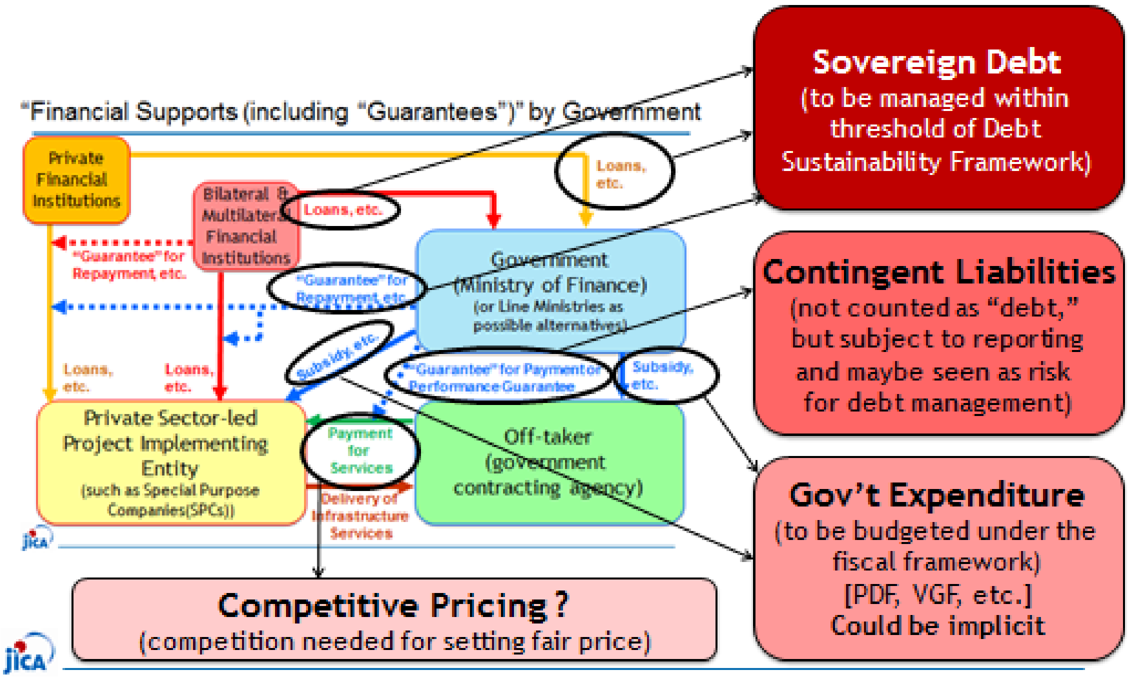
(1) Rationale for Public Investment and PPP Framework for Infrastructure Development

(a) Elements of a Functioning PPP Framework

Developing countries such as Myanmar need huge investment over the next several decades for sustainable social and economic growth. In order to finance such investment needs, why and how should the public sector be engaged? According to Ehler et al. (2014), there are mainly three reasons that make infrastructure and its financing special. These describe the rationale for public investment and public intervention in private sector led initiatives for infrastructure development. First, tariff revenue from beneficiaries of infrastructure services may not cover full cost, and there are huge indirect benefits difficult to quantify indirect externalities of infrastructure can be hugely beneficial for the economy. Such benefits are generally difficult to quantify. Even if quantified, charging for them may not be feasible or desirable, particularly to rural and low income population groups. Payment by direct beneficiaries (tariff, etc.) may not cover full cost due to affordability, etc., and increasing the tariff level may face political, social challenges similar to tax. Second, purely private investment is difficult and costly, as infrastructure investments generate cash flows only after many years, and initial phase of an infrastructure project requires large amount of cash at high risks. In addition, infrastructure assets cannot be liquidated easily, making it difficult for the private sector players to make commitments. Third, complex legal arrangements and long-term government commitment are usually required when private investment is sought. Infrastructure projects often involve many parties, requiring complex legal arrangements to ensure proper distribution of payoffs and risks, and governments must be seen as respecting pre-agreed contracts over a long time, generally beyond the lifetime of a single administration.

As seen in the last section, the size of the infrastructure investment needs appear to be well above the public sector funding envelope. If there were needs for public sector engagement in financing private sector led infrastructure development initiative, how would that happen? Figure 2 indicates the four types of financial support that can be offered and if offered, its risks that must be managed as part of public financial management (PFM) by the government. The first type is sovereign debt. If the government takes loans or guarantees loans or guarantees to finance the investment, they are to be managed within the threshold of sustainable framework for public and publicly guaranteed debt. The second type is contingent liability, which is not counted as debt, but potential risk for additional government expenditure. In developing countries, the private sector generally demands the government, usually the Ministry of Finance, to guarantee payment by off-takers (such as electric power companies) for the infrastructure services provided to mitigate non-payment risks. The third type is government expenditure, which in many cases could be implicit and may not necessarily be calculated or recognized by the government. Explicit expenditures include government funding for preparing feasibility studies, land acquisition, viability gaps (gaps in profitability of projects that need to be filled if private investment is to be sought), etc. Expenditures could be implicit in cases where the tariff revenue from infrastructure service users is not sufficient to cover the payment to the private investor, which is usually the case in developing countries such as Myanmar. The governments must allocate funds from general budget for the cost of off-takers under these circumstances. These implicit expenditures to fund the deficit may occur in public investment projects as well. The fourth type is pricing of the payment from off-taker to private investors. This type is not directly related to government fiscal burden, but it determines the extent of government support through other types, and the conditions and environment to determine the price are set by the government. If the government asks many risks to be borne by the private sector (such as the demand risk, meaning if due to market conditions a significantly less amount of infrastructure service is needed in comparison with the original plan, the private sector must settle with less revenue despite the initial cost for building facilities that can offer more), the private sector will naturally ask for a higher price which may result in higher fiscal burden for the government.

Figure 2 PFM Implications of Private-sector led Infrastructure Development



(Source) Co-authors

(b) Practice in Peer ASEAN Countries

According to Mihara and Fujiki (2014), ASEAN countries have experienced “two waves” of private sector participation in infrastructure development. The first wave that came in the late 1980s up to the mid-90s tried to transfer the risks associated with infrastructure development to the private sector without public sector funding to the extent possible. Typical models used during this period was mostly BOT, utilizing private sector finance to build the infrastructure and then relying on revenue from users to repay the finance. This model resulted in higher project risks, longer project preparation and limited successful cases due to excessive risk allocation to the private sector. Structure of the transaction, however, was rather simple, because expenditure from the budget was limited. The second wave came at around 2005 when FDI started to increase in the Asia region. Typical models used during the second wave were partnership models that aimed to balance the risks between the public and private sectors and to provide direct and indirect support from the government. Affordability of the users in terms of payment and viability of the private investor in terms of profitability were both examined prior to project structuring which became more complicated compared to the models typically used during the first wave.

Against this background, in the Philippines, the government set a target to increase infrastructure spending up to 5% of the country’s GDP by 2016. Total infrastructure spending for 2013-2016 amounted to Philippines Peso 1.8 trillion, or 55% of the public investment program. On top of public spending, the government expects that PPP will bring in private sector capital and expertise to address the infrastructure gap. The Department of Finance (DOF) is tasked with overall fiscal risk management and financial analysis of PPP projects in the Philippines. DOF analyses fiscal impact of PPP project implementation, focusing on cost for the government over the life-cycle of the infrastructure assets, cost of capital, viability, total subsidy and government undertakings. DOF also utilizes a tool they call as “Generic Preferred Risk Allocation Matrix,” in order to determine who and to what extent different risks (around 50) associated with PPP projects are covered. Contingent liabilities are also assessed and managed by DOF, conducting analysis during the preparation stage and monitoring and evaluating after the implementation stage. Special attention is given to PPP projects where state-owned enterprises (SOEs) are involved. In a framework named as “Consolidated Public Sector Deficit,” DOF assesses the financial circumstances of the relevant SOEs, such as cash flow, required cash injection, debt repayment and macro-economic impact of being engaged in the PPP project.

(c) Current Situation and Way Forward for Myanmar

In Myanmar, although there is a broad understanding that the government must play a key role in infrastructure development, in addition to a growing interest in private sector led investment mainly from the perspective of spending less from government pocket, there is no recognition that appropriate public sector fiscal and financial intervention is required to attract the private sector, coupled with a fiscal management framework for both public and private sector funded projects over the life-cycle of infrastructure assets. Ministry of Finance, led by the Budget Department, oversees the budget and is responsible for the recurrent expenditure, and Planning Department under the Ministry of National Planning and Economic Development is responsible for capital expenditure, but neither ministries conduct systematic assessment of explicit and potential fiscal burden from making commitments to large-scale infrastructure projects.

Going forward, the government of Myanmar needs to recognize that public fiscal and financial intervention is required for infrastructure development, and one of the ministries, or supervisory institution above the authorities of each ministry, must be tasked to assess, monitor and manage fiscal impact of those interventions.

(2) Consolidated and Prioritized Investment Plans across Sectors, Union-Local Levels and Funding Sources

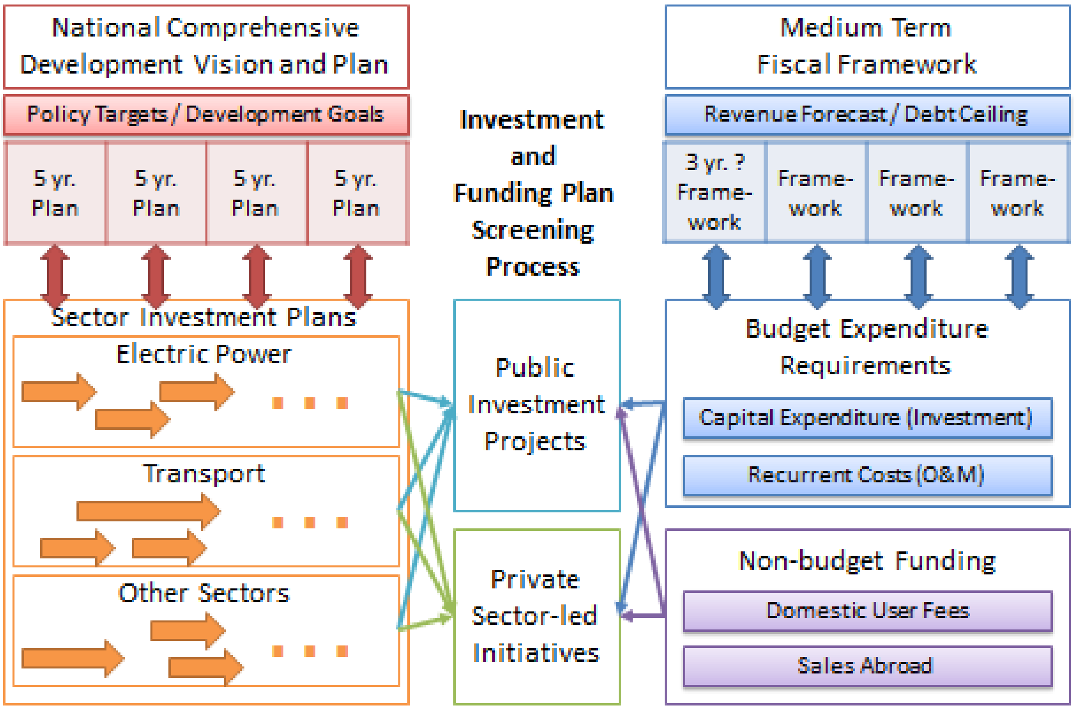
(a) Elements of a Functioning PPP Framework

As described in previous sections, in order to develop infrastructure assets that contribute to long-term social and economic development goals of a country, consolidated and prioritized investment plans across sectors that specify the roles of central and local governments, and the sources of funding to materialize each project, are needed. As shown in Figure 3, it is preferable that governments in developing countries, with huge infrastructure investment requirements over the next several decades like Myanmar, create medium-term consolidated investment plans that are consistent with corresponding and realistic budgeting and funding plans. Ideally, such consolidated infrastructure investment plans should be linked to both (a) medium-term national development strategies, such as the National Comprehensive Development Plan in Myanmar, that outline the country's priority targets and development goals, and (b) medium-term fiscal framework with realistic analysis of the revenue forecast and debt ceiling based on a management strategy.

National development strategies need to be consistent with and linked to sector and spatial investment plans that describe sector priorities based on the overall national development targets and goals, as well as priority investment activities to enable such targets and goals to be met. Investment plans in each sector/region managed by different levels of the government should be consolidated nationally to determine which project is priority over another and in what sequence the projects should be implemented. At the same time, assessment of the cost over the life-cycle of the infrastructure asset and decisions on how to finance the prioritized projects (solely by the public sector or based on private sector investments, etc.) are needed. Setting and implementing rules and guidelines on how governments assess the cost and select the mode of financing for each project, such as viability gap analysis, will likely increase clarity of the decision making process. When making decisions on the financing modes of each project, availability of budget as well as non-budget sources must be taken into account based on the medium-term fiscal framework and policy on user-fee tariffs for infrastructure services.

From the perspective of private sector investors and financiers, a pipeline of bankable PPP projects open for private sector participation, based on consolidated and prioritized infrastructure investment plans, will increase credibility of a PPP framework. Without such pipeline, invitation to participate in PPPs could be ad-hoc and may not lead to sufficient government support nor financing during the implementation stage. From the perspective of the government, without the afore mentioned decision making process, it would be difficult to give decisions on whether a given PPP project proposal is consistent with national priorities, and also difficult to quantify and justify the extent of multiple-year fiscal impact over its life-cycle.

Figure 3 Illustration of Consolidated and Prioritized Infrastructure Investment Plan



(Source) Co-authors

(b) Practice in Peer ASEAN Countries

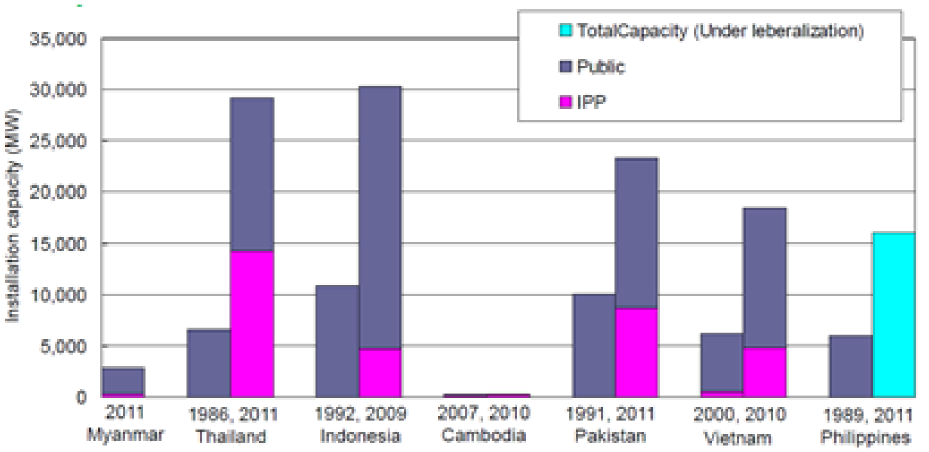
Based on decades of experiences in designing and implementing infrastructure projects, the Indonesian government has gradually developed a framework to consolidate and prioritize investment projects that include those funded by both the public and private sectors. The government set GDP growth target at average 7% from 2015 to 2019 in the National Medium Term Development Plan (RPJMN). In the RPJMN, the government aims to build 1,000 km toll roads, 15 airports, 24 ports, 35GW power plants and 5,500 km railroads within 5 years. The Ministry of National Development Planning (BAPPENAS) has conducted infrastructure financing sources analysis to understand the amount required from (1) national government budgets, (2) local government budgets, (3) SOEs, and (4) private investment (including PPPs, off balance sheet, loans, obligations from 2015 to 2019, and estimated that only 2 quadrillion Indonesian Rupiah (IDR) out of the required 5 quadrillion IDR are covered by (1) and (2).

In Indonesia, key infrastructure sectors, such as transport, electric power and water, are governed by sector laws which are superior to the President Decree that determines the rules for PPP. However, since the mid-2000, there have been continued attempts to create a cross-sector consolidated PPP project list. BAPPENAS issues its first PPP book in 2009, containing a list of potential projects. In 2011, the Master Plan for the Acceleration and Expansion of Indonesia's Economic Development (MP3EI) indicated PPPs as priority. In 2014, KPPIP (Committee for the Acceleration of Prioritized Infrastructure Provision), comprising Coordinating Minister of Economic Affairs, Minister of Finance, Minister of BAPPENAS, Minister of Agrarian and Spatial Planning) was created, together with the PPP Unit under the Ministry of Finance, to promote and to ensure consistency regarding the use of PPP across sectors.

Under the RPJMN from 2015-2019, the government has issued President Decree No.3/2016 to list up National Strategic Projects (PSN), 225 projects and 1 program, that receive facilities and privileges in order to accelerate their implementation including for their land acquisition process. PSN project will be monitored by KPPIP instead of project owner / contracting agency (such as the line ministries and local governments) for the case of other projects under RPJMN. Within the PSN projects, 30 priority projects were selected based on Regulation of Coordinating Ministry of Economic Affairs No. 12/2015, which follow Standard Operation Procedure and other incentives and supports set by KPPIP. One of the key process in the entire procedure monitored by KPPIP is the selection of the funding scheme and implementing entity for the project (government funding: implemented by line ministries, etc. in coordination with BAPPENAS, PPP funding: implemented by line ministries, etc. and the PPP Unit in the Ministry of Finance, or strategic funding: implemented by strategically decided agency), using financial support from the government as necessary.

Despite efforts to integrate public and private sector investments in Indonesia and other ASEAN countries, it must be noted that the share of private sector led investment in infrastructure development is rather small or marginal in many countries. As shown in Figure 4, although electric power is one of the most promising sectors for attracting private sector investments, the ratio of IPP in ASEAN and other Asian countries have been limited. In addition, even in countries that are active in promoting PPPs for infrastructure development (such as the United Kingdom, Spain and the Republic of Korea) PPP projects account for no more than 10%–20% of public sector investment (Zaw Oo et al. (2015)).

Figure 4 Ratio of IPP in Power Generation Capacity of ASEAN and Asian Countries



	Myanmar	Tailand		Indonesia		Cambodia		Pakistan		Vietnam		Philippines	
	2011	1986	2011	1992	2009	2007	2010	1991	2011	2000	2010	1989	2011
IPP ratio (%)	11%	0%	49%	0%	16%	64%	68%	0%	37%	8%	26%	0%	Under liberalization

Source: Myanmar: MOEP, Thailand: EGAT HP, JEPIC report (2012), Indonesia: JEPIC report (1998, 2002, 2003, 2010), Cambodia: JEPIC report (2009, 2010), JICA report (2012), Pakistan: JEPIC report (2002), State of Industry Report 2012 (NPRA), Vietnam: JEPIC report (2000, 2003, 2010, 2011), Philippines: JEPIC report (1998, 2012)

(Source) JICA Myanmar Office (2015c)

(c) Current Situation and Way Forward for Myanmar

Currently, Myanmar does not have a cross-sector, cross-ministry plan that consolidates and prioritizes infrastructure projects which contribute to social and economic development. Sector plans with lists of key infrastructure projects managed by a ministry or several ministries have been drafted with help from the development partners over the past few years, but it is not clear how these plans and project lists are connected to the approval process of the government and the single-year budgeting process. The selection of financing mode for each of the project is also not systematic. Line ministries appear to be initiating such selection, but there are no guidelines or principles as to what extent the public sector should be financially responsible for preparation, construction and operation/maintenance of each infrastructure project.

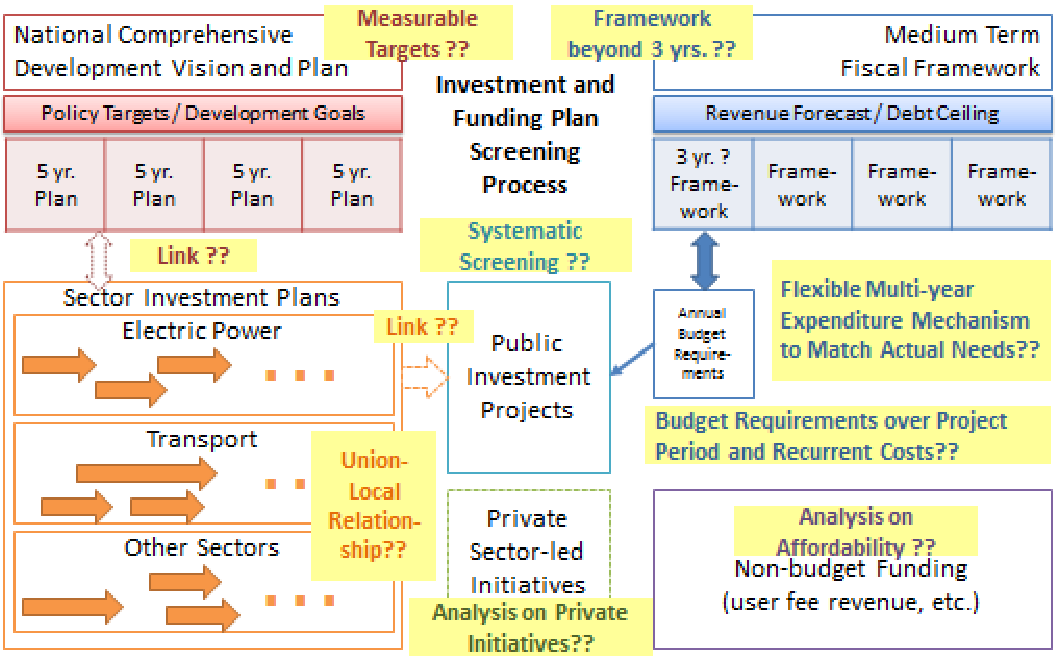
Going forward, Myanmar needs to develop a multiple-year, consolidated and prioritized infrastructure investment plan (cross-sector, cross-ministry project list) consistent with national development strategies and medium-term fiscal framework, in order to develop a credible pipeline of PPP projects attractive for the private sector and manageable for the government.

As illustrated in Figure 5, infrastructure investment projects, including those by PPP, need to be linked to development goals and funding plans. Several actions required by the government may include (a) approval and information disclosure of national and sector plans, with measurable policy targets and development goals, (b) linking national and sector plan targets and goals with sector investment plans, (c) clarifying division of labor between union and local governments in designing and implementing investment plans, (d) linking individual investment activities with multiple year funding (on- and off-budget) plan, and (e) linking sector investment plans with annual funding (on- and off-budget) plan.

Corresponding to the reform on the development planning side, a broader and longer application of the fiscal framework is also needed. Concrete actions may include (a) fiscal principles and forecast beyond 3 year framework and throughout the national development plan, (b) integrated control of both on-budget and non-budget funding (such as borrowing strategy (debt management perspective) and regulation of infrastructure service user fees (affordability perspective)), (c) flexible multi-year expenditure mechanism to make available timely financing for actual needs, (d) consideration to both capital and recurrent cost over lifetime of infrastructure asset, and (e) clear rules and appropriate information disclosure for funding (on- and off-budget) at budgeting, execution, and ex-post stages.

Based on efforts to improve development planning and fiscal management, an integrated screening and management of sector investment projects for both public investment and private sector-led Initiatives can be established. Concrete actions will be discussed later in the paper together with the issue of selection of modes of finance.

Figure 5 Illustration of Possible Areas of Improvement for Myanmar's Investment Plan



(Source) Co-authors

3.2 Options and Risk Management of Financing Infrastructure Development

(1) Modes of Financing Infrastructure Development

(a) Elements of a Functioning PPP Framework

Although many patterns and variations exist, there are mainly three modes of financing infrastructure development in developing countries like Myanmar, as illustrated in Figure 6. The first mode is to use government expenditure to cope with the special characteristics of the cash flow time profile of infrastructure development. The second mode is to take sovereign concessional loans from multilateral development banks and other international development finance institutions, sending the responsibilities of the government to pay for the huge upfront investment cost into the distant future at a concessional rate. The third mode is to invite private investors to finance the construction cost, and make payments to the private investor during the operational phase.

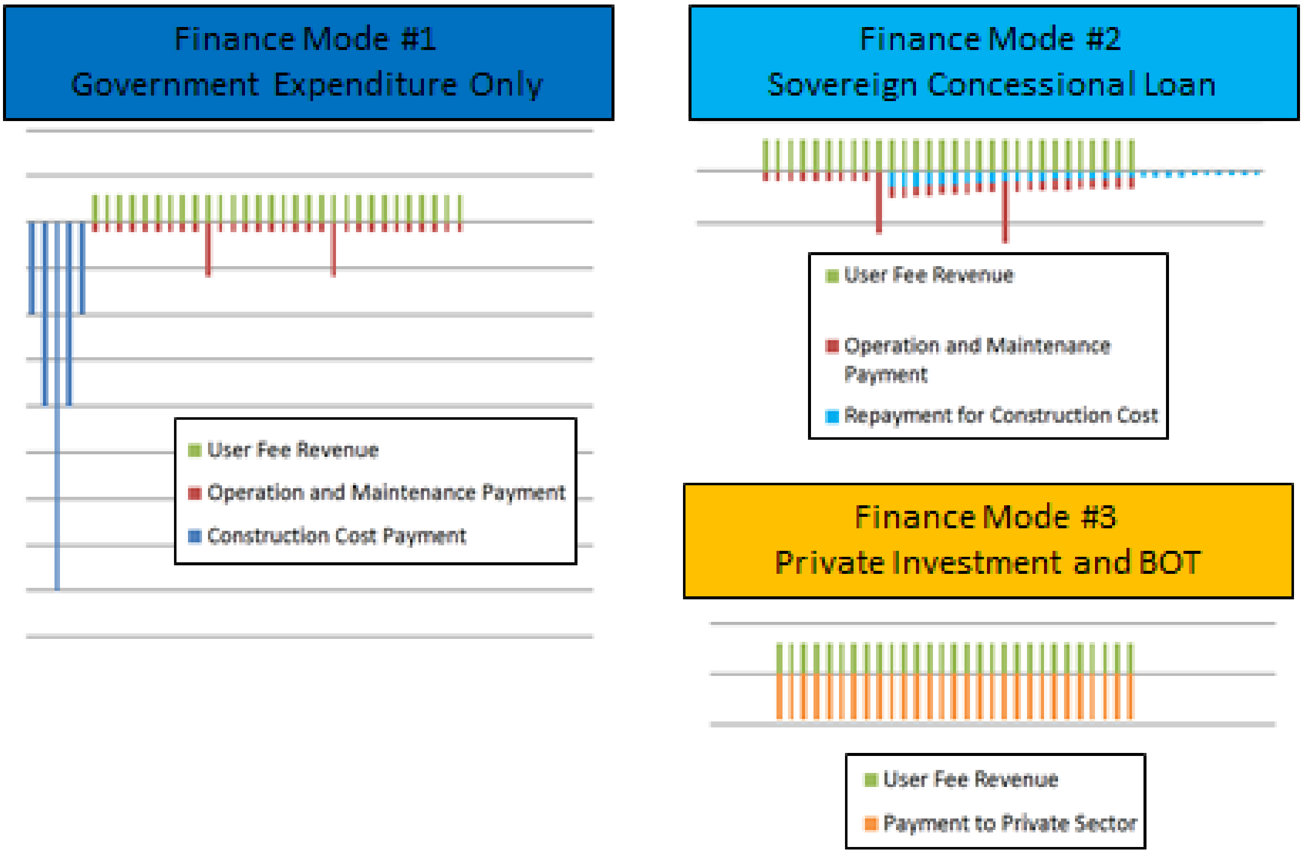
The advantage of the first mode is that the government does not have to take a loan (provided that the source of expenditure is from government revenue such as tax and not bonds, etc.). In addition, the government does not have to design and execute complex PPP arrangements to attract the private sector. Line ministries will also obtain first-hand experience through direct management of construction and operation/maintenance of infrastructure assets. The downside is that the government must secure enormous budget over a period of several years, when the per capita income is presumably not as high as after two or three decades with more room for budgetary expenditure. If the mode of financing is limited to this type and the government maintains fiscal discipline, such as within the ceiling determined by the MTFF, only a limited number of infrastructure projects may be implemented, and this may slow down the pace of economic development. If line ministries and/or SEEs in charge lack modern management knowhow of infrastructure, it may lead to inefficiency and potentially raise the cost during the construction and operation phases.

The second mode mitigates some of the disadvantages of the first mode. By taking highly concessional loans at extremely generous terms and conditions, such as close to zero interest rate and repayment divided into four decades that include a decade of grace period, the government does not have to secure enormous budget during the construction stage and can put off expenditures until several years after the infrastructure starts operation. These sovereign loans are generally accompanied by technical support from development financing institutions to manage projects in alignment with international practices, providing opportunities for the staff in line ministries to learn during implementation. However, these loans become government debts that need to be properly managed under the debt sustainability framework, although the fiscal burden of the government is significantly less compared to commercial term loans which demand higher interest rate payment and quicker repayment of the loans, sometimes even before the government has collected sufficient revenues from the users. Unfortunately, in comparison with the huge size of the investment needs, the amount allocated by development financing institutions to a single country cannot cover all the investment needs. Given such nature of highly concessional sovereign loans, it is advisable that while these loans should be actively utilized to the extent possible, they should be allocated to strategically important projects. Experiences from those projects can be utilized in other infrastructure development activities.

The third basic mode of financing is private investment through "BOT." Similar to the second mode, the advantage of this mode is to enable avoiding allocating huge initial construction cost from the budget in the initial few years and postponing the outgoing cash flow. Another advantage is to be able to use the knowledge of the private sector to introduce cost-effective design and methods to maximize output per input. In addition, the government can separate itself from payment obligations if private sector is allowed to collect user fee revenue and cover its cost. However, in many low income developing countries including Myanmar, the user fee is set at a lower level compared to the unit cost of infrastructure assets, mainly due to affordability of the users. Under such circumstances, the government must cover the deficit using budget expenditure, and in many cases these payments are implicit due to lack of fiscal management system. Also, in order to enjoy the advantage of private investment, the government must establish a functioning framework with necessary fiscal support in order to attract the private sector, which is the primary objective of this analytical paper and DICA-JICA Discussion Series.

For the third mode, the private sector is required to come up with a way to finance the large initial upfront construction cost. Generally speaking, it is considered too risky for the private investor to use its own funds to cover the significant upfront cost, as it may put strain on its balance sheet. Non-recourse project finance best suits infrastructure development as structure can be flexibly designed to meet the unique features of infrastructure investment, and detaching the risks away from the balance sheet of participating firms. However, this results in longer preparation and higher transactions costs due to extensive due diligence, robust financial analysis, restrictive covenants, frequent performance monitoring, etc. In countries like Myanmar where the country rating is still not up to BB-, foreign private financiers are generally not in favor of providing the finance without sufficient guarantee from multilateral development banks or other internationally credible institutions.

Figure 6 Illustration of Typical Cash Flow Profile by Mode of Financing



(Source) Co-authors

(b) Practice in Peer ASEAN Countries

In Indonesia, as described earlier, the National Medium Term Development Plan (RPJMN) specified infrastructure development goals over the five years from 2015 to 2019, and infrastructure financing sources analysis was carried out to understand the aggregate amount required from (a) national government budgets, (b) local government budgets, (c) SOEs, and (d) private investment (including PPPs, off balance sheet loans), estimating that only 2 quadrillion IDR out of the required 5 quadrillion IDR are covered by (a) and (b).

In addition to the analysis of funding source at the national strategy planning stage, when KPPIP conducts individual project screening, it examines each project and determines the funding scheme and source. The first two choices of national and local government budgets include options to use sovereign concessional ODA loans. If deemed appropriate from the viewpoint of accelerating implementation and leveraging SOE’s financial capacity, SOE will be appointed to execute the project. For the choice of PPP, the PPP Unit within the Ministry of Finance will be involved to determine the extent of the government’s fiscal support and provide transaction advice with engagement of internationally reputable consultant.

In the Philippines, a typical pattern of PPP is public-funded infrastructure construction with operation and maintenance by the private sector. Sometimes the right to expand the infrastructure is granted to the private sector. This is a variation of the first and second types of financing mode, which depends on the private sector’s knowhow to operate and maintain the infrastructure, rather than to procure the high initial cost of construction. According to the Department of Public Works and Highways of the Philippines (DPWH), most of the PPP project design in the highway sector is to let private sector concessionaire conduct construction using project finance, and then transfer the infrastructure asset to the government to operate and maintain the project. This pattern of finance is close to the first type of financing mode, the difference being the government making payments for construction only after the infrastructure is built.

(c) Current Situation and Way Forward for Myanmar

Currently, Myanmar does not have a cross-sector, cross-ministry plan that consolidates and prioritizes infrastructure projects, and there is no decision-making regarding the mode of financing for projects at the national level. Line ministries appear to be deciding which projects are to be financed by private sector funds, but it is not clear to what extent the availability of budget and sovereign loan resources, as well as the fiscal impact of the selection of the mode of financing, is studied by the line ministries.

In the future, as Myanmar develops a multiple-year, consolidated list of national priority infrastructure projects, the government is recommended to conduct a macro-level simulation to understand the rough aggregate funding requirement amount from the private sector (including those in the form of PPP) to fulfill the investment needs, taking into account the projection of budget, inputs from SEEs and sovereign concessional loans available for infrastructure during the same period.

When scrutinizing each prioritized infrastructure project proposal, a thorough financial analysis should be conducted not only by the line ministries but also by the fiscal authority or other third party organizations, in order to determine the appropriate mode of financing from the micro-level, with due consideration to the macro-level allocation of financing mode available during the planned multiple-year period. The mode of financing should be selected and if necessary, changed from the basic form, after assessing the key advantages of involving the private sector, such as knowhow on cost-effective plant design and experience in efficiently and safely operating infrastructure assets, in addition to its fiscal consequences.

In order to conduct integrated screening and management of both public funded and private sector-led infrastructure project proposals, (a) initial decision to proceed during project concept stage to be based on common guidelines for both public investment and private sector-led initiatives, (b) funding plans, including a choice between pure public investment and private sector-led initiative (such as PPP) to be based on individual project viability and macro funding availability (on- and off-budget), and (c) common (but differentiated between public investment and private sector-led initiatives in some aspects) guidelines to be developed and applied for appraisal, monitoring and adjustment during implementation and operation, and ex-post evaluation of projects.

Various types of fiscal support (to be discussed in the following section) can be offered to the private sector to make the project bankable and attractive for private-sector led investment. It is worthy to note that while foreign commercial financial institutions are generally not in favor of providing project finance to Myanmar with the current country rating below BB-, Myanmar now has access to Export Credit Agencies (ECA) finance. Actively seeking ECA finance may encourage more private investors from abroad, as it enables purchasing plants and goods from outside the country with a longer tenor and lower financing cost than commercial bank credit lines.

(2) Financial Structure and Fiscal Support for PPP

(a) Elements of a Functioning PPP Framework

When decisions are made to implement infrastructure development projects using private sector investment, appropriate timing, form and level of fiscal support from the government should be simultaneously identified based on the feasibility, viability and financial structure of each project. Fiscal support can be in the form of direct financial contributions at different stages of the project cycle, or indirect such as risk sharing or payment conditions built into the financial structure. The extent of fiscal support should be disclosed to interested private investors at the beginning of the tender process or other suitable timing of announcement before competition starts, because government support is a key factor for the private investors to determine whether or not they will bid for the project and on what conditions they will bid for the project. As fiscal support package is decided by the government, there is a danger that the package does not provide sufficient incentives to attract the private sector. In order to identify "appropriate" government support, fiscal support packages must take into account the contradictory incentives of the government and the participating private sector, the former with a view to minimize inputs form the perspective of fiscal discipline, the latter with a view to maximize government support to make sure profits are secured through revenues generated through the project without being forced to bear unmanageable, uncompensated risks.

Direct fiscal support that can be offered during the preparation of the PPP include covering the cost for (a) project development, (b) land acquisition, and (c) due diligence. Cost for project preparation may include desk and field studies to determine the feasibility (Pre F/S and F/S), environmental and social safeguard documents (ESIA and Resettlement Action Plans) and detailed designs. Cost for land acquisition often include non-fiscal support though taking full responsibility until the land acquisition procedures are completed, given that it would be highly difficult for the private sector to step in and solve land issues that are totally different in nature from the infrastructure to be developed. Due diligence may include a series of information collection exercise to check the financial, technical and institutional aspects of off-takers. Sometimes, these costs could be initially born by potential financiers and private investors, which are then converted into equity upon establishment of project specific vehicles.

Direct fiscal support that can be offered during the construction phase of the PPP include (a) tax incentives and (b) project finance. Tax incentives during the non-revenue generating period of construction could include exemption or deduction of tax for importing and purchasing equipment and facilities, and tax levied on the income of corporates and individuals providing services for the project. In terms of project finance, governments and/or government financial institutions could offer finance to private investors to ease the tension between the enormous outflow of cash during the construction phase and the gradual inflow of cash over several decades during the operation phase. Viability gap payment based on a pre-determined level and condition to make up for the limited profit or deficit from user fee income could help the private sector mobilize funds for project finance.

Direct fiscal support that can be offered during the operation phase of the PPP include (a) revenue support, (b) mechanism to mitigate the risk of off-takers' non-fulfillment of its obligation, and (c) tax incentives. Revenue support are generally offered to cover the demand risk, meaning that when the full capacity of the infrastructure built is not used due to fluctuation or change in the demand, there is a risk that the private investors do not receive the expected cash inflow to cover the already spent cash outflow. In addition, even if there is no demand risk, due to the insufficient level of user charges generally observed in developing countries largely because of affordability issue, government may be required to fund the deficit. The extent of revenue support to cover the demand risk will be determined by the payment conditions offered to the private sector, such as (a) full availability payment, meaning a fixed payment will be given to the private investors if the facilities are ready to provide services at full capacity (or performance based annuity payment (PBAS), an alternative to viability gap funding), or (b) availability payment only to cover the fixed cost. As for the mechanism to mitigate the risk of off-takers' non-fulfillment of its obligation, in developing countries like Myanmar, the private sector usually asks for the Ministry of Finance to provide guarantee for the obligations of off-takers, such as state owned power companies which may be owned by the government but not part of the government, to make payment against the infrastructure services provided by the private sector. Tax incentives during the revenue generating period of operation could include exemption or deduction of tax levied on the profit and income of corporates and individuals providing operation and maintenance services.

One must note that the timing, form and level of fiscal support depend on the financial structure of the transaction. For example, in a BOT contract where the private sector is asked to build and operate the infrastructure, fiscal support may be required during all three stages of preparation, construction and operation. In a Build-Transfer or Transfer-Operate contracts, the private sector is asked to be responsible for either building or operating the infrastructure, and therefore fiscal support may be needed in only some stages of the project. However, this means that in these contracts, the government will have to take full responsibility during either the building or operating stage, including any fiscal or financial burden. Under a JV or other forms of arrangement for joint business collaboration between the government and a private party, the fiscal contributions and sharing of income and profits at each stage of the project will be discussed among the parties involved in the arrangement. The duration of engagement by the private sector will also influence the necessity of fiscal support. The longer they are involved, the more risks they face. In a nutshell, fiscal support is considered to facilitate risk transfer to the private sector side. Risks and responsibilities kept on the government side may not require “fiscal support to the private sector”, but will result in other forms of government burden.

(b) Practice in Peer ASEAN Countries

In the Philippines, there are five financial support schemes for PPP in infrastructure. The first is through the Project Development and Management Facility (PDMF) to fund preparation of candidate PPP projects. The second is through the Strategic Support Fund (SSF), which offers finance for right of way acquisition (ROWA) and other related costs including resettlement, designing, building, and otherwise delivering any part of the project,. The third is through the Contingent Liability Fund, which will be establish to primarily address regulatory risk, includes payment in case of government default. The fourth is Viability Gap Funding, which offers direct financial support to the PPP project, such as to cover the cost for expansion and operation and maintenance. The fifth is a mechanism to facilitate project financing by easing Single Borrower’s Limit (SBL) by the banks, allowing 25% increase in SBL for PPP infrastructure projects.

According to the DPWH, in highway PPP projects, the private sector is requested to build the highway, but the project will be transferred to the government upon completion of the construction, because if the private sector keeps the facility, it will be requested to pay taxes from local tax authorities (as opposed government agencies will be exempted from taxes) and subject to other demand during the operation phase which may be handled better by government agencies. On the other hand, many other key infrastructure in the Philippines, such as airports, seaports and light rail transits, have been constructed as government projects using highly concessional international loans to ease the huge outflow of cash during the construction phase, and then transferred to the private sector for operation and maintenance, and possibly for expansion. It is also worthy to note that most of the private investors engaged in PPP infrastructure are from the Philippines, leaving it a policy agenda for the authorities to consider and promote foreign investments to enter into this market.

In Indonesia, various fiscal facilities have been created since 2009. During the preparation phase, there is the Land Fund to finance land acquisition and clearance, and the Project

Development Fund to finance preparation of PPP projects. During the construction phase, the Infrastructure Funds (PT SMI, IIF ,PIP) provide funds for project financing, which could be used to cover cost of financing during the bidding process and refinancing during the operation phase. As for the fiscal support during the operation phase, if found appropriate, the Indonesia Infrastructure Guarantee Fund (IIGF), together with multilateral development agencies and the Ministry of Finance if necessary, can provide guarantee to different risks related to payment obligations by the off-taker. IIGF in now also considering extending theirs services to provide credit guarantees, which would be fiscal support during the construction phase to facilitate project financing. The Viability Gap Fund (VGF) can provide funds up to 50% of the construction cost. The Ministry of Finance evaluates and approves viability and the appropriate support through VGF for each PPP project. The criteria for VGF are the following: (a) large scale project (more than 100 billion IDR), (b) project which is not financially feasible without VGF, (c) asset transfer after PPP agreement period, and (d) tender process following the Presidential Regulation on PPP.

In Indonesia's power sector, payment from off-taker (state owned power company PLN) to the private investor is categorized into the following five components. Each component can be divided into either Fixed Cost (capacity charge) or Variable Cost (to be born if plant is operated). As for most renewable projects (geothermal, hydro, etc.), the payment is not categorized into components (single payment).

- A Component (Fixed Cost: Capital Cost (equity and debt) recovery and investor's profit)
- B Component (Fixed Cost: fixed operation and maintenance cost such as salary, assurance, tax, etc.)
- C Component (Variable Cost: fuel cost, energy charge rate)
- D Component (Variable Cost: variable operation and maintenance cost such as lubricant, etc.)
- E Component (Fixed Cost: recovery of capital cost to construct transmission line)

(c) Current Situation and Way Forward for Myanmar

In Myanmar, there are no rules for selection of financial structure and duration of private sector engagement in PPP infrastructure projects. Line ministries appear to be making the decisions. There is no established mechanism to provide fiscal support to facilitate the participation of the private sector in infrastructure development at different stages of their engagement. This implies that all cost and risks born by the private sector is basically added onto the demand for payments when investors participate in a PPP scheme. Even after international standard competitive process, such as the Myingyan power plant pilot, the level of payment to investors seem to exceed the level of revenue from user fee due to affordability issues. As for risks that cannot be addressed by raising the price, such as the risk of the off-taker not fulfilling the payment obligations against the infrastructure services, foreign companies and lenders request for government guarantee as they do in other developing countries. The Ministry of Finance is currently hesitant to offer such guarantee, and alternatives, such as the line ministries offering guarantees, are sought in pilot cases. Tax incentives for foreign investment for infrastructure and other purposes are complicated, and tax authorities appear to have no clear understanding of the entire picture.

Going forward, the government needs to start by recognizing that PPP for infrastructure development is not free lunch, and past PPPs implemented based on unregulated, ad-hoc decisions have fiscal consequences, despite the absence of explicit fiscal support mechanisms. A comprehensive study to understand the fiscal impact resulting from past decisions to implement infrastructure PPP projects may help raise such awareness by higher authorities in the government. Studying the different types of financial structure (BOT, BTO, JV, etc.) and their suitability to various sectors/sub-sectors, as well as the cost and risks for the private sector in each structure, could be useful to guide future systematic decisions.

The private sector will simply add any cost and risks borne by them onto the price for providing infrastructure services, if these are not covered by explicit fiscal support by the government. However, given that it is a national priority for Myanmar to develop the key infrastructure for sustainable development, and based on experiences in peer ASEAN countries where various fiscal support has been created to promote PPPs, it is advisable that Myanmar also establish similar support mechanism at each stage of preparation, construction, and operation, in order to send a message to the international and local business community that the government is committed to offer reasonable support packages to invite the private sector into infrastructure development. Tax incentives, however, appear to be complicated and distorting the overall tax collection system. Rather than introducing new tax exemption and deduction measures to further complicate the problem, it might be a better solution to avoid creating many special tax treatment incentives just for infrastructure PPP, and to offer fiscal support instead. It must be noted that generally speaking, tax refunds take lengthy time and procedures, and therefore may not be so attractive to the private sector. Other forms of reliable, transparent and timely fiscal support could be more meaningful to persuade the private sector to consider as incentives. Government guarantee to cover the risk of non-payment by off-takers during the operation phase seem to be a must in view of the experiences in other countries. The government must be capable of assessing, monitoring and managing the risks stemming from offering such guarantee, as discussed in the next section.

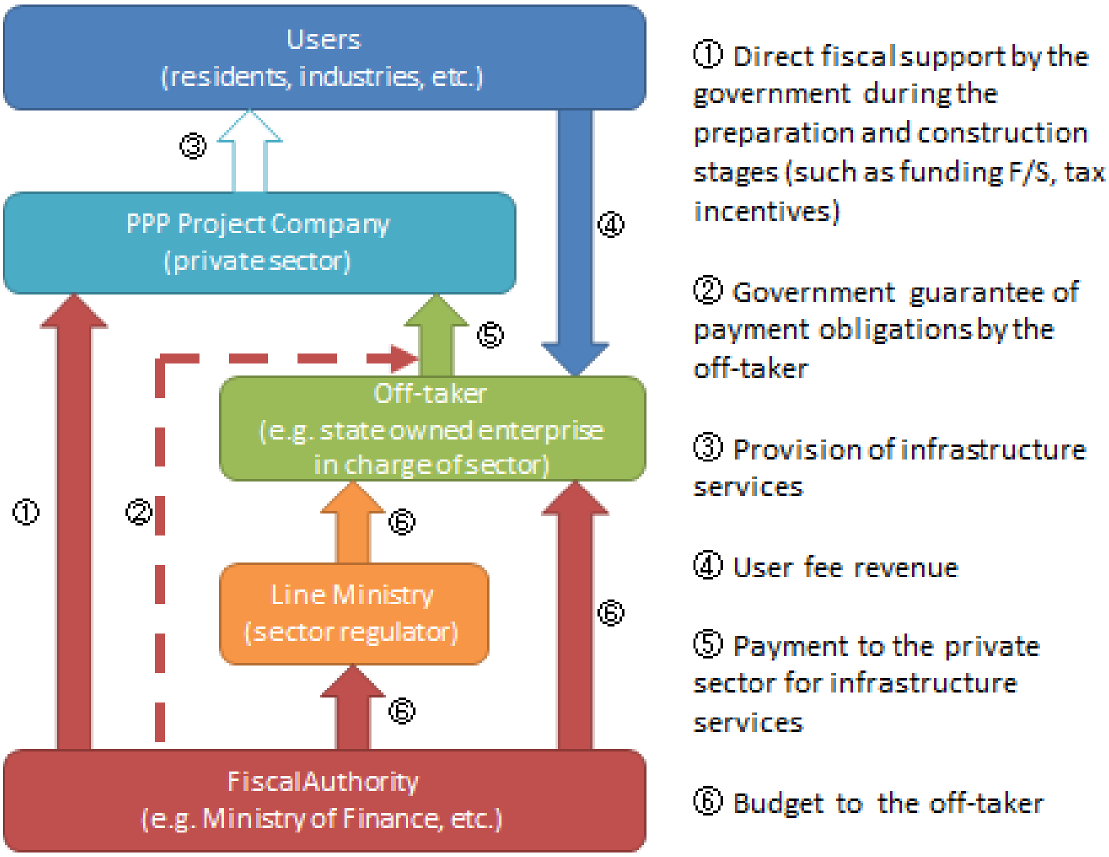
(3) Risk Management of Infrastructure Finance

(a) Elements of a Functioning PPP Framework

As discussed in the previous section, fiscal support is generally inevitable for attracting the private sector to be engaged in infrastructure development in developing countries like Myanmar. Considering that one of the main reasons for seeking private sector investment is to minimize the fiscal burden to develop the infrastructure, there is a need for the fiscal authorities to assess, monitor and manage the risks associated with such fiscal intervention.

In addition to any obligations associated with the public sector taking loans or offering guarantees to loans which are subject to assessment, monitoring and management under the debt sustainability framework, there are mainly five fiscal risks related to a typical PPP transaction as illustrated in Figure 7. The first is direct fiscal support by the government during the preparation and construction stages, including funding feasibility studies and providing tax incentives. Based on individual project assessment on feasibility and viability, as well as overall budget allowance, the aggregate fiscal support available for a given fiscal year must be determined. The second is the often requested government guarantee of payment obligations by the off-taker. Management of the second fiscal risk requires proper accounting of contingent liabilities to account for realistic government payment obligation which may occur during a fiscal year. Creating a fund as a source of the guarantee may be a transparent method to show the level of risks to the private sector and also to national parliaments. The third is the level and aggregate amount of user fee revenue expected from provision of the infrastructure services. User fees for infrastructure services are generally a socially and politically sensitive issue, and are often determined through third party examination of both the supply side (mainly cost of providing infrastructure) and demand side (such as affordability of users and impact on household financial situation), and public hearing processes. This revenue could be directly collected by the private sector or off-takers, depending on the arrangement of each transaction. However, due to limited affordability, user fee revenue is not sufficient to cover the cost and profit of participating private sector. In addition to the issue of affordability, the treatment of demand risk will also influence the level of user fee revenue. This will result in the fourth element of fiscal risk, which is the payment to the private sector for the infrastructure services. The fifth fiscal risk is the result of the third and fourth elements, which is budget allocated to off-takers, either through the line ministries or directly from the fiscal authority. Administration cost of the off-taker will also need to be considered in determining the appropriate level of budget inputs.

Figure 7 Illustration of Typical Flow of Funds and Services for PPP



(Source) Co-authors

(b) Practice in Peer ASEAN Countries

In the Philippines, the Department of Finance (DOF) is tasked with overall fiscal risk management and financial analysis of PPP projects. DOF analyses fiscal impact of PPP project implementation, focusing on cost for the government over the life-cycle of the infrastructure assets, cost of capital, viability, total subsidy and government undertakings. DOF also utilizes a tool they call as "Generic Preferred Risk Allocation Matrix," in order to determine who and to what extent different risks (around 50) associated with PPP projects are covered. Contingent liabilities are also assessed and managed by DOF, conducting analysis during the preparation stage and monitoring and evaluating after the implementation stage. Based on the PPP Act which recently passed the parliament, contingent liability fund will be established. Special attention is given to PPP projects where state-owned enterprises (SOEs) are involved. In a framework named as "Consolidated Public Sector Deficit," DOF assesses the financial circumstances of the relevant SOEs, such as cash flow, required cash injection, debt repayment and macro-economic impact of being engaged in the PPP project. Revision of user fee level is a challenge for the Philippines, as the contradictory demands for raising viability of infrastructure projects and public interest to use the services at a lower price co-exist.

In Indonesia, after several years of being unsuccessful to mobilize large private sector funding for infrastructure development, the secretariat to promote and manage PPP project has moved from BAPPENAS (planning ministry) to the PPP Unit under the Ministry of Finance. The Ministry of Finance also owns the Indonesia Infrastructure Guarantee Fund (IIGF), which assesses and provides government guarantee for off-taker payment, although some government guarantee and multilateral development agency guarantee comes jointly with IIGF (targeting different dimension of risk). Various fiscal support funds have been established to facilitate monitor the extent of burden by the government. Mechanism to determine the user fee appears to be not fully linked to the rules for examining the level of payment to the private sector from the perspective of assessing the implicit fiscal support.

(c) Current Situation and Way Forward for Myanmar

In Myanmar, explicit, implicit and potential government expenditures stemming from PPP transaction for infrastructure development is not clearly recognized by the fiscal authorities. There is no government support mechanism during the preparation and construction phases of the transaction. The Ministry of Finance does not offer government guarantee for payment by off-takers, although an alternative line ministry guarantee has been sought in recent transaction based on international practices. As in the case of electric power, there seems to be no systematic analysis regarding the fiscal implication of changing user fee levels, not just for PPP transactions but the sector as a whole. The level of payment to private sector participants have often been decided through non-transparent, non-competitive process in past cases, although a few pilot cases, such as the Myingyan power plant project, have succeeded in selecting the private sector and therefore setting the price level through competition. Annual budget to the SEEs are decided at an aggregate level, without detailed analysis of the income and expenditure, including PPP transaction.

Going forward, it is advisable that the first action required for the government of Myanmar is to establish a mechanism to analyze the fiscal implications of implementing infrastructure projects, not just for PPPs but those financed and run by the public sector, by involving the fiscal authorities in the decision making process of user fee levels and monitoring the management of related SEEs. It is important to address to the higher authority that simply inviting the private sector does not solve the deficit between the cost and the revenue, and that raising user fee revenue is a socially and politically sensitive topic similar to tax increase. Such deficit also has additional fiscal implication for public sector financed and operated projects. Second, as recommended in the previous section, establishing government support mechanism to promote PPP and providing government guarantee for off-taker payment, with appropriate contingent liability management such as creating a fund for guarantee, are necessary in view of the experiences in other countries. Third, when determining the level of expenditure and/or subsidy to a sector and/or SEEs, the difference in the level of user fee revenues and payment to the private sector should be taken into account based on a systematic financial analysis.

3.3 Political Commitment, and Regulatory and Institutional Framework for PPP

(1) Policy Direction

(a) Elements of a Functioning PPP Framework

Policy direction is the first step to consider when establishing a PPP framework in a country. Different definitions of PPP are described in policy direction papers of PPP in different countries, but such papers generally refer to PPP as "course of actions" or "principles of actions." They set the guiding principles for PPP in delivering public services. A PPP policy typically includes PPP program objective (why the government uses PPP?), program scope (what type of projects are applicable to PPP) and implementing principles (how to implement the program to ensure fulfillment of the program objective). Needless to say, alignment with other policies and investment program is essential.

Each country has different reasons to pursue PPP, and many governments tend to have broader objectives, for instance, deliver improved services, better value for money, increase in accessing finance and know-how of private sector, improvement of accountability, attract more investment in infrastructure. The policy objectives are chosen depending on the government's priorities and policies. Many countries set certain limitation of PPP program scope, such as type of projects and contracts. Generally, PPP program scope is defined by the combination of contract type, sectors, and project size. Implementing principles are described as "guiding rules" or "code of conduct" when PPP projects are implemented. For this reason, implementing principles often play a guiding role when setting out laws, regulations and processes related to PPP. Having a single working definition of PPP could help having a common understanding by all the government agencies and stakeholders involved. A clear policy can be used as a tool to demonstrate a strong commitment to all the stakeholders involved in PPP program.

(b) Practice in Peer ASEAN Countries

In the Philippines, the statement in the 1987 Constitution clearly states "The State recognizes the indispensable role of private sector, encourages private enterprise, and provides incentives to needed investments". Following this statement, the government describes the main objective of the PPP program for infrastructure as a mechanism that address the investment gap in infrastructure, in response to the limited fiscal space and the huge demand of infrastructure investment. In addition to the policy direction, the government also sets forth the guiding principles as "transparency, accountability and good governance." Given the policy direction and implementing principles, many efforts have been made to enhance the legal and regulatory framework and institutionalize fiscal support, such as Contingent Liability Fund to promote PPP program.

In Indonesia, the government similarly addresses the gap in infrastructure investment as the main objective of its PPP program for infrastructure. The government targets 7% of growth (2015-2019 average) in RPJMN, and infrastructure development is considered as a key driver for economic growth. The government also set specific infrastructure targets, such as 1,000km of toll roads, 15 airports, 24 seaports, 35 GW power plants and 5,500km railways within the next 5 years. In order to achieve the target, BAPPENAS estimated about 5 quadrillion IDR is necessary, while National/Regional budget can only cover 2 quadrillion IDR. This means the remaining investment (i.e. 3 quadrillion IDR) have to be financed by private sector or state owned enterprises, and this is a strong motivation for the government to utilize PPP program.

(c) Current Situation and Way Forward for Myanmar

There is neither clear policy direction nor a single definition for PPP in Myanmar, and therefore, PPP is often misperceived as free lunch, an asset construction without any risk and cost borne by the government.

In order to avoid such misperception and enhance common understanding of the PPP program, it is suggested to have a single working definition in PPP in the context of Myanmar. Then, the government of Myanmar must consider for what purposes specifically the government needs to promote PPP in infrastructure, followed by identification of the scope of program and guiding principles. In other words, without clear policy direction, it would be difficult to set out program scope and implementing principle. In the current situation of Myanmar, as analyzed in the previous sections, filing the gap in infrastructure service provision is a priority for the government. Therefore, (a) attracting more private investment in infrastructure development, and (b) achieving better service delivery could be the key objectives for PPP program in Myanmar. Implementing principles could be value for money, transparency and accountability, proper risk allocation, and financial sustainability.

At early stages, there will be a lot of trial and error, and the use of PPP program could be limited to economic infrastructure sector with relatively sufficient user fee revenues that make it easier to attract private sector investment, and then gradually be expanded to social sector including health and education.

(2) Legal and Regulatory Framework

(a) Elements of a Functioning PPP Framework

The legal and regulatory framework provides the basis for the government to control and implement PPP programs, and enables the government to enter into PPP contracts. Quality legal and regulatory framework would reduce uncertainty thought the process and implementation and attract more private investment. The PPP legal and regulatory framework can include PPP specific legislation and other wide range of laws and regulations related to PPP, such as administrative law, procurement law, public financial management law, sector laws, other regulations and so forth.

In general, whether a PPP law is required or not depends on the country's legal and administrative system. Another aspect to consider is that the legal and policy framework has to be aligned with the country's PPP policy and principles, in addition to consistency with other relevant laws (such as sector laws). Regulations should provide clear and transparent guidance for the overall PPP transaction process, oversight, risk allocation, and compensation issues. Constant assessment and evaluation of the legal and regulatory framework is needed to respond to changes in the economic environment, and more importantly experiences gained through actually implementing PPP transactions. Many experts addressed the importance of land acquisition (including resettlement), dispute resolution mechanism, and lenders' legal rights and suggested to address aspects of these issues within the legal framework to make sure appropriate measures are taken.

(b) Practice in Peer ASEAN Countries

In the Philippines, under the 1987 Constitution, Republic Act (RA) 6957, as the amendment of RA 7718 Build-Operate-and-Transfer (BOT) Law, and Executive Order (EO) 8 of 2010 and EO 136 of 2013, and other BOT Law implementing Rules and Regulations provide the legal framework for PPP program. Recent efforts to reform the PPP program resulted in the enactment of the PPP Act, which incorporates the lessons learned from the past and adopt best practices as currently observed, with the end-goal of accelerating infrastructure development. Other RAs and EOs also provide legal grounds, such as the Right of Way Acquisition Act (RA 8974) and Dispute Resolution Mechanisms (EO 78 of 2012). The legal and regulatory framework allows (a) institutionalizing of the PPP Governing Board, Project Development and Monitoring Fund (PDMF), and the PPP Center, (b) exempting PPP projects of national significance from local real property and business taxes, (c) separating the regulatory functions from implementation functions within the government, (d) promoting more transparency and efficiency in PPP procurement and contract, and (e) strengthening laws to prevent court injunctions and temporary restraining orders on awarded contracts.

In Indonesia, there is no specific PPP law, and the overarching PPP regulation is a Presidential Regulation on PPP (No. 67/2005). Sector laws are superior to the presidential regulation. Since 2005, PPP related regulations, guidelines and manuals have been developed including the revision of the first Presidential Regulation. Most recent revision of the Presidential Regulation on PPP was No. 38/2015, and major changes include (a) expansion of target sectors, (b) introduction of availability payment, (c) clarification of SOE / regional government owned enterprise (ROE) eligibility as contracting agency, (d) adding flexibility to private sector initiative (projects in the masterplan (M/P) of the relevant sector became acceptable as "unsolicited" projects as some projects in M/P may not go forward with public investments and initiatives), and (e) adding possibility of "Direct Appointment" under "special" condition (in principle, however, selection is done through public tender).

(c) Current Situation and Way Forward for Myanmar

There are neither legislations specific to PPP program nor laws and regulations that clearly define private sector involvement in public infrastructure facilities, although some relevant provisions may be found in Foreign Investment Law of 2012, Myanmar Citizens Investment Law of 2013, and State-owned Enterprise Law of 1989. Sector laws and regulations allow private sector to participate public service provision, as observed IPP projects have been implemented by the Electric Law of 2014 and its implementing regulations under the ministry in charge of electric power. Legal opinions issued by the Attorney General's Office are required to confirm on assumptions in legal related matters made by the government ministry/department. The new arbitration law was enacted in January 2016, which incorporates the New York Convention on the Recognition and Enforcement of Foreign Arbitral Awards of 1958.

Myanmar will eventually require specific legislation to fully utilize PPP. However, it will take time to prepare and enact the PPP law that sufficiently reflects both international practices and Myanmar context. A tentative alternative is to provide a lighter but explicit basis for the PPP program, such as through regulations and policy papers issued by the President or guidance notes on the details of PPP transactions. The government must clarify for what purposes and how the government intends to promote PPP. Another option could be to have clear and detailed rules in individual transaction agreements, as has been practiced in Myanmar in some IPP cases, addressing risk allocation, compensation issues, methodology of performance monitoring etc. The very first step toward this could be to review the existing legal and regulatory framework and assess the gap and conflicts. The government can also have in-depth learning from other countries' experiences and incorporate the international best practices into the to-be-established PPP law. Rule of law should be enforced by setting out laws, regulations, circulars, implementing rules and guidelines so that both the government officials and the private sector have clear understanding in what can be done and what cannot be done, which will eventually reduce transaction time and cost, particularly for any disputes and court cases.

(3) Institutional Framework

(a) Elements of a Functioning PPP Framework

In order to have a functioning PPP framework for infrastructure, checks and balances for effective planning, regulation and accountability have to be ensured. Typical government responsibilities include (a) approving projects, (b) improving projects, and (c) controlling and regulating the process for approving and implementing projects. In some countries, there is a single PPP unit/agency to coordinate and facilitate across the three generic functions. There is no single right way of defining and setting up institutional responsibilities. Capacity development of government officials should come along with the institutional responsibilities.

When it comes to approve requirements for PPP projects, there are two issues- “at which stage” of the overall process the approval is required, and “who” has authority to approve the PPP projects. These requirements have to be set out as in the PPP institutional framework. Typical decision-making points are completion of feasibility study, project selection, completion of bidding documents, before issuing Request for Expression of Interests, after bid evaluation, when contract is concluded, etc. At minimum, approvals are necessary before entering into a PPP transaction, and before signing the contract. The approval entity (i.e. level of approving authority) varies from country to country. In most cases, countries require cabinet or cabinet-level committee approval, and a few cases are observed that require legislative approval.

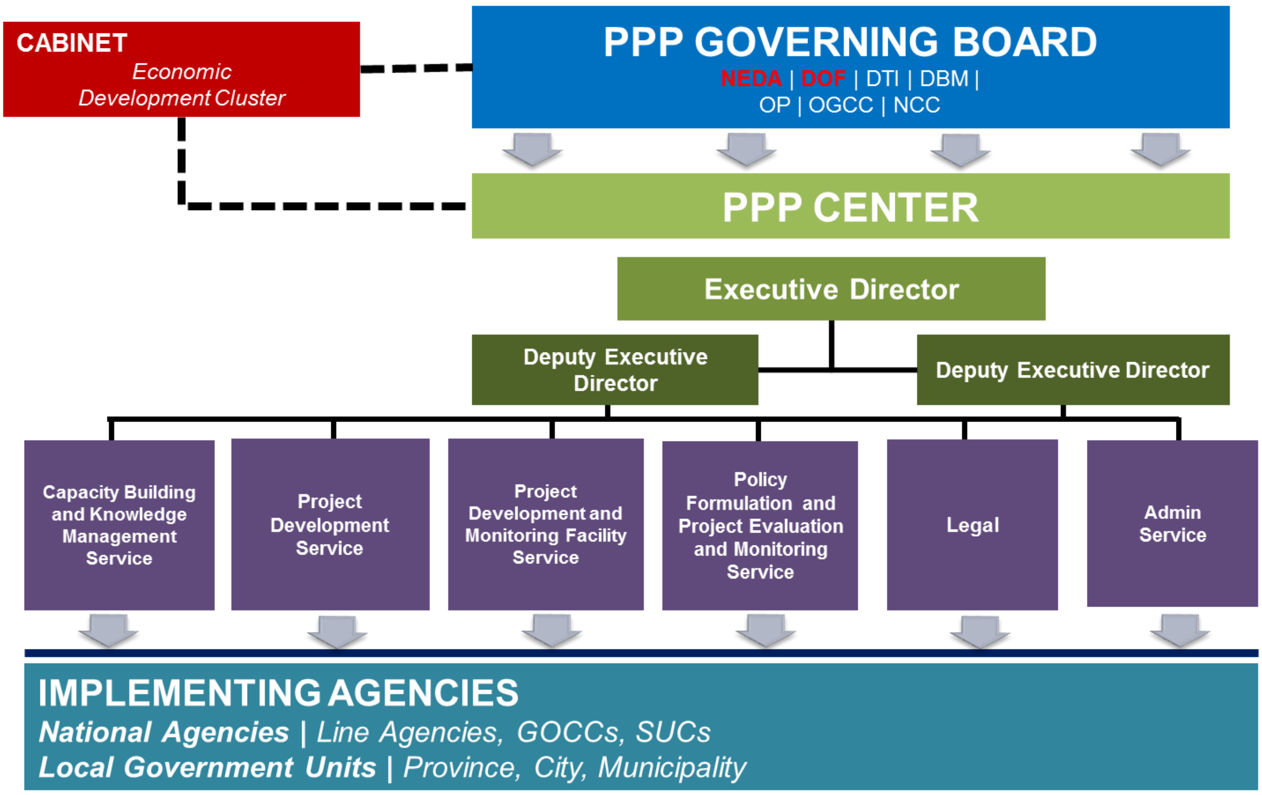
Implementing projects mostly fall into the line ministries in the relevant sector, who are initially responsible for driving the project forward, identification of potential projects, structure and appraisal of the project, bidding, drafting and concluding contracts, sometimes with assistance from other agencies with relevant expertise.

There are several ministries and agencies involved in controlling and regulating the process such as the finance ministry and planning agencies. The finance ministry often plays a central role in controlling the process in successful PPP countries, particularly in terms of ensuring value for money and fiscal risk management of the project. Planning agencies generally play a strong coordination role in public investment matters, and in some countries, has also given a regulating role in PPP process. The role of other government entities, for instance the attorney general office and environmental ministry are also crucial. Many countries that manage PPP program successfully have established a dedicated central PPP unit and it fulfills the functions of (a) regulating the PPP process, (b) promoting PPP in the government, (c) assisting implementing agencies, and (d) providing information with investors, or a combined these functions. If the role of a PPP unit put more focus on controlling and regulating the process, the PPP unit may be created in either in finance or planning agency. In some Latin American countries, investment promotion agency leads in promoting and structuring PPP projects with finance ministry's approval for fiscal commitment. Line ministries must have a PPP team of their own to ensure smooth implementation.

(b) Practice in Peer ASEAN Countries

In the Philippines, PPP institutional responsibilities consist of several layers, namely (a) Review and Approving Bodies (Investment Coordination Committee (ICC), NEDA Board, NEDA, and Local Government Council), (b) Coordinating and Monitoring Agency (i.e. PPP Center), (c) Implementing Agencies, and (d) Other National Agencies Concerned (e.g. other agencies concerned, national regulatory bodies, sectoral regulators). Among these, PPP center plays a central role to facilitate across institutions. The below is the figure illustrating how PPP center functions internally as well as relates to other agencies involved.

Figure 8 [Philippines] How PPP Center works



(Source) The PPP Center (2016)

In the Philippines, DOF also demonstrates a strong presence throughout PPP process, in particular, financial appraisal of projects, analysis of potential contingent liability risks and potential impact on government debt and financial position. DOF serves a member in various decision-making committees and boards including PPP governing board, NEDA, and ICC.

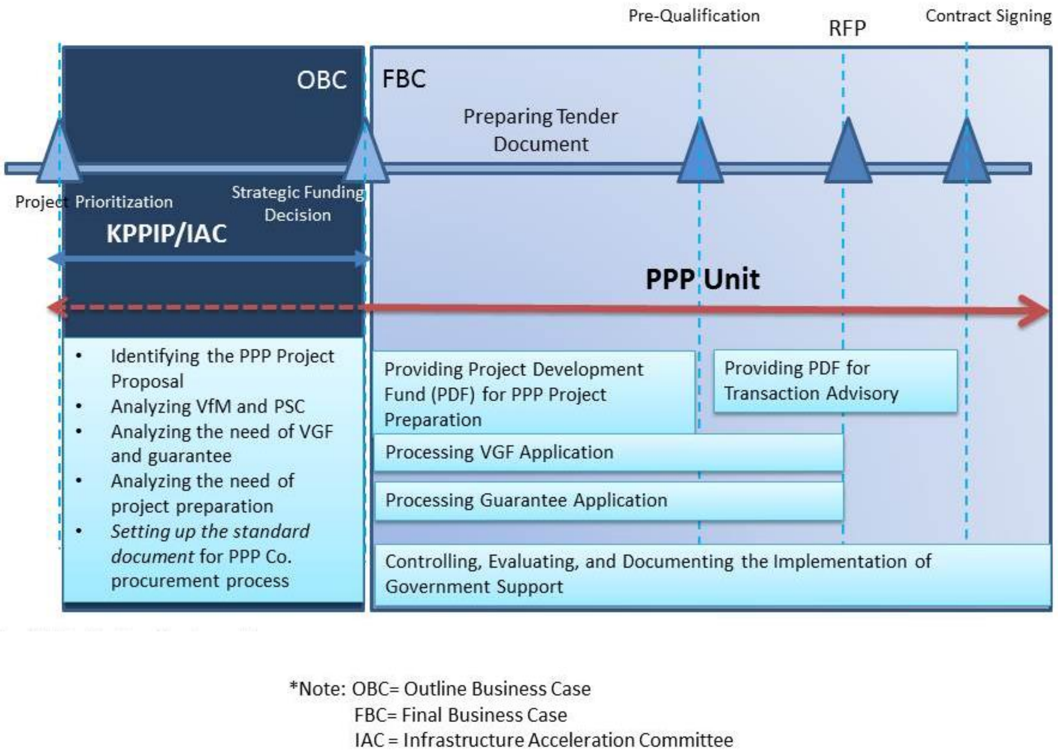
The table below shows the institutional arrangement in Indonesia. Different from the Philippines, PPP Unit is established in the Ministry of Finance and covering a broader role in overall PPP process, closely working with Government Contract Agencies. The figure below shows the demarcation between KPPIP and PPP Unit in priority PPP projects. KPPIP takes initiative to make decision on the project, then PPP unit takes over the project and becomes responsible for transaction including project development, government support such as VGF and guarantee until financial close. The government of Indonesia has separate entities for guarantee and project development facility, namely IIGF and PT Sarana Multi Infrastruktur (PT SM), both of which are SOEs. The Indonesia Investment Coordinating Board (BKPM) promotes PPP for infrastructure in Indonesia by providing one-stop integrated services for investors, offering easy-to-understand explanations on the policy and regulations for PPP.

Table 1 [Indonesia] Key Players in PPP Institutional Framework

Institution	Roles
KPPIP (Infrastructure Acceleration Committee)	- Prioritizing projects - Deciding funding project scheme
Ministry of Planning	- Planning in infrastructure development
Ministry of Finance cq PPP Unit	- Providing government supports such as Project Development Facility (PDF), Viability Gap Fund, Sovereign Guarantee - Assisting the implementation of Availability Payment Scheme - Assisting development of business package and transaction process until financial close
Indonesia Infrastructure Guarantee Fund (IIGF) - SOE	- Fiscal tool to provide sovereign guarantee (assessment and administration process for the guarantee are carried out through IIGF)
PT Sarana Multi Infrastruktur - SOE	- Facilitator in Project Development Facility - Providing competitive infrastructure financing

(Source) Ministry of Finance, the Republic of Indonesia (2016)

Figure 9 [Indonesia] Demarcation between KPPIP and PPP Unit (for priority projects)



(Source) Ministry of Finance, the Republic of Indonesia (2016)

(c) Current Situation and Way Forward for Myanmar

In Myanmar, there is no dedicated PPP unit or agency in the government, whereas the private sector and development partners have been expecting a focal government entity to firstly establish and PPP institutional framework, and eventually serve as streamlined, dedicated organization such as PPP center in the Philippines. It is recognized the role of Ministry of Finance is a key factor for successful PPP program to handle risk management and guarantee issues and establishment of the PPP unit in each line ministry is needed to actually prepare and implement the PPP projects.

Going forward, Myanmar needs to establish (or realign) government institutions with different roles to enable balanced decision-making on infrastructure finance (such as those that (a) prepare prioritized infrastructure development plans, (b) assess and manage fiscal risks, (c) manage the process of PPP, (d) deliver infrastructure services, and (e) promote domestic and foreign investment). Since the planning and finance ministry are to be merged under the new administration, the option to establish a central PPP unit in the new ministry seems feasible and the unit could cover the function of controlling and regulating the process.

3.4 Processing Individual PPP Transactions

(1) Project Identification and Approval

(a) Elements of a Functioning PPP Framework

Project identification consists of two parts: (a) project origination, and (b) project screening.

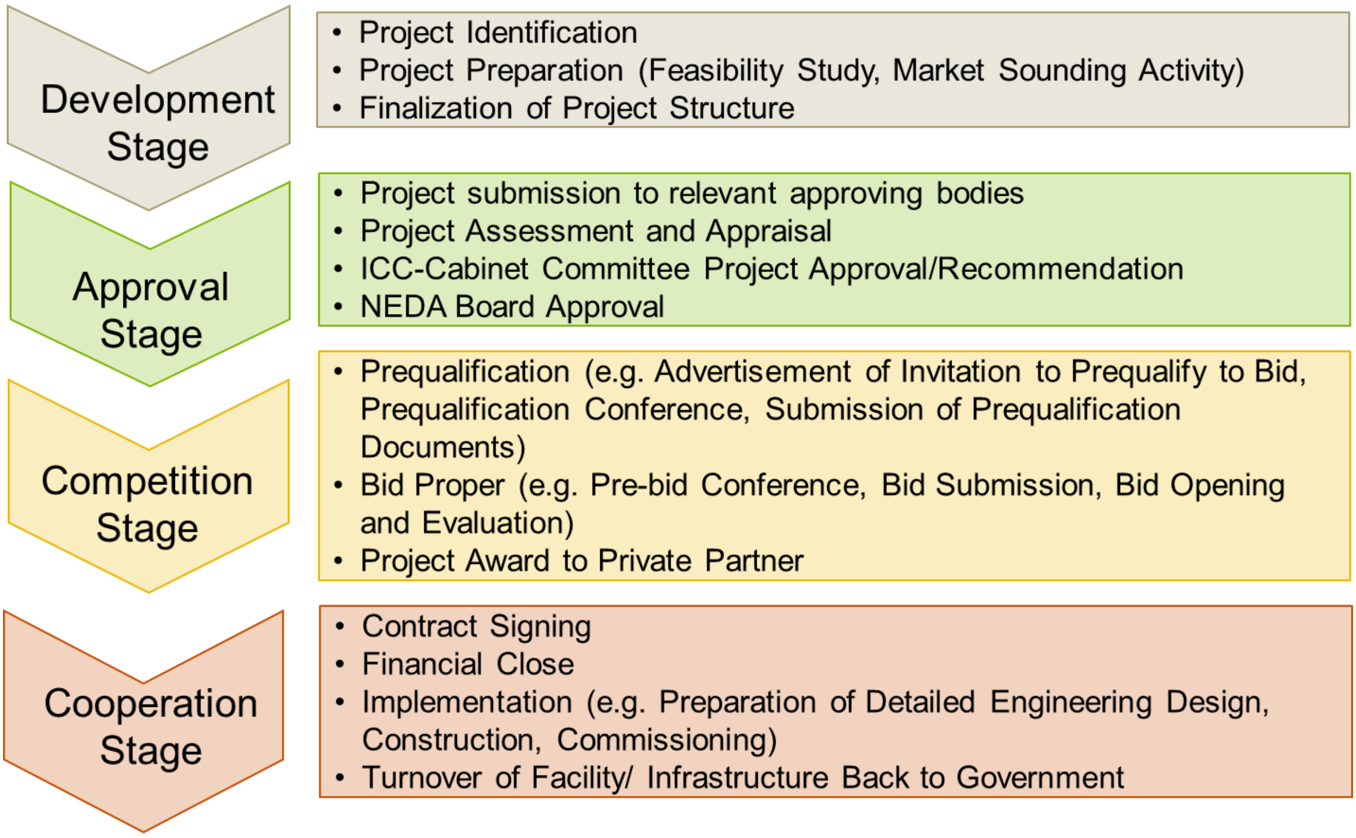
Project origination can be done by traditional public planning. Most countries have a national/regional development plan with public investment program and/or sector-level master plans with list of projects. Infrastructure gap analysis is undertaken, if the country does not have a comprehensive planning process and/or when a sector master plan is developed, and is also useful to identify the infrastructure needs in a sector. Project ideas also can be developed by policy priorities and on project-by-project basis. Another approach to project origination and screening is to consider in which sector PPP can provide better value for money and then select specific projects. This approach could be used in privatization or overall sector reform for under-performing sector.

For screening, the government needs to define criteria for "suitable" PPP projects. The criteria typically include technical feasibility and economic viability of the project to ensure value for money compared to the other options and fiscally sustainable. The initial screening is done through "pre-feasibility study", including technical and legal risk assessment, the screened from the points of potential to achieve "value for money". Some countries assess fiscal implications at this stage, from the aspects of viability gap and compensations for potential risks (e.g. significant demand risk) that private parties are unlikely to accept. Standardization of necessary documents including project proposals and pre-feasibility study could reduce workload when screening. In some countries, an approval from relevant authority is required to proceed to the next process. Hiring transaction advisors at early stage of project development could be useful. Promotion and marketing of PPP projects is particularly important at early stage of PPP process in order to increase appetite of private investors as well as to identify potential bidders.

(b) Practice in Peer ASEAN Countries

The below figure illustrate overall PPP process in the Philippines.

Figure 10 [Philippines] PPP Process



(Source) The PPP Center (2016)

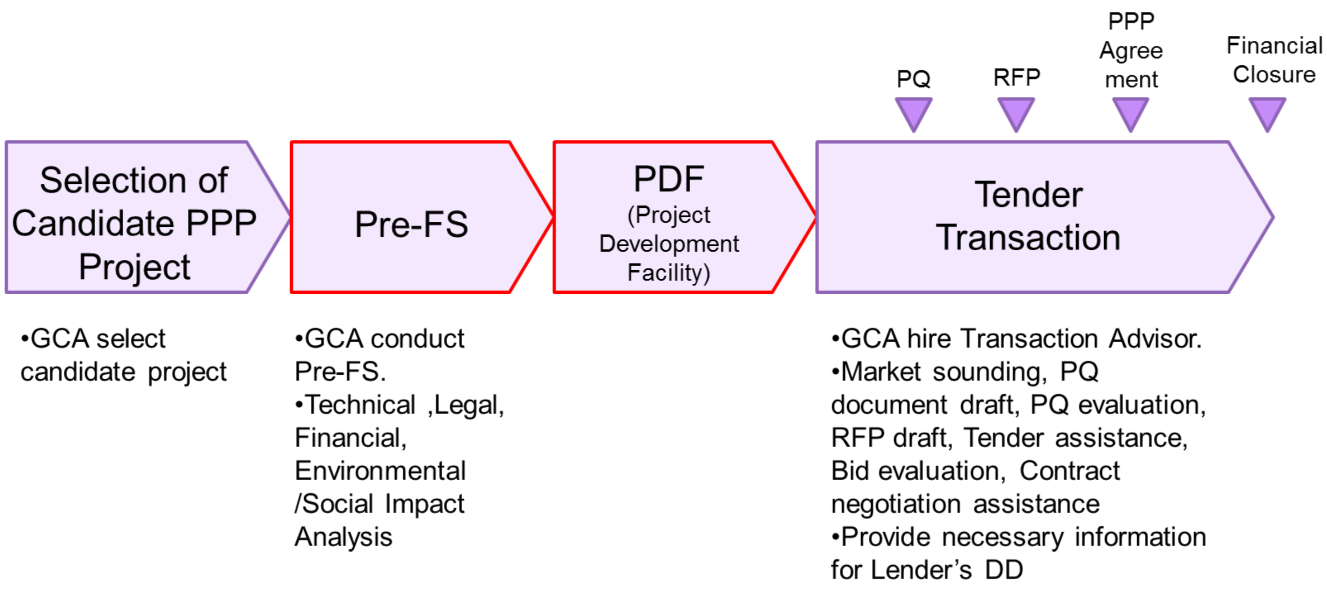
Project identification is usually done by implementing agencies. In the case of DPWH, initial project concepts originate from a transport master plan, and DPWH Regional Offices and Local Government Units (LGUs) are also allowed to propose pipeline projects by submitting pre-F/S or project briefer.

The figure below is the PPP project development process in Indonesia. In Indonesia, there are two approaches for project identification. In the “bottom-up” approach, implementing agencies (i.e. GCA (Government Contract Agencies)) normally initiate the process and select candidate projects by preparing pre-F/S and conducting necessary analysis. Based on the guideline for Outline of Business Case (OBC), implementing agencies produces pre-F/S and OBC.

As for the “top-down” approach, RPJMN projects are narrowed down to a smaller list of priority projects (National Strategic Projects) to accelerate PPP infrastructure development, based on basic, strategic, and operational criteria. National Strategic Projects have access to facilities and special treatment (including permits and non-licensing, government procurement, government guarantee, spatial planning, land acquisition, etc.). Among the

National Strategic Projects, a further narrower set of Priority Projects have been identified by Presidential Regulation No. 75/2014, in which KPPIP is actively involved throughout the entire project lifecycle and provides additional facilities to accelerate the process.

Figure 11 [Indonesia] PPP Process



(Source) JICA Indonesia Office (2016)

(c) Current Situation and Way Forward for Myanmar

Currently, project origination in PPP is on ad-hoc basis, not streamlined. Some projects are selected by the government initiatives or from the sector masterplans, and others are unsolicited proposals by the private sector. The government has a 5-year National Comprehensive Development Plan (NCDP), but it does not either include Public Investment Program or have no substantial linkage to sector master plans. Thus, there is no systematic project origination process across government. In the case of hydropower projects, the Department of Hydropower Planning (DHPP) under the Ministry of Electric Power (MOEP) has prepared a list of potential projects and solicits interests from possible investment partners. The potential investor submits a proposal to MOEP with description of technical expertise and financial condition. After obtaining approval from the higher authority of the government, MOEP and the investor signs MOU with a 30-month effective period, before the private investor commencing the pre-F/S.

Going forward, the government has to create a systematic and comprehensive planning and decision making process. If the line ministry has developed a sector master plan, the list of project in the plan can be used as a long-list of potential PPP projects, provided that they are scrutinized nationally. The next step is to develop "pre-F/S" for screening purpose. Line ministries probably do not have previous experiences in preparing "pre-F/S" and "F/S" suitable for PPP projects, establishment of guidelines and standardization of formats, in addition to training for concerned staff are needed. Unsolicited proposals may not be recommended in the initial stages of PPP framework development to avoid confusion.

(2) Project Structure and Contract Design

(a) Elements of a Functioning PPP Framework

Appraisal needs to be conducted to justify the project to be implemented as a PPP project. Criteria for such appraisal are needed as well. The main questions to be addressed in the criteria are (a) technical and economic feasibility (i.e. cost-benefit justification) of the project, (b) financial (commercial) viability, (c) value for money compared to the traditional procurement, and (d) fiscal responsibility. It also requires assessment of legal grounds and environmental and social sustainability in accordance with the relevant laws and regulations. F/S is crucial as it is a compilation of analysis of the project according to the above criteria.

Structuring a PPP project means allocation of risks, rights and responsibilities to each party, and such allocation must be clearly described in PPP contract documents. This process is usually undertaken in parallel with appraisal of the project, since the information obtained during the F/S, financial viability in particular, is key for structuring the project. Three main elements of project structure are (a) risk allocation, (b) type of PPP, and (c) payment mechanism.

The first step of risk allocation is risk identification, listing up and categorizing all the risks associated with the project. It is helpful to assess and prioritize the risks, in terms of likelihood and potential impact to the project, both quantitatively and qualitatively. The next step is to allocate the risks to each party. Risk allocation in PPP projects means which party will bear the cost of the risk factor when the risk becomes a reality, and cause a change in project outcomes. The risks have to be allocated based on the main principle of the party which can manage it best should take the risk. More precisely, the party which is best able to (a) control the likelihood of the risk occurring, (b) control the impact of the risk on project outcomes, and (c) absorb the risk at lowest cost, should bear the risk. It should be noted that there are some limitations for risk allocation. When the cost of identifying and allocating the risk is enormously high but less significant, such risk may not be addressed in detail. In addition, some risks (e.g. political risk) cannot be transferred to the other party, and the ultimate responsibility of delivering services when such risks become reality remains with the government, meaning there will be limited risk transfer to the private party. The result of risk allocation is summarized in the risk allocation matrices, often presented in the format of “preferred risk allocation matrix”. This matrix is to be incorporated into a PPP contract at later stage.

Table 2 Typical Risks, Allocations, Management Actions and Possible Mitigation Methods

	Name	Allocation		Management Action Required for Government	Possible Mitigation Method (for investor)
		Gov't	Private		
Project design, construction and O&M risks	Land acquisition risk	○		Specify gov't responsibility in PPP/BOT contract. Prompt budget allocation and land acquisition.	Gov't land subsidy. Compensation for delay loss (Gov.)
	Environment/Social risk	○		Specify approval schedule. Prompt Administrative procedure.	Compensation for delay loss (Gov.)
	Technical risk / O&M risk		○		Selection of reliable contractor Design liability guarantee / Performance based payment
	Project Completion risk		○		Selection of reliable EPC contractor EPC performance guarantee in contract
Project finance risks	Sponsor risk	○	○	Strong Commitment for the Investment	Limit ownership changes for initial several years
	Financing risk		○		Prepare solid security package for lender
Market risks	Demand risk	○	(○)	Minimum revenue guarantee / Take-or-Pay Contract (Gov.)	Thorough survey and security of demand
	Off-taker risk (ex. Water Supply / Waste Treatment)	○	○	Prior confirmation of financial situation of the off-takers. Payment guarantee (Gov.)	
	Material risk	(○)	○	(Water Supply Project) Grant of water right throughout the project life / Compensation for unexpected deterioration of quality and quantity of source water	
	Tariff risk	○	(○)	Adopt appropriate tariff level for Private Project Specify tariff formula in contract. Commitment & Guarantee for regular tariff revision.	
	Network risk	○		Specify network scenario on contract. Minimum revenue guarantee (Compensation by Gov. in case network doesn't develop according to original plan)	
Project external risks	FX rate risk	○	○		Indexation to tariff adj. , export revenue portfolio
	Interest rate risk		○		
	Currency conversion	○		Specify conversion conditions and agree with SBV, MOF (100% of conversion)	
	Regulatory risk	○		Specify taxation/reg. regime in contract. Support by special treatment in regulation (ex. Preferential taxation, compensation and exemption from unexpected changes in regulation).	
	Political risk/Force majeure	○	(○)	Buy-Out and compensation clause in contract	IFI/ECA insurance package

(Source) JICA

The second important component of project structure is to decide the roles, responsibilities and functions of the parties and to design the payment mechanism. The typical functions to decide are design, build or rehabilitate, finance, maintain and operate, and the allocation of these functions will define the contract type of PPP. Once a contract type is defined, the associated risks will be assigned according to each function.

The third element of project structure is payment mechanism. The mechanism is designed based on the functions and risks allocated to the private party. Defining performance requirement and its measurement is necessary when the payment mechanism is designed, which is also to be included in the PPP contract.

The PPP contract is the most important document, usually consisting of more than one document including Request for Proposal (RFP), since it defines how to formulate the partnership between the parties, respective rights and responsibilities, risk allocations and mechanism to resolve any issues occurred. There are some elements to consider in the PPP contract, such as performance requirement, payment mechanism, adjustment mechanism (e.g. tariff, service requirement), dispute resolution procedures, and termination of provision (e.g. contract term, asset handover, and early termination). Designing PPP contract is a complex task, because it is a long-term contract with uncertainties. It is impossible to specify everything in details in the contract, and therefore, effective and efficient dispute resolution mechanism is crucial. Standardization of necessary procedure and documents including F/S and contract are necessary.

Throughout the discussion series, many experts addressed the issue of land acquisition and/or the Right of Way and resettlement as the key bottleneck and risk factor for PPP projects, which may become obstacles during project implementation.

(b) Practice in Peer ASEAN Countries

In the Philippines, after the project identification, implementing agencies proceed to project preparation, which is preparation of the F/S and market sounding activities. In addition to F/S, implementing agencies have to prepare Right of Way acquisition plan, draft concession agreement, risk allocation plan and valuation of direct and contingent liabilities. These are normally done with support of Project Development and Monitoring Facility (PDMF). PPP center have prepared standardized contract formats with dispute resolution mechanism. Then, the project proposal is sent to NEDA ICC and NEDA Board for approval.

In Indonesia, F/S is expected to include the Final Business Case (FBC), by giving detailed explanations on the issues raised in the OBC developed during the project preparation stage, with financial support from the Project Development Fund (PDF). All the potential risks must be identified and assessed in the OBC, and mitigation plan has to be prepared in the FBC.

As for the issue of land acquisition, in the Philippines, land and Right of Way acquisition for PPP projects is the responsibility of the government, making it a challenge for the government to ensure smooth implementation of PPP projects.

In Indonesia, land acquisition for PPP projects is also a government responsibility, in accordance with the rules and regulations concerning the procurement of land for development for public interest (Law on land procurement No. 2/2012). Funding for the land acquisition is disbursed from State/Regional Budget. If the contracting agency is SOE/ROE, the funding can be disbursed from SOE/ROE budget, or from a business entity in cooperation with SOE/ROE. When the project is financially viable, the business entity may repay part of or all the land acquisition cost. The Minister of Agrarian and Spatial Planning has issued a revised Ministerial Regulation No.2/2015 on the standard of service and agrarian regulation, spatial planning and investment activities related to the usage of land, significantly reducing the time required for obtaining various licenses, such as cultivation right on land, right to build and use.

(c) Current Situation and Way Forward for Myanmar

In Myanmar, the process of appraisal, structure and contract design has been done on “project-by-project” basis, since streamlined PPP process has not been established. In the case of hydropower, as described in the previous section, after the pre-F/S approval, MOEP and the investor sign memorandum of agreement with a 18-month duration and the investor conduct F/S to examine technical and financial viability of the project and is required to carry out ESIA. The Environmental Impact Assessment Procedures adopted in December 2015 provides the process to be followed by project proponents in charge of private investment and public projects. The legal framework for land acquisition, however, is outdated and incomplete, giving only general description about the procedures (Guest (2015)). Multiple government ministries and agencies are involved in land management and administration, and each ministry/agency has a different map for different purpose. Land issues are perceived as a barrier by foreign investors.

Going forward, the government has to establish streamlined PPP appraisal, structure and contract design process with clear and detailed guidelines, manuals and standardized contract format. Land issues and available options could be clarified in PPP legal and regulatory framework.

(3)Contractor Selection

(a) Elements of a Functioning PPP Framework

The main goal of the contractor selection stage is to identify the private party that will implement the PPP project, and there are several steps to be taken – (a) decide procurement strategy, (b) market the PPP project, (c) qualify bidders, (d) manage the bid process, and (e) achieve the financial close.

Procurement strategy consists of (i) pre-qualification, (ii) bid process, (iii) negotiation with bidders, (iv) basis for award. Many countries have the process and criteria for selecting in procurement law or PPP-specific law. Marketing the PPP project is for attracting prospects of competitive bidders, which is the main target, and potential lenders and sub-contractors. Having qualified bidders is a key for successful management of transaction stage through pre-qualification process before the start of tender process or assessment of qualifications as part of open bidding process. Management of the bidding process is the main part of transaction stage and derived from three elements-preparing and issuing RFP, interaction with bidders during the bidding process, and reviewing and evaluating bids to select the preferred bidder (or dealing with only one bid or no bids with full compliance). The process should be fair, transparent and competitive. After selecting the preferred bidder, the government usually enters finalizing the PPP contract. It might be necessary to manage post-bid negotiations. After signing the PPP contract, there still exist some steps before project implementation, including finalizing financial agreements and sign sub-contract with other related parties. Financial close occurs when all the financial arrangement has been signed and all the conditions have been met, then the private parity actually can start to work on the project.

Having standardized bidding documents with PPP contract and application forms for government approvals (e.g. guarantee application) creates efficiency and smooth bidding/transaction process and maintain consistency across projects.

(b) Practice in Peer ASEAN Countries

In the Philippines, there are two stages in bidding process. The first stage is called as "Prequalification of Bidders" and issue Invitation to interested bidders or publish advertisement. In some cases, investors' forum and pre-bid conference are also organized, and potential bidders submit proposals addressing the legal, technical and financial requirements. This process usually takes two to three months. The second stage is "Bid

Proper," in which Instructions to Bidders (ITB) are issued. During the stage, pre-bid conference, one-on-one session with bidders, and response to bidders' inquiries are conducted. This stage requires about half a year, five to eight months. Notice of Award (NOA) is given to a private partner after due diligence of bidders and bid submission.

In Indonesia's power sector, P/Q of private sector applicants are reviewed using two types of criteria: (a) financial strength (assets, net profit), and (b) technical strength (experience in IPP/PPP development, EPC, and operation and maintenance). RFP containing Information for Bidders, Project Description, Model PPA, ITB, Proposal Requirements and Evaluation Procedure, is then shared. Letter of Intent (LOI) from interested private sector parties should be submitted containing agreed major terms and conditions and agreed electricity tariff and basic formula. The PPA is to be signed contains Term (25 years for coal, 30 years for hydro, 30 years for geothermal, 20 years for gas), Project Scheme (BOO or BOT), Tariff and Payment, Force Majeure (natural and political), Government Guarantee (if applicable), Termination, Other Rights and Obligations, and Sponsors' Agreement. Prior to PPA signing, (a) 1st stage performance security, (b) approval from PLN, (c) ministry approval on tariff and special purpose company are required. Financial closure, or the initial drawdown after all conditions precedents are met, requires copies of EPC Contract, policies of insurance required by PPA, fuel supply plan, Financing Agreements, Foreign Investment Approval, Legal Opinion, copy of documents providing legal right to use and control over the site, as well as 2nd stage performance security.

For unsolicited proposals, the government of Indonesia sets out a rule for "unsolicited" project proposals. These proposals are taken forward to an open tender in principle ("Swiss" challenge), following a compensation for initiating the project concept. Initiator has the following compensation alternative, if approved by the government contract agency (GCA): (a) 10% value increase, (b) right to match with the bid made by the best bidder, or (c) purchase of the concept of the "unsolicited" PPP initiative (such as the intellectual property rights) by contracting agency. The initiators who select alternative the above (c) shall not be allowed to participate in the tender.

(c) Current Situation and Way Forward for Myanmar

There is no standard bidding process and documents, and all the process and documents are prepared for specific projects. No information is disclosed referred to clarifications and evaluation of bids to third parties. In the case of hydropower plant, after the project feasibility is confirmed, MOEP and the private partner enter into negotiation of contract agreement, in which duties and responsibilities of both parties are defined and is to be reviewed by relevant line ministries including MIC. When the private company needs to complete company registration at MNPED and legal opinion is issued by UAGO, Concession Right is issued by MOEP. The final approval is made and permission is issued by MIC.

There must be standard bidding process and documents including guarantee, performance requirement, technical specifications and bid evaluation criteria. Clear bid evaluation criteria are crucial to maintain transparency and accountability of bidding process. Clear policy and rules to unsolicited proposals are required.

(4) Implementing and Managing Project and Contract

(a) Elements of a Functioning PPP Framework

Implementing and managing project and contract involves monitoring and enforcing the project to fulfill the requirement defined in the PPP contract and managing relationship between public and private parties. Given the nature of PPP contracts, in the long term and with uncertainties, the main objectives of contract management are (a) to maintain a high standard of services delivered, (b) to maintain contractual responsibilities and risk allocations in practice, and (c) to act effectively in response to charges in external environment.

To achieve these objectives, it is needed to establish contract management structure in the government. Typical example of the contract management structure is to assign contract manager in the implementing agencies, working with other entities (e.g. PPP unit, the finance ministry). The government also requires structure of communication between public and private parties. There are two elements in monitoring, (a) contract compliance and service performance delivered (by the private party), (b) government responsibilities and risks. In some countries, independent experts are hired to monitor compliance during design, construction and operation stages. A tool for monitoring responsibilities and risks is a risk management plan, used by implementing agencies, which should be developed before the start of the contract. Well-designed contracts have adjustment mechanisms such as planned review and market testing for adjusting tariff and the service price. In case of changes that are not adjusted through the mechanisms, renegotiations are needed to change the provisions in the contracts.

Dispute resolution mechanism should be included in the PPP contracts. Quick actions, having teams with right skills and appropriate level of decision-making authority, following the process specified in the contract are the key for minimizing the cost of disputes.

The final task in PPP contract management is to handover of the assets and operation at the end of the contract term. This procedure should be clearly specified in the contract including asset assessment, payment, and handover requirement.

(b) Practice in Peer ASEAN Countries

In the Philippines, this stage is called as “corporation stage”, containing financial closure, project implementation, and turnover of the facilities. PPP Center is tasked to monitor projects, having made effort in establishing more streamlined project monitoring and evaluation. PDMF provides monitoring support to projects.

(c) Current Situation and Way Forward for Myanmar

In Myanmar, since there is no standardized process for implementing and managing project and contract. It has been carried out largely on project-by-project basis. The process with clear guideline and manuals should be established to ensure effective monitoring and management of projects and contracts.

3.5 Information Management, Ex-Post Evaluations / Audits and Oversight

Information management, ex-post evaluations/audits and oversight are key elements of a functioning PPP framework. Due to the limited amount of information obtained during the discussion series and visit to the Philippines and Indonesia, on the elements required will be described in this section.

(1) Information Management: Stocktaking of PPP Transactions

Information management system or database is needed to monitor PPP projects in accordance with the required service standard. The system should be located in coordinating/controlling bodies (e.g. PPP unit) and/or implementing agencies actually input necessary data and information. Therefore, clear process has to be defined by guidelines or manuals. This database can be used not only for monitoring but also for sharing information and lessons across ministries. In the Philippines, PPP Center is mandated to establish a repository of database on PPPs.

(2) Ex-Post Evaluations / Audits

Role of audit entities has mainly two roles in PPP program, one is the regular auditing and the other is performance auditing for PPP program.

Regular auditing is to check compliance and financial reporting whether the regulations related have been met, processes are followed, and financial records are correct. Auditing entities may also conduct performance auditing for particular PPP projects, usually with some recommendation for performance improvement and sharing good practice. The International Organization of Supreme Audit Institutions (INTOSAI) suggested that audit entities review PPP projects soon after transaction and carry out further review over the project period. In some countries with advanced PPP program, audit agencies undertake value for money reviews on PPP program (not on project basis).

(3) Oversight

Oversight means broader governance structure for PPP program, while, at project level, implementing agencies and coordination agencies (such as PPP Unit, the planning and finance ministry) are mainly responsible for implementation.

Main oversight government entities are the legislature and auditing agencies (details of which are described in the previous section), and the public can participate in the PPP program through public consultation and monitoring process.

Role of the legislature is to define PPP framework by legislation and limitations to commitments. The legislature also receives and reviews related report to PPP program including budget documents and financial documents. In some countries, the legislature approval is required for PPP projects.

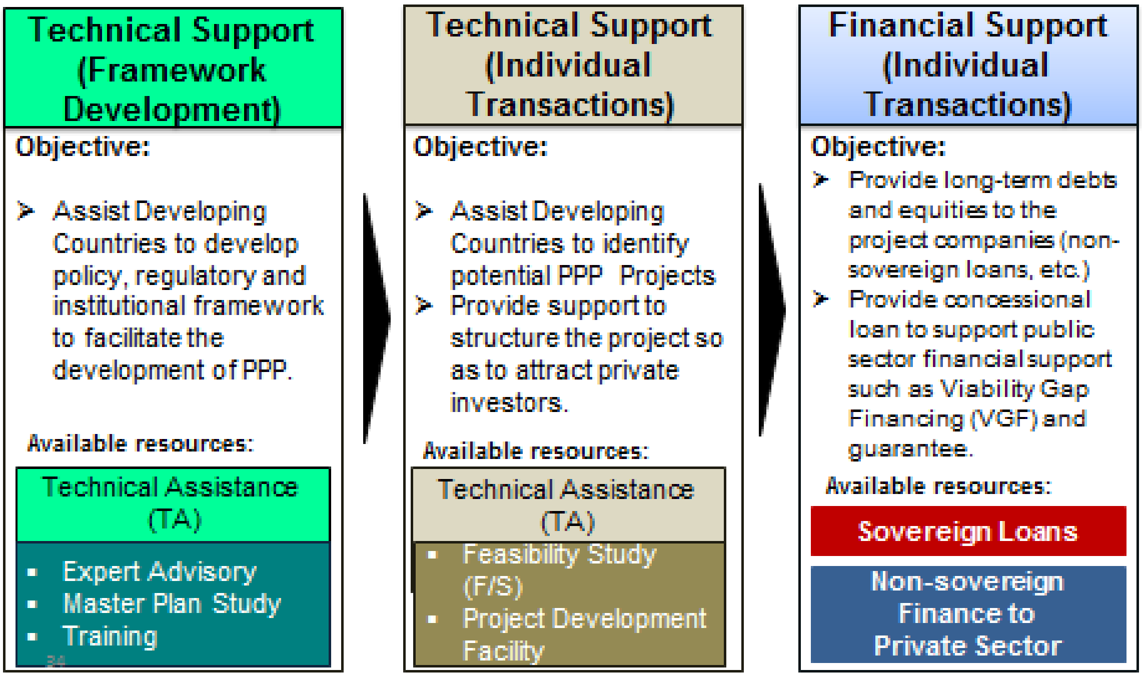
3.6 Support from Development Partners

Since the initiation of the reform process after 2011, technical and financial support to Myanmar from international organizations, bilateral agencies and other development partners increased significantly. Myanmar can benefit from these supports to promote PPP in infrastructure. Based on experience in other countries, support for promoting PPP in infrastructure can be categorized into three types.

The first type is technical support to assist Myanmar develop policy, regulatory and institutional framework for PPP to facilitate infrastructure development. The second type is also technical support but to assist Myanmar in identifying potential PPP projects and in facilitating the formulation and structuring of projects that attract private investors. The third type is financial support to provide long-term debts, equities and credit guarantees to fulfill financing needs of PPP projects and to offer grants or other types of funding to enable Myanmar government to operationalize various fiscal support mechanisms to make candidate PPP projects feasible and bankable.

In this section, examples of each type will be introduced to demonstrate how support from development partners can be utilized by Myanmar.

Figure 12 Three Types of Support from Development Partners

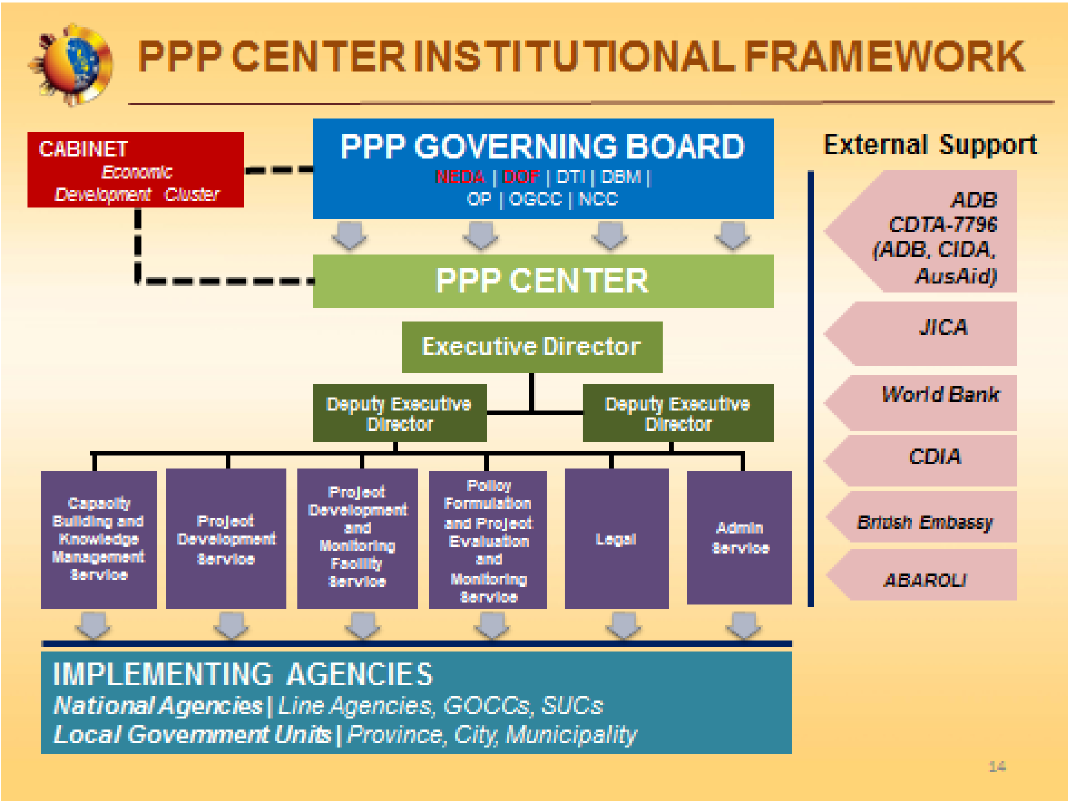


(Source) JICA

(1) Technical Support for Framework Development

An example of the first type is the technical support offered to institutional framework building of the PPP Center and other framework development for PPP in the Philippines. Such supports include development of the legal and regulatory framework. Drafting of the recently adopted PPP Act and revision of the former BOT Law, in addition to formulating implementation guidelines for alternative dispute resolution mechanism, revised Joint Venture guidelines and PPP code for local government units were supported. Institutional strengthening of the PPP Center was assisted by creating strategic communication framework and standard contract documents. Capacity building and training programs for agencies implementing and overseeing PPP projects both at the national and local government levels were also offered, including preparation of manuals for these agencies. Rules and documents for processing PPP transactions, such as appraisal procedures, conduct of market sounding and conduct of meetings with qualified bidders, were developed under the technical support programs.

Figure 13　Technical Support for Philippines PPP Center Institutional Framework

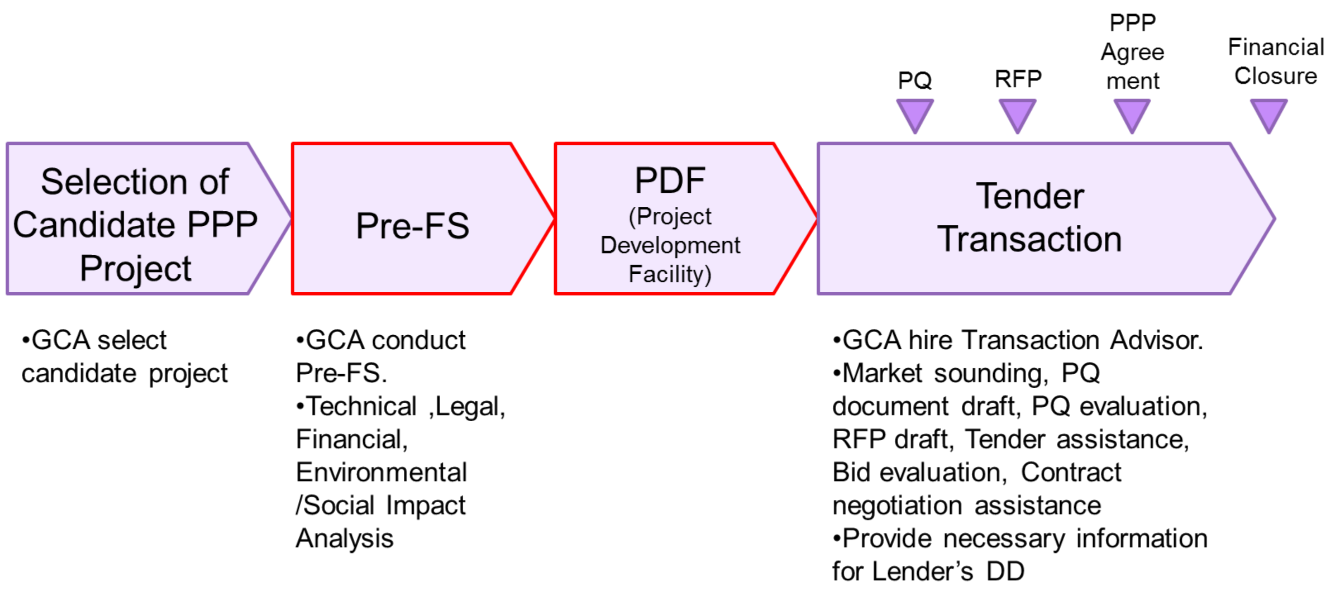


(Source) The PPP Center (2016)

(2) Technical Support for Individual PPP Transactions

An example of the second type is the technical support offered for project preparation and development through the KPPIP (Committee for the Acceleration of Prioritized Infrastructure Provision) Support Facility in Indonesia. The important story behind this support of KPPIP is that when Indonesia initially tried to attract private investors to participate in infrastructure development of the country, many transactions came to a halt due to absence of bankable project plans. In view of the lessons learned, the government of Indonesia set up a PPP unit within the Ministry of Finance to make sure bankability of PPP projects are studied before project concepts are taken forward for tender to draw bids from the private sector. The technical support offered to KPPIP by JICA supports not only the institutional and policy aspects of PPP scheme in Indonesia, but also provides assistance on individual transactions through preparation of pre F/S by Government Contract Agencies (GCA) and Project Development Facility (PDF). Technical support for the PDF helps the government of Indonesia make sure that the PPP project is a bankable one through appropriate risk allocation and mitigation, together with feasible funding schemes and obtaining commitment from GCAs. In the case of the Myingyan power plant, a recent pilot PPP case in Myanmar, IFC offered technical support during the tender transaction stage for carrying out the processes such as those outlined in Figure 14.

Figure 14 Technical Support for Acceleration of Infrastructure Development in Indonesia

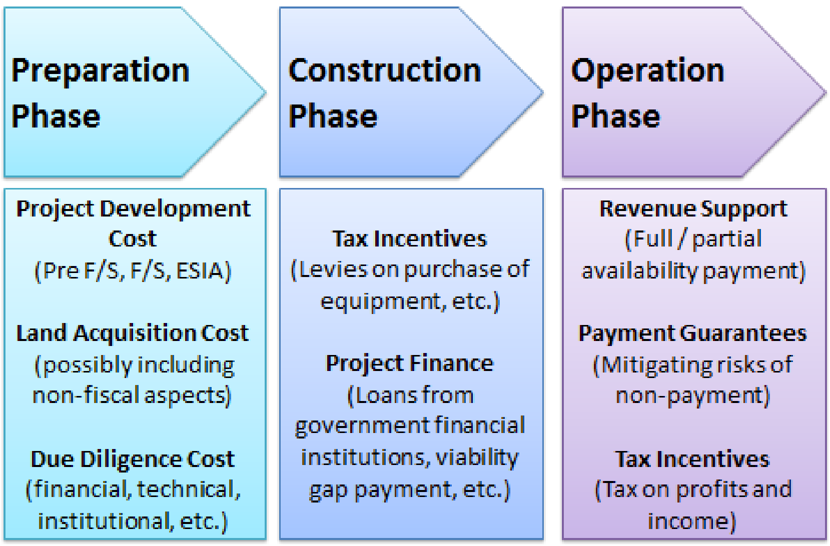


(Source) JICA Indonesia Office (2016)

(3) Financial Support for Individual PPP Transactions

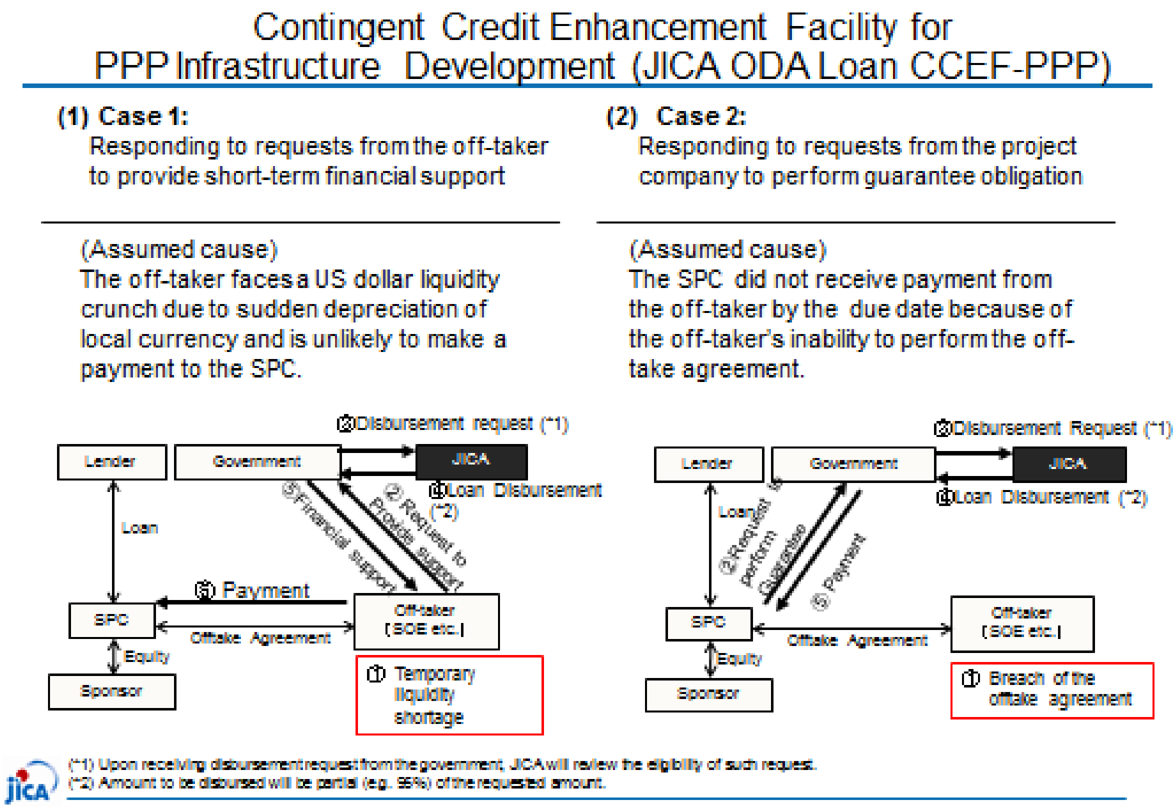
Development partners could offer financial support to help Myanmar address the requests from private investors and lenders to make projects bankable. Typical requests from the private investors or lenders are to lower the risk of non-payment (such as state owned power company as the off-taker) and to increase the revenue that would allow the project to be profitable enough to attract private investment. The former could be met by a payment guarantee issued by the Ministry of Finance, and the latter by the government allocating funds to the private sector in the form of viability gap funding, etc. Both could be covered by commitment and/or actual expenditures from the budget, but utilizing highly concessional loans from development partners could ease fiscal pressure in the near term and postpone the budget expenditure obligations in the distant future with very limited repayment responsibilities per year. In some cases, international grant aid could be used as start-up funds to launch facilities that focus on providing fiscal support for PPP projects. In medium- to large-scale projects, long-term project finance loans can allow the private sector to demand lower level of payment against infrastructure services, compared to the cases where sponsors are forced to take more risks with 100% equity. Through exercising its Step-in Rights, lenders can provide warnings about what it takes to attract the private sector to join PPP in infrastructure projects, while also forcing the private sector to execute the projects as designed. Although commercial banks may not be willing to provide project finance to Myanmar at its credit rating, non-sovereign lending and guarantee products of ADB, World Bank (IFC) and JICA (Private Sector Investment Finance: PSIF) may be able to offer or secure long-term loans for private investors joining Myanmar projects.

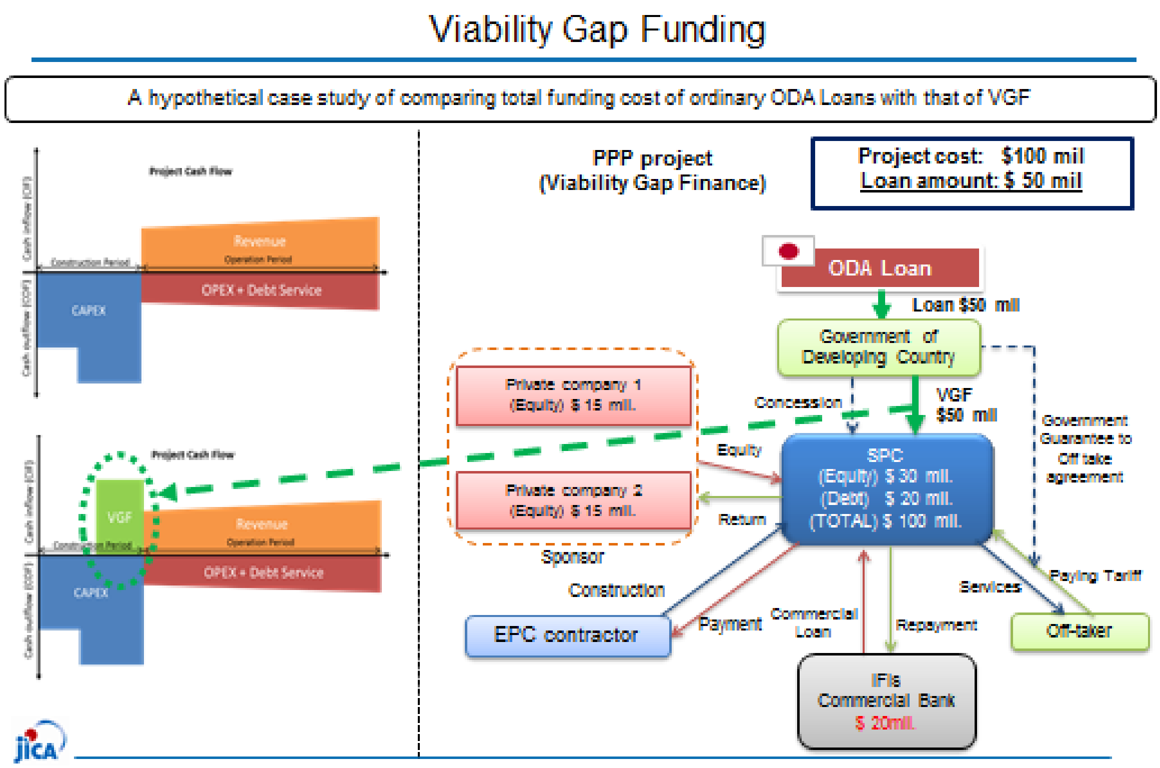
Figure 15 Possible Fiscal Support for Individual PPP Transactions



(Source) JICA

Figure 16 Financial Support Facilities by JICA





(Source) JICA

4. Conclusions and Recommendations

As we have seen in the previous chapters, despite having experiences in engaging with the private sector in areas like electric power and transport (although not necessarily the best practices and not so transparent), and recent efforts to learn from international experiences, generally speaking, Myanmar still lacks most of the elements required for a functioning framework of PPP for infrastructure development.

While it is highly improbable for Myanmar to be able to possess the full range of required elements in an instant, and also quite challenging to draw a realistic roadmap in the medium- to long-term due to the rapidly changing circumstances, some key initial steps that would serve as the cornerstone of future PPP framework for infrastructure development in Myanmar can be recommended based on the past mistakes and successes in peer ASEAN countries.

Pillar 1: Consolidated and Prioritized Infrastructure Development Plan

#1 Myanmar needs to develop a multiple-year, consolidated and prioritized infrastructure investment plan (cross-sector, cross-ministry project list) consistent with national development strategies and medium-term fiscal framework, including those financed by both public funds and private funds (such as PPPs). Unsolicited proposals may not be recommended in the initial stages of PPP framework development to avoid confusion.

Pillar 2: Options and Risk Management for Financing Infrastructure Development

#2 Based on a multiple-year, consolidated list of national priority infrastructure projects, the government of Myanmar is recommended to conduct a macro-level simulation to understand the rough aggregate funding requirement amount from (a) the private sector (including those in the form of PPP) to fulfill the investment needs, taking into account the projection of other source of funds including (b) Union and State/Region budget, (c) inputs from SEEs, and (d) sovereign concessional loans available for infrastructure during the same period.

#3 It is advisable that the government of Myanmar establish a mechanism to provide appropriate fiscal support for and analyze the fiscal implications of implementing infrastructure projects, not just for PPPs but also for those financed and run by the public sector, by involving the fiscal authorities in the decision making process of user fee levels and in the monitoring and management of concerned SEEs.

Pillar 3: Political Commitment, and Regulatory and Institutional Framework for PPP

#4 Myanmar will eventually require specific legislation to fully utilize PPP. However, it will take time to prepare and enact the PPP law that sufficiently reflects both international practices and Myanmar context. A tentative alternative is to provide a lighter but explicit basis for the PPP program, such as through regulations and policy papers issued by the President or guidance notes on the details of PPP transactions. The government must clarify for what purposes and how the government intends to promote PPP.

#5 Myanmar needs to establish (or realign) government institutions with different roles to enable balanced decision-making on infrastructure finance (such as those that (a) prepare prioritized infrastructure development plans, (b) assess and manage fiscal risks, (c) manage the process of PPP, (d) deliver infrastructure services, and (e) promote domestic and foreign investment).

Pillar 4: Process of Individual PPP Transactions

#6 Based on efforts to improve and integrate national development planning and fiscal management, a uniform screening, appraisal and management process for all infrastructure investment projects including both public investment and private sector-led Initiatives (including those in the form of PPPs) should be established. Guidelines for key documents required for such integrated process, such as Pre-F/S, F/S, ESIA, etc., will facilitate its operationalization. Land issues and available options to solve land issues need special attention of the government and should be clarified in detail in relevant laws and regulations.

#7 Tentative rules to clarify a single, standard bidding process and templates for key transaction documents (such as PPA, performance guarantee document, etc.) would be required to streamline the transactions under PPP.

Pillar 5: Information Management, Ex-Post Evaluations / Audits and Oversight

#8 A comprehensive study to understand the fiscal impact resulting from decisions to implement on-going and past infrastructure PPP projects may help raise awareness of the higher authorities in the government about the significance of making such decisions. Studying the different types of financial structure (BOT, BTO, JV, etc.) and their suitability to various sectors / sub-sectors, as well as the cost and risks for the private sector in each structure, could be useful to guide future systematic decisions.

Pillar 6: Support from Development Partners

#9 While learning-by-doing approach appears to be more realistic in the near term, technical and financial support offered by development partners, particularly those related to individual PPP transactions, should be aligned to the efforts by the government to formulate a single framework and a unified set of rules for PPP, rather than a one-off support.

#10 In view of the limited capacity and tremendous amount of work required to pave the way for a complete set of functioning PPP framework, gradual mobilization of larger private sector resources is realistic, starting from a few pilot cases with transparent competitive process with strong support from development partners. In the interim, Myanmar should actively seek highly concessional financing from development partners based on careful assessment of debt sustainability to fulfill the enormous and urgent need for infrastructure development.

(end)

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