

Assessment of the Effectiveness of Project Preparation Facilities in Asia

G20 Development Working Group

Final Report

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Main Abbreviations

ADB	Asian Development Bank	JBIC	Japan Bank for International Cooperation
AfD	L'Agence Française de Développement	JICA	Japan International Cooperation Agency
AIF	ASEAN Infrastructure Fund	KfW	Bankengruppe
ASEAN	Association of Southeast Asian Nations	LGU	Local Government Unit
AusAID	Australian Agency for International Development (now Department of Foreign Affairs and Trade)	MDB	Multilateral Development Bank
CDIA	Cities Development Initiative for Asia	NGO	Non-government organization
BOT	Build-Operate-Transfer	OECD	Organisation for Economic Co-operation and Development
DFAT	Department of Foreign Affairs and Trade (of Australia)	O&M	Operations and maintenance
DFI	Development Finance Institution	ODA	Official Development Assistance
EIU	Economist Intelligence Unit	PPIAF	Public Private Infrastructure Advisory Facility
GDP	Gross Domestic Product	PFI	Private Finance Initiative
GEF	Global Environmental Facility	PPP	Public Private Partnership
GHG	Greenhouse gas	PPPC	Philippines PPP Center
GIF	Global Infrastructure Facility (proposed)	PPTA	Project Preparatory Technical Assistance
GNI	Gross National Income	PSP	Private sector participation
IA	Implementing Agency	SOE	State-owned enterprise
IFC	International Finance Corporation	TA	Technical assistance
IFI	International Financial Institution	WBG	World Bank Group
IPP	Independent Power Producer	WTO	World Trade Organisation

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Executive Summary

The objective of the current review has been to evaluate the effectiveness of Project Preparation Facilities (PPFs) in Asia in promoting long-term investment financing for infrastructure. It will inform consideration by the Development Working Group (DWG) of the Group of Twenty (G20) of actions to increase the effectiveness of PPFs so that more and better-prepared infrastructure projects proceed to implementation.

The review finds that addressing the major infrastructure needs of Asia into the future requires two particular actions. First, there is a need to better identify and prioritize infrastructure needs so that the most meritorious project proposals are identified for preparation. Second, there is a need to boost the number of well-prepared projects to attract increased funding, including from the private sector. These and other related findings are presented in more detail later in this summary.

To complete its task, the review has drawn on similar work undertaken with regard to PPFs in Africa, surveys of PPFs in Asia, the findings from three case studies (of project preparation in Vietnam, the Public-Private Partnership Centre of the Philippines and the Cities Development Initiative for Asia) and discussions with a range of stakeholders.

The review found different conceptualizations of what is involved in project preparation. To facilitate a common understanding, it identified the following activities:

- » a preceding, upstream stage that involves developing an enabling environment for project preparation and implementation and strategic planning to identify prioritized programs of projects; with
- » project preparation involving:
 - » refining the concept for a specific project through a pre-feasibility study,
 - » conducting a feasibility study to optimize the project design and to establish its merit,
 - » planning delivery arrangements for the project including project financing, and
 - » processing and gaining approvals that permit the project to proceed to implementation.

The review considered Asia, comprising Southern Asia, Eastern Asia, South-Eastern Asia and Central Asia. The region includes 25 developing countries with a total population in 2012 of 3.7 billion people. In 2012, 8 countries were categorized as low income countries, 11 as being lower middle income and 6 as upper-middle income. The three groups of countries respectively

accounted for 8 percent, 52 percent and 40 percent of the total population of all of the countries.

A large number of organizations are involved in the preparation of public infrastructure projects in Asia. Few address project preparation alone, and not all of them tackle the entire process of project preparation. PPFs may be country specific or regional, can have a range of institutional arrangements and cover both publicly and privately financed public infrastructure. They include the multi-lateral development banks (MDBs), bilateral aid agencies, export-import banks and other financing institutions from donor countries, and agencies in developing country governments, amongst others.

The current review has sought to focus on PPFs that are more formally established and whose principal present purpose is to prepare public infrastructure projects. PPFs thus include formal sources of financial assistance such as trust funds that are used by MDBs to prepare projects, entities whose main activity is project preparation and donor government programs that focus on project preparation. Eighteen PPFs were identified for specific review after excluding PPFs in G20 member countries and taking account of PPFs for which data could be obtained. Conclusions of the assessment of the PPFs are:

- » **Relevance.** The PPFs are oriented to performing their respective roles in project preparation in sectors that are important to the economic and social development of developing countries. There are no evident impediments to the PPFs adapting to meet changing needs. PPFs and their related institutions generally maintain links with other development and regional agencies, though this occurs to a lesser extent with PPFs in developing country governments.
- » **Effectiveness.** Project preparation supported by PPFs is broadly effective. However, the significant number of prepared projects that appear not to go on to implementation is a concern, and there are some limitations in the design, implementation and follow-up of project preparation studies. Most PPF are aligned with agencies that fund project implementation and so prepared projects should be able to readily progress to implementation.
- » **Efficiency.** The typical funding for the preparation of projects is low. This may reflect a high level of efficiency in the work undertaken to prepare projects, but could also mean project preparation is under-funded with resultant adverse implications on the quality of designs, the readiness for implementation and the achievement of project benefits. Project

Box 1: Comparison of the Findings Reviews of PPFs

PPFs in Africa (ICA 2012)	PPFs in Asia (current review)
Infrastructure project preparation is at best incidental to most PPFs.	Infrastructure project preparation is generally the principal activity of PPFs in Asia.
PPFs with limited resources and/or a diffuse focus have faced the greatest challenges in achieving traction.	There is no clear evidence that PPFs in Asia with a diffuse focus have been less successful than others.
Identified PPFs financed only around a quarter to a third of the cost of project preparation activities, with the remainder undertaken by other multi-lateral institutions, bilateral donors and national governments.	It appears that the PPFs examined finance only a small share of ODA-supported project preparation in Asia and an even smaller share of all project preparation.
Many PPFs are hosted by multi-lateral development banks (MDBs).	Most PPFs in Asia are hosted or otherwise associated with MDBs and are used to prepare projects to be implemented by MDBs. A few countries use loans from MDBs to establish PPFs. Few prepare projects to be implemented by others.
PPFs were diverse in their focus with regard to project sector and project preparation, though with PPFs within MDBs concentrating more on later stages of project preparation relative to other PPFs.	Most PPFs address a range of sectors and also a range of project preparation activities. PPFs that are entities are more likely to consider upstream activities (i.e. which precede project preparation).
PPFs were not of sufficient scale to develop regional transformative projects.	PPFs in Asia have been able to facilitate the preparation of a range of projects including regional transformative projects.
There was a need to significantly increase the finance for project preparation, to develop more PPP opportunities, and to support the preparation of regional projects.	There is a need to increase funding for project preparation to improve quality and to facilitate increased infrastructure development.
Better sharing of information and more co-operative behaviour amongst PPFs and their hosting institutions would facilitate progress of projects through the project cycle.	The location of PPFs in MDBs facilitates progress through the project cycle, though interface issues remain when other financiers are involved. PPFs also generally address a range of project preparation activities, which reduces interface risks.
There was a need for additional transparency and openness in the activities of PPFs.	PPFs in Asia rarely publish information on their finances and outputs from technical activities that they finance.
There was a need for more focussed PPFs that specialize in particular topics.	There are a mix of sector-specific and more general PPFs in Asia. There is no evidence that one is superior to the other.
There was a need for greater recovery of the cost of project preparation from project recipients.	Improved cost recovery from project owners will increase ownership of projects and the financial sustainability of PPFs.

Note: Based on PPFs surveyed in each of the respective studies.

preparation is not always conducted in a timely manner.

- » **Adequacy.** Given current project preparation practices, funding for PPFs is adequate and staffing resources are satisfactory. A higher standard, and increased quantity, of project preparation would require additional resources.
- » **Sustainability.** While the PPFs have good technical sustainability, their financial sustainability is very weak and their building of developing country government capacity is uncertain.

Box 1 compares the findings of the current review with those of the review of PPFs in Africa (ICA 2012).

With regard to the desired outcomes of more and better prepared infrastructure projects and increased private sector participation, broad conclusions drawn from the current review of PPFs, and project preparation more generally, are:

- » there is no generally accepted definition of a PPF and a variety of arrangements exist for project preparation to occur and for it to be financed;
- » in general, the PPFs examined are performing satisfactorily, though there are significant opportunities to refine current arrangements and practices and to set a course for a more sustainable approach to the preparation of projects that are supported with official development assistance (ODA), including needs to;
 - » increase the quantity of project preparation if infrastructure development is to be expanded and for additional funding to support this and also improved quality of project preparation,
 - » simplify arrangements for access to funding for project preparation to reduce transaction costs, which sometimes can be high,

- » focus ODA support for project preparation on low income countries in particular and for middle income countries to take greater responsibility for financing preparation of their projects, and
- » give more explicit and formal consideration to opportunities for public-private partnerships (PPPs) during project preparation and also to provide support to governments of developing countries where the framework and systems to support private sector participation are weak.

The current review also notes the capacity for regional facilities to offer greater delivery efficiency, flexibility, support for cross-border projects and knowledge transfer than more narrowly focussed PPFs. For example, a regional facility could be used to facilitate private sector participation by providing direct support to governments with weak current capacity and assisting in the transfer of experience between Asian countries. The current review found that current institutions involved in project preparation have been able to facilitate the identification, preparation and implementation of cross-border regional infrastructure, and hence there is no apparent need for new PPFs that are dedicated to regional projects.

Specific findings of the review that address these and related matters are described in Chapter 6 of this report. Of the numerous matters discussed, six are considered to be of particular importance to achieving improved project preparation outcomes, with the first two being the most critical:

1. Priority should be given to strengthening developing country governments' capacity for upstream activities that provide an enabling environment and lead to the identification of prioritized investment programs.

The role of upstream activities is to ensure that the most meritorious proposals enter the project preparation process. At present it is common for projects included in potential forward works programs not to have been subject to effective review and pre-appraisal. This weakens the ability to rigorously establish the priority of projects and their potential to meet the investment criteria of financiers. Improved and simplified methods of strategic planning, including the use of quantitative analysis to establish prioritized programs of candidate projects, is needed to ensure this occurs. Governments need to develop the capacity for sector agencies to use the tools within a development context set by national planning agencies. Equally importantly, an effective enabling environment is needed to ensure that human, institutional and legal prerequisites for infrastructure planning, investment and operation are in place; that infrastructure solutions are not pursued when other measures (such as policy or operational changes) are more cost-effective; and to better enable current and future infrastructure to be used to their best effect. It is recognized that this has

been a theme of external support to developing countries for a number of decades, yet remains an area of weakness.

Donors can assist by developing common sector diagnostic and project prioritization tools that are practical and are acceptable to governments of developing countries, supporting their application and jointly accepting the results.

2. The scale of project preparation needs to be ramped up to support enhanced infrastructure development.

There is a need to increase the number of well-prepared infrastructure projects that potential financiers can act on, in particular projects that could involve private sector participation. This requires increased institutional capacity and additional domestic and international funding. In Asia, the ADB and World Bank in particular have well developed procedures and considerable expertise in project preparation. In the past this has been primarily used to prepare projects that they finance. They have increasingly leveraged their experience by drawing in more co-financing for project implementation from others. There is a need to continue to leverage this expertise, and that of others, to prepare a larger number of projects that can attract finance from a range of sources, including other financial institutions and the private sector. Convergence in the outputs of project preparation prepared by various agencies will facilitate co-financing and private sector participation by making the results more familiar and accessible to potential financiers.

In addition, there is a need to ensure that expenditure on project preparation is commensurate with the complexity of projects, minimizes risks during project implementation and is sufficient to ensure that the life-cycle cost of achieving project outcomes is minimized. Financing this increase in the scale of project preparation is discussed in the next recommendation.

MDBs and other donors should continue to leverage their expertise to prepare a larger number of well-designed projects that can attract funding from other sources, including the private sector.

3. Funding for project preparation should be rationalized and increased.

Consideration should be given to establishing a new facility with the ADB and World Bank to finance the preparation of an increased number of infrastructure projects in Asia. Contributions to the facility could be sought from a range of donors. Donors could also be encouraged to consolidate current facilities and other means of providing financial support where this is appropriate. The objective of these changes would be to allow the scale and quality of project preparation by the MDBs to be increased and current high transaction costs associated with practitioners seeking

project preparation funding from a range of existing facilities to be reduced. The operational aspects of the facilities should be located as close as possible to users. Conditions for contributing to and using the facilities should be simplified to minimize transaction costs and complexity, to ensure consistent practice and to allow for, and possibly to require, co-financing from other sources.

MDBs and donors should investigate the potential to establish a new multi-donor project preparation funding facility in each of the MDBs and to encourage the consolidation of current facilities.

4. There should be a clear path for countries to transition from receiving grant support for project preparation to eventually being willing and having the capability to finance it themselves.

Other than detailed engineering design, preparation of projects supported with development assistance is currently mostly financed by grants. In general this is be appropriate for low income countries. As the economy of a country grows and their financial capacity increases, it is reasonable for a rising share of the cost of project preparation to be recovered from project owners. This will increase developing country government ownership of project preparation and increase the financial sustainability of PPFs by releasing funds for more pressing needs. There is a complementary need for developing countries to make greater use of external support to build capacity, including gaining insights into best practice in project preparation and innovation in project design, rather than solely as a means to prepare projects. Recovery of project preparation costs could vary with factors such the extent to which a project is directed to objectives such as poverty alleviation.

PPFs should explore the extent to which they can integrate cost recovery into their operations to maximise their financial sustainability. Support may be required from donors to establish clear principles to govern the provision of grant and reimbursable financing for project preparation and to ensure a unified approach to implementing them.

5. The common practice of selecting the financing modality for a project prior to feasibility study should ideally be reversed, but otherwise necessitates better upstream project investigation and flexibility during project preparation.

There can be some broad early indicators of the potential for a project to be implemented as a PPP. However, justification should eventually be based on quantitative analysis to determine that a PPP is a more cost-effective means for implementing a project than conventional government financing. This work should ideally be undertaken following a project feasibility

study when better information on the project is available to support more detailed consideration of potential roles for the private sector and evaluation of them. Where there is a need to continue the current practice of channelling projects into either a PPP or sovereign loan path early in the project preparation process, the financing modality should be formally reviewed following the feasibility study and flexibility maintained to change the implementation mode if required. It is expected that a requirement for more explicit and formal analysis of financing options during project preparation will lead to a greater number of opportunities for PPP being identified.

Those involved in managing project preparation can assist by strengthening requirements in project preparation studies to identify and quantitatively assess PPP opportunities and ensuring flexibility to change the financing modality if this should become appropriate.

6. Improved efforts are needed to make better use of the private sector for infrastructure design, funding, delivery and long-term operation and to leverage the overall benefits of private sector participation.

Making greater use of the private sector to improve infrastructure design and related operational efficiency, better service delivery and superior financial outcomes, requires continued support. At present only one country in Asia (viz. India) is categorized as being developed with regard to having an environment for sustainable, long-term PPPs. The current review notes four particular needs. Firstly, improvements are still needed in the policy, legal, institutional, operational, investment climate and financial environment in many countries to support private sector participation in public infrastructure. There is also a concomitant need for developing country governments to better understand, and be willing to take advantage of, the range of opportunities for using the private sector to reduce costs and improve infrastructure outcomes. Next, there is a need for developing country governments to develop PPP-related expertise and experience to better identify, develop and structure substantive opportunities for private sector participation. Finally, there is a need for more specific and considered examination of all implementation options – both public and private – during the project delivery planning stage of project preparation.

Development partners can assist by providing continuing support to developing country governments and pursuing actions described in Recommendation 3 above.

Addressing these findings requires the coordinated effort of bi-lateral and multi-lateral development partners working together with recipient countries. The DWG of the G20 provides a forum for such efforts to be considered.

1. Introduction

1.1. Background and Context for the Review

The 2013 G20 leaders' declaration recognised the importance of improving the prioritisation, planning, and funding of investment projects. It also emphasized the need to make better use of project preparation facilities (PPFs). In support of this, the 2013 St Petersburg Development Outlook specifically requested the Development Working Group (DWG) to:

Assess the effectiveness of PPFs in regions in addition to Africa in promoting long-term investment financing for infrastructure, increase understanding of the obstacles to implementation, disseminate this knowledge through a common platform, and consider the creation of a global network of regional PPFs.

The DWG is seeking practical actions that contribute to increased financing and investment in infrastructure and enhance infrastructure development, focused on low and lower-middle income economies.

Previous work, introduced in the next section, defined PPFs as "holders of more than US\$5m 'ring-fenced', non-allocated funds that can be drawn down to fund infrastructure project preparation cycle activities". There are relatively few such 'ring-fenced' PPFs in Asia. A broader, functional definition perspective has been taken in the current review to include both entities whose main activity is project preparation and formal sources of finance such as trust funds that are used to prepare projects (see the box to the right). As will be noted in Chapter 5, few PPFs identified in the current review address project preparation alone, and not all of them tackle the entire process of project preparation.

1.2. Objectives and Approach

At a meeting in December 2013, the DWG agreed that Australia, in consultation with co-facilitators, would lead the development of Terms of Reference (TOR) for the assessment of PPFs in Asia. The TOR for the assessment drew on the approach established in Infrastructure Consortium of Africa (ICA) report on infrastructure PPFs in Africa previously commissioned by the DWG (ICA 2012). The current assessment encompasses Southern, Eastern, South-Eastern and Central Asia, but excludes China, India and Indonesia which are members of the G20.

The objective of the current assessment has been to evaluate the effectiveness of PPFs in Asia in promoting long-term investment financing for infrastructure. It will

Definitions

Infrastructure. Infrastructure in this report is public economic infrastructure, with a focus on the following sectors: electricity, information and communications technologies, transport, water and sanitation, and irrigation. The infrastructure may be financed through a range of mechanisms, including the private sector.

Project Preparation Facility. A functional definition of PPFs is used in the current review, wherein a PPF is taken to include entities whose main activity is project preparation and formal sources of finance such as trust funds that are used to prepare projects. PPFs may be country specific or regional, can have a range of institutional arrangements and cover both publicly and privately financed public infrastructure. In practice, some PPFs are involved in only some project preparation activities and many PPFs undertake other activities in addition to project preparation.

Project Preparation. Project preparation is the activity of refining a concept for a project, examining its feasibility, preparing it for implementation, and gaining the approvals needed to allow implementation to occur. Project concepts emerge from prior strategic planning and project identification and prioritization activities.

Public-Private Partnership. A PPP involves the use of private sector capital to fully or partially finance implementation of an infrastructure project. It may also involve private sector operation of the infrastructure. The private sector participant will recover its costs through either, or a combination of, user fees and payments from government. PPP is used in this report in a generic sense to also include activities that are sometimes also described as private sector participation (PSP) and private finance initiative (PFI).

inform consideration by the DWG of future G20 actions to increase the effectiveness of PPFs so that more and better-prepared infrastructure projects proceed to market.

The approach of the assessment has been to:

- » review the previous assessment of PPFs in Africa;
- » identify PPFs active in Asia and obtain information on their roles, activities and needs;
- » conduct three case studies with a view to illustrating key issues and needs;
- » draw on discussions with a range of stakeholders and the experience of the review team; and
- » complete the assessment drawing on the above information.

Information on the PPFs was obtained through formal questionnaire surveys and some associated discussions. The case studies sought to identify and illustrate key issues and needs associated with project preparation. The case studies considered:

- » Vietnam, taking account of the roles and views of government and development partners;
- » the PPP Center in the Philippines (and its Project Development and Monitoring Facility for project preparation) to examine matters related to securing the participation of the private sector in public infrastructure; and
- » the Cities Development Initiative for Asia, to consider the role of an independent PPF that focuses on activities at the interface of upstream and project preparation activities.

The case studies are documented in [Appendix A](#), [Appendix B](#) and [Appendix C](#) respectively. Each case study has a final section that summarizes findings and issues. These matters are not repeated in the main body of this report. Instead, they are drawn on in the report as appropriate.

1.3. Lessons from Previous Work

The ICA review of PPFs in Africa found one of the challenging issues was the definition of a PPF. There are relatively few arrangements where a self-contained entity simply prepares infrastructure projects for implementation and undertakes no other activities. The review found 67 entities that were a potential source of funding for the preparation of public infrastructure projects, including those to be implemented through public-private partnerships (PPPs).

Key findings of the review were:

- » infrastructure project preparation is at best incidental to most PPFs, and 17 were selected for more detailed examination;
- » PPFs with limited resources and/or a diffuse focus have faced the greatest challenges in achieving traction;
- » identified PPFs financed only around a quarter to a third of the cost of project preparation activities, with the remainder undertaken by other multi-lateral institutions, bilateral donors and national governments;
- » many PPFs are hosted by multi-lateral development banks (MDBs), and were hence influenced, both positively and negatively, by the policies and competencies of their hosting institutions;

- » PPFs were diverse in their focus with regard to project sector and project preparation, though with PPFs within MDBs concentrating more on later stages of project preparation relative to other PPFs;
- » PPFs were not of sufficient scale to develop regional transformative projects;
- » there was a need to significantly increase the finance for project preparation, to develop more PPP opportunities, and to support the preparation of regional projects; and
- » to be more efficient and effective, there was a need for:
 - » better sharing of information and more co-operative behaviour amongst PPFs and their hosting institutions to facilitate progress of projects through the project cycle;
 - » additional transparency and openness in the activities of PPFs;
 - » more focussed PPFs that specialize in particular topics; and
 - » greater recovery of the cost of project preparation from project recipients.

It was recommended that creation of a new institution that could better coordinate PPFs and undertake project preparation should be delayed until attempts were made to improve the performance of current approaches to project preparation.

The current assessment has taken account of these findings.

1.4. Report Structure

Following chapters of this report consider:

- » the project 'cycle' in general and project preparation activities in particular;
- » features of infrastructure development in Asia;
- » issues related to project preparation from the perspectives of the key players;
- » an overview and assessment of project preparation facilities in Asia;
- » consideration of specific challenges for project preparation and opportunities for improvement drawing on the preceding chapters and the case studies; and
- » key recommendations.

2. Infrastructure Project Preparation

2.1. Overview

The current assessment has identified many different conceptualizations of what is involved in project preparation. Figure 1 sets out a synthesized set of functional activities that are undertaken during project preparation. It also indicates context in which projects are identified, covering the need for an enabling environment and strategic planning, and activities that follow preparation.

2.2. Upstream Needs

Two key sets of activities are needed to provide the context within which projects are identified and developed:

» Enabling Environment

A good enabling environment for infrastructure development allows specific technical activities related to project development to occur with a clear understanding of government policies and direction.

» Strategic Planning

Strategic planning provides the framework within which community needs are identified, and policy and infrastructure responses are identified and examined. Typical outputs from strategic planning are an indicative prioritized program of infrastructure projects, identification of land needed for infrastructure development, policy and operational needs, indicative costs and a proposed financing plan. The results are typically presented in a sector development strategy. It is desirable that a long term perspective be taken to strategic planning. At a minimum, though, a set of initiatives that are needed to meet medium term needs and which are consistent with a government's policy framework should be identified and subject to preliminary review and appraisal.

Figure 1: Infrastructure Development and Implementation Activities



Infrastructure projects that are proposed for preparation should be seen to emerge from these upstream activities.

2.3. Project Preparation Activities

Project preparation, the topic of interest to this assessment, involves taking concepts identified from strategic planning activities and then using a process of refinement, optimization and development to establish, justify, prepare for implementation and seek approval for a project that is the most efficient and effective means to achieve the necessary outcomes. An essential feature of the early stages of project preparation is a need to critically review work undertaken previously to ensure that proposals carried forward are the best approach.

In more detail, the four activities are:

» Project Concept Definition

The individual project to be prepared needs to have been identified in strategic planning activities as a priority project and for linkages with other projects and initiatives to be well understood. Following its identification in strategic planning activities, the project needs to be subject to further pre-feasibility analysis to establish that it is likely to meet investment thresholds and to examine in a preliminary manner if there is potential merit in using private sector capital to implement the project (see the box on page 1 for a definition of a PPP). This work should include consideration of alternative approaches such as policy initiatives, other project concepts and changes in project scale and staging that may have greater merit. The outcome will be definition of a project concept that merits further preparation. The extent of work needed for concept definition will depend on the extent and quality of preceding strategic planning.

» Project Feasibility

A decision to implement a project involves two separate decisions: firstly, that the project is worthwhile (i.e. the 'investment' decision); and, secondly, the best means to finance implementation of the project (i.e. the 'financing' decision). The principal role of the feasibility study is to further develop and assess the project and to provide the evidence to support the first of these decisions. It includes preparation of preliminary engineering design plans, amongst other matters. It is necessary at this stage to give further consideration to financing options and implementation arrangements to the extent that these may influence demand for and features of the project. In practice, work on Project Feasibility and the next stage, Project Delivery Planning, may be undertaken as part of a single study. However, they are differentiated here because it is necessary to first demonstrate that

the project is worthwhile before spending considerable effort to determine the best means to finance and implement it.

» Project Delivery Planning

This stage involves detailed consideration of the best means to implement the project, including formal quantitative analysis to establish if the cost of delivery of the project through a PPP is, on a risk adjusted basis, lower than the cost of conventional government financing. Work can then be undertaken to determine other aspects of implementation arrangements.

» Project Processing and Approval

Following completion of the technical studies, work is required to prepare documents and other materials needed by government and financiers to make a decision to proceed with the project.

Preparation of detailed engineering designs and procurement documents are sometimes considered to be part of the project preparation process. In this case, they could either be included as a final stage in the Project Delivery Planning stage or as an additional activity following this stage. In other cases, detailed engineering design is treated as the first step in the Project Implementation stage. In practice, both situations can occur for a single project, with some detailed engineering design occurring prior to project approval and the remaining under the loan.

The Asian Development Bank (ADB) and the World Bank are the principal multilateral development banks (MDBs) involved in project preparation in Asia. Their approach differs in two major respects. In the case of the World Bank, developing country governments lead the first three of the above activities, with project preparation by staff of the World Bank focussed on the last item. The World Bank also seeks a significant level of detailed engineering design to be done by countries prior to project approval. In contrast, the ADB takes the lead in project feasibility and delivery planning activities. ADB also has products that provide financing for detailed engineering design prior to project approval, with other detailed engineering design undertaken drawing on funding within the scope of the approved project.

2.4. Subsequent Downstream Activities

While not part of project preparation, the downstream activities of project implementation and subsequent monitoring and evaluation, and possible need for re-financing of the project are noted in Figure 1. Lessons learned during the post-implementation stage should be fed back into the preparation of future projects. Like project preparation, project implementation involves a number of individual stages, with the stages varying to some extent for different forms of procurement.

2.5. Distinguishing Project Preparation for PPPs and Other Forms of Financing and Implementation

In general, there need be little difference between the general approach to projects that are financed by government or the private sector. The key difference emerges in the project delivery planning stage and is carried through into the subsequent project processing and approval stage.

In the project delivery planning stage, more detailed and complex analysis is needed to establish if, on a risk adjusted basis, implementation of a project as a PPP will lead to a more efficiently delivered project and to more effective outcomes. If this cannot be demonstrated, the project should be prepared on the basis of being implemented through government financing. The latter may still require further analysis and planning if it involves forms of government financing other than through conventional government budgets and use of loans from external development financiers. If the project is to be implemented as a PPP, further technical work will be required to establish the extent to which design, construction and operational risks should be transferred to the private sector and to plan implementation and contractual arrangements. Contract monitoring is often an overlooked aspect of PPPs.

It is likely that more specific work will be required during the project processing and approval for a project that is to be implemented as a PPP because of the need to meet obligations set out in laws and regulations that govern PPP projects.

The process is substantially different where unsolicited proposals for a PPP are initiated by the private sector. These can be problematic for governments, which are faced with a project of which they may have little understanding and which may not form part of their wider priorities. The lack of competition, both at the overall project equity level and often critically in the construction contracting stages, can often lead to governments accepting lesser commercial outcomes. In this case, the project presented to the government may encompass the work otherwise included in the stages up and including the project delivery planning stage.

This requires government to examine three matters in arrears rather than an ex ante basis. Firstly, there is a need to establish if the project is consistent with government strategic plans (as set out in the strategic planning stage) and if it is worthwhile (as determined in the project feasibility stage). Next, there is a need to determine if implementation as a PPP is more efficient and effective than through conventional government means. Finally, there is a need to establish if the project can be awarded directly to the proponent or needs to be submitted to competitive tendering; this will usually be guided by government laws, regulations or guidelines.

Governments, especially those with less experience in implementing PPPs can face great difficulties in effectively managing these matters.

2.6. Evolution in Project Preparation

The project preparation procedures and guidelines of development agencies, most of which are modelled on those of the MDBs, which themselves are based on the requirements of advanced economies, have evolved over the past three decades. They have increased in number and become more stringent. Initially, requirements were largely limited to procurement and accounting and auditing. As time passed safeguard policies were added to address other essential matters such as involuntary resettlement, environmental assessment, physical cultural resources, indigenous peoples, impacts on international waterways etc. These have to be addressed as part of project preparation, though not all in detail. This adds to the cost of preparation and slows the process.

The general policies and procedures of MDBs and donors across all areas are usually different to those of developing country governments. Approval agencies, generally ministries responsible for planning and for finance, are initially not familiar with the policies: even when they become conversant with them, they can be reluctant to fully apply them, for example to sanction higher compensation costs for involuntary settlement than would be the case for domestic projects. As time passes there is generally a gradual convergence of safeguard principles. However, many developing country governments continue to differentiate between ODA and domestically funded projects in the application of these principles.

While not fully evident, it is possible that the extent of engineering investigation and design undertaken during project preparation has declined over time in the face of budget constraints. This matter warrants further investigation.

A final shift that has occurred over time has been an increase in the scale of projects, including use of larger, broader more programmatic approaches that offer more flexibility and economies of scale. These loans require a different approach to project preparation than conventional project loans, with greater emphasis on preparation of initial elements and setting principles and approval mechanisms for later components. This matter is addressed further in Section 4.3.

2.7. Participant Roles in Project Preparation

There are five main roles in infrastructure investments that receive funding support from MDBs and other development agencies: an approver and guarantor; an owner or sponsor; a financier; an implementing agency; and an operator. Table 1 indicates the participant organizations that are typically responsible for each role

Table 1: Participants in Investment Projects Change as Countries Develop

Development Stage	Role				
	Approver & Guarantor	Owner/- Sponsor	Financier	Implementer	Operator
Low income country	National Government	Government entity	ODA agency	Government Entity	Government Entity
Emerging middle income country	National Government	Government entity	ODA agency and private sector	Government entity or private sector	Government entity or private sector.
Middle income country	National Government	Private sector	Private sector	Private sector	Private sector.

at different stages of a country's development. While this is a very simplistic table and there are many possible variations and permutations (for example, the government in Kazakhstan, a middle-income country, owns, finances, and operates most infrastructure) it serves to illustrate the principal participants involved. As the capacity of low income country institutions develops, the organizations fulfilling the roles change and new participants become engaged. For example as low income countries graduate to middle income status the private sector becomes increasingly engaged and the relative importance of development assistance declines.

Focusing on the low income country stage project preparation mainly involves the approver/guarantor, the owner and the financier. Project owners are normally government entities (typically sector ministries, or local governments) and development agencies are the financiers. Government entities should be responsible for the first three project preparation activities set down in Figure 1 (see Section 2.3) – concept definition, feasibility studies and delivery planning. Central government and the financier are primarily responsible for the fourth activity – project processing and approval.

It is important to make a clear distinction between these two sets of activities. In reality there tends to be a blurring of the roles because low income countries have limited technical and managerial capacity and they are unfamiliar with the stringent preparation requirements of

development agencies as noted in Section 2.6. Development agencies therefore need to provide capacity building and advisory assistance to project owners in parallel to specific project preparation activities. Care needs to be taken to manage conflicts of interest. For example, a financier has a potential conflict of interest in leading the preparation of a project that it will subsequently also appraise and finance. However, their involvement in the project preparation process ensures that it provides the information they need to support their subsequent decision making. The ADB provides direct grant support to project owners up to the feasibility stage through project preparatory technical assistance grants that it manages with government involvement in the drafting of

terms of references and government participation in project preparation activities. The World Bank does this less directly by helping governments arrange grants, often with bilateral donors or via trust funds supported by them, to implement project preparation activities. World Bank staff work with government counterparts in drafting terms of reference and helping supervise the consultants. The project owner prepares detailed engineering designs and procurement documents either as part of project preparation, if the necessary funding can be mobilized, or as part of project financing with the cost included in the project cost.

As countries move to middle income country status there is increased understanding and capacity to draw on private sector participation. It is usually a very gradual process, particularly when international investors and/or operators are involved. In many ways introducing private sector participation is similar to the initial stage of ODA engagement. Developing country governments need help to understand the value of new concepts, develop their capacity to prepare projects in a different way, and to fill skill gaps by funding consultants while internal skills are built up. It also involves convincing key political decision-makers of the value of new ideas and winning their acceptance. This assistance to facilitate the entry of private sector participation is usually provided by ODA agencies.

3. Infrastructure Development in Asia

This chapter provides an introduction to the Asian development context, infrastructure development in the region and regional cooperation.

3.1. Development Context

Asia is an expanse with diverse geographies, peoples and economies. It includes 25 developing countries with a total population in 2012 of 3.7 billion people in Southern Asia, Eastern Asia, South-Eastern Asia and Central Asia (as defined by the United Nations). Eight of the countries were categorized as being low income in 2012, 11 as lower middle income and 6 as upper-middle income (see Table 2). The three groups of countries respectively accounted for 8 percent, 52 percent and 40 percent of the total combined population of all of the countries.

Table 2: Developing Countries in Asia

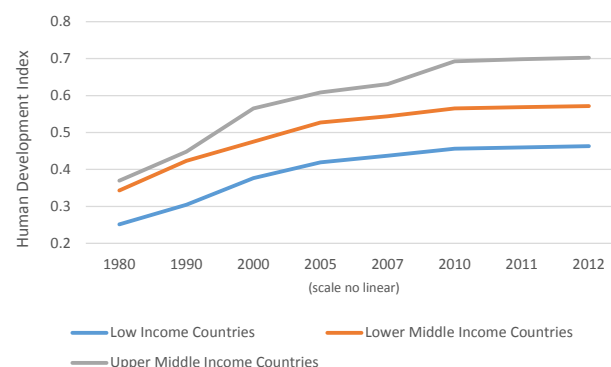
Low Income Countries (LICs) (GNI/capita of \$1,035 or less)	Afghanistan, Bangladesh, Cambodia, Democratic Republic of Korea, Kyrgyz Republic, Myanmar, Nepal and Tajikistan
Lower Middle Income Countries (LMICs) (GNI/capita of \$1,036 - \$4,085)	Bhutan, India, Indonesia, Lao PDR, Mongolia, Pakistan, Philippines, Sri Lanka, Timor-Leste, Uzbekistan and Vietnam
Upper Middle Income Countries (UMICs) (GNI/capita of \$4,085 - \$12,615)	China, Iran, Kazakhstan, Malaysia, Maldives, Thailand and Turkmenistan

Source: World Bank. As categorized in 2012. Some countries have moved from one category to another over time.

The Human Development Index (HDI) for Asian countries has improved markedly over the last two decades (see Figure 2). The rate of change has been most rapid for the UMICs. This has been supported by development assistance and economic growth as well as supportive government policies. The focus of official development assistance has changed since around 2000, with a substantial shift to low income countries (see Figure 3).

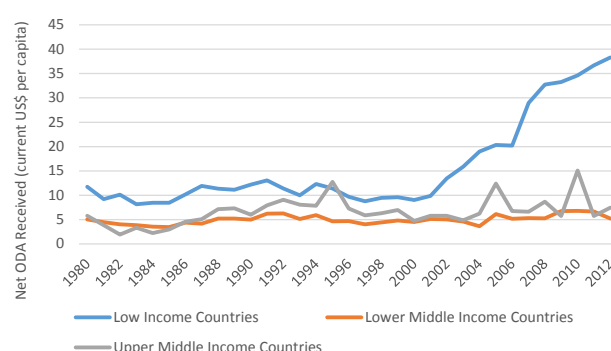
Economic growth in Asia has been substantial (see Figure 4). Gross domestic product (GDP) per capita in constant prices has risen by an average of 3.8 percent per annum in low income countries and lower middle income countries and, most dramatically, by 8.1 percent per annum in upper middle income countries. Even after excluding China, upper middle income countries experienced average annual growth in GDP per capita of 6.3 percent.

Figure 2: Human Development Index in Asia



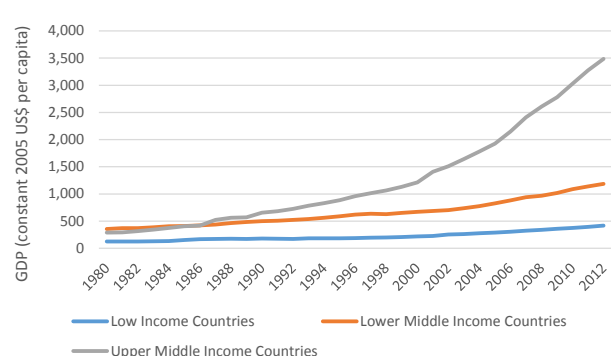
Source: UNDP. Based on categorization of countries in 2012.

Figure 3: Net Official Development Assistance



Source: World Bank. Based on categorization of countries in 2012.

Figure 4: Economic Growth



Source: World Bank. Based on categorization of countries in 2012.

The potential for economic growth is affected by a range of factors, with the competitiveness of the economy and the quality of infrastructure being important factors. The data indicates the challenges for developing countries, low income countries in particular, e.g.:

- » The average unweighted score of the quality of infrastructure in low income countries, lower middle income countries and upper middle income countries in 2012 was 3.0, 3.8 and 4.6 respectively, indicating the infrastructure challenge faced in lower income countries.

Table 3: Global Competitiveness Index and Quality of Infrastructure Index

	Quality of Overall Infrastructure		Competitiveness	
	Rank	Score	Rank	Score
Low Income Countries				
Afghanistan	na	na	na	na
Bangladesh	134	2.8	110	3.7
Cambodia	86	3.9	88	4.0
DR of Korea	na	na	na	na
Kyrgyz Republic	108	3.4	121	3.6
Myanmar	146	2.1	139	3.2
Nepal	132	2.9	117	3.7
Tajikistan	na	na	na	na
Lower Middle Income Countries				
Bhutan	47	4.9	109	3.7
India	85	3.9	60	4.3
Indonesia	82	4.0	38	4.5
Lao PDR	65	4.4	81	4.1
Mongolia	133	2.8	107	3.7
Pakistan	119	3.3	133	3.4
Philippines	98	3.7	59	4.3
Sri Lanka	54	4.8	65	4.2
Timor-Leste	131	2.9	138	3.2
Uzbekistan	na	na	na	na
Vietnam	110	3.4	70	4.2
Upper Middle Income Countries				
China	74	4.3	29	4.8
Iran	76	4.2	82	4.1
Kazakhstan	64	4.5	50	4.4
Malaysia	25	5.5	24	5.0
Thailand	61	4.5	37	4.5
Turkmenistan	na	na	na	na

Source World Economic Forum (2013). Rank is out of 148 economies; score is on a scale of 1-7.

Note: The index for the quality of infrastructure is based on transport, electricity and telephony infrastructure.

- » Similarly, the average unweighted competitiveness score for low income countries, lower middle income countries and upper middle income countries was 3.6, 4.0 and 4.6 respectively, indicating the challenge to achieve economic growth and for facilitating the role of the private sector in public infrastructure.

3.2. Infrastructure Investment Needs in Asia

Several recent studies have identified public infrastructure investment needs in Asia. In South Asia, an investment gap between South Asia's development goals and its actual capability to obtain those goals of between US\$1.7-2.5 trillion over the period to 2020 has been identified. Around one-third was needed for transport, one-third for electricity, and the remainder for water supply and sanitation, solid waste management, telecommunications, and irrigation (World Bank and AusAID 2013). Meeting these needs required, at a minimum, a broad continuation of the level of investment as a share of GDP in the period up to 2009, and possibly a 44 percent rise in the level of investment.

An estimate of investment needs in 30 of ADB's 45 development member countries estimated a need for US\$8 trillion over the period over the decade to 2020 in the transport, electricity, telecommunications and water and sanitation sectors (see Table 4). A little over half of the investment was needed in China. Around two-thirds of the total amount was for new capacity and the remainder for reinvestment in existing life-expired infrastructure. Allowing for differences in the sectors covered, the latter study identified a need for a relatively greater share of the investment to be made in electricity in South Asia than in other sectors. Fifty-eight percent of the expenditure was located in East Asia and the Pacific, 36 percent in South Asia and the remaining 6 percent in Central Asia.

The study identified 1,077 regional projects, which accounted for 4 percent of the total investment program. The projects were all in the transport and energy sectors, with the two sectors accounting for 70 percent and 30

Table 4: Infrastructure Investment Needs in Asia (2010-20)

Sector	Expenditure (US\$'000 billion, 2008 prices)		
	New Capacity	Replacement	Total
Energy (Electricity)	3.2	0.9	4.1
Telecommunications	0.3	0.7	1.1
Transport	1.8	0.7	2.5
Water & Sanitation	0.2	0.2	0.4
Total	5.4	2.6	8.0

Source: ADB (2009:167)

percent respectively of the total cost of the regional projects.

There are considerable aspirations for the private sector to provide financing to meet the gap between the identified needs and the likely capacity for governments to finance the infrastructure through conventional means. Achieving this will require, amongst other matters, capacity in the countries to implement PPPs. A review of the environment for PPPs in 11 developing countries in Asia and the Pacific in 2011 considered the legal, regulatory and institutional frameworks, operational maturity, investment climate, financial facilities and sub-national conditions (EIU 2011). While some countries such as India, and Gujarat State in particular, were well advanced, considerable development was required in others.

3.3. Funding Constraints

The investment needs in Asia far surpass conventional sources of finance. In the case of South Asia, it could require as much as 3 percent of GDP. Similarly, the previously described US\$8 trillion of infrastructure investment needed in Asia in the period to 2020 is equal to average annual investment of US\$800 billion: this is hugely more than the average aid for infrastructure in Asia of US\$11 billion per annum between 2008 and 2011 and private investment that was an average of US\$13 billion per annum over a 20 year period (Wignaraja 2013).

As will be discussed further in Section 5.2, national governments are the primary source of investment in public infrastructure, accounting for approaching 70 percent of total expenditure. World Bank (2013) notes the considerable opportunity for national governments to improve their domestic revenue generation and to contribute to the needed investment. Better and smarter aid also has the potential to contribute, with increased mobilization of capital from private sources expected to play a major role.

3.4. Expenditure on Infrastructure Preparation

No detailed information has been found on the level of expenditure on project preparation in Asia as a whole. In the case of the ADB, the cost of project preparatory technical assistance studies, which involve the project feasibility and project delivery planning activities shown

in Figure 1, does not vary hugely with project scale, and hence can range from around 0.1 percent to 1.8 percent of the total capital cost of projects based on a sample of projects in Vietnam (AusAID 2013). In Vietnam, the prescribed allowance for feasibility studies is 0.2 percent of the cost of projects. The allowance is considerably higher in advanced economies, at between 2 and 5 percent of the cost of a project. While this is partly due to differences in labour costs, it also reflects a higher weight given to project preparation in the latter economies.

3.5. Regional Cooperation

There has been a long history of planning for regional infrastructure, for example with the *Asian Land Transport Infrastructure Development* (ALTID) initiative established in 1992 by the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP). The program comprised Asian Highway and Trans-Asian Railway networks complemented by intermodal transport

Table 5: Regional Organizations

Name	Year Established	Members
Association of Southeast Asian Nations (ASEAN)	1967	Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam
Bay of Bengal Initiative for Multi-Sectoral Technical and Economic Cooperation (BIMSTEC)	1997	Bangladesh, Bhutan, India, Myanmar, Nepal, Sri Lanka, and Thailand
Brunei Darussalam-Indonesia-Malaysia-Philippines-East ASEAN Growth Area (BIMP-EAGA)	1994	Brunei Darussalam plus provinces in Indonesia, Malaysia, and Philippines
Central Asia Regional Economic Cooperation (CAREC)	1997	Afghanistan, Azerbaijan, Kazakhstan, Kyrgyz Republic, Mongolia, Tajikistan, Uzbekistan, plus the Xinjiang Uygur Autonomous Region and the province of Inner Mongolia of the People's Republic of China (PRC)
Greater Mekong Subregion (GMS)	1992	Cambodia, Lao PDR, Myanmar, Thailand, Viet Nam, plus Guangxi and Yunnan provinces of the PRC
Indonesia-Malaysia-Thailand Growth Triangle (IMT-GT)	1993	Provinces in Indonesia, Malaysia, and Thailand
South Asian Association for Regional Cooperation (SAARC)	1985	Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, and Sri Lanka
South Asia Subregional Economic Cooperation (SASEC)	2001	Bangladesh, Bhutan, India, and Nepal
Subregional Economic Cooperation in South and Central Asia (SECSCA)a	2003	Afghanistan, Pakistan, Tajikistan, Turkmenistan (associate), and Uzbekistan

Source: ADB/ADBI (2009)

Box A**Regional Infrastructure: Southern Coastal Corridor**

The governments of the Greater Mekong Subregion (GMS) countries have given high priority to the development of transport infrastructure links that will facilitate regional and international trade and economic cooperation. Under the auspices of the GMS, a set of major regional transport corridors were identified and a regional cooperation strategy and plan developed (ADB 2006).

The Southern Coastal Corridor is one of the transport corridors. It is a 924 km long road that runs along the Gulf of Thailand coast from Bangkok through Thailand, Cambodia, and ends at Nam Can in the southern end of the Mekong Delta in Vietnam.

Substantial sections of the road have, and continue to be, upgraded through a range of related projects. 105 km of the road and major bridges in Vietnam and Cambodia are being improved through separate loans from the ADB to the Governments of Vietnam and Cambodia. The loans have complementary co-financing from Australia and Korea. The projects also include the upgrading of all border facilities in Vietnam and Cambodia at their borders and the border between Cambodia and Thailand. The latter work occurs within the framework of the GMS Cross-Border Transport Agreement. The total cost of the project is approximately US\$329 million. The project were prepared under the auspices of the ADB through separate contracts with regard to works to be undertaken in each of Vietnam and Cambodia.

The above support has been complemented by the upgrading of 151 km of road and four major bridges in Cambodia with funding support from the National Economic Development Authority of Thailand. Finally, the Government of Thailand is upgrading its section of the corridor.

The lessons to be learned from the project are:

- » the need for an overall guiding plan;
- » recognition that projects are implemented by national governments, which requires that projects be prepared in a manner consistent with this mode of implementation and associated approval processes; and
- » a need for leadership by a regional organization to coordinate actions by governments for cross-border, inter-related projects.

terminals. Similarly, UNESCAP (2008) identified the potential for integrated energy systems.

Substantial progress has been made with the development of sub-regional and cross-border infrastructure. This has been facilitated by cross-border ethnic and business relationships, pragmatic government action and a range of overlapping institutions (see Table 5). Cross-border infrastructure is most advanced in the Greater Mekong Subregion (GMS), which was established in 1992 with assistance from ADB (e.g. see GMS Ministerial Conference 2013 for a regional investment framework). While the slower rate of development in other regions does not seem to have been a major constraint to date, ADB/ADB (2009:8) identified a future need for greater emphasis to be placed on a “more top-down, market-expanding, and demand-inducing approach geared toward creating a seamless Asia”, with this to be achieved by strengthening and integrating existing subregional programs and the creation of a fund that could mobilize capital and help prioritize, prepare, and finance regional infrastructure projects.

Ultimately, regional infrastructure projects are implemented by national governments working through coordinated actions. This can be facilitated by development agencies working with regional organizations as well as national governments. To date, this arrangement appears to have worked well in developing regional infrastructure in the GMS (e.g. see Box A), though it may require increasing sophistication in the future as the demand for regional infrastructure grows and its provision becomes more complex.

4. Perspectives on Project Preparation

4.1. Introduction

This chapter considers project preparation in Asia from the perspective of developing country governments and the main external infrastructure investors, the multilateral development banks in particular, and the private sector. It draws on the case studies conducted in the current review, and the case study for Vietnam in particular, discussions with a range of stakeholders and the assessment team's work experience in the region.

The MDBs perspectives are important, as they are, combined, the largest and most influential providers of ODA. This is not to underestimate the very important role played by other development banks such as L'Agence Française de Développement (AfD), KfW Bankengruppe (KfW), the Japan Bank for International Cooperation (JBIC), whose concessional loan function is now merged with the Japan International Cooperation Agency - JICA), KoreaEximbank and bilateral donors. Indeed, JICA provides a similar level of funding in Asia to the MDBs. Bilateral donors have advantages over the larger development banks in terms of flexibility and responsiveness. They can also play a valuable role in partnering with the development banks to provide additional finance and to improve the quality of project preparation.

As countries graduate along the development pathway from low income country to middle income country status there is a gradual change in the relative importance of ODA, government and private sector involvement in infrastructure (as discussed in Section 2.7). The change is triggered by rising economic growth that increases the demand for additional and more complex infrastructure. Developing country governments increased familiarity and comfort with international procedures and practices for infrastructure investment is a further important factor in creating an enabling environment for private sector participation.

As already noted in Section 2.7, a clear distinction needs to be made between preparing an externally assisted project, and processing or appraising it for financing. The former is the responsibility of the developing country government, while the latter is the role of the MDBs or other financier. The MDBs also have a broader role as development institutions that disseminate knowledge and good practice and provide analytical and advisory services. This can obscure and confuse the distinction in responsibilities. They need to help governments understand their procedures and policies. In many cases they also have to help raise finance on behalf of developing country governments to enable projects to be

prepared to the standards they require, which generally are much more demanding than governments own requirements for domestic projects.

Development banks, donors and private sector investors and service providers face similar challenges in preparing projects when they first engage with low income countries. Governments have limited understanding of the required international practices and, in the initial stages at least, limited technical, managerial and institutional capacity to deal with their often more sophisticated bidders and prospective partners. Ways in which the different parties address these challenges are presented below together with recommendations for actions that could be taken to improve project preparation.

4.2. Developing Country Governments

Underlying nature of the infrastructure sector

The underlying nature of the infrastructure sector in a developing country affects how the country responds to development assistance and other investment. It has a profound effect on project preparation; the extent of non-project specific support required in terms of sector analysis, policy reform, capacity building etc. required; the degree of external expertise required for project preparation; and the time it takes the Government to approve a project proposal that in most cases differs significantly from the requirements of domestic projects. Factors include:

» Extent of state involvement

In developing countries the state tends to be more involved in all aspects of infrastructure delivery from planning through to operation. State-owned enterprises (SOEs) and state controlled banks often play very influential roles. This can create distortions and the development consensus is to promote market forces through competition as a better alternative. Moving towards a more open economy takes time and the transition creates challenges in the planning, preparation and execution of infrastructure projects.

» Decentralization

The rapid pace of development often requires centrally managed economies to increasingly delegate responsibility to sub-national levels. This often occurs quite rapidly and without adequate preparation in terms of clarifying responsibilities through legislation and associated implementation guidelines. It also takes time for the sub-national

authorities to gain the necessary experience and skills to fulfil their new responsibilities. As sub-national governments are often responsible for preparing local infrastructure projects this creates challenges.

» Inter-agency coordination

Problems with coordination can exist between central authorities such as the ministries responsible for planning and finance and the infrastructure sector ministries. While the former are the ultimate decision makers, particularly in relation to projects financed with development assistance, the latter can operate with considerable autonomy, particularly if they have access to significant sources of revenue, including foreign exchange. This is often the case of ministries and other government entities involved in energy, telecommunications and trade/transport (e.g. seaports and airports). In a similar way, large provincial and municipal local governments may have significant autonomy based on an ability to generate revenue. Institutional tensions such as these can create difficulties in securing approvals throughout the project preparation process.

» Inadequate funding of project preparation

Generally speaking funds allocated for feasibility studies in developing countries are low, as described in Section 3.4. In some countries, the combined allowance for feasibility studies and the preparation of detailed designs and bidding documents is around 2 percent or so of the estimated construction cost of the project. This compares with expenditure in developed countries of 7-15 percent depending on the nature of the project. Even allowing for differing factor costs, there is a substantial difference. Under-spending on project preparation stifles innovation and optimization and results in poor quality designs, inaccurate cost estimates and a heightened risk of problems emerging during construction.

» Country level approval processes can delay project preparation

Approval procedures in developing countries are commonly centralized and bureaucratic. In some countries many decisions relating to ODA projects need to be sanctioned by political leaders. Procedures relating to project preparation are also often prescriptive, sometimes to the extent of indicating the price of inputs to be used in cost estimation. Excessively rigid procedures make it difficult and time consuming to get subsequent approval of the inevitable changes that occur as a normal progression of the project preparation process. More flexible approval processes that take due account of cost control needs would be more productive.

ODA dominates the initial phase of engagement

Infrastructure development in low income countries typically progresses through an initial phase of restoring the functionality of degraded primary infrastructure – the roads, seaports and airports, power generation, electricity transmission and distribution networks, telecommunications and water supplies. At this stage in the poorest developing countries, in particular those emerging from conflicts, ODA can often be the major source of finance for infrastructure investment. As growth progresses the relative importance of ODA declines as other sources of investment are mobilized.

The strings attached to ODA relating to development assistance affect project preparation

Development assistance comes with a range of fiduciary (procurement, accounting and auditing) and safeguard (environmental impact, involuntary resettlement etc.) policies and procedures to accompany it. As noted in Section 2.6 the World Bank's mandatory safeguard requirements have increased over time and now number ten. The international community has sought to simplify and harmonize processes, though there remains much to be done. Thus various development banks and donors may have different procedures and these are often very different from those of the governments of developing countries. Such policies and guidelines are an important and integral part of the broader development agenda. They have added to the level of effort required for project preparation, though commensurate additional funding has not always been available.

Introducing these new concepts and gaining acceptance of them is more complicated in countries where English, the most widely used language for international business, is not extensively used or understood. Development banks and donors also tend to work primarily with technocrats in the civil service. Politicians, the ultimate decision takers, may not gain a full understanding of the reasons for the required policies and procedures. Broader communication of these issues with the community and other stakeholders is often deficient, which can lead to the emergence of interest groups that challenge projects.

Development accentuates the need for better strategic planning

In the initial stages of low income country development the priorities for infrastructure investment are fairly obvious and they deliver high rates of return as bottlenecks are relieved. As development progresses and economies grow two things tend to happen. Firstly there are fewer "obvious" projects with high rates of return and, secondly, rising demand increases competition for scarce resources. This emphasizes the need for better upstream strategic planning to identify and prioritize projects that should then progress to more detailed investigation and subsequently to preparation and implementation.

Inadequate strategic planning can lead to disruption and wasted effort if the project preparation stage reveals that returns are not sufficient to justify investment. It also risks implementation of projects that are not those with the greatest value to communities and the economy. Moving to more systematic and rigorous strategic planning is however no small task. It not only requires introducing different ideas and building new competencies but more importantly, it requires mindsets to be changed. This would be a valuable area for development banks and donors to concentrate technical assistance.

Private sector engagement

As countries graduate to emerging middle income status space opens up for public private partnerships (PPP) for the financing, implementation and operation of public infrastructure. In many ways introducing private sector participation is similar to the initial stage of engagement with development banks and donors. As previously noted it involves introducing new ideas and explaining different development paradigms.

Two major challenges are the political acceptability of PPP and the capacity of governments to manage PPPs. Changes over time have lessened the first of these challenges, though governments may still have different conceptions of PPPs. The second matter has two aspects: the legal and institutional framework for PPP, and the management of PPP-related activities. While progress on the first has been achieved, developing countries in Asia generally achieve low overall scores with regard to their quality of their environment for PPPs (EIU 2011). At the project level developing country governments also face the challenges of matters such as the complexity of transactions with the private sector, the contingent liabilities that can arise from guarantees required by investors on returns via power purchase agreements and currency convertibility for example, and the length of time it takes to reach closure on transactions.

For these and other reasons, recipient governments sometimes prefer to negotiate Build-Operate-Transfer (BOT) or Build-Own-Operate (BOO) arrangements directly with the private sector. They also prefer dealing with local investors or companies than international organizations. It is common for contracts to be negotiated with SOEs, or other companies with an element of government control, and for financing to be arranged through state controlled banks. While such arrangements are much more predictable in terms of timing and apparent cost, the full project risk is ultimately borne by the national budget. Opaque arrangements of this type are also open to corruption. Dealing with the private sector through competitive processes undoubtedly poses real challenges for governments but perseverance would almost certainly deliver benefits in terms of efficiency and innovation as well as attracting additional investment from new sources.

A final challenge remains. The case for PPPs is commonly presented as a need to meet a financing gap between public infrastructure needs and limited government funding. However, the technical criterion for using private sector finance rather than government finance is that the former has lower cost on a life-cycle, risk-adjusted basis. That is, use of the private sector finance and expertise enables risks that the private sector can manage to be transferred to them and, through careful management of these risks and costs, the private sector can deliver the infrastructure and associated services more cost-effectively than with government implementation.

Implications for developing country governments

As noted at the beginning of this sub-section the underlying nature of the infrastructure sector in developing countries has a profound effect on projects that are prepared for external financing. Project preparation in the least developed countries involves much more than what is required in a middle income country that over time has been exposed to international procedures and practices. For the most part activities such as sector analysis, policy reform and capacity building are seen by the MDBs and other donors as separate and distinct from project preparation and are not normally covered by PPFs. Private sector participation in public infrastructure tends to be an exception because it is recognized that establishing an appropriate enabling environment is a key pre-requisite, including for example policy and legislative reform. Developing country governments therefore need to be willing to work with the MDBs and donors to bring their infrastructure policies, procedures and related legislation into line with international practice. For their part the MDBs and donors need to invest time and resources in understanding recipient government policies and procedures so that a mutually agreed change agenda can be devised and implemented over a realistic time period.

With regard to the matters discussed in this sub-section there are four particular implications for developing country governments, being a need to:

- » allocate more funding for project preparation to improve the quality of project designs, to stimulate innovation and to facilitate implementation, all of which promote more efficient use of funds;
- » adopt more streamlined and flexible project approval procedures to speed up project preparation, while still maintaining consistent project approval and adequate measures for budget control;
- » adopt more systematic and rigorous strategic planning and program development and improve project prioritization and pre-feasibility study to avoid the risk of wasted effort on subsequent project preparation activities; and

- » consider more carefully the opportunities to use the private sector to finance, implement and operate infrastructure and to engage private sector participation through open competitive processes.

4.3. Multilateral Development Banks

Collaboration between the MDBs and bilateral donors

Bilateral donors tend to be heavily engaged in the initial stages of project development. Most fund their activities through grants. MDBs and bilateral donors often collaborate on project preparation. This is advantageous as developing country governments are rarely willing to borrow for project preparation, other than for detailed engineering design, even when the financing is available on highly concessional terms. Grants may be directly arranged at the country level or provided through trust funds that are managed by the MDBs and which are often supported by multiple donors. For example, the ADB has over 50 financing partnership facilities and trust and other funds, and in 2013 the World Bank was managing over \$29 billion in over 200 trust fund programs, though not all of these are used for project preparation¹.

Over the past decade the MDBs and many bilateral donors have decentralized their operations to country offices. This has led to the emergence of broader local partnerships between the MDBs and some donors, for example between Australia and the World Bank in Vietnam, Indonesia, the Philippines and South Asia. The partnerships cover upstream analytical activities and the co-financing of projects as well as project preparation. In Vietnam, staff of both institutions reported that they found the arrangement to be more effective than centrally managed arrangements. The advantages cited include the obvious reason that the staff have more direct control but also that the partnerships are structured in a more flexible way that allows funding to be readily transferred between activities or allocated to new activities that emerge unexpectedly and thus to allow better targeting of government priorities.

The main disadvantages of decentralized arrangements funds are their limited scale and geographic scope, which leads to less transfer of experience between countries, a larger administrative task to maintain oversight of a number of national funds by each donor, less flexibility in transferring funds between countries and a transaction cost as users of the funds seek finance from various donors with local facilities. A further benefit of a centrally managed facility is a greater ability to promote a consistent approach and quality control. Ultimately, the key to success is application of discipline, consistency, and predictability, ensuring that matters such as principles of qualifying criteria, assessment, structuring, output

performance specifications and contracts are established and met.

The extent to which the bilateral donors engage in projects varies. Some play an active role and understandably require recognition to be able to respond to their own domestic constituencies. Such involvement of a third party in project preparation can add complexity. Conversely, it is easier to manage when the arrangements are managed at the country level. Accessing centrally managed funds can have considerable transaction costs for MDB staff. The challenge is to devise arrangements that meet the needs of all parties with the minimal possible overhead costs. As development progresses, bilateral donors gradually disengage and new ways of funding project preparation need to be found.

Preparing detailed engineering designs and procurement documents

As noted in Section 2.3 the preparation of detailed engineering designs and procurement documents is sometimes included, at least partially, as part of project preparation. It is clearly in the interests of both parties and the ultimate beneficiaries that delivery of infrastructure investments commences as soon as possible after financing has been agreed. To address this goal a “readiness criteria” is applied to projects in some instances. These include requiring at least 30 percent of the planned infrastructure investments to be fully designed and ready for bidding before the project is appraised. The cost of detailed engineering design and associated procurement documents can be some tens of millions of dollars. Financing this is a challenge. To improve project readiness, ADB has recently improved its Project Design Facility (PDF) which provides advances on future loans to finance detailed engineering design. To be eligible for the PDF, advance procurement action to engage consultants needs to be undertaken to ensure that upon release of the advance, consultants can quickly be mobilized. The reforms also provide for a “master agreement” for developing member countries to enter into to help streamline internal government approval processes for subsequent advances. ADB is also developing readiness filters to identify projects with detailed designs developed prior to approval of ADB financing, from other projects which may need additional time for implementation.

For conflict of interest reasons neither ADB nor the World Bank can use their operating budgets to finance project design. The matter is addressed further in the next item.

Specific project preparation facilities and initiatives

Developing country governments have an understandable preference for project preparation to be funded by grants.

¹ <http://www.adb.org/site/funds/funds>; and <http://web.worldbank.org/WBSITE/EXTERNAL/EXTABOUTUS/ORGANIZATION/CFPEXT/0,,contentMDK:23568159~menuPK:90>

The main source of grants is from bilateral donors and internal resources of the MDBs. As countries make development progress the bilateral donors gradually withdraw and so new means of financing project preparation have to be identified.

As indicated in the previous section, slow preparation of detailed engineering designs and of procurement documents slows project implementation. The World Bank and ADB have responded to this challenge in various ways, including the provision of lending products for preparation – Project Preparatory Technical Assistance loans and the Project Design Facility (discussed above) in the case of the ADB, and a Project Preparation Facility, which is essentially a loan advance, in the case of the World Bank. The arrangements when utilised allow detailed engineering design to occur immediately following the completion of project feasibility and delivery studies (and even earlier if appropriate), and in parallel to the processing of project and the gaining of financing approvals by developing country governments and the MDBs. This in turn allows a project to go directly to implementation following the completion of approvals rather having to await the commencement and completion of detailed engineering design to first occur.

The MDBs also offer concessional loans to governments for stand-alone project preparation facilities that can be drawn on to finance project preparation activities. Three such facilities with a total loan value of around \$170 million are currently active in Vietnam. Other countries in the region such as Indonesia have taken on similar loans.

Somewhat surprisingly governments have been reluctant to utilize loan-based funding facilities. The Project Preparation Technical Assistance Facility Project in Vietnam, for example, only disbursed \$19 million in its first 3.5 years of operation and another similar facility had not disbursed any of the \$38 million loan allocated in its first 1.5 years of operation.

Four reasons seem to underlie this situation. Firstly the availability of grants from donor PPFs or similar to fund early stage project preparation in low income countries seems to create an continued expectation for continued support and a consequent reluctance to borrow, even on very concessional terms, as development progresses. Secondly, governments tend to regard even small loans, or advances of future loans, as distinct projects and agencies have to follow the same centralized, bureaucratic and protracted approval process that applies to full-scale investment projects. This discourages the agencies responsible for preparing projects from making applications. Next, they require governments to agree to borrow for advance activities for a project that has not yet been formally approved for implementation. Lastly, even in the case of “project facilities” where governments have recognized the need to borrow for the latter stages of project preparation, problems arise. These seem to stem from a combination of: the rigid approval

procedures referred to above, development partner requirements, and misunderstandings or rivalries between ministries – project facilities are often located within planning or finance ministries that do not necessarily appreciate the needs of sector ministries and local governments that are responsible for planning, implementing and managing public infrastructure.

More positively, since commencing in 2010 an impressive pipeline of PPPs has begun to emerge from a PPF under the Philippines PPP Center that is being funded from the national budget (around \$44 million) along with grants from Australia (\$18 million).

Japan, through the Japan International Cooperation Agency (JICA), has been active on a bilateral basis for a number of years. In the Philippines, for example, JICA is supporting project preparation initiatives such as the Formulation of Master Planning through Technical Cooperation for Development Planning (JTCDP) as well as the Formulation of Feasibility Study through Preparatory Survey (JPF). Such support, some of it going back a number of years, helped pave the way for flagships PPP projects such as LRT Lines 1 and 2 extensions, Bohol Airport, and the Cavite-Laguna Expressways. In addition, JICA is starting a new initiative for Technical Cooperation for Capability Improvement to Implementing Agencies (IAs), providing hands-on training on critical project preparation elements such as: financial modelling; risk allocation; and strengthened engineering analysis in project formulation to increase the confidence of potential bidders. This will help fill a gap between master planning, feasibility studies and financing. This new TA will complement existing Japanese initiatives such as the Japan Fund for Poverty Reduction managed by ADB which targets planning agencies and the Philippines PPP Center to improve their due diligence capability.

ADB is currently seeking to establish an Asia Pacific Project Preparation Financing Partnership Facility. This will be a standalone facility within the ADB that is able to work on any or all aspects of upstream and project preparation and delivery planning activities. It will focus on PPPs in which the private sector will provide the majority of the financing needs of projects. Support will be prioritised for key themes of climate friendly projects and greater regional economic integration. Special consideration will be given to supporting proposals from countries that have less capacity and relevant experience. The facility will seek to work with a range of partners and project preparation platforms. It will not provide finance for project implementation, nor will ADB commit to financing prepared projects. Rather, optimal financing arrangements will be identified for projects that draw on the full spectrum of potential financiers including commercial, export credit, private, official and MDB sources (including ADB) as appropriate. It will seek recovery of its costs in cases where private sector transactions are successful.

New ways of doing business

The MDBs are introducing new ways of doing business, in the infrastructure sector. In response to a request from the G20 Ministers of Finance and Central Bank Governors at their meeting in February 2014, the World Bank Group (WBG) prepared a note on the measures they are taking to enhance lending capacity, including for infrastructure investment.

These measures include: optimizing the WBG balance sheets, increasing leverage at the International Finance Corporation (IFC); and enhancing the catalytic role of the MDBs by establishing a Global Infrastructure Facility (GIF) – see the next page for more detail on the GIF). Optimizing balance sheets would be achieved through a combination of reducing operational costs, increasing revenues and better mobilizing internal and external resources. This would enable higher single borrower limits, lowering IBRD's minimum equity to loan ratio downward from 24 per cent to 20 per cent, restoring the 25 basis points commitment fee charged on undisbursed balances and offering longer maturities.

IFC established the IFC Asset Management Company in 2009 as a wholly owned subsidiary to raise and manage third party capital. So far it has raised a total of \$6.3 billion through 6 funds, the most recent of which is the IFC Global Infrastructure Fund. This has raised \$1.2 billion, which assuming typical capital structures at the project level is expected to support about \$18 billion in infrastructure investment over the next 5 years.

Changes are also taking place at the operational level, partly to create more impact and partly as a response to diminishing operating budgets – staff have to do more with less. MDBs are moving from 'retail' (one project at a time) to 'wholesale' lending (broader, more programmatic approaches that offer economies of scale). The latter includes Output, or Results Based Lending in which most funds are disbursed on the achievement of independently verified results, and Multi-Tranche Financing Facilities (used by ADB) that commit funding to an initial project prepared in the usual manner and in principle to a series of ongoing projects with the cost of preparation for the successive projects incorporated in the financing facility. Some programs or projects are being delivered by providing lines of credit to financial intermediaries in developing countries. The MDBs also appear to be moving to prepare fewer but higher value projects.

In the recent midterm review of its Corporate Strategy 2020, ADB reinforced its support for infrastructure development and committed to new measures to strengthen its project development role and to improve the leveraging of its resources to attract increased finance from the public sector, private sector and other development partners. New ADB initiatives include improved use of existing project preparation facilities and establishment of new ones. Actions include the proposed Asia Pacific Project Preparation Financing Partnership

Facility, developing infrastructure projects on a scale larger than ADB's resources can support on their own, preparing projects at a level and quality that can attract private sector investment, reducing operating costs to release funds for capital investment, linking PPP projects with private sector institutional sources of long-term finance, developing the capacity of domestic capital markets for infrastructure finance, accelerating the use of credit enhancement products, and replicating innovative instruments for infrastructure financing.

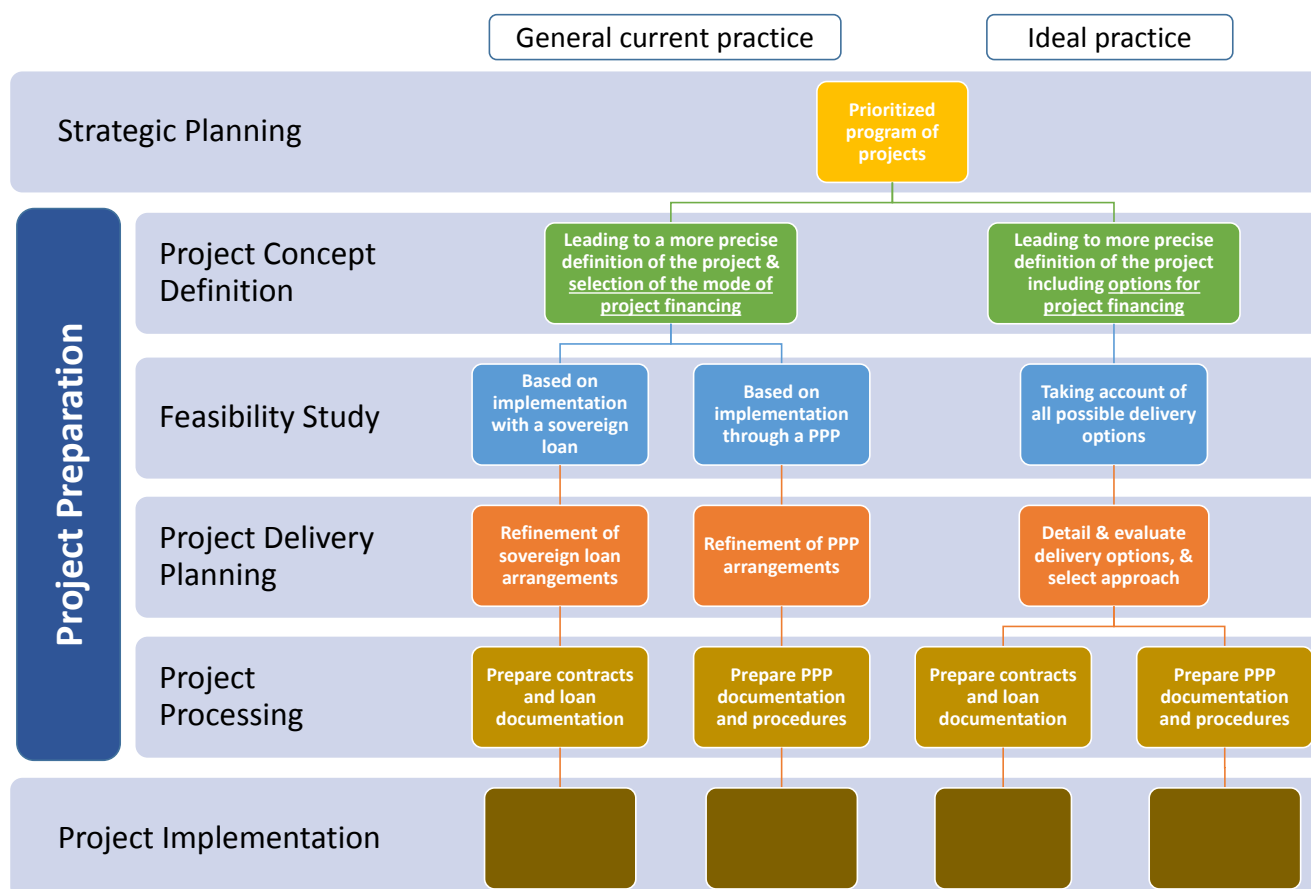
To help address the large infrastructure deficit in the Asia-Pacific region, ADB is seeking to enhance its overall lending capacity by increasing revenues, strategically reducing loan exposure through various risk-mitigation measures and risk-transfer agreements, and will consider combining its Asian Development Fund's lending operations with its ordinary capital resources balance sheet to increase lending capacity.

All of this is changing the way that projects are prepared. The programmatic approach requires more emphasis on devising systems that will guide and govern the way individual investments within the project or program are prepared. With regard to project preparation, this requires a clear development policy and strategy for the project sector, prioritization of projects in the sector and principles needed to guide subsequent stages of the loan program, i.e. to place a greater need for the upstream activities shown in Figure 1.

More generally, there is a risk that reduced time and budgets for project preparation will make it more attractive to develop simpler projects that require fewer resources to prepare. Developing country governments generally have sufficient capacity to prepare simpler projects. The relatively greater need for development assistance is for support for more complex projects, such as those that involve more than one technical sector and different agencies of government, projects that have aspects that are new to the developing country government and those that have a poverty focus – these projects require more resources to prepare but have the potential to deliver benefits to affected communities and to increase government capacity.

Finally, greater use of the private sector for the financing and operation of projects will also place new demands on MDBs and developing country governments. In addition to requiring more explicit investigation of private sector participation during project preparation, it will change the nature of detailed engineering design work that is undertaken and will require the task of arranging a sovereign loan to the government to be supplemented or replaced by the more substantial task of analysing, developing and implementing PPP arrangements. Both the ADB and the World Bank Group have facilities to provide transaction advisory assistance.

Figure 5: Timing of Financing Choice in the Project Preparation Process



Choice of financing mode

Current conventional practice is for projects supported by development assistance to be prepared on the basis of a pre-determined mode for funding project implementation. A sovereign loan is usually the default position as the primary funding source. However, at the concept definition stage only limited information is available to support analysis on which an informed choice of funding modality can be made.

Project feasibility studies commonly include an activity to investigate alternate funding arrangements. However, it appears to be rare for the previously identified sovereign loan funding approach to change during the course of project preparation. This suggests there are either few opportunities for private sector participation, or insufficient consideration is given to the option. ODA-assisted projects, whether fully sovereign financed or some form of PPP, thus follow the left-hand (General current practice) path in Figure 5. Ideal practice (the right hand path) would be to keep the choice of funding option open until the feasibility study has been completed. At this time there will be a better understanding of the project and more precise data will be available. This will make it easier to identify the possible private sector participation options

that could be used and to analyse the options quantitatively to determine if any could result in a lower cost, on a risk adjusted, life-cycle basis, than implementation through a sovereign loan. This work includes identifying potential risks associated with project implementation and operation, establishing how responsibility for managing them should be allocated between the government and the private sector, and determining measures to manage and ameliorate the risks.

As noted above the WBG is developing the GIF, which would inherently separate financing decisions from feasibility considerations. The GIF's main aim is to overcome existing constraints to developing and financing priority infrastructure in developing countries by integrating technical, advisory and financial support from across multilateral development banks with the goal of mobilising resources from both official and private sources. It will provide both upstream and downstream support for infrastructure investments. The upstream support will comprise integrated technical, and advisory assistance for infrastructure development from within the WBG to assist client countries with regulatory, and institutional strengthening, market reform, and in the selection and preparation of projects. The form in which

project preparation assistance will be delivered has still to be defined. Downstream support will comprise help leverage financing from public/official sources (other MDBs, national development banks, donors, and sovereign wealth funds) and the private sector. The WBG has indicated that the GIF will be launched as a pilot housed within the WBG. It will be supported by a small unit that will coordinate across the various global practice groups (where technical and advisory expertise is located).

The GIF approach appears to be similar to that adopted for Africa50 Infrastructure Fund (see Box B) and earlier, at a much smaller scale, by Infracore in Africa and Infracore Asia. Africa50 is an investment vehicle proposed by the African Development Bank that is intended to mobilise private sector finance for infrastructure. It will be developmentally oriented but commercially operated entity. It will seek to scale-up infrastructure financing by targeting project development and investment financing for commercially viable national and regional infrastructure projects in the energy, transport, information and communications technology (ICT) and water sectors. A key objective of Africa50 is to shorten the time between project idea and financial close from a current average of 7 years to under 3 years. Like GIF it will support project development and will leverage investment finance. Its primary objective is to reduce the typical seven years that it takes for a project to move from inception to financial closure.

Implications for the MDBs

The above discussion suggests six matters of importance with regard to project preparation by MDBs:

- » consideration should be given to finding ways of capturing the benefits of facilities and trust funds managed at the country level while getting the economies of scale that derive from regional level arrangement;
- » a need to review jointly with developing country governments the operation of stand-alone project preparation loan facilities to identify the constraints to them achieving their full potential and attempt to address them;
- » a need to continue to seek ways to expedite the preparation of detailed engineering design and procurement documents so that project implementation is not delayed unnecessarily;
- » there may be a case for balancing the longer-term goals associated with development policies against the more immediate goals of infrastructure development by adopting a more nuanced approach to project preparation requirements;
- » changes in development institutions, their business models and the use of greater private sector participation place new and different demands on

Box B

An Introduction to Africa50

Africa50 will operate as a separate commercial entity with two business segments specifically focused on project development and financing:

- » **Project Development:** The primary objective of this segment is to increase the number of bankable infrastructure projects in Africa through substantially increased funding of early stage project development activities. Africa50 will make skilled legal, technical and financial experts available to projects from an early stage of development, sharing costs with member governments and developers and recovering its funding at financial close or through a carried interest in the project.
- » **Project Finance:** This segment will focus on delivering the financial instruments required to attract additional infrastructure financing to the continent. These will include equity and debt products as well as credit enhancement and other risk mitigation measures geared at attracting non-traditional funders such as institutional investors and international investment banks.

These segments will operate as separate business lines with projects from the development segment being available to all financiers. Projects would need to meet specific criteria for project financing. The Africa50 is currently in the process of fundraising, with its launch imminent.

project preparation by MDBs in particular and development partners more generally; and

- » emerging initiatives such as the GIF and similar facilities such as the Africa50 Infrastructure Fund should provide increased opportunities for greater private sector participation in infrastructure – their performance should be monitored closely and if successful disseminated widely to attract additional funding.

It appears that initiatives such as the afore-mentioned WBG's Global Infrastructure Facility and the African Development Bank's Africa50 intend to adopt a more holistic, catalytic and inclusive approach to infrastructure development that would address most of the above matters. Achieving the appropriate balance between the broader developmental aspects and the more focussed project level activities envisaged as upstream support and leveraging financing from a combination of public and private sources at the downstream end will be the key to the success of these facilities. At this stage the WBG has not indicated how the current PPFs they manage would fit with the GIF; whether they would co-exist or would gradually be subsumed into it.

4.4. Private Sector

Many of the issues relating to private sector participation have already been addressed in the previous section. Several matters are of particular importance to project preparation.

Firstly, the feasibility study stage involves determining the features of a project and whether the project is worth implementing. While there is a need to have an understanding of possible implementation and ongoing operating (including maintenance) arrangements during the feasibility study stage, detailed consideration of how the project should be delivered should occur after the project has been justified. That is, the 'investment' analysis (to establish if the project is worth implementing) should precede the 'implementation' analysis (to determine how the project should be best financed and implemented). By the time many ODA-assisted projects enter the project preparation process, the means for financing the project has been established – generally as a sovereign loan, sometimes with some grant co-financing. If greater private sector participation is to be achieved, recognition should be given to the need to undertake more specific and detailed consideration of private sector participation during project preparation, to provide the time and resources to undertake this work, and a willingness to change the funding mode if the work indicates this has merit.

Next, there is a need during this second stage to identify and undertake quantitative analysis of options for private sector involvement in the financing, construction and long-term operation of the infrastructure. The criterion for using private sector capital should be that, on a risk adjusted basis, the cost of using the private sector is less than with conventional financing and implementation arrangements. If this criterion is not met, the latter means should be adopted in ongoing project preparation. Thus, the value of using private sector capital to supplement conventional government resources has merit. That is, the use of private sector capital emerges as a consequence of it providing better value for money rather than a policy imperative for private sector investment in public infrastructure.

Thirdly, there are numerous technical matters related to private sector participation that need to be resolved. For example, a transaction involving the private sector should include the transfer to the private sector of risks that it can manage. Thus for example, construction risk would typically lie with the private sector and regulatory risk would remain with the government. It takes time for new concepts such as this to gain acceptance, particularly in countries where governments have traditionally exercised a high level of central control. Other important matters are: the provision of sovereign guarantees covering risks such as currency convertibility and revenue streams that are subject to government control; the inherent risk premium reflected in the rates of return expected by the private sector; the duration of contracts (governments prefer to be locked in for shorter terms); and the domicile and legal system of the arbitration authority (developing countries prefer local arbitration).

Finally, there is the matter of addressing unsolicited bids and other forms of directly negotiated contracts for private sector investment in public infrastructure. This review does not seek to address this matter in detail other than to note that unsolicited bids for projects that differ from the projects identified through government strategic planning imply either government failure to identify the projects needed to support economic and social development or opportunistic self-interest by the private sector proponents. This matter reinforces the importance of the upstream activities of project identification and prioritization and subsequent pre-feasibility study.

Addressing these matters requires considerable resources, including time and a range of technical skills, some of which are costly.

The MDBs and other donors can play an important role in helping governments understand the legitimate requirements of the private sector and how to best harness the benefits they offer. Development banks and donors also have an important role to play in building capacity at both the implementing agency level (an infrastructure ministry or enterprise) and the central ministries such as planning and finance that are responsible for approving projects. As previously mentioned it is also important to ensure that politicians are properly briefed.

Initial PPP transactions are usually slow and protracted as the different parties learn by doing. Governments have understandable concerns about the length of time it takes to prepare competitively bid proposals.

Implication relating to the private sector

The above has the following implications:

- » There is a need to give more explicit, detailed and analytical consideration during project preparation to the use of the private sector in the financing, development, implementation and long-term operation of public infrastructure.
- » Risk identification, allocation and pricing become critical aspects of assessing private sector participation in infrastructure.
- » Integral to the consideration of risk is the nature and extent of guarantees which a government might provide the private sector, and their impact on the contingent liabilities borne by government.
- » All parties including the MDBs should persevere with developing transactions in which the private sector is engaged on the basis of open competitive bidding. This will take time but transaction times will reduce and the cost of outputs are likely to be lower.

5. Review of Project Preparation Facilities

This chapter describes the PPFs that have been considered in the current review and assesses their performance.

5.1. Description of PPFs

A large number of organizations are involved in the preparation of public infrastructure projects in Asia. Few address project preparation alone, and not all of them tackle the entire process of project preparation. PPFs may be country specific, regional, or global. They have a range of institutional arrangements and cover both publicly and privately financed public infrastructure. They are funded and/or managed by the MDBs, bilateral aid agencies and other financing institutions from donor countries, non-government organizations. As countries develop they also become willing to borrow for projects whose primary purpose is to provide funds for the preparation of investment projects.

The current review has sought to focus on PPFs that are more formally established and whose principal present purpose is to prepare public infrastructure projects. PPFs thus include formal sources of finance such as trust funds that are used to prepare projects, entities whose main activity is project preparation, donor government programs that focus on project preparation, loan funded PPFs managed by developing country governments.

Given time and data limitations and other matters, not every possible PPF in Asia has been considered in the current review. For example:

- » the review has not addressed PPFs in China, India and Indonesia, which are members of the G20;
- » only limited attention is given to PPFs within bilateral aid programs;

Table 6: Currently Active Project Preparation Facilities

	Acronym	PPF Model	Host Entity	Source of Funds
Institutions				
Cities Development Initiative for Asia	CDIA	Outsourced	Board	Various (grants)
Public-Private Infrastructure Advisory Facility	PPIAF	MDB Hosted	World Bank	
IFC PPP Advisory, East Asia and Pacific and South Asia	IFCPPP	MDB Integrated	IFC	
Technical Assistance Facility of the Private Infrastructure Development Group	PIDG	Outsourced	Trust	Various (grants & commercial)
Public-Private Partnership Center of the Philippines	PPPCP	Government	Government of the Philippines	Project Owners (and grants)
Ho Chi Minh City Finance and Investment Company	HIFC	Government	HCMC People’s Committee	Project Owners (and other)
Funding Source				
Japan Fund for Poverty Reduction	JFPR	MDB Hosted	ADB	Japan (grant)
Clean Energy Financing Partnership Facility	CEFPF			Various (grants)
Water Financing Partnership Facility	WFPF			
Urban Development Financing Partnership Facility	UFPF		World Bank	Australia (grant)
East Asia Australia Infrastructure for Growth Fund	EAAIGF			
South Asia Infrastructure for Growth Trust Fund	INFGRW			
Partnership for South Asia	PFSA	Government	Government of Vietnam	World Bank (loan)
Project Preparation Technical Assistance Facility	PPTAF			ADB (loan)
Project Preparation and Start-up Support Facility	PPSSF			
Programs (Selected examples)				
JICA Technical Cooperation for Development Planning	JTCDP	Government	Government of Japan	Japan (grant)
JICA Preparatory Survey	JPF			
JICA Preparatory Survey for PPP Infrastructure	JPSPI			

- » no consideration has been given to project preparation activities of donor government-related financial institutions such as export-import banks because project preparation is not their principal activity and much of the preparation of the projects they finance is undertaken by other PPFs;
- » account has been taken only of major functioning PPP units in national governments; and
- » internal financing sources of the MDBs used for project preparation were not covered. These include the Technical Assistance Special Fund of the ADB, which is used to fund a substantial share of feasibility and project delivery studies for projects to be implemented with ADB finance (as well as other forms of technical assistance).

The set of PPFs that most closely meet these criteria and for which data was available are set out in Table 6. The table presents acronyms that are used in the remainder of this section, the PPF model structure², the entity that hosts the PPF and the general source of the funds available to the entity. Some of the PPFs fall below the minimum US\$5 million threshold, but are nevertheless recorded where they are significant and provide a clearer understanding of the project preparation facility landscape. The PPFs are most easily categorized into three groups: those that are institutions that focus on project preparation; sources of finance that are used by host entities to prepare projects; and project preparation programs in bilateral aid programs. Most are hosted by MDBs.

Several features are of note with regard to the PPFs:

- » relatively few PPFs prepare public infrastructure projects that are to be primarily financed by other entities to their host agency, with most of these focussed on PPPs and one (CDIA) covering infrastructure that could be financed from a wide range of sources;
- » most of the remaining PPFs are in the form of trust funds that are used by the MDBs for activities associated with project preparation – for example the MDBs will help borrowing countries access grants from PPFs to prepare projects that the banks' will subsequently finance; and
- » some countries such as Vietnam and Indonesia have borrowed from MDBs to create a source of funds that can be used by its agencies to prepare projects.

The PPFs described in Table 6 are considered in more detail in following sections. Firstly, though, the role of PPFs is considered with regard to the broader range of matters related to the preparation and financing of public infrastructure projects.

5.2. Preparing and Financing Infrastructure

The major sources of finance used by governments to implement their infrastructure programs include:

- » ODA grants;
- » concessional loans from MDBs and other foreign development finance institutions (DFIs);
- » other government resources, which may include revenue from taxes and domestic and international bonds and other forms of borrowing; and
- » the private sector.

In the case of Africa, in the period 2001-06, two-thirds of infrastructure investment (in water and sanitation, transport and storage, communications and energy) came from national governments and their citizens (through user charges). ODA funded only around 8 percent of the infrastructure investment, while 20 percent came from the private sector and the remainder from other foreign governments (OECD 2012). If communications and transport and storage was excluded the share of private sector investment would reduce substantially. Another estimate, attributed to the World Bank Group, is that the majority of financing for infrastructure investment in developing countries is from domestic resources (55-75 percent) with approximately 20-30 percent financed by the private sector and 5-8 percent from ODA (OECD, 2014).

National governments are also the primary source of investment in public infrastructure in Asia. Das and James (2013), also citing the World Bank, report that “public financing accounts for nearly 70 per cent of infrastructure financing with just 20 per cent coming from the private sector and the remaining 10 per cent financed through ODA”.

In turn, the PPFs that it has been possible to address in the current review finance only a small share of projects implemented through ODA. The remaining share is funded mostly by the internal programs of the MDBs, donor program and the governments of developing countries themselves. Hence, while the identified PPFs are important, their role in the overall development of public infrastructure in Asia is small.

² The structure set out in ICA (2012) is used. MDB-integrated PPFs are integrated into the operations of the MDB, and MDB-hosted PPFs are entities that sit within MDBs but have a broader remit. Outsourced PPFs have their own

governance structure. No PPFs hosted by regional economic communities were identified in the current review. An additional category of PPFs that are responsible to national governments is identified in the current review.

5.3. PPF Activities

A survey of the identified PPFs was undertaken during the review. It was undertaken in two stages and sought information that enabled the review to describe and

interpret the activities of the PPFs. General features of the PPFs are summarized in Table 7 and Table 8.

Table 7: Features of Project Preparation Facilities

	ENTITIES						FUNDS										PROGRAMS		
	CDIA	PPIAF	IFCPPP	PIDG	PPPCP	HIFC	JFPR	CEFPF	WFPF	UFPF	EAAIGF	INFGRW	PFSA	PPTAF	PPSSF	JTCDP	JPS	JPSPI	
Geographical scope																			
Global		●	●	●												●	●	●	
Asia region	●						●	●	●	●	●								
Limited countries												●	●						
Single country					●	●								●	●				
Sectors supported																			
ITC		●	●	●	●		●				●	●	●		●	●	●	●	
Power		●	●	●	●		●	●							●	●	●	●	
Transport	●	●	●	●	●	●	●				●	●	●	●	●	●	●	●	
Water & sanitation	●	●		●	●	●	●				●	●	●	●	●	●	●	●	
Urban	●		●	●	●	●	●			●	●	●	●	●	●	●	●	●	
Irrigation	●	●	●	●	●	●	●		●		●	●	●		●	●	●	●	
Stages of project preparation supported																			
Upstream activities	●	●		●	●	●	●	●	●	●	-								
Concept development	●	●	●	●	●	●	●	●	●	●	-	●	●	●					
Feasibility studies	●			●	●	●	●	●			-	●	●	●	●	●	●	●	
Delivery planning	●	●		●	●	●	●	●	●	●	-	●	●	●	●				
Processing & approval	●		●		●		●		●	●	-	●	●		●				
Source of finance																			
Own entity					●	●			●			●	●			●	●	●	
Project owner			●		●	●													
MDB	●	●			●									●	●				
Bilateral donor	●	●	●	●	●		●	●		●	●	●	●						
Other non-private	●																		
Private sector			●					●	●										
Average annual expenditure																			
<US\$5 million			●	●		●		●			●	●	●						
US\$5-20 million	●	●							●	●									
>US\$20 million					●		●							●	●	●	●	●	
Typical no. of projects prepared per year	20	na	2-3	10	11	3	40	4	13	10	6	3-4	5	10	-	90	220	17	

Source: Survey undertaken during the current review. - indicates no response to survey question

Table 8: Additional Features of Project Preparation Facilities

	ENTITIES						FUNDS									PROGRAMS		
	CDIA	PPIAF	IFCPPP	PIDG	PPPCP	HIFC	JFPR	CEFPF	WFPF	UFPF	EAAIGF	INFGWR	PFSA	PPTAF	PPSSF	JTCDP	JPS	JPSPI
Source of Project Concepts																		
Dialogue with developing country government	●	-	-	●	●	-	●	●	●	-	-	●	●	●	-	●	●	●
Dialogue with donor of grant funds		-	-		-	-			●	-	-	●	●	●	-			
Funding institution		-	-	●	-	-				-	-		●	●	-			
Unsolicited proposals		-	-		●	-				-	-				-			
Community groups		-	-		-	-				-	-				-			
Private sector		-	-	●	-	-		●		-	-				-			
PPP Activities																		
Researching and monitoring PPP arrangements in other places		-	-		-	-				-	-	●	●	●	-	-	-	-
Promoting PPPs		-	-		●	-		●	●	-	-	●	●	●	-	-	-	-
Identifying potential projects in various government entities		-	-		●	-		●	●	-	-	●	●	●	-	-	-	●
Analyzing potential projects	●	-	-	●	●	-		●		-	-	●	●	●	-	-	-	●
Preparing projects to take to market	●	-	-	●	●	-		●		-	-				-	-	-	-
Procuring PPPs		-	-		●	-	●			-	-				-	-	-	-
Managing PPP contracts		-	-		-	-	●			-	-				-	-	-	-
Monitoring PPP contracts		-	-		-	-	●			-	-		●	●	-	-	-	-

Source: Survey undertaken during the current review. - indicates no response to survey question or not applicable

Salient features about the PPFs shown in these tables are:

- » **Most PPFs operate across a range of countries.** Around a third of the PPFs operate at a global level, almost a third operate throughout Asia and the remainder address only a single country or a small group of countries.
- » **PPFs address a large range of sectors.** A few of the PPFs focus on only a single sector or a few sectors, with almost half operating across all of the sectors described.

- » **Most PPFs are involved in a set of core project preparation activities.** Almost all of the PPFs are involved in the core activities of concept development, feasibility study and project delivery planning. Almost half are also involved in upstream activities.
- » **Many PPFs secure funding from at least several sources, with bilateral donors being the most common source of funds.** Two-thirds of the PPFs are funded by bilateral donors. While almost half of PPFs obtain their funds from only a single donor, the remainder draw on funding from at least two and often more.

- » **There is an even spread of PPFs by size.** There is an approximately similar number of PPFs that have annual expenditure of less than US\$5 million, between US\$5 million and US\$20 million, and more than US\$20 million.
- » **Most PPFs prepare only a modest number of projects each year.** While two of the JICA facilities and also the JFPR in the ADB typically prepare many projects, most of the other facilities prepare relatively small numbers of projects. It seems that preparation of most MDB funded projects comes from grants provided through “third party” bilaterally supported trust funds or, in the case of the ADB, from its Technical Assistance Special Fund, as noted above
- » **Projects are identified primarily through dialogue with developing country governments.** For the PPFs that responded to this question, all indicated that projects were identified through dialogue with government. The extent to which there was also dialogue with potential funding agencies is more extensive than indicated because a number of the PPFs are also providers of funds and so may be implicitly involved in the choice of concepts that are considered for preparation, e.g. through Country Partnership Strategies and the like. Several PPFs also identify concepts through discussions with private sector sponsors.
- » **PPFs associated with PPPs are involved in a range of activities in the project cycle.** PPFs are involved in a range of activities, with identifying and analysing projects and promoting PPPs being the most common actions.

Other features of PPFs to emerge from the surveys and associated discussions are:

- » **With some notable exceptions, the scale of most PPFs is small and administration costs are modest.** The three JICA PPFs are very large in scale, with average annual expenditure for the three facilities in 2011 and 2012 of US\$399 million (in nominal prices). For the other eight PPFs that provided data (CDIA, PIDG, JFPR, CEFPF, WFPF, EAAIGF, INFGRW and PFSA), the average annual expenditure for each facility over the three year period 2011-13 was US\$8.4 million (also in nominal prices). Administration costs for the latter group were 7.5 percent of their total expenditure. This reinforces the previous observation that most project preparation is undertaken using the internal resources of major development institutions.
- » **Bilateral donors are the principal source of funds for PPFs.** Bilateral donors provided 84 percent of the funds used in 2013 by the nine PPFs that provided data (CDIA, PIDG, PPPCP, JFPR, CEFPF, WFPF, EAAIGF, INFGRW and PFSA). Private foundations are also a source of finance in the case of the WFPF, providing 60 percent of its funding (and 11 percent of the total funding for all nine PPFs). Private foundation support will also be a future source of finance for the CDIA. Remaining funding was primarily sourced from MDBs.
- » **PPFs appears to have a reasonable quantity of available funds.** Data for the CDIA, PIDG and WFPF indicates they have received total funding of US\$172 million over time. The average term of the grants is six years, and the three facilities have remaining committed funds of \$38.6 million. While the two financial sums are not directly comparable, the remaining funds compare with expenditure by the three PPFs in the last financial year of US\$21.4 million. While there is only around 1.5 years of remaining funds at this expenditure rate, replenishment commitments had been obtained for five of the seven funding sources for the three PPFs.
- » **Some attempts have been made to recover project preparation costs, with very limited success to date.** Three of the PPFs (PPPCP, CEFPF and WFPF) have mechanisms to recover the cost of grant funding support for project preparation from the private sector for PPP projects. Only one has been successful to date, with recovery equal to 8 percent of their total expenditure for the preparation of all projects. No attempt has been made to recover costs from government entities. Cost sharing is more common, with developing country governments contributing some funding or in-kind services to support project preparation activities.
- » **Transport, water and sanitation and electricity account for most of the projects that are prepared.** The ten PPFs that provided data (CDIA, PIDG, PPPCP, JFPR, CEFPF, WFPF, EAAIGF, JTCDP, JPS and JPSP) prepared 253 projects in 2013 (2012 for the last three PPFs), with the principal sectors shown in Figure 6. These sectors exclude irrigation, which is also a sector that most PPFs address (see Table 7).
- » **The cost of preparing projects is very small relative to the capital investment being made.** The average cost of preparing the projects described in Figure 6 was US\$0.6 million. For a small sample of PPFs (CDIA, PIDG, WFPF and EAAIGF), the cost of project preparation was a very low 0.5 percent of the capital cost of the projects (see further comment on this below).
- » **Project preparation takes time.** Four PPFs (CDIA, PIDG, WFPF and JTCDP) provided judgements about the time it takes between the entry of a concept into the project preparation process and approval

of finance to implement the project. The unweighted average ranged from 17 months for a fast project to 44 months for a slow one, with an average of around 27 months (see Figure 7).

- » **Many prepared projects do not go on to be implemented.** Data from six PPFs (CDIA, PIDG, PPPCP, JFPR, WFPF, JTCDP and JPS) suggests that only a little under two-thirds of projects for which pre-feasibility or feasibility studies are prepared go on to be approved for implementation. This is based on a small sample - a larger sample would be required before firm conclusions could be drawn.
- » **PPFs make limited information available to the public.** Only one of the 12 PPFs that responded to a question as to whether they made their financial accounts publicly available did so. Similarly, only four made their project preparation documents publicly available.

Figure 6: Distribution of Prepared Projects by Sector

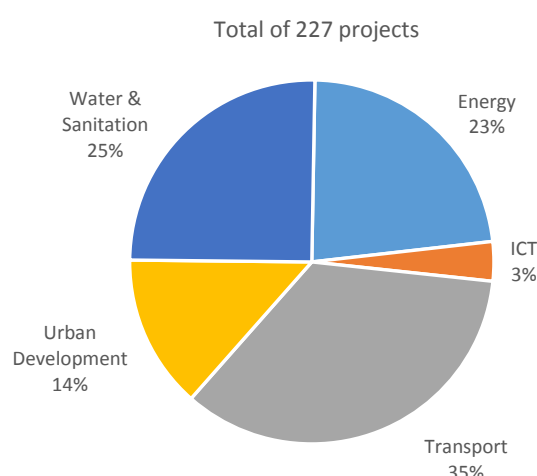
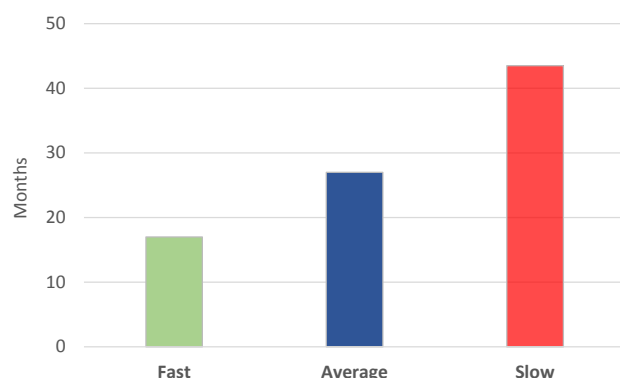


Figure 7: Typical Duration of Project Preparation



5.4. Assessment of PPFs

The limited available data on PPFs and the modest share of project preparation that is undertaken through them prevents a rigorous assessment of the role and achievements of PPFs. Qualitative comments are therefore made with regard to the five criteria set out in the review of PPFs in Africa (ICA 2012): relevance, effectiveness, efficiency, adequacy and sustainability.

The purpose of this assessment of PPFs is not to critique individual PPFs, but rather to identify general, more systemic features that need to be addressed at a strategic or tactical level. The assessment draws on the information on PPFs described in the previous section, case studies and discussions with stakeholders.

Relevance

Relevance is the extent to which the objectives and design of a facility are consistent with infrastructure challenges.

In considering whether the PPFs are oriented to addressing infrastructure needs, it is noted that the PPFs considered make only a modest contribution to the preparation of infrastructure projects implemented with development assistance, and an even smaller share with regard to the total investment program in developing countries. Based on available information, the following observations are made:

- » **A few PPFs focus on particular priority sectors, but most do not.** As shown in Table 7, facilities such as the CEFPP, WFPF and UFPF focus on particular sectors (noting that urban infrastructure can also include transport and water and sanitation activities). Most PPFs, however, cover a range of sectors. It is possible for facilities that focus on one or a limited number of sectors to develop expertise, but the larger resulting number of facilities can lead to fragmentation and reduced flexibility.
- » **The sectors addressed are highly relevant and generally adaptable.** The sectors that the PPFs examined address (see Table 7) are consistent with the sectors that have been identified in other studies as key sectors where infrastructure development is needed (e.g. see Table 4). Where the PPFs are sector specific, they can be used to meet the changing needs of the sector. Other PPFs can be used even more flexibly to meet changes in the relative importance of various infrastructure sectors.
- » **PPFs within institutions are affected by the operating context and environment of their host institution, and support the projects that are consistent with the objectives and functions of their host institution.** Most PPFs are sources of funds that are used by staff in the host MDBs to finance project preparation (amongst other activities). They therefore do not

face circumstances that are different to their host MDB. In a similar manner, they are generally used to prepare the same types of projects as their host MDB. A PPF that has a specific focus may support the preparation of projects that are fully representative of their host institution, but nevertheless are within the ambit of their host agency. Two forms of PPF operate in a rather different manner. Firstly, the CDIA responds to requests for assistance by motivated cities, with the potential for greater government commitment to their activities. Secondly, PPFs in developing country governments must operate within the structure of their governments, with the notable exception being the PPPCP, which was established in a manner that gives it considerable flexibility. There are several PPFs that focus on infrastructure projects that involve the private sector, but most PPFs address both public and PPP projects.

- » **PPFs are generally closely linked to institutions and relate almost exclusively to their host institution.** Where the PPFs are sources of funds within institutions, they have limited need for collaboration with other PPFs and agencies outside their host institution, though their host institutions maintain links with a range of regional agencies. Other PPFs such as the JICA programs and those that are institutions also maintain such links at their agency level.
- » **PPFs make a contribution to capacity building.** More detailed study is required to establish the full extent to which PPFs identify and respond to the need to develop government capacity for project preparation. The need for capacity building is widely acknowledged. Delivery varies, with some such as the PPIAF making a significant contribution, though on balance it is judged that most capacity building is supplementary to other project preparation activities.

Effectiveness

Effectiveness is the extent to which the desired outcomes are achieved.

Effectiveness is ideally judged by three criteria: the extent to which projects prepared by PPFs have met their development goals including outcomes for communities, support for national economic development and making best use of the private sector; the degree to which capacity building activities of PPFs have supported the development of project preparation systems and capabilities in national governments; and the level to which PPFs have adapted over time in response to lessons learned from prior experience. A detailed review of individual projects prepared by the PPFs has not been undertaken in the current review and so it is not possible

to address the first of these criteria in detail. Limited quantitative information is available to support the other two criteria. Nevertheless, based on the information that has been gathered during the current review, it is noted that:

- » **A significant number of projects that are prepared do not go on to be implemented.** It is not possible to establish the extent to which this is the result of factors such as suboptimal projects entering the project preparation process, poor preparation under the guidance of the PPFs or other factors that lead to a change in the acceptability of the project. Nor is it possible to determine if the rate for the PPFs differs from that for other development agencies. It is a matter that is worth further investigation.
- » **Practitioners are able to deliver what is required of them.** Meetings with project preparation practitioners during the current review indicates that they feel able to prepare projects to an adequate standard within current budgets. More detailed study is required to establish if there are opportunities to improve project preparation that are currently restricted by lack of funds - though the current review judges this is likely to be the case.
- » **There is a more general opportunity to improve technical assistance for project preparation.** A review by ADB of its technical assistance (TA) studies, which include project preparatory TAs (PPTAs) as well as advisory and regional TAs, found that outputs were achieved or exceeded for 70 percent of a sample of PPTAs (ADB 2007). The review also identified a number of ways in which TAs could be improved.
- » **PPFs involved in early stage project preparation activities identify potential funding sources that developing country governments can pursue to finance project implementation.** These PPFs include those that focus on PPPs and the CDIA. They also help the developing country government to varying degrees with follow-on activities. It can be advantageous to have a clear source of project finance early in the project preparation process. Conversely, though, there is a risk that early identification of funding sources, particularly in favour of sovereign loans and ODA, may inhibit a broader perspective being taken later in the project preparation process when more detailed information is available to support consideration of the relative merits of alternative funding options.
- » **PPFs in MDBs have the closest link to a source of finance for project implementation.** These PPFs are generally used to finance project preparation for projects that their host MDB will implement,

sometimes using co-financing from other development institutions and donors.

- » **PPFs generally seek to disseminate their experience but are not especially transparent.** All of the institutions seek to present their experience in a general manner, though only a small number make their project preparation documents publicly available. Even fewer make their financial accounts public.
- » **PPFs appear to be able to meet their mandates.** While it is not possible to clearly establish if PPFs have the necessary resources to fully meet their mandates, it appears that they are generally able to tailor their activities to perform satisfactorily within their current financial and other resource budgets.
- » **PPFs focus on project preparation and generally are not directly involved in project implementation.** The role of PPFs is to prepare projects to be ready for approval. Implementation of the projects is almost exclusively undertaken by governments of developing countries. Development banks and donors maintain oversight of project implementation rather than PPFs performing this role.

Efficiency

Efficiency is indicated by the time and cost of preparing projects.

With regard to these matters, it is noted that:

- » **The time to prepare projects can be lengthy.** As indicated in the previous section, it appears that it typically takes a bit over two years from the time a project enters the project preparation process to its approval for implementation. There are no readily available benchmarks to determine if this is unreasonable. Excessively long project preparation has associated costs, including changes in personnel (and hence a risk of changes in project focus and 'project memory'), escalation of project implementation costs, and loss of economic benefits from delayed project implementation.
- » **The cost of project preparation is modest by international standards.** While practitioners feel able to prepare projects to a sufficient standard, the funds allocated for project preparation are modest by international standards (see the next chapter for a more detailed discussion of this matter). Minimizing the expenditure on project preparation will have perverse impacts if it results in projects with designs that are suboptimal and incomplete that in turn lead to higher construction costs, longer implementation periods and reduced benefits.

Adequacy

Adequacy is taken to be the sufficiency of the resources available to the PPFs to perform their tasks.

Limited information could be obtained to indicate the adequacy of PPF resourcing. Observations are:

- » **Financial resources appear to be adequate for the current project preparation task.** Practitioners in interviews stated that they felt they had sufficient resources available to them to be able to complete project preparation to a currently accepted standard. Often, though, they face high transaction costs to secure the finance and to meet administrative obligations. The review judges that opportunities exist to improve the standard of project preparation - additional funding would be required to support this, to expand the quantity of project preparation that is undertaken and to meet the cost of more expensive skills and services that are needed for the preparation of PPP projects.
- » **Consultants, who undertake most project preparation for PPFs, are generally judged to perform satisfactorily.** ADB (2007) reported that consultants undertaking TA studies had generally performed satisfactorily or better. There is, however, a range of competence amongst consultants. Moreover, the effect of a cohort of experienced consultants nearing retirement and a rising share of consultants from countries with sometimes less sophisticated project preparation practices presents a continuing challenge to ensuring quality in technical work. Engineering skills are generally considered to be excellent, but skills in areas such as social, environment, economics, financial analysis and project financing are considered to be less sound.

Sustainability

Sustainability is taken to be the extent to which PPFs are self-financing and implement models that can be used and refined over time.

It is observed that:

- » **There is little recovery of the cost of project preparation from project owners.** The only instances where PPFs have sought to recover the cost of project preparation from project owners has been for PPP projects, with the Philippine PPP Center being the only known case to successfully achieve this - and even then to only a limited extent. The result is that PPFs are, with this exception, not financially sustainable, and require replenishment of their grant finance periodically.

- » **PPFs generally have good technical guidelines.** Observation and discussions indicate that PPFs have manuals and tools to guide technical work of their staff and consultants. This facilitates technical sustainability of PPFs, subject to the guidance being updated and kept accessible to users. Even so, ADB (2007) noted that the challenges associated with the management of knowledge related to TAs.
- » **The sustainability of PPF funding is adversely affected by donor priorities and developing country capacity.** Funding for PPFs is generally secured for a reasonable period in the first instance and replenishment commitments have been achieved in a number of instances. While changes in donor priorities can result in significant changes in the funding available to a PPF, those that maintain the confidence of their financiers appear to be able to retain support. PPFs that secure finance from a number of donors are also better able to accommodate changes in the priorities of individual donors. While all countries face funding constraints, the cost of project preparation is modest relative to the cost of implementing and sustaining infrastructure. Lower income countries, though, will generally face greater challenges in providing sufficient funding for project preparation than other developing countries.
- » **The extent to which project preparation sponsored by PPFs build sustainable capacity for project preparation in developing country governments is uncertain.** The investigation of the identified PPFs did not specifically address this subject. It is addressed further in the next chapter.

Conclusions

The specific examination of PPFs in the current review is considered sufficient to give an impression of the nature and performance of the facilities that support project preparation. It is also necessary to be mindful that: (i) the facilities rarely perform all tasks involved in project preparation and also perform tasks that go beyond project preparation; and (ii) the identified PPFs play only a small role in the preparation of ODA-assisted projects, which in turn are only a small share of the total infrastructure investment in countries.

The conclusions of this assessment of PPFs are set out in Table 9.

Table 9: Conclusions of the Assessment of PPFs

Criterion	Conclusion
Relevance	The PPFs are oriented to performing their respective roles in project preparation in sectors that are important to the economic and social development of developing countries. There are no evident impediments to the PPFs adapting to meet changing needs. PPFs or their related institutions generally maintain links with other development and regional agencies, though this occurs to a lesser extent with PPFs in developing country governments..
Effectiveness	Project preparation supported by PPFs is broadly effective. However, the significant number of prepared projects that do not go on to implementation is a concern, and there are some limitations in the design, implementation and follow-up of project preparation studies. Most PPF are aligned with agencies that fund project implementation and so prepared projects should be able to readily progress to implementation.
Efficiency	The typical funding allocation for the preparation of projects is low. This may reflect a high level of efficiency in the work undertaken to prepare projects but could also mean project preparation is under-funded with resultant adverse implications on the quality of designs, the readiness for implementation and the achievement of project benefits. Project preparation is not always conducted in a timely manner.
Adequacy	Given current project preparation practices, funding for PPFs is adequate and staffing resources are satisfactory. A higher standard, and increased quantity, of project preparation would require additional resources.
Sustainability	While the PPFs have good technical sustainability, their financial sustainability is very weak and their building of developing country government capacity is uncertain.

6. Challenges and Opportunities

This chapter identifies key issues impacting on project preparation in Asia. Issues relating to upstream activities that have a significant effect on project preparation are also discussed as well as, more briefly, the interface between project preparation and implementation. It draws on the review of PPFs described in the previous chapter, findings from case studies (see Boxes C, D and E for summaries of the findings of the case studies, with details in appendices to this report), discussions of the review team with a range of stakeholders and the experience and considered views of the review team.

Most external support for project preparation in Asian developing countries is funded by ODA. Funding comes from bilateral donors and MDB's own resources. The ADB and World Bank manage most of the identified project preparation facilities. This MDB support has an influence on project preparation that goes well beyond the proportion of overall infrastructure investment that is funded by ODA. This is important because while ODA tends to dominate infrastructure investment in the early stages of growth in low income countries, its role declines as countries graduate towards middle income country status and countries finance more infrastructure development from their own resources and through private sector participation. ODA support for project preparation plays an important role in public infrastructure projects financed either partly or fully by the private sector.

Following sections discuss a range of issues and opportunities for improvement. The most important, strategic actions that could be taken to improve project preparation are presented in the next chapter.

6.1. Project Preparation Arrangements and Activities

While the current review has not addressed the process of project preparation in detail, a number of issues that have implications for PPFs in the future have emerged:

- » **Project preparation is adversely affected through insufficient attention being given to upstream activities such as strategic planning.**

This is covered in detail in the next section.

- » **Differences in the procedures and practices of developing country governments and development partners can delay project preparation.**

This can be a major cause of delay to infrastructure projects in low income countries and middle income countries. The gap between development partner

requirements on fiduciary, land acquisition, environmental safeguards and social assessments and those of developing country governments can be large. The allocation of more resources by development partners into obtaining a clear understanding of developing country government procedures, helping developing country government counterparts, including politicians, better understand the benefits of the required procedures, and adopting a more graduated approach to their introduction would probably be more productive.

- » **Efforts to align project preparation activities by development partners should continue.**

MDBs have successfully worked to standardize procurement arrangements, including bidding documents and general procedures and requirements. The outputs of project preparation by the World Bank and ADB have also broadly converged. Common principles to guide project preparation should enable the outputs from project preparation to be familiar and acceptable to a broad a range of potential project financiers, including the private sector. This will also assist developing country governments by reducing the range of practices they must contend with and assist co-financiers by providing them similar information. Developing country governments could also benefit by modifying local practices to more closely match best international practice.

- » **Giving detailed consideration to options for project implementation after the project feasibility study will lead to better choices regarding project financing.**

At present, it is common for the funding sources for a project to be established prior to the project's feasibility being examined in detail, and commonly on the basis of limited prefeasibility study. As a result, a project may enter the project preparation process with the assumption that it will be financed through a sovereign loan and insufficient consideration is given to the merit of private sector participation. In this manner, the process of project preparation becomes synonymous with loan preparation. The process is also contrary to general good practice of first establishing that a project is worth implementing and then considering the best means for delivering the project, inclusive of matters such as funding and the roles of government and the private sector, as well as other issues such as contract packaging, forms of contract and governance arrangements

Box C

Case Study: Project Preparation in Vietnam

Vietnam is a lower middle income country. Its GDP grew an average 7.6 percent per year from 1994 to 2007. The proportion of population in poverty fell from 58 percent in 1993 to 14.5 percent in 2008, and most indicators of welfare have improved.

Government, development banks, donors and the private sector collaborate closely on project preparation. Over the years the government has benefitted enormously from ODA. The ADB and World Bank support all of the aspects of project preparation. They have in particular collaborated closely with bilateral donors to mobilize grants for government to prepare projects including detailed designs. The arrival of substantial development assistance in the early 1990s saw the introduction of international business and infrastructure industry practices that were based on market economy models. These were very different to those of Vietnam with its centrally planned economy at the time. Considerably progress has been made, though challenges remain. Concessional ODA is now gradually being phased out. ODA is also a declining proportion of Vietnam's total infrastructure investment requirements. The case study considered project preparation from the perspectives of government, development banks and donors, and the private sector.

Findings from the case study are:

- » *Vietnam could probably have achieved more and done it faster with better project preparation.* Vietnam has made phenomenal progress over the last 25 years. One of the few caveats is that it would probably have done even better had it been willing to adapt more quickly to international norms for infrastructure investment, including project preparation.
- » *Concessional ODA and grants are declining – they should be used more purposefully.* Using grants and concessional finance to improve the quality of project preparation should be a priority. Concessional finance should also be used to leverage other sources of funds, particularly from the private sector.
- » *More effort should be put into strategic planning.* Most of the “obvious” projects with high rates of return have already been built. The next phase is more complicated. Greater analytical rigor is needed to prioritize infrastructure investments for medium term planning. The World Bank at the request of the Ministry of Planning and Investment has provided some initial advice but much more needs to be done, particularly in capacity building.
- » *The fiduciary and safeguard policies of Government and the development banks and donors have still not fully converged.* While there has been some coming together of fiduciary policies and guidelines, differences remain that create challenges in the preparation and implementation of infrastructure projects.
- » *Government should adopt more flexible project approval processes.* Governments current approval processes are too centralized, overly bureaucratic and time consuming. Attempting to control project costs by locking in designs and costs at the feasibility stage is ineffective and stifles innovation. It also causes delays when subsequent more detailed designs reveal the need for changes and higher costs.
- » *Funds seem to be available for project preparation but Government and possibly also the development banks and donors don't allocate sufficient funding for good quality project preparation.* Interviews with MDB staff indicate that the availability of funding for project preparation is not a significant constraint. However for many projects the funding allocated is well below international norms. It is unclear if this is because there are insufficient funds available or because this low level of funding has become the accepted level. On the Government side, the level of funding permitted for project preparation is very low. All of this results in lower quality project designs, less reliable cost estimates and a greater risk of unexpected problems emerging during construction.
- » *Government and development bank efforts to establish effective stand-alone project preparation facilities have so far had limited success.* Take-up from the three facilities of around \$170 million established with concessional ODA finance in the Ministry of Planning and Investment since 2010 has so far been disappointingly low. It appears that coordination arrangements between the Planning Ministry and the end-users (the infrastructure ministries and local governments) and the management arrangements for the facilities were not sufficiently developed when the facilities were established. The challenges of rigid approval processes referred to above also seems to discourage utilization.
- » *Detailed designs and procurement documents should be prepared as part of project preparation, or in parallel with it.* In Vietnam undertaking detailed designs and bidding for works contracts in parallel with loan processing is considered an “advance action”. When adopted it has been successful in considerably reducing the time required to implement projects. Using this approach more widely would speed up project delivery
- » *New forms of development bank lending show promise but should be monitored closely.* The MDBs are gradually moving from retail (one project at a time) to wholesale (more programmatic) lending. The effectiveness of these new forms of support including results based lending, the use of financial intermediaries, and multi-tranche financing facilities should be closely monitored including the scope for scaling up results-based lending to address larger more complex projects.
- » *Efforts to use ODA to leverage private investment should continue.* So far there is little tangible evidence to show for the efforts of development banks and donors and government to promote competitively bid PPPs. Government concerns about the complexity of transactions with the international private sector, the contingent liabilities that can arise from them and the length of time it takes to reach closure on projects is understandable. However it would be prudent to persevere, albeit with caution, in order to benefit from more efficient investment and to spread risks where they can be most effectively managed.

Box D

Case Study: PPP Project Preparation in the Philippines

The Philippines has in the last few years made significant advances in addressing its infrastructure deficit through the development and implementation of its PPP Program. An important part of this has involved the establishment of the Philippines PPP Center (PPPC) as the responsible central national agency, working closely with the national implementing agencies and departments in the identification, assessment, preparation and tendering of major infrastructure projects. Crucially, the PPPC incorporates a Project Development and Monitoring Facility (PDMF) so that the implementing agencies – working with the PPPC – have the funding to carry out pre-investment activities for potential PPP projects. Equally importantly, the PPPC is a public agency that is attached to the National Economic Development Authority (NEDA) but which is operationally independent of government.

Key lessons evident from the Philippine PPP Center include:

- » *PPP programs are most effective when there is a clear allocation of responsibilities for regulating the PPP process, promoting PPPs within government, supporting agencies to implement PPPs, and the overall approval process for PPPs.* The Philippines established the PPPC as a separate agency responsible for PPP development and implementation. Approvals rest with NEDA with its overall responsibility for economic development and planning. This allows the PPPC to focus on supporting the assessment, preparation and implementation of a viable pipeline of PPP projects.
- » *A comprehensive legislative framework for private sector financing of infrastructure is an important part of promoting an effective enabling environment in which viable PPPs can be prepared and implemented.* For many years, private sector involvement in infrastructure in the Philippines had laboured under disjointed policy and legislative frameworks, reducing the effectiveness of potential PPPs and lessening the interest of the private sector. Recent enhancements to legislation and regulation have clarified and improved the environment, with further improvements planned. A credible overall PPP environment and project pipeline provides much-needed predictability for the private sector so that it can 'see ahead' and commit in terms of its own interest and resourcing. Stronger bidding brings increased competitive tension to transactions and improved results for government.
- » *Strong, effective project preparation and delivery through to completed transactions need financial and technical inputs of relevant quality.* The PPPC's work to now has to a large part been due to the PDMF's procurement process, including the pre-qualified advisory panel that enables reputable advisers to be quickly engaged and bringing early value-added advice and expertise on the financial and technical inputs into the preparation of projects. This has been a crucial element in securing the support of the IAs and, importantly, their working together with the PPPC to develop a viable PPP pipeline.
- » *Building the PPP-relevant skills of line agencies is vital in identification and preparation of a credible PPP pipeline.* The Philippines has used the development of and extensive communication/training associated with PPP manuals and operating procedures to develop PPP expertise of staff in the sector agencies through the project preparation process while also strengthening the links between the agencies and the PPPC.
- » *Bidding processes need to provide the appropriate transparency to assure bidders while also meeting the needs of government.* The improvements in the legislative and regulatory enabling environment for PPPs have seen initiatives focused on transparency and predictability in the project preparation and transaction processes. These have provided greater certainty for the private sector but must also be balanced against market responsiveness to ensure that credible market concerns on issues such as the timing of the transaction process and project structure are appropriately incorporated.
- » *Communication with stakeholders needs to be an integral part of each project's preparation through to completion of the transaction.* Ensuring clear and effective communication with all stakeholders on the objectives, rationale, benefits and issues for projects has become clearly evident over the course of the PPP program. This has now led to strategic communications being mainstreamed in all transaction advisory activities. At the overall program and policy levels as well as for specific projects, it is important to have 'national champions' to effectively argue the case for PPPs.
- » *Large, complex projects require governments to be able to undertake sophisticated assessment of bids to ensure a strong and sustainable outcome for all parties.* Initially the PPPC has used a traditional budget model/compliance approach to its assessment of projects. Future larger projects with greater funding requirements will require more innovative financing arrangements from bidders. For government to be able to effectively assess such bids, it will need the PPPC to place a greater emphasis on project finance fundamentals such as risk allocation, cashflows and financial analysis in the project structuring phase.

» For the current quantity and quality of project preparation, resourcing is adequate.

The review found little evidence of practitioners concerned with the quantity of funds available to prepare the projects for which they are responsible. This may simply reflect an ability to work within the constraints of current conditions. To the extent that

the current amount spent on project preparation is low by comparison with that in developed countries suggests the need to increase the level of funding so that projects can be better prepared. Preparing a greater number of projects to meet continuing growth in infrastructure needs will require yet further funding.

Box E

Case Study: Cities Development Initiative in Asia

CDIA focuses on assisting medium-size cities to prepare and finance sustainable urban infrastructure investment projects. Specifically, it:

- » provides advisory support for urban infrastructure investment programming and prioritization, and technical assistance to undertake pre-feasibility studies for specific projects;
- » identifies potential sources of finance to implement these projects including the private sector; and
- » supports capacity building of city governments.

CDIA was established in 2007. It is an independent entity that is governed by a Program Review Committee that consists of agencies that provide major funding support (which currently includes the ADB, German Federal Ministry for Economic Cooperation and Development, Swedish International Development Cooperation Agency, the Austrian Federal Ministry of Finance and the Shanghai Municipal Government). The ADB provides management support to CDIA and undertakes most of procurement of consulting services.

Five matters emerge from this case study:

- » *CDIA is an example of an entity that focuses on activities that are mostly upstream of project preparation activities.* Most PPFs act on projects that have been identified through prior means. The CDIA is the only example found of a PPF that focuses on activities prior to the feasibility study stage of project preparation. It does this in a pragmatic manner drawing on existing development plans to screen and prioritize previously proposed projects and to develop selected projects for subsequent feasibility study.
- » *CDIA is a self-standing organization that is not tied to any particular financial institutions.* While CDIA is co-managed by ADB, it is functionally separate and is associated with other financiers of ongoing project preparation activities and project implementation. CDIA, together with PPP centres, are thus examples of PPFs that are not tied to a single financial institution. In the case of CDIA, this is facilitated by its focus on early stage activities. At this stage, even though a possible financier for project implementation has been identified, the outputs of its activities are sufficiently general to meet the needs of all potential financiers.
- » *CDIA focuses on cities, generally at a sub-national level.* There is merit in specialization by PPFs. In the same manner as some PPFs address particular sectors, e.g. water supply or energy, CDIA focuses on urban development. Nevertheless, this encompasses a broad range of infrastructure and thus necessitates an equally broad range of skills. Similarly, while CDIA considers infrastructure in cities within a given population range, the range is sufficiently diverse to require it to also address projects that vary from being small to being exceptionally large.
- » *CDIA considers projects that are initiated by developing country governments.* This both ensures that cities entering the program demonstrate a level of motivation and is, to a considerable degree, a necessary approach given the large number of cities in Asia that meet the population criteria established by CDIA. In practice, it differs from the approach of other major development agencies only to the extent that it does not have a long term relationship with its participating governments wherein the partners respond to project needs raised by the governments.
- » *CDIA identifies potential financiers of projects in advance of feasibility studies and other ongoing project preparation activities.* This approach is potentially contrary to the preferred practice of establishing that a project is worth implementing prior to giving detailed consideration of how its implementation should be financed. However, the approach has the attribute of improving the prospects for implementation while not preventing a change in financing arrangements during ongoing project preparation activities

» Increased funding would allow the quality of project preparation to be improved, leading to better designs and implementation arrangements.

Inadequate funding of project preparation by both recipient countries and development partners, with the apparent attempt to save money, is misguided. It stifles innovation and leads to low quality designs. Some of the difficulties in project implementation are attributable to inadequacies in project preparation, including deficient designs, contracts that are incomplete, and implementation arrangements that are ambiguous. The result is, almost certainly, higher overall costs and slow implementation. Development partners should consider this as a priority for allocating technical assistance to work together with governments to identify optimum levels of funding for project preparation. These should take account of the complexity of projects rather than simply being a function of project size. Donors should consider this as a priority for technical assistance support. The review would need to take account of all projects and not simply those funded by ODA and other external funding sources.

» The transaction costs of accessing funds for project preparation can be high.

While the review found that there is not a shortage of funds available from PPFs and other similar funding facilities for current project preparation activities, the transaction costs for accessing them can be high. The facilities are: widely dispersed, have different eligibility criteria, diverse application and reporting requirements, and the extent to which their backers want to be involved varies. The MDBs have a multiplicity of funding sources available to them. While not all of these are for project preparation and not all of the World Bank programs are for use in Asia, it represents a complex system of financing. Facilities that are managed at the country level seem to work best - they are flexible and responsive, with quick decision making. However, their scale is obviously limited and it can be more difficult to maintain policy consistency between them. Means of securing the advantages such arrangements offer while broadening coverage to the sub-regional or regional level are worth exploring. One possibility may be to consolidate funding for project preparation into a minimal number of funds.

- » **Engineering design prepared during project preparation should be sufficiently detailed to provide a sound understanding of project cost and implementation issues.**

MDB procedures on the level of detail of engineering design conducted during project preparation differ, with the World Bank requiring a significant element of detailed engineering design and the ADB requiring only preliminary engineering design but now also developing project readiness filters. The former arrangement extends the project preparation task but allows a project to proceed more directly to implementation following approval and hence for momentum built up during the preparation phase to be sustained into implementation. The latter provides funding for detailed engineering design through the project loan, but creates a hiatus while detailed engineering is arranged and undertaken. The MDBs have created facilities to complete detailed engineering design (see the next sub-section). The ability to start procurement or even construction immediately after financial closure can reap substantial dividends through, ultimately, earlier delivery of project benefits.

It is concluded that the key matters are to undertake sufficiently detailed engineering design during project preparation to allow implementation issues to be identified and for costs to be estimated with a high level of confidence. This level of engineering design is still required in the case of PPPs to provide a benchmark against which PPP proposals can be compared.

- » **Good preparation of projects supported with development assistance should have positive flow-on effects for the larger quantity of infrastructure projects that are prepared and implemented by developing country governments using domestic resources.**

As indicated in Section 5.2, national governments of developing countries are the primary source of investment in public infrastructure in Asia. These governments can benefit from improved project preparation in two ways. Firstly, better upstream activities will assist them by providing a prioritized program for their infrastructure investment needs. Secondly, the methodologies developed to support ODA programs can be drawn on by developing country government staff for their work on domestically-financed programs.

While it has not been the focus of the current study, increased public infrastructure will require an expansion in the project preparation activities of governments of developing countries, covering both externally assisted projects and projects that are prepared without this support. This will require the

governments to increase their funding for project preparation to prepare the larger number of projects and to ensure its personnel are able to take advantage of the expertise of ODA-supported project preparation.

- » **PPP programs are most effective when there is a clear allocation of responsibilities for regulating the PPP process, promoting PPPs within government, supporting agencies to implement PPPs, and the overall approval process for PPPs.**

The institutional set up of roles, responsibilities and decision making for PPPs is an important part of the overall enabling environment. Clearly mandated PPP units with the leadership and resources to effectively engage across government on project preparation are then able to operate independently from the project approval of process. A comprehensive legislative framework for private sector financing of infrastructure further promotes a supportive enabling environment for PPPs.

6.2. Upstream Activities

The current review has identified the following matters:

- » **Upstream activities need to be improved so that the best projects are carried forward for preparation.**

The review found widespread agreement that the upstream activity of strategic planning, including the use of pre-appraisal to establish a prioritized set of candidate projects, is a weakness that is detrimental to subsequent project preparation activities. While only indicative, a significant share of projects for which feasibility studies are prepared do not proceed to being approved for implementation (see Section 5.3). While there may be various reasons for this situation, there is a possibility that a contributing factor is the selection of projects that were not of sufficient merit and priority.

Improved pre-appraisal and project prioritization will provide more reliable, consistent and transparent information on proposed investment programs and will ensure that the most vital and meritorious project proposals enter the project preparation process. This will in turn inform stakeholders and support improved investment decision-making. Equally importantly, an effective enabling environment is needed to ensure that human, institutional and legal prerequisites for infrastructure planning, investment and operation are in place; that infrastructure solutions are not pursued when other solutions are more cost-effective; and to better enable current and future infrastructure to be used to their best effect.

- » **National planning and the prioritization of projects should become more systematic and rigorous.**

It is common for projects included in potential forward works programs not to have been subject to effective review and pre-appraisal and hence to establish their priority and their potential to meet the investment criteria of financiers. This limitation occurs irrespective of potential public sector funding (including national budget and ODA support) and private sector participation through some form of PPP. Means to address it are considered in the next item.

» **Practical means are needed to identify short to medium term priority investment plans where full sector strategies are not present.**

Sector studies and master plans are an ideal prerequisite for infrastructure development. However, they are complex and costly to prepare, and can become prematurely obsolete due to changes in the planning environment. Where they are not present, which is likely to be the majority of occasions, practical measures are needed to develop prioritized investment programs from which projects that are to be subject to further preparation can be drawn.

There appears to be limited experience of developing country government sector agencies in the use of simple though rigorous methods to establish medium term integrated and prioritized infrastructure programs. Pre-appraisal to support this work needs to include initial quantitative analysis of demand for proposed infrastructure, estimation of capital and ongoing operating and maintenance costs, a broad comparison of project costs and impacts and identification of key risks.

The World Bank and ADB, as well as other development agencies, have developed multi-criteria tools to aid project prioritization. It is likely that a review of them would allow a tool to be developed that would represent best practice, including measures that take account of the theoretical weaknesses inherent to multi-criteria analysis. Application of the tool should lead to prioritized investment proposals that are acceptable to national governments and all development partners.

» **Improved upstream capacity requires the development of multifaceted skills and planning processes in both central decision-taking and infrastructure sector agencies.**

A broad range of skills is needed for strategic planning, including economics, finance, environment and social as well as technical aspects. These need to be brought together in a practical manner. ODA agencies could play an important role by helping fill the skills gap that exists in the short term and in building capacity for the longer term.

Such skills need to be developed in both sector infrastructure agencies and central decision-making bodies such as ministries of planning and finance. The former should draw on their technical knowledge to lead work to develop identify and prioritize project proposals within their sector within the development policy framework set by the latter.

» **Developing upstream capacity will be enhanced with cooperation between development agencies and sharing of experience between developing countries.**

Cooperation between development agencies to develop and apply methods to establish prioritized programs of projects will assist governments and enable all participants in infrastructure development to draw from the same programs. Similarly, developing countries should be encouraged to share their experience in the preparation of infrastructure programs as a means for advancing their own understanding and capacity.

» **The policy, legal and institutional frameworks for private sector participation in public infrastructure are not yet fully developed.**

A number of countries in Asia have a variety of experiences with various forms of private sector participation in infrastructure projects, for instance: Independent Power Producer projects; build-operate-transfer and other concessions; management contracts; and of course long-standing construction of projects by the private sector. However many of these have been “one-offs” and have failed to translate into any significant ongoing pipelines of opportunities for the private sector.

These pipelines require a number of components, with the upstream enabling environment being one that can play a key role. Typically involving the policy, legal and institutional framework for private sector participation, the enabling environment can cover: policy frameworks; developing and implementing legal and regulatory arrangements; and designing and strengthening new institutions to support private participation.

6.3. Supporting Improved Outcomes

Opportunities to achieve better project preparation outcomes include:

» **Increased, and more predictable and reliable, funding is needed for enhanced project preparation and associated upstream activities.**

In addition to their internal resources, the MDBs have a multiplicity of funding sources available to them. While not all of these are for project preparation and not all of the World Bank programs are for use in Asia, it represents a complex system of financing.

The current review has identified some of the key sources of external resources available for project preparation in Asia. It is judged that these provide only a small share of the funding that is used for project preparation for ODA projects, with the majority of funding coming from the internal resources of MDBs and, to a lesser extent, through bilateral aid programs.

In addition to providing increased funding for project preparation and upstream activities, there will be merit in finding ways to simplify the funding for these activities and to place it on a sounder basis.

- » **There remains the opportunity to make better use of financing facilities that allow later stage project preparation and implementation activities to be accelerated.**

To date developing country governments have made only limited use of the facilities established by MDBs to expedite project preparation in general and detailed engineering design in particular. The facilities include advance actions, retroactive financing, project design advances and project preparation facilities. The limited use seems to be primarily due to restrictive domestic processes and a seeming lack of urgency. The latter is misplaced given the loss of economic benefits that results from delayed project implementation. The efforts of development partners to encourage developing country governments to use these facilities is supported. Further actions could include giving more attention to application arrangements and approval requirements.

- » **A shift from project to program and policy-related infrastructure lending by MDBs will increase the importance of upstream activities and will change the nature of project preparation activities.**

A shift in development funding from 'retail' to 'wholesale' lending (i.e. from conventional lending for specific pre-prepared projects to modes such as results based, programmatic and staged approaches) offer clear advantages to both developing country governments and development partners. It does however increase the importance of upstream sector planning and changes the nature of project preparation. Given a risk that the quality of preparation and implementation of constituent investments could decline, the shift should be monitored closely.

- » **There is a particular need to provide financial support project preparation in low and lower-middle income countries and to expect upper-middle income countries to gradually take greater responsibility for financing project preparation.**

While the capacity for project preparation and associated upstream activities varies across developing country governments, the need for support is greatest in lower-middle and low income countries. The skills needed are generally developed in the course of work experience, and need to be supported with guidelines, tools and peer review. The need for capacity support is not simply related to the technical skills of the personnel involved: in some instances, additional challenges arise from factors such as the geographical size, government arrangements and institutional complexity. Support for good quality project preparation for ODA programs will provide tools and experience that developing country government staff can apply to their work on domestically-financed programs and thus leverage its effect.

The provision of grant finance for project preparation may in general be appropriate for low income countries. As the economy of a country grows, a rising share of the cost of project preparation should be recovered from project owners. This will increase developing country government ownership of project preparation. Recovery of project preparation costs could vary with factors such the extent to which a project is directed to objectives such as poverty alleviation.

- » **The sustainability of funding for project preparation will be improved by recovering more of the cost of project preparation from project owners.**

Some facilities that prepare PPP projects seek to recover the cost of this work from the financiers of successful transactions. Otherwise, funding for project preparation (excluding detailed engineering design) is almost exclusively provided on a grant basis. Recovering the cost of project preparation from project owners has two merits. Firstly, it provides additional net funding for the preparation of further projects. Equally importantly, it should increase a sense of ownership of project preparation by project owners and make clear that good project preparation is part of the cost of developing infrastructure. Recovery of project preparation costs could vary with to factors such as the financial capacity of a country and the extent to which the project is directed to poverty alleviation.

- » **Focusing ODA support on the preparation of more complex and innovative projects will improve development outcomes but requires commensurate resources.**

Developing country governments have much greater capacity to prepare and implement straightforward projects than projects that involve multiple sectors and agencies and projects that require new approaches such as those with private sector

participation. Donor programs have the potential to add more value if directed to providing assistance to developing country governments for these more complex and innovative projects. Developing country governments will also gain through an increase in their project preparation capacity. Equally, it needs to be recognised that preparation of these projects require greater resources.

- » **Expanded and improved project preparation will require additional financial support from governments of developing countries.** While considerable support for project preparation is provided through ODA, governments of developing countries prepare and implement a substantial share of their infrastructure needs using their own resources. Increasing the number of projects that are prepared and enhancing the quality of project preparation will therefore also require these governments to increase their funding for project preparation. They can also take greater advantage of international support for project preparation to develop their institutional capacity, including gaining insights into best practice in project preparation and innovation in project design rather than solely being a means to prepare projects for implementation.
- » **Continued support is needed to develop government capacity to make best use of the private sector for infrastructure funding, delivery and operations and to leverage the benefits of private sector participation.**

Private sector participation can be used to leverage to improve outcomes such as more cost-effective delivery of improved infrastructure and related services, increased funding for the development of public infrastructure and private sector investment in infrastructure and services that complement public infrastructure as well as supporting economic growth more generally.

As mentioned in Section 6.2, improvements in the policy, legal and institutional frameworks for private sector participation in public infrastructure could do much to promote investment. A key associated issue is the experience and expertise of the government: not only the enabling environment, but also details of preparing and structuring specific infrastructure projects that would be attractive for potential private sector participation. Particular needs are to develop capacity building in these areas, to help PPP units in countries where there is limited PPP capacity and where the scale of PPP activity is low, and to facilitate the transfer of knowledge and experience between practitioners in different countries. Finally, analysis of options for private sector participation and preparing and arranging PPP projects requires considerable technical input that also requires

people with specialized skills. Increased budgets will be needed to cover this work.

6.4. Future Roles for PPFs

In contrast with Africa, there are fewer stand-alone PPFs in Asia. Most of those that exist are located within MDBs or have been supported by MDBs and other ODA. There are no PPFs that focus on cross-border projects. As indicated in earlier chapters, the current situation has generally not led to significant strategic weakness, though four limitations are noted:

- » those responsible for preparing projects face the continual challenge of significant transaction costs in terms of the time to find and mobilize funds to meet the cost of project preparation;
- » the types of PPFs considered in the current review play a small role in the preparation of public infrastructure in Asia;
- » most of the PPFs focus on preparing projects to be financed within the current programs of existing agencies; and
- » there is limited apparent action to improve project preparation practice in the region.

More generally, there is no common concept for a PPF. The current review has considered them in a functional sense rather than as an institution or financing mechanism that is generally recognized as a PPF. The current situation is a practical arrangement that does not appear to need transformation: that is, there is no need to create PPFs as a new and separate institution in the development landscape. The more critical matters are to:

- » establish pipelines of prioritized projects that need to be prepared;
- » refine project preparation to improve quality and make the outputs more accessible to a wide range of potential financiers;
- » increase the quantity of well-prepared projects that are available to attract finance, in particular from the private sector;
- » support countries with the weakest project preparation capacity;
- » require countries to take greater ownership of and responsibility for project preparation;
- » ensure that funding arrangements to enable this work to occur are appropriate.

A number of matters related to these needs have been discussed in previous sections. Additional matters are also noted:

- » **Increasing the number of projects that are prepared is a prerequisite for meeting the need for more public infrastructure.**

The need for a substantial increase in the quantity of infrastructure in Asia to meet economic, social and environmental needs requires, in turn, the preparation the infrastructure projects. There is an opportunity to leverage existing capacity and systems for project preparation to produce a greater number of prepared projects that could be submitted to potential sources of funding. In addition to the MDBs, these include bilateral ODA, export-import banks and other financing institutions. The projects should be prepared to best practice international standards to meet the needs of key potential financiers and more generally to raise the standard of project preparation. PPF resources will need to be enhanced to fund this increased quantity of project preparation.

- » **Regional PPFs can offer greater delivery efficiency, flexibility, support for regional projects and capacity for knowledge transfer.**

While there are some exceptions, most of the PPFs identified in the current review serve either global, regional or multi-country markets. Such facilities have four particular advantages. Firstly, they facilitate the preparation of regional projects by allowing funding for components of the project in the various countries to be integrated to the extent needed and for national needs to be coordinated – as currently occurs with existing facilities (see the next item). Next, they provide flexibility by allowing funding for project preparation to be directed to different sectors or countries as needs change. Thirdly, they should be well-placed to facilitate policy and practice learning and to promote knowledge transfer than more narrowly focussed PPFs. Finally, they can reduce transaction costs for those seeking funding for project preparation by avoiding a larger number of more specific facilities.

- » **At present Asia does not appear to need PPFs dedicated to the preparation of regional projects.**

Regional projects are almost always implemented and financed by national governments. Accordingly, such cross-border projects require coordinated actions by the participating governments to prepare, approve and implement projects in a manner that is consistent with their respective national requirements. The current review concludes that current coordination mechanisms, in combination with funding for project preparation from agencies with a regional remit such as MDBs, appear to be adequate to support the development of regional projects. Current regional organizations have key roles to support strategic planning of cross-border

projects and to coordinate project preparation activities by national governments. As indicated in Section 3.2, the value of regional projects is modest relative to national projects. Even so, the current situation should be monitored to identify if a general need should arise for a facility dedicated to projects that involve more than one country.

- » **There is merit in project preparation being internal to financing institutions but there is also a role for PPFs that are independent of these institutions.**

The current review concurs with the existing arrangement wherein project preparation is to a large extent undertaken by the institutions that may contribute funding for project implementation. There is, however, merit in having some PPFs that are independent of financiers. In addition to providing increased opportunity for innovation, there are instances where a dedicated PPF may be able to serve specific markets more effectively than large institutions. The CDIA, with its general focus on smaller cities, is an example. There is an associated need to ensure that such institutions have clear foci, sound governance and technical excellence.

On balance, though, it seems more likely that independent PPFs will serve niche rather than mainstream roles. The merit that they bring in innovation and flexibility is important, but the integration of project preparation and funding possible with PPFs that are embedded in financing institutions provides the potential for more streamlined preparation and implementation of projects.

Even so, PPFs embedded in financing institutions need to be inclusive, with three particular matters noted. Firstly, there is a need for the outputs of project preparation by donors to be as common as possible so that the work undertaken by one will meet the needs of a range of financing institutions.

Next, there is a need for the PPFs in financing institutions to be open to working with the independent PPFs and to absorb lessons learned from the experience of the independent PPFs. Finally, the PPFs in the financing institutions need to be open to co-financing projects with other financiers and to supporting implementation of projects through PPPs.

- » **Innovation, knowledge transfer and best practice in project preparation in Asia should be supported.**

Facilitating the transfer of experiences is a practical and cost-effective means for upgrading the understanding of technical staff in developing country government agencies, for developing their capacity to undertake the various tasks associated with project preparation and to gain feedback that

can be used to further refine practices. This is particularly important in emerging topics such as PPP and improved upstream planning.

Regional PPFs have a particularly valuable role in promoting knowledge development and transfer. Such facilities should give particular support to low income countries, where government capacity is generally weakest. There also remain substantial needs in lower middle income countries and more selective assistance could be provided there.

» **Increased funding for project preparation should be provided in a manner that improves financial sustainability and achieves other desired outcomes.**

Additional funding will be needed if more projects are to be prepared and if the quality of project preparation is to be improved. One source of such funding is grant finance from donors. There is a risk, though, that those responsible for the preparation of projects supported through ODA can

become dependent on this grant finance, with poor financial sustainability. Two particular matters need to be addressed with regard to the provision of additional finance. Firstly, governments of developing countries need to take greater responsibility for financing project preparation as their means rises. Secondly, care is needed to ensure that grant funds provided to MDBs supplement the internal resources of the MDBs and support achievement of the broader goals of increasing the quantity and quality of project preparation, providing outputs with sufficiently common form that makes them easily usable by a wide range of potential financiers, and making better use of the private sector in public infrastructure.

6.5. Summary

The matters described in the preceding sections are summarized in Box F on the next page.

Box F

Summary of Review Observations Regarding Project Preparation

Project preparation arrangements and activities:

- » Project preparation is adversely affected through insufficient attention being given to upstream activities such as strategic planning.
- » Differences in the procedures and practices of developing country governments and development partners can delay project preparation.
- » Efforts to align project preparation by development partners should continue.
- » Giving detailed consideration to options for project implementation after the project feasibility study will lead to better choices regarding project financing.
- » For the current quantity and quality of project preparation, resourcing is adequate.
- » Increased funding would allow the quality of project preparation to be improved, leading to better designs and implementation arrangements.
- » The transaction costs of accessing funds for project preparation can be high.
- » Engineering design prepared during project preparation should be sufficiently detailed to provide a sound understanding of project cost and implementation issues.
- » Good preparation of official development assistance (ODA)-supported projects should have positive flow-on effects for the larger quantity of infrastructure projects that are prepared and implemented by developing country governments using domestic resources.

Upstream activities:

- » Upstream activities need to be improved so that the best projects are carried forward for preparation.
- » National planning and the prioritization of projects should become more systematic and rigorous.
- » Practical means are needed to identify short to medium term priority investment plans where full sector strategies are not present.
- » Improved upstream capacity requires the development of multifaceted skills and planning processes in both central decision-taking and infrastructure sector agencies.
- » Developing upstream capacity will be enhanced with cooperation between development agencies and sharing of experience between developing countries.
- » The policy, legal and institutional framework for private sector participation in public infrastructure are not yet fully developed in some countries.

Supporting improved outcomes:

- » Increased, and more predictable and reliable, funding is needed for enhanced project preparation and associated upstream activities.
- » There remains the opportunity to make better use of facilities that allow late stage project preparation and implementation activities to be accelerated.
- » A shift from project to program and policy-related infrastructure lending by MDBs will increase the importance of upstream activities and will change the nature of project preparation activities.
- » There is a particular need to provide financial support for project preparation in low and lower-middle income countries and to expect upper-middle income countries to gradually take greater responsibility for financing project preparation.
- » The sustainability of funding for project preparation will be improved by recovering more of the cost of project preparation from project owners.
- » Focusing ODA support on the preparation of more complex and innovative projects will improve development outcomes but requires commensurate resources.
- » Expanded and improved project preparation will require additional financial support from governments of developing countries.
- » Continued support is needed to develop government capacity to make best use of the private sector for infrastructure funding, delivery and operations and to leverage the benefits of private sector participation.

Future role for PPFs:

- » Increasing the number of projects that are prepared is a prerequisite for meeting the need for more public infrastructure.
- » Regional PPFs can offer greater delivery efficiency, flexibility, support for regional projects and capacity for knowledge transfer.
- » At present Asia does not appear to need PPFs dedicated to the preparation of regional projects.
- » There is merit in project preparation being internal to financing institutions but there is also a role for PPFs that are independent of these institutions.
- » Innovation, knowledge transfer and best practice in project preparation in Asia should be supported.
- » Increased funding for project preparation should be provided in a manner that improves financial sustainability and achieves other desired outcomes.

7. Recommendations

The previous chapter identified and examined matters related to PPFs, and project preparation more generally, that emerged in earlier chapters. With regard to the desired outcomes of more and better prepared infrastructure projects and increased private sector participation, broad conclusions drawn from the current review of PPFs, and project preparation more generally, are:

- » there is no generally accepted definition of a PPF and a variety of arrangements exist for project preparation to occur and for it to be financed;
- » in general, the PPFs examined are performing satisfactorily, though there are significant opportunities to refine current arrangements and practices and to set a course for a more sustainable approach to the preparation of projects that are supported with official development assistance (ODA), including needs to;
 - » increase the quantity of project preparation if infrastructure development is to be expanded and for additional funding to support this and also improved quality of project preparation,
 - » simplify arrangements for people who prepare projects to access funding for project preparation to reduce transaction costs, which sometimes can sometimes be high,
 - » focus ODA support for project preparation on low income countries in particular and for middle income countries to take greater responsibility for financing preparation of their projects, and
 - » give more explicit and formal consideration to opportunities for public-private partnerships (PPPs) during project preparation and also to provide support to governments of developing countries where there the framework and systems to support private sector participation are weak.

The current review also notes the capacity for regional facilities to offer greater delivery efficiency, flexibility, support for cross-border projects and knowledge transfer than more narrowly focussed PPFs. For example, a regional facility could be used to facilitate private sector participation by providing direct support to governments with weak current capacity and assisting in the transfer of experience between Asian countries. The current review found that current institutions involved in project preparation have been able to facilitate the identification, preparation and implementation of cross-border regional

infrastructure, and hence there is no current need for new PPFs that are dedicated to regional projects.

Specific findings of the review that address these and related matters are described in Chapter 6 of this report. Of the numerous matters discussed, six are considered to be of particular importance to achieving improved project preparation outcomes, with the first two being the most critical:

1. Priority should be given to strengthening developing country governments' capacity for upstream activities that provide an enabling environment and lead to the identification of prioritized investment programs.

The role of upstream activities is to ensure that the most meritorious proposals enter the project preparation process. At present it is common for projects included in potential forward works programs not to have been subject to effective review and pre-appraisal. This weakens the ability to rigorously establish the priority of projects and their potential to meet the investment criteria of financiers. Improved and simplified methods of strategic planning, including the use of quantitative analysis to establish prioritized programs of candidate projects, is needed to ensure this occurs. Governments need to develop the capacity for sector agencies to use the tools within a development context set by national planning agencies. Equally importantly, an effective enabling environment is needed to ensure that human, institutional and legal prerequisites for infrastructure planning, investment and operation are in place; that infrastructure solutions are not pursued when other measures (such as policy or operational changes) are more cost-effective; and to better enable current and future infrastructure to be used to their best effect. It is recognized that this has been a theme of external support to developing countries for a number of decades, yet remains an area of weakness.

Donors can assist by developing common sector diagnostic and project prioritization tools that are practical and are acceptable to governments of developing countries, supporting their application and jointly accepting the results.

2. The scale of project preparation needs to be ramped up to support enhanced infrastructure development.

There is a need to increase the number of well-prepared infrastructure projects that potential financiers can act on, in particular projects that could involve private sector participation. This requires

increased institutional capacity and additional domestic and international funding. In Asia, the ADB and World Bank in particular have well developed procedures and considerable expertise in project preparation. In the past this has been used primarily to prepare projects that they finance. They have increasingly leveraged their experience by drawing in more co-financing for project implementation from others. There is a need to continue to leverage their expertise, and that of others, to prepare a larger number of projects that can attract finance from a range of sources, including other financial institutions and the private sector. Convergence in the outputs of project preparation prepared by various agencies will facilitate co-financing and private sector participation by making the results more familiar and accessible to potential financiers.

In addition, there is a need to ensure that expenditure on project preparation is commensurate with the complexity of projects, minimizes risks during project implementation and is sufficient to ensure that the life-cycle cost of achieving project outcomes is minimized. Financing this increase in the scale of project preparation is discussed in the next recommendation.

MDBs and other donors should continue to leverage their expertise to prepare a larger number of well-designed projects that can attract funding from other sources, including the private sector.

3. Funding for project preparation should be rationalized and increased.

Consideration should be given to establishing a new facility with the ADB and World Bank to finance the preparation of an increased number of infrastructure projects in Asia. Contributions to the facility could be sought from a range of donors. Donors could also be encouraged to consolidate current facilities and other means of providing financial support where this is appropriate. The objective of these changes would be to allow the scale and quality of project preparation by the MDBs to be increased and current high transaction costs associated with practitioners seeking project preparation funding from a range of existing facilities to be reduced. The operational aspects of the facilities should be located as close as possible to users. Conditions for contributing to and using the facilities should be simplified to minimize transaction costs and complexity, to ensure consistent practice and to allow for, and possibly to require, co-financing from other sources.

MDBs and donors should investigate the potential to establish a new multi-donor project preparation funding facility in each of the MDBs and to encourage the consolidation of current facilities.

4. There should be a clear path for countries to transition from receiving grant support for project preparation to eventually being willing and having the capability to finance it themselves.

Other than detailed engineering design, preparation of projects supported with development assistance is currently mostly financed by grants. In general this is appropriate for low income countries. As the economy of a country grows and their financial capacity increases, it is reasonable for a rising share of the cost of project preparation to be recovered from project owners. This will increase developing country government ownership of project preparation and increase the financial sustainability of PPFs by releasing funds for more pressing needs. There is a complementary need for developing countries to make greater use of external support to build capacity, including gaining insights into best practice in project preparation and innovation in project design, rather than solely as a means to prepare projects. Recovery of project preparation costs could vary with factors such as the extent to which a project is directed to objectives such as poverty alleviation.

PPFs should explore the extent to which they can integrate cost recovery into their operations to maximise their financial sustainability. Support may be required from donors to establish clear principles to govern the provision of grant and reimbursable financing for project preparation and to ensure a unified approach to implementing them.

5. The common practice of selecting the financing modality for a project prior to feasibility study should ideally be reversed, but otherwise necessitates better upstream project investigation and flexibility during project preparation.

There can be some broad early indicators of the potential for a project to be implemented as a PPP. However, justification should eventually be based on quantitative analysis to determine that a PPP is a more cost-effective means for implementing a project than conventional government financing. This work should ideally be undertaken following a project feasibility study when better information on the project is available to support more detailed consideration of potential roles for the private sector and evaluation of them. Where there is a need to continue the current practice of channelling projects into either a PPP or sovereign loan path early in the project preparation process, the financing modality should be formally reviewed following the feasibility study and flexibility maintained to change the implementation mode if required. It is expected that a requirement for more explicit and formal analysis of financing options during project preparation will lead to a greater number of opportunities for PPP to be identified.

Those involved in managing project preparation can assist by strengthening requirements in project preparation studies to identify and quantitatively assess PPP opportunities and ensuring flexibility to change the financing modality if this should become appropriate.

6. Improved efforts are needed to make better use of the private sector for infrastructure design, funding, delivery and long-term operation and to leverage the overall benefits of private sector participation.

Making greater use of the private sector to improve infrastructure design and related operational efficiency, better service delivery and superior financial outcomes, requires continued support. At present only one country in Asia (viz. India) is categorized as being developed with regard to having an environment for sustainable, long-term PPPs. The current review notes four particular needs. Firstly, improvements are still needed in the policy, legal, institutional, operational, investment climate and financial environment in many countries to support private sector participation in

public infrastructure. There is also a concomitant need for developing country governments to better understand, and be willing to take advantage of, the range of opportunities for using the private sector to reduce costs and improve infrastructure outcomes. Next, there is a need for developing country governments to develop PPP-related expertise and experience to better identify, develop and structure substantive opportunities for private sector participation. Finally, there is a need for more specific and considered examination of all implementation options – both public and private – during the project delivery planning stage of project preparation.

Development partners can assist by providing continuing support to developing country governments and pursuing actions described in Recommendation 3 above.

Addressing these findings requires the coordinated effort of bi-lateral and multi-lateral development partners working together with recipient countries. The DWG of the G20 provides a forum for such efforts to be considered.

Appendix A: Case Study – Project Preparation in Vietnam

1. Brief Background to Vietnam's Development

Vietnam is a development success story. Political and economic reforms (*Doi Moi*) launched in 1986 have transformed Vietnam from one of the poorest countries in the world, with per capita income below \$100, to a lower middle-income country within a quarter of a century with per capita income of \$1,130 by the end of 2010.

GDP grew an average 7.6 percent per year from 1994 to 2007. The proportion of population in poverty fell from 58 percent in 1993 to 14.5 percent in 2008, and most indicators of welfare have improved.

While reform has taken place Vietnam's approach to development remains state-led. However, over the years increasing emphasis has been placed on market processes and non-state ownership of economic assets. The October 2011 Communist Party Plenum recognized the need for economic restructuring and identified restructuring of public investment, of SOEs and the financial sector, as priorities for the next five years.

Vietnam has a unitary political system that was initially highly centralized. However the pace at which development took place required Government to devolve considerable powers to the sub-national level³ in the late 1990s. The transition was fairly sudden. While it has had the positive effect of increasing the accountability of decision makers it also created problems. Local officials were initially unsure of their authority and therefore reluctant to take decisions. They also had few infrastructure professionals and little experience with large projects. All of this led to substantial delays in the preparation and processing of infrastructure investments.

The industrialization that underwrote development and the rapid urbanization that derived from it created a massive demand for infrastructure. Economic growth has to be maintained to sustain prosperity and provide employment for the more than one million Vietnamese who enter the job market each year. A further driver of infrastructure demand is increased expectations. People expect improved infrastructure service provision, particularly now that they have to pay significant user charges, and a better quality of life. They are no longer willing to put up with the negative consequences of rapid development such as traffic congestion, and air and water pollution.

The Ministry of Planning and Investment (MPI) together with the Ministry of Finance (MOF) continue to wield considerable control over investment decisions. This authority is reflected at the large city and provincial level through the Departments of Planning and Investment and Finance. Some revenue generating entities such as Electricity Vietnam (EVN) and a few of the wealthier cities and provinces enjoy a degree of freedom over smaller infrastructure investments. City and provincial governments were able to fund infrastructure from the substantial revenues they were able to generate from the conversion of rural land during a development boom that took place from around 2000 to 2008 but this has now largely subsided. The information and telecoms sector that was deregulated over a decade ago also has considerable autonomy over investment. These exceptions notwithstanding, central government maintains tight control over most infrastructure investment. This is exercised through highly bureaucratic planning, investment, and procurement regulations that often cause protracted delays. This is particularly the case for projects funded by ODA and the international private sector.

2. The Role that Infrastructure Played

Investment in infrastructure has been a key driver of Vietnam's rapid economic growth and achievements in reducing poverty referred to above. Research by the World Bank in 2008 concluded that investment in infrastructure was 9 to 10 percent of GDP, on par with China and well ahead of most developing countries. Coverage of grid electricity increased from only 2.5 percent in 1976 to almost universal coverage by 2012. Access to improved water sources increased from 58 percent in 1990 to 94 percent in 2008.

After the war ended the main task was to address the damage inflicted to basic infrastructure to restore its functionality. Progress was very slow in the 1970s and 80s as the economy had been largely destroyed and Vietnam received only limited international assistance. A decision to open the economy through the adoption of *Doi Moi* in 1986 initiated changes that led to Vietnam's phase of rapid growth. The United Nations, World Bank, ADB and the Government of Japan all started substantive engagement in the early 1990s. The initial focus was to help Government prepare strategic plans that amongst

³ Five large cities that report directly to central government and 58 provinces comprise the first tier of sub-national

government. Subsidiary tiers comprise districts and wards in cities and districts, communes and villages in the provinces.

other things prioritized investment. Transport and energy were identified as the most important sectors. The focus on the former was to rehabilitate Highway 1, the main north to south arterial road, and rebuild the ports. In electricity, efforts were concentrated on restoring the transmission and distribution networks, particularly for the larger cities such as Hanoi, Ho Chi Minh City (HCMC) and Haiphong, and increasing generation capacity.

Once work was progressing on rehabilitating economic infrastructure attention turned to expanding access to basic services – piped treated water, connecting people to the electricity grid, developing telecommunication networks and improving and expanding the secondary and tertiary road networks.

The “obvious” projects with very high economic and/or social rates of return have been identified and have been, or are being implemented. The next phase is more complicated. Vietnam has become an integral part of the global economy. To compete it needs, amongst other things more sophisticated supply chains to facilitate the efficient movement of materials and goods – just-in-time deliveries that minimize required inventory levels. This needs modern infrastructure prepared to international standards and delivered within predictable timescales. Vietnam still has some way to go to achieve this.

The funding of infrastructure has evolved since Vietnam opened up. Substantive Official Development Assistance (ODA) started in the early 1990s. ODA, the majority of which is channelled through the state budget came to dominate infrastructure investment during the 1990s. The six development banks⁴ provided over \$38 billion for infrastructure from 1992 to 2012⁵. The World Bank alone provided over \$7 billion during this period. However concessional ODA is gradually being phased out. This means funds for infrastructure will become more expensive. International and domestic investors are playing an increasing role and Government is striving to attract private sector infrastructure providers.

The investment needs for infrastructure continue to rise. The estimated cost of approved infrastructure projects included in the master plans of sector ministries, provinces and SOEs for the period 2011 to 2020 amounts to \$390 billion or around \$40 billion per year. The World Bank has estimated that the fiscal space available in the state budget for that period will only be around \$120 billion or 30 percent of the projected requirement. This assumes that infrastructure spending continues at around

25 percent of total public expenditure, which may be optimistic.

Two important conclusions can be drawn. Firstly it will be important to review planned projects in a more systematic and rigorous way to ensure that priority is given to those that contribute most to Government’s economic and social objectives. Secondly it will be more important to use public funds and ODA strategically to help meet social development goals and leverage additional funding from international capital sources and the private sector to the greatest possible extent.

3. Project Preparation – Funding, Procedures and Practices

This section looks at infrastructure investment and the role that project preparation plays from the perspectives of Government and the development banks and donors. It also reviews the extent to which Government has been able to engage with international investors and the private sector. All aspects of project preparation have been taken into consideration: strategic planning, feasibility studies, project structuring and financing, detailed design, the preparation of bidding documents and financial closure with the completion of legal agreements.

It is important to recognize that Government, the development banks, donors, potential investors and the private sector collaborate closely on project preparation. Over the years Government has benefitted enormously from ODA. The two Multilateral Development Banks (MDBs) operating in Vietnam, the Asian Development Bank (ADB) and World Bank (WB) support all of the aspects of project preparation referred to above. They have in particular collaborated closely with bilateral donors to mobilize grants for Government to prepare the detailed design phase of projects⁶ (for reasons of conflict of interest the MDBs cannot fund detailed designs and the preparation of bidding documents).

Prior to *Doi Moi* Vietnam was a highly centralized economy. Projects were designed and implemented largely by companies operating within the key infrastructure sector ministries of Construction (water, wastewater, urban planning and development and public buildings) and Transport and large state owned enterprises such as Vietnam Electricity (EVN). Limited funding came mainly from the state budget supplemented by aid from the former Soviet Union.

Preparation Technical Assistance consultants to work with Government to prepare feasibility studies whereas the World Bank requires that such work is funded and managed by Government. It frequently assists Government to mobilize grant funding for the studies.

⁴ ADB, AfD, KfW, JICA, Korea Eximbank, and the World Bank.

⁵ Data from the “Eighth Joint Portfolio Performance Review” of the ODA National Steering Committee and the Development Banks of Nov 2013. It assumes that 75 percent of total ODA was allocated for infrastructure.

⁶ The ADB takes a slightly different approach to the funding of feasibility studies. It can fund and appoint Project

The arrival of ODA saw the introduction of international business and infrastructure industry practices that were based on market economy models. These were very different to those of Vietnam with its centrally planned economy. Some of the difficulties that this created with project preparation are described in the following sections.

In addition to the phasing out of concessional finance, ODA is also a declining proportion of Vietnam's total infrastructure investment requirements. As noted above this means that Government will have to be more selective in its choice of infrastructure, whether funded from the state budget or through funds mobilized from other sources including international capital sources and the private sector. Better quality project preparation will be an important part of this.

a) Government's Perspective

- » National planning and the prioritization of projects should become more systematic and rigorous

National planning in Vietnam involves 10 year strategies often with longer term "visions" at the sector, large city, and province level. All of these plans contribute to a five-year national development plan – the Socio Economic Development Plan (SEDP). Infrastructure features prominently and the plan incorporates a list of projects to be implemented during the period. Unfortunately the plans and the prioritization of projects lack rigorous analytical underpinning. Investments included in the SEDP are often little more than wish lists that are not subjected to objective analysis of benefits and ranking of projects according to priority. MPI recognizes this deficiency and has requested assistance from the WB ahead of the SEDP for 2016-2020. Moving to a more systematic and analytical basis of selection will however require a huge effort in terms of disseminating new methods and changing the mind-sets of decision makers. It is however a very important step in raising the quality of the overall preparation of projects.

- » Differences in the procedures and practices of Government and International Organizations delays project preparation.

Vietnam's procedures and practices for infrastructure investment differ from accepted international norms. Whilst there has been some convergence⁷ over the past two decades, significant

differences remain. This affects the quality of project preparation and the time it takes.

As noted above most development banks and donors have policies and guidelines governing fiduciary (procurement, accounting and auditing) and safeguard matters such involuntary resettlement, assessing and mitigating environmental impacts, gender equality and assessing impacts on the poorest members of society and ethnic minorities. The loan and credit agreements for development projects require Government's acceptance of these requirements including that they take precedence over national legislation where conflicts exist. This is discussed in more detail in sub-section (b) below.

When ODA was first introduced Government counterparts had to be trained in ODA procedures. This was complicated by the fact that few officials understood English. Even when officials understood what was required they were faced with taking decisions that contradicted national laws and regulations. Despite the fact that loan agreements clearly stated that ODA requirements took precedence, officials were often unwilling to take decisions on that basis. Decisions regularly had to be referred to the highest levels, which resulted in considerable delays.

Infrastructure investment in Vietnam is governed by a large number of frequently changing Laws, Decrees, Decisions and Implementing Guidelines many of which contradict each other. The Construction Law sets down in detail the requirements for project preparation. This requires a more detailed level of feasibility study including a fairly advanced level of design and cost estimate, than required by international practice. Furthermore regulations covering cost estimating continue to reflect some of the practices from the days of central control when costs were determined by the state. This results in cost estimates that are much lower than the market prices reflected by bidders. The approval of feasibility studies and cost estimates is highly bureaucratic and lengthy. They have to be approved by a senior Government official. The level depends on the value of the project. In the case of ODA projects it is often the Prime Minister. The system is also very rigid. Once a feasibility study and associated cost estimate have been approved it is very difficult to get re-approval for changes. This creates problems when

⁷ As a result of sustained pressure by ODA agencies Government issued Decree 38-2013 – ND on the Management and Use of ODA (in relation to investment projects). However Government retained separate procedures for its own investments.

subsequent more detailed preparation reveals the need for revised designs and higher costs.

- » Government's under-funding of project preparation leads to low quality designs

Feasibility studies and designs prepared by local consultants⁸ are often of poor quality because Government implementing agencies allocate insufficient funding. Consultants tend to cut corners by not carrying out adequate surveys and adopting conservative designs that are often simply copies of other projects. Costs tend to be underestimated because of the reasons explained above. Difficulties arise when subsequent more detailed work funded by ODA or another international financier requires changes to the design and increased costs. Because of the difficulty in getting approval for changes to costs the solution adopted is often to reduce the scope of works e.g. changing a road from four lanes to two, which is clearly sub-optimal. There is a need to find a better balance between Government's efforts to control costs and a less rigid review system that promotes more efficient and innovative designs.

A major part of the problem is the low level of funding allocated for feasibility studies and detailed designs. The Vietnamese Construction Law prescribes funding as a percentage of the capital cost of projects. Table 1 compares these with typical percentages that apply internationally. Even allowing for purchasing parity correction it is clear that the Vietnamese funding levels are much lower.

Despite the fact that Government has had access to highly concessional finance for the past 20 years they have always been anxious to minimize "borrowing" for technical assistance including for design and construction. This stems partly from the fact that in the early years of ODA, grants were readily available for such activities. The large difference in international and local fees that are controlled by Government is probably a further reason for this reticence. Whatever the case, it results in lower quality designs and leads to delays in project preparation.

- » New ways of financing infrastructure

As Vietnam's economy has grown the demand for infrastructure has increased. The Government budget and

Box 1

Water Supply Project and Three Cities Sanitation Project – Collaboration between Australia, Denmark, Finland and the World Bank.

The World Bank and Governments of Australia, Finland and Denmark (bilateral donors) jointly financed these projects to rehabilitate and expand water supplies, construct drains and sewers, introduce sewage treatment and build municipal landfills in Hanoi, Haiphong, Danang and Quang Ninh Province. The World Bank provided most of the investment capital and the bilateral donors funded consultancy services for project preparation, construction supervision and capacity building. Finland and Denmark also contributed investment funding. This enabled the preparation of high quality designs and rigorous construction supervision, including the passing on of these skills to Vietnamese counterparts. The respective contributions from the bilateral donors and the World Bank were around \$34 million and \$175 million.

ODA is only able to fund a declining proportion of Vietnam's infrastructure investment requirements. New sources of finance need to be mobilized. Options include: increased self-financing from user-charges; bond issues; bank loans (local and international); and the private sector (local and international).

Cost recovery from user charges is increasing but it started from a very low base. EVN indicated that they are able to fund around 30 percent of investments in electricity distribution from revenues. Water companies barely cover operation and maintenance costs and wastewater utilities less than that. Tolls for roads are only just being introduced and it will be some time before they reach sufficient level to contribute to capital investment.

Table 1: Comparison of Consultants Fees in Vietnam and Advanced Economies

Activity	Vietnamese Funding Prescribed in Construction Law ⁽¹⁾ (% of Capital Cost)	Typical Funding Levels in Advanced Economies (% of Capital Cost)
Feasibility Study	0.20	2-5
Detailed Design & Bidding Documents	1.65	5-10
Construction Supervision	0.94	5
Total Consultants Fees	2.8	12-25

(1) Specified in Decree 957/QD/BXD issued in 2009. These percentages apply for works estimated to cost around \$10 million.

⁸ The capacity of local consultants varies. Some associated with central ministries such as transport and large SOEs such as EVN and its subsidiary companies are highly

competent and able to cover all aspects of project preparation. Other smaller consultants are less able.

Government is already issuing bonds and this is likely to continue. It will however be some time before infrastructure utilities and municipal authorities will be in a position to do the same. There is substantial borrowing from banks but this is mainly from local banks most of which are still under state control. The extent to which this investment is “directed” by Government rather than based on sound objective appraisal and risk analysis by the banks is unclear. There appears to be a fairly limited amount of borrowing from international sources of capital. Where it has occurred the loans have had to be backed by comprehensive sovereign guarantees.

This leaves engagement in infrastructure by private sector companies, which is covered below in sub-section (c).

b) The Perspective of the Development Banks and Donors

The arrival of ODA in the early 1990s⁹ provided a new source of funding that dominated infrastructure investment in Vietnam for well over a decade. It continues to play a significant though declining role. Vietnam attracted many bilateral donors, multilateral development banks and non-government organizations (NGOs). In most cases funding was provided as grants (bilateral agencies and NGOs) or very concessional lending (the MDBs and other Development Banks). Vietnam as a result of its successful economic growth will, over the next few years, lose its entitlement to the most concessional forms of ODA support.

» Funding of project preparation evolved as Vietnam grew

From the early 1990s to around 2008 most project preparation was grant funded. Government usually funded initial feasibility studies but these were generally of low quality because of the reasons explained above.

Grants were used for two main purposes: (a) to enable Government to hire good quality consultants to prepare feasibility studies and detailed designs (the MDB’s usually helped Government arrange such funding); and (b) to supplement the MDB’s own operational budget so that they could advise and assist Government counterparts with preparation. This also covered upstream activities such as

Box 2

Preparation of the Ho Chi Minh City Environmental Sanitation Project

Preparation of this \$316 million World Bank project was funded by two grants totalling \$1.8 million from the Japanese PHRD fund and a \$2 million advance from the World Bank’s Project Preparation Facility (PPF). The PPF enables borrowers to take an advance against a planned credit or loan. It is rolled over into the credit/loan on financial closure of the project. While an apparently attractive option this was one of only two instances in the World Bank’s more than 20-year engagement that Government took advantage of the facility. Unfortunately Vietnam’s bureaucratic systems required that such advances had to be considered as stand-alone projects and were therefore subject to the same protracted vetting and approval processes. This funding enabled high quality feasibility studies, detailed designs and bidding documents for \$60 million of civil works to be completed by the time the credit was approved. Funding for detailed design of the remainder of the project was included in the loan.

helping Government develop sector strategies, revise and update legislation related to infrastructure investment, and to create a more conducive enabling environment for private sector engagement. In the case of the MDBs they either collaborated with bilateral donors at the country level (refer to Box 1) or were able to mobilize funding from trust funds on behalf of Government¹⁰ (refer to Box 2). Most of the latter were managed centrally.

With Vietnam’s success in reducing poverty and its sustained economic growth many of the bilateral donors providing grants closed their operations in Vietnam. It also became generally more difficult for the MDBs to mobilize grants. For example the Japanese Policy and Human Resource Development (PHRD) Fund that was administered by the World Bank in Washington since 1989 had provided around \$1.6 billion for technical assistance grants worldwide.

A substantial proportion of the \$1.6 billion was allocated for project preparation. However, the Japanese authorities established different priorities for the fund in 2008 and project preparation of

⁹ The former Soviet Union had provided assistance up to 1983 and a few bilateral donors provided support soon after unification in 1975.

¹⁰ ADB and the World Bank are not allowed for reasons of conflict of interest to hire consultants to prepare detailed designs for projects that they will subsequently finance. ADB can fund Project Preparation Technical Assistance (PPTA)

consultants to prepare feasibility studies of sufficient detail to enable them to appraise projects).

infrastructure projects was no longer eligible. Although the number of trust funds managed by the MDBs has proliferated in recent years and their aggregate value has grown¹¹ their use has become much more narrowly prescribed and few are available to directly support project preparation.

Interviews with MDB staff indicate that they don't consider the availability of funding for project preparation to be a problem. There also doesn't seem to be a shortage of funding from bilateral donors for trust funds. While not all of the trust funds with the World Bank, for example, are available for project preparation, a significant number are. However, in spite of the apparent ready availability of funds the allocation made to individual projects for preparation rarely exceed \$1 million, irrespective of project size. Thus for a \$200 million project (several infrastructure projects in Vietnam are this size) this represents only 0.5 per cent compared to a usual international norm in the range of 2 to 5 per cent. Private discussions with consultants who work on the preparation of MDB funded projects reveal that it is difficult for them to produce high quality work for this level of funding.

In recent years the MDBs have developed more strategic links with bilateral donors and other Development Banks at the country level (see Box 3) to amongst other things support project preparation. This was in part a result of the increased decentralization of ODA. As an example the World Bank developed a strategic partnership with Australian Aid to support both project preparation and the co-financing of infrastructure projects. Australia also partnered in a similar way with ADB on two large transport projects. ADB also developed close ties with L'Agence Française de Développement (AfD) in jointly supporting large projects such as parts of the Hanoi Metro. The local ADB office has also accessed preparation funds from Financing Partnership Facilities¹² that are capitalized by grants from bilateral donors and managed out of Manila.

» Government managed project preparation facilities

For the above reasons the Development Banks and Government have had to develop new ways of funding project preparation. Both ADB and the World Bank provided concessional loans to Government specifically for project preparation: the \$100 million Project Preparation Technical Assistance Facility (PPTAF) Project was approved by the World Bank in May 2010; the \$38 million Project Preparation and Start-Up Support Project (PPSSP) was approved by

Box 3

Australia – World Bank Strategic Partnership in Vietnam (ABP)

This A\$58 million (cUS\$54 million) trust fund was established in February 2012. Its main objective is to foster an enabling environment for improved economic competitiveness, increased environmental sustainability, and broadened access to economic and social opportunity. It is managed from Hanoi and is jointly overseen by Australia's Counsellor for Development and the World Bank Country Director.

Around 9 percent is earmarked for the infrastructure sector with A\$23 million allocated to co-finance specific investment projects. The balance is used to support the preparation of infrastructure projects including upstream work. A considerable amount is being allocated to support capacity building and the development of PPP projects in the transport sector. This includes helping the Ministry of Transport build up a PPP cell within the Ministry and supporting the cell with specific transactions. The ABP has proven to be a very useful and flexible source of project preparation funding that can respond to requests for support from Government on a just-in-time basis.

ADB in November 2012; and ADB and AfD supported a \$30 million Public Private Partnership Support Project in August 2013. Unfortunately these initiatives have had only limited success so far. By January 2014 the PPTAF Project had only committed \$37.5 million of which only \$19 million had been disbursed. The other two funds have reportedly made no commitments yet (they were established after the PPTAF). It appears the low take-up arises from the overly bureaucratic procedures described in earlier sections and inter-ministerial friction (the funds are managed by MPI which processes applications from infrastructure ministries and provinces).

» Impact of the policies and guidelines of development banks and donors

The policies and guidelines relating to development assistance impact on project preparation

As noted in sub-section (a) above development assistance comes with a range of fiduciary and safeguard policies. The World Bank's mandatory safeguard requirements have increased over time and now number ten. Whilst there have been moves in the international community to simplify and harmonize processes, there is still a long way to

¹¹ The World Bank's Annual Report on Trust Funds for 2013 refers to \$29 billion of trust funds under management across over 200 trust funds.

¹² ADB has established three Financing Partnership Facilities for Water, Clean Energy and Urban.

go. Thus various development banks and donors may have different procedures and these are often very different again from many developing country governments' own arrangements. Such policies and guidelines are an important and integral part of the broader development agenda. While this assessment does not question the importance of working with developing country governments to improve how they address fiduciary and safeguard matters it does however need to be recognized that they have increased the level of effort required for, the cost of, and time required for project preparation. Unfortunately in most cases funding for project preparation has not been increased to cover this additional workload.

In addition to the procedural requirements the provision of ODA was also conditioned on the achievement of sector reforms. This included, for example introducing user fees that at least covered operating and maintenance costs. Again this was a difficult change for the Vietnamese government. User fees were negligible in the early 1990s.

Over time there has been a gradual convergence. However it came very slowly and at considerable cost in terms of delays to projects and the benefits they deliver. It is difficult to speculate on whether a more nuanced approach to introducing international practices would have been more productive. For example an alternative approach would have been to use development policy lending (providing budget support against the adoption and implementation of policy reforms) to leverage fiduciary and safeguard reforms rather than addressing these major issues one project at a time. Proponents of the "big bang" approach adopted would point to the progress eventually made. Others would note that Government's default mechanism is to revert to "old ways" to get things done quickly, e.g. getting power stations built by directly negotiating Build-Operate-Transfer (BOT) contracts with SOEs to keep pace with burgeoning demand.

- » On-going measures to improve project preparation and implementation

As previously noted the differences in processing procedures caused long delays in both project preparation and implementation. This led to Government and the Development Banks carrying out Joint Portfolio Performance Reviews (JPPRs) to identify and attempt to address problems. The first review took place in 1999. The arrangement was subsequently deepened with Government establishing an ODA National Steering Committee to

Box 4

Advance Actions – the Case of the Cao Lanh Bridge

The \$200 million 2.4km Cao Lanh Bridge spanning a major branch of the Mekong River is part of the \$860 million Central Mekong Delta Connectivity Project being jointly funded by the ADB, Australian Aid, the Korean Eximbank and GOV. On completion of feasibility studies that were financed by ADB and Australian Aid in October 2010 Australia offered to provide \$26 million for the detailed design and construction supervision of the bridge as part of their \$160m grant contribution to the project. According to Vietnamese procedures this had to be processed as a separate "project". This was however achieved expeditiously by the Ministry of Transport within 5 months.

To further speed up processing MOT requested the ADB to procure consultants on their behalf. This was achieved within 6 months. Once appointed the consultants completed the design and bidding documents in less than one year and these were formally approved by January 2013. Contractors were pre-qualified in February 2013, bids were invited in April and a construction contract was signed in September 2013. The ADB project loan for \$410 million was approved in August 2013. This demonstrates what a determined client, supportive donor/financier and adequate financing of design can achieve, even within Vietnam's current stringent project investment regulations. Unfortunately this is an all too rare example of efficient project preparation.

look at ways of streamlining processes. The eighth JPPR noted that:

- » While \$31 billion of new ODA funds were committed between 2006 and 2012 the undisbursed stock of commitments grew to \$20 billion; \$313 million had to be cancelled because of non-performance. The average annual disbursement ratio¹³ is only 16 percent.
- » The average implementation period of projects was around 7 years with implementation having to be extended by 2 to 3 years.
- » Approval of "advance actions" for project preparation in 2012 had helped reduce the start-up phase of projects. Essentially this meant permitting the preparation of detailed designs and procurement of works to proceed in parallel with loan processing. This has reduced the project preparation period by up

¹³ This is the annual amount disbursed divided by the undisbursed amount at the beginning of the year.

to 18 months as demonstrated by the case of the Australian funded Cao Lanh Bridge (see Box 4).

It is worth noting that in spite of the persistent problems described above independent post completion reviews by the Development Banks' independent evaluation departments conclude that the overwhelming majority (96.5 percent) of projects performed satisfactorily.

» New forms of lending – from retail to wholesale

A combination of the persistent problems described above and reduced operating budgets have pushed the development banks to adopting new forms of lending for infrastructure. Essentially there has been an emerging shift away from individual projects to broader more programmatic approaches. This includes:

- » Output based lending ("Programs for Results) that disburse on the achievement of independently verified outputs. Examples include the World Bank funded results-based "Rural Water Supply under the National Target Program" and "Northern Mountains National Urban Development Program".
- » Funding through financial intermediaries. Examples include the provision of lines of credit to the Ho Chi Minh City Investment Financing Company and other city and province level Local Development Investment Funds by the World Bank, AfD and KfW Bankengruppe (KfW).
- » Large Multi-tranche Financing Facilities such as the ADB supported \$1 billion "Water Sector Investment Program, which fund a series of water supply projects. Funds for the preparation of subsequent investments are included in each tranche.

So far the results-based and financial intermediary projects have been limited to small-scale infrastructure investments that do not trigger the highest categories of the Banks' safeguard policies. The Banks' carry out a due diligence review of the Government's fiduciary controls and safeguard policies. Where divergence is found from the principles of the Banks policies and guidelines framework arrangements are devised that cover any deficiencies and these are incorporated into the loan agreements to. It will be important to carefully monitor the effectiveness of these approaches. Similarly the value of entering into a very large

multi-tranche single sector commitment should be evaluated against the more flexible alternative of individual stand-alone projects.

c) Engagement with the Private Sector

The Government of Vietnam has recognized the importance of involving the private sector in all aspects of infrastructure provision from investment through to outright ownership and the delivery of services. A BOT Decree was passed in 2007¹⁴ and this has been the favoured mode of engaging with the private sector so far. Construction of power stations, a few bulk water supplies, and more recently upgrading the trunk road network with associated tolling have been the main areas of activity. Few BOTs contracts are competitively bid. They are instead negotiated either with an unsolicited bidder or a company selected by government. Most involve local companies. The extent to which many of the companies are private is unclear. Some are SOEs whilst others are former SOEs that have undergone a degree of divestment¹⁵. Generally speaking the arrangements are rather opaque. Government appears to prefer these type of arrangements because: they can be concluded quickly; they don't require complex legal agreements and formal guarantees; and they appear to be flexible in terms of costs and returns on the investment. However most of the risk is ultimately borne by the State budget.

In contrast Government has had little success so far in concluding Public Private Partnerships (PPP) including BOTs that follow good international practice i.e. including competitive bidding and apportioning risk to the party best placed to manage it. Government staff has limited experience in preparing PPP contracts particularly the aspects relating to legal agreements, risk apportionment and guarantees, procurement methods that promote innovation, international arbitration, and contracts that cover long-term operation of the facilities. The development banks have provided extensive assistance: to build the capacity of Government staff; to expose them to experience in other countries; and with the provision of transaction advisory services. Despite all of this Government appears to remain sceptical.

It appeared that a breakthrough was achieved in 2012 with the successful financial closure of a BOT contract of around \$400 million for a large 720 MW gas-fired power station, Phu My 2.2, awarded to a Singaporean company. Despite the fact that the contract provided power at a cost that was 50 percent lower than similar BOT contracts that were negotiated on a sole-source around the same time, Government chose not to follow up with further competitive transactions. It appears the

¹⁴ BOT Decree 78/2007 was subsequently amended by Decrees 108/2009 and 24/2011.

¹⁵ Divestment is widely referred to as "equitisation" in Vietnam. It tends to involve selling part of the equity, giving part to the staff and workers for a nominal amount, and

either retaining the remainder in state ownership under a sector ministry or more recently transferring it to a State holding company, the State Investment Capital Company which sits under the Ministry of Finance.

Government was concerned at the length of time it took to prepare and reach closure on the transaction (it took 5 years but this was the first of its type and it would seem that subsequent transactions could have been completed much quicker) and the agreements and guarantees mentioned above that it had to provide.

In the transport sector Government has been attempting to attract foreign investors to participate in PPPs to build and operate sections of an expressway running the length of the country. Despite extensive technical assistance from the MDBs and other donors no transactions have yet reached the bidding stage. Frustrated by the lack of progress the MOT reportedly awarded 45 BOT contracts each in the region of \$100 to \$300 million in 2013 alone to increase the capacity of the existing trunk road network. There are apparently plans to award a further 36 such contracts in 2014 and 2015. It is understood that the majority of these contracts have been negotiated with local SOEs and that state controlled banks are providing much of the financing.

4. Lessons Learned and Recommendations

Findings from the case study are:

- » *Vietnam could probably have achieved more and done it faster with better project preparation:* Vietnam has made phenomenal progress over the last 25 years. One of the few caveats is that it would probably have done even better had it been willing to adapt more quickly to international norms for infrastructure investment, including project preparation.
- » *Concessional ODA and grants are declining – they should be used more purposefully:* Using grants and concessional finance to improve the quality of project preparation should be a priority. Concessional finance should also be used to leverage other sources of funds, particularly from the private sector.
- » *More effort should be put into strategic planning:* Most of the “obvious” projects with high rates of return have already been built. The next phase is more complicated. Greater analytical rigor is needed to prioritize infrastructure investments for medium term planning. The World Bank at the request of the Ministry of Planning and Investment has provided some initial advice but much more needs to be done, particularly in capacity building.
- » *The fiduciary and safeguard policies of Government and the development banks and donors have still not converged.* While there has been some convergence of fiduciary policies and guidelines,

significant differences remain that create challenges in the preparation and implementation of infrastructure projects.

- » *Government should adopt more flexible project approval processes:* Governments current approval processes are too centralized, overly bureaucratic and time consuming. Attempting to control project costs by locking in designs and costs at the feasibility stage is ineffective and stifles innovation. It also causes delays when subsequent more detailed designs reveal the need for changes and higher costs.
- » *Funds seem to be available for project preparation but Government and possibly also the development banks and donors don't allocate sufficient funding for good quality project preparation:* Interviews with MDB staff indicate that the availability of funding for project preparation is not a significant constraint. However for many projects the funding allocated is well below international norms. It is unclear if this is because there are insufficient funds available or because this low level of funding has simply become the accepted level. On the Government side, the level of funding permitted for project preparation is very low. All of this results in lower quality project designs, less reliable cost estimates and a greater risk of unexpected problems emerging during construction.
- » *Government's efforts to establish stand-alone project preparation facilities have so far had limited success:* Take-up from the three facilities of around \$170 million established with concessional ODA finance in the Ministry of Planning and Investment since 2010 has so far been disappointingly low. It appears that Government has not been able to adapt its rigid ODA management and public investment rules and regulations to take full advantage of these facilities.
- » *Government and development bank efforts to establish effective stand-alone project preparation facilities funded by concessional loans have so far had limited success:* Take-up from the three facilities of around \$170 million established with concessional ODA finance in the Ministry of Planning and Investment since 2010 has so far been disappointingly low. It appears that coordination arrangements between the Planning Ministry and the end-users (the infrastructure ministries and local governments) and the management arrangements for the facilities were not sufficiently developed when the facilities were established. The challenges of rigid approval processes referred to above also seems to discourage utilization.

- » *Detailed designs and procurement documents should be prepared as part of project preparation, or in parallel with it:* In Vietnam undertaking detailed designs and bidding for works contracts in parallel with loan processing is considered an “advance action”. When adopted it has been successful in considerably reducing the time required to implement projects. Using this approach more widely would speed up project delivery.
- » *New forms of development bank lending show promise but should be monitored closely:* The MDBs are gradually moving from retail (one project at a time) to wholesale (more programmatic) lending. The effectiveness of these new forms of support including results based lending, the use of financial intermediaries, and multi-tranche financing facilities should be closely monitored including the scope for scaling up results-based lending to address larger more complex projects.

- » *Efforts to use ODA to leverage private investment should continue:* So far there is little tangible evidence to show for the efforts of development banks and donors and government to promote competitively bid PPPs. Government concerns about the complexity of transactions with the international private sector, the contingent liabilities that can arise from them and the length of time it takes to reach closure on projects is understandable. However it would be prudent to persevere, albeit with caution, in order to benefit from more efficient investment and to spread risks where they can be most effectively managed. Processing times are likely to come down as experience is gained. The implication of providing guarantees for some risks should be balanced against the alternative of negotiating BOTs directly with local companies and investors with close Government connections, an approach that seems to involve the state budget bearing most of the risk.

Appendix B: Case Study - PPP Project Preparation in the Philippines

The Philippines has in the last few years made significant advances in addressing its infrastructure deficit through the development and implementation of its PPP Program. An important part of this has involved the establishment of the Philippines PPP Center (PPPC) as the responsible central national agency, working closely with the national implementing agencies and departments in the identification, assessment, preparation and tendering of major infrastructure projects. Crucially, the PPPC incorporates a Project Development and Monitoring Facility (PDMF) so that the implementing agencies – working with the PPPC – have the funding to carry out pre-investment activities for potential PPP projects, such as undertaking the pre-feasibility and feasibility studies, and developing a robust pipeline of viable and well-structured infrastructure projects that are then tendered out. Equally importantly, the PPPC is a public agency that is attached to the National Economic Development Authority (NEDA) but is operationally independent of government.

1. Background

Infrastructure has been widely recognized as a critical factor in economic growth: investment, delivery, efficiency, effectiveness, access and operations are some of the aspects both driving and heavily influenced by infrastructure.

For the Philippines, infrastructure investment has been insufficient and inadequate over many years, forming a major impediment to development. Infrastructure development has not kept pace with continued population growth and increasing urbanization, both enduring features of the Philippine economy.

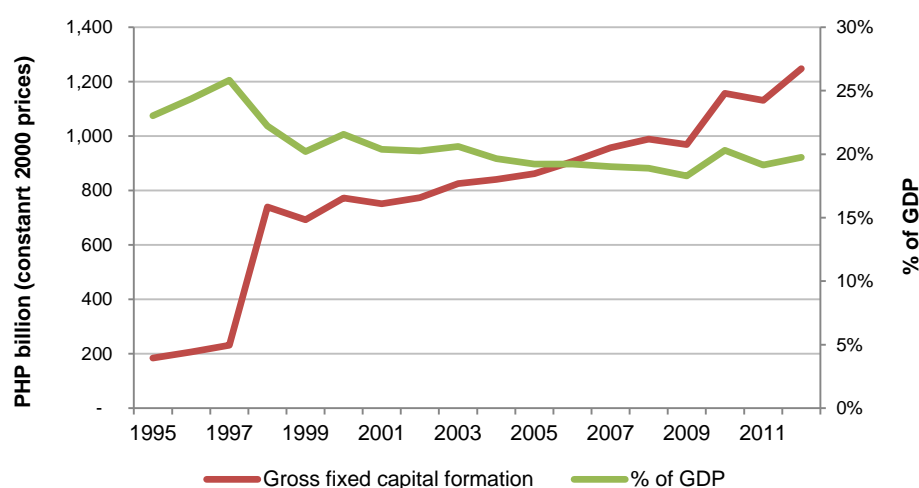
In 1980-2009, total infrastructure investment in the Philippines averaged 2.1 percent of GDP, well below the recommended benchmark of 5 percent of GDP (World Bank Group 2005).

Despite improvements in recent years, Philippine infrastructure continues to lag many of its ASEAN neighbours and other Asian economies. For the Philippines, there have been some recent improvements in its GCI, moving from an overall rank of 75th in 2011-12, 65th in 2012-13, to 59th in the current 2013-14 rankings. However, these improvements have come from a low base, and the quality of its infrastructure remains very low (98th), especially for airport (113th) and seaport (116th) facilities.

This long-term lack of investment in infrastructure reflected weaknesses in overall governance and related development and effective implementation of infrastructure-related legislation and policy initiatives, planning and prioritization of projects. Previous studies have identified some broad cross-sectoral themes that would seem to account for this underperformance on infrastructure: a poor overall business environment for infrastructure; insufficient infrastructure policy planning and coordination, and inability to mobilize adequate infrastructure financing; and failure to maximize the benefits of private sector participation in infrastructure (World Bank Group 2005).

In more recent times there has been significant improvement as the Philippine Government has recognized the role of the private sector in financing the construction, operation and maintenance of infrastructure and development projects normally undertaken by the government. A PPP Program was launched in late 2010, along with the establishment of the

Figure 1: Philippine Gross Fixed Capital Formation



Source: ADB (2013)

Philippines Public-Private Partnership Center (PPPC) as the mandated agency for the implementation of the PPP Program and accelerating the delivery of much needed projects.

2. PPP Center of the Philippines

The PPPC was established in September 2010 and built on some earlier efforts from the 1990s in the Philippines to promote the involvement of the private sector in infrastructure. The Build-Operate-Transfer (BOT) Law of 1990 (and subsequent amendments and revisions) and the BOT Center that was formed to implement infrastructure development were the first in Asia, but key elements were imperfectly implemented, for instance: enabling policy and legal and regulatory frameworks were not entirely clear or consistently applied; many projects were not competitively tendered; financial viability of some projects was undermined by the government not meeting its contractual obligations; land acquisition processes failed to give the certainty required for large PPP projects; and risk allocation and management did not meet the needs of many private sector financiers.

Drawing on this experience, there have already been changes to the BOT Law to provide improved certainty for the PPP Program. In collaboration with the concerned agencies, the PPPC has now proposed a range of further policy, legislative and regulatory reforms to strengthen the institutional and enabling environment for PPPs and increase the PPPC's independence from NEDA, in a comprehensive revision to the current BOT Law as the proposed PPP Act that is currently under consideration by the Philippine Congress.

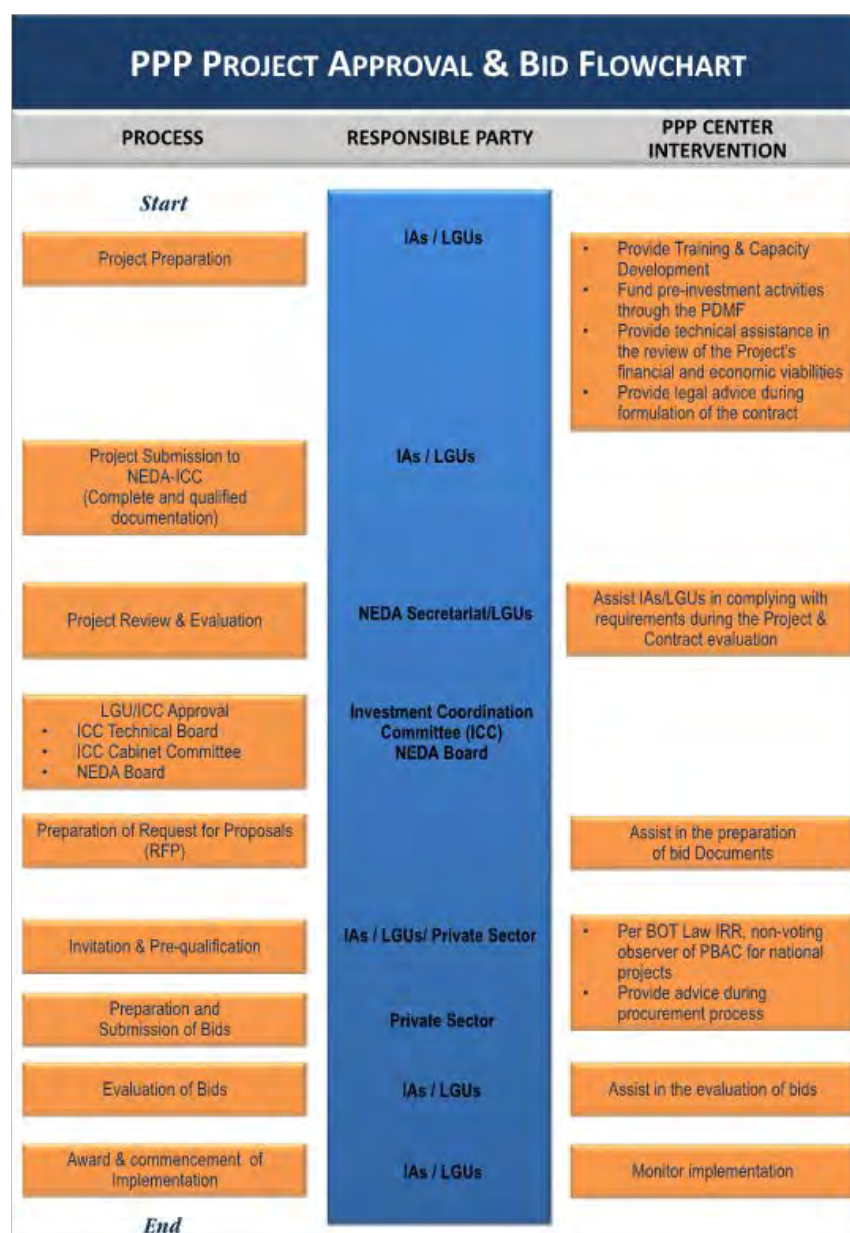
The proposed provisions of the new PPP Act are supported by both public and private stakeholders and include: on execution of the PPP contract, automatically granting the franchise, license or permit required for the implementation of the project; treatment of unsolicited proposals to give more time for a "Swiss challenge" so that better counter-proposals can emerge; additional financial and commercial incentives to the private sector for undertaking PPP projects of national

significance; the creation of a contingent liability fund to provide greater certainty around large projects and government's payment obligations; and improved transparency through full disclosure of PPP contracts. The new Act also includes provisions for a more market-based salary for all PPPC positions so that it could better attract and retain skilled staff.

The PPPC currently has 40 staff with a further new 10 positions in the process of being filled. The PPPC covers the following main functions:

1. Conduct project facilitation and assistance to the national Implementing Agencies (IAs), including government corporations and local government units

Figure 2: Project Process



Source: PPPC

(LGUs), in addressing impediments or bottlenecks in the implementation of PPP programs and projects.

2. Provide advisory services, technical assistance, training and capacity development to government agencies/LGUs in PPP project preparation and development.
3. Recommend plans, policies and implementation guidelines related to PPPs in consultation with appropriate oversight committees, implementing agencies, LGUs and the private sector.
4. Manage and administer a revolving fund to be known as the Project Development and Monitoring Facility for the preparation of business case, pre-feasibility and feasibility studies and tender documents of PPP programs and projects.
5. Monitor and facilitate the implementation of the priority PPP programs and projects of the agencies/LGUs which shall be formulated by respective agencies/LGUs in coordination with the government's central economic development and planning agency, NEDA.
6. Establish and manage a central database system of PPP Program and Projects.
7. Recommend improvements to timelines in processing PPP programs and project proposals, and monitor compliance of all agencies/LGUs.
8. Regular monitoring and reporting on the implementation of the PPP programs and projects.

These cover the key elements of the project cycle: project preparation and development; project review and approval; preparation of bid documents; bid process and evaluation; and contract award and implementation. Setting out the functions involved in these elements and resourcing them appropriately provide positive market signals of the Government's intent. In addition, they work to provide greater certainty for the private sector around project fundamentals and the predictability of the

approvals and bidding processes and the relevant responsible parties. These PPPC and overall Government processes are illustrated in Figure 2.

The initial identification of potential projects is always critical to the success of any program. The PPPC has worked closely with IAs to assess potential projects that could be included in the pipeline. Projects under the PPP Program have been selected based on the following criteria:

- » Project Readiness/Preparation, including:
 - » Completed Initial Business Case
 - » Included in the priority projects of the IAs
 - » Initial preparation on-going, i.e., FS stage, hiring of consultants for Feasibility Study updating and transaction preparation
- » Responsiveness to the sector's needs (e.g., part of the transport network system, water supply/sewerage, electric power capacity, etc.)
- » High implementability (i.e. bankable, with no major issues).

As at 6 June 2014 the PPPC's project schedule shows the following status for 57 projects in its program (see Table 1).

3. PPPC Activities

Project Development and Monitoring Facility

Under the management of the PPPC, the Project Development and Monitoring Facility (PDMF) funding is a central part of the PPPC's operations and at the core of the PPPC delivering on its PPP mandate. PPPs require proper planning, prioritization and preparation. The overall objective of the PDMF is to provide funding and facilitate pre-investment activities by Government Implementing Agencies (IAs) for potential PPP projects, such as undertaking the pre-feasibility and feasibility studies, and developing a robust pipeline of viable and well-structured PPP projects. The Philippine Government has contributed around US\$42 million of budget funding to the PDMF since 2011 and the Australian Government has provided grant funding of US\$18 million over the same period. Both the Australian and Canadian governments have also significantly contributed technical assistance funding, while the ADB has managed the support provided. JICA has provided assistance through studies, recommended amendments to the BOT Law and training courses.

Table 1: Project Status

Project Status	No. of Projects
Contract Award Completed	7
Bidding Stage	2
Awaiting Central Agency Approval	5
Finalization of Project Structure	4
Preparation of Business Case/ Feasibility Study	8
Procurement of Transaction Advisor	15
Under Early-stage Conceptualization or Potential Implementation	11
TOTAL	57

Source: PPPC (see Annex 1 for details)

PDMF funding covers:

- » Preparation of project pre-feasibility and feasibility studies
- » Project structuring
- » Preparation of bid documents and draft contracts
- » Transaction advisory
- » Assistance in the tendering process, including bid evaluation and award of PPP projects through competitive selection

The PDMF provides support to IAs to fund the engagement of consultants/transaction advisors to work with the IAs through pre-investment activities, including preparation of project pre-feasibility studies, feasibility studies and financial models, development of PPP options, project structuring, provision of transaction advisory services during the bidding process and preparation of contract documents. The PDMF also supports the IAs to develop and strengthen their capacity to identify, formulate and implement bankable PPP projects. All of this is done in coordination with the PPPC, with both the IAs and the PPPC working together on all aspects of project preparation.

IAs include national government agencies and departments, government-owned and controlled corporations (GOCCs) and LGUs. The PDMF is able to directly support LGUs but this has not been an immediate priority for the PPPC given the extent of national needs, although PPP manuals for LGUs are expected to be available from July 2014. The PPPC is also hosting LGU internships to support the development and transfer of PPP expertise.

Delivery of PDMF Support

A key feature of the PDMF has been the establishment of a panel of 15 transaction advisors (international and national firms) that have been pre-qualified under ADB procurement guidelines.

The use of ADB procurement guidelines are important as they ensure there is a relatively quick and effective process for pre-qualification and then selection of advisors so that work can commence on projects in a relatively short time. This would not be possible under the current Philippine Government procurement requirements.

The actual selection of the consultants/transactions advisors is a two-stage selection process:

- » **Stage 1** is the pre-qualification, selection and retention of a panel of consulting firms under an indefinite delivery contract (IDC) facility for a 3-year period, using the ADB's Quality Based Selection (QBS) method. This involves no commitment by the PPPC to engage

advisors from the panel and the PPP Center can periodically update the panel.

- » **Stage 2** is the actual selection of a particular advisor from the panel to develop a specific, well-structured bankable PPP project under an IDC Assignment (IDCA). The selection is made on a competitive basis, using the ADB's Fixed Budget Selection (FBS) method.

Advisor contracts would usually cover the entire project process but would be divided into three phases: pre-feasibility, project preparation, and transaction execution. There is provision for contract termination after the pre-feasibility phase if the PPP project is found to be non-viable. The timeframe envisaged by the PPPC for any panel selection is about two months from terms of reference being issued through to signing the contract with the selected advisor.

The PPPC indicates (refer to PPPC response to initial survey) that it has taken an average of around 1.5 years for it to take projects through the preparation and transaction stages, with around 10-12 projects being completed each year. These projects have required approximately US\$1.5-2.0 million of PDMF funding through to completion.

Revolving Basis of the PDMF

It is quickly apparent that the PDMF is central to the ongoing success of the PPPC. The revolving basis of the PDMF funding operates on the following principles:

1. On successful completion of a bidding process, the full project development cost is recovered from the successful bidder, plus an administrative fee of 10 percent. The reimbursement of the project development cost is a condition precedent for contract award to the private sector proponent or concessionaire.
2. An IA would be required to repay in full the project development costs plus the administrative fee when, for reasons within an IA's responsibility, it fails to:
 - » Bid out the project;
 - » Conclude the bidding process and/or;
 - » Sign the contract with the winning bidder
3. An IA would be required to repay 50 percent of the project development costs plus the administrative fee when, for reasons beyond an IA's responsibility or control, it fails to:
 - » Bid out the project after a series of failed re-biddings;
 - » Conclude the bidding process and/or;

» Sign the contract with the winning bidder

4. An IA would be required to meet the full cost of a pre-feasibility or feasibility study when:

» The pre-feasibility or feasibility study of a project approved for PDMF funding demonstrates that the project will not be feasible; or

» The project fails to obtain Government approval and will no longer be pursued

For successful projects, these funds are returned directly to the PDMF without any lags from the funds being routed through an overall government revenue collection and any further funding re-allocation processes. For projects where the IAs bear some or all of the repayment obligation, these funds are necessarily directed through the national Department of Budget and Management as the IAs have no other source of funding.

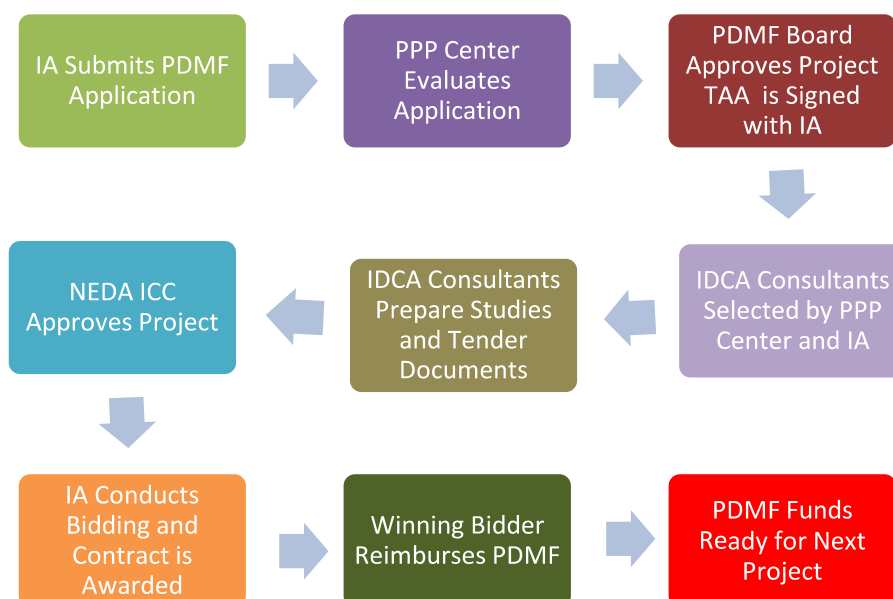
PDMF Process

The PDMF process is initiated by the relevant IA, ensuring the agency is providing both the sectoral expertise necessary for the definition and development of the project as well as the important commitment to its progress. This commitment is further secured through the principles behind the revolving basis of the PDMF, as outlined above. IAs have a direct fiscal interest to actively support and prepare likely successful projects they have proposed for PDMF funding.

The overall PDMF process is summarized in Figure 3. The steps include:

1. IA applies to PDMF for an identified PPP project, including:
 - » Project concept note (brief rationale for the project)
 - » Indicative terms of reference (TOR) for the advisor, including cost estimates
 - » Nomination of IA's representatives:
 - **Project Study Committee (PSC):** responsible for preparing the terms of reference (TOR) for the advisor, reviewing the reports and deliverables of

Figure 3: PDMF Process Flowchart



Source: Project Development and Monitoring Guidelines (PPP Center, October 2011)

the advisor, and recommendations to the PPPC for advisor contract payments

- **Special Bids and Awards Committee (SBAC):** responsible for the selection of the advisor
- **Technical working Group (TWG):** supports the SBAC.

2. PPPC evaluates the application and makes its recommendation to the PDMF Board.
3. PDMF Board approves the application, IA then executes a Technical Assistance Agreement (TAA – an agreement between the PPPC and the IA setting out the IAs responsibilities and funding obligations). On approval, the PPPC forms the PSC, SBAC and TWG
4. The PPPC signs (on recommendation of SBAC) the contract with the selected advisor.
5. The selected advisor conducts the pre-investment studies, prepares draft tender documents, and provides PPP transaction advisory services.
6. IA has responsibility for obtaining approvals, etc. from appropriate authorities (e.g., NEDA Investment Coordination Committee).
7. Once approved, the PPP project is competitively bid out and conducted in accordance with the BOT Law.

8. The winning bidder reimburses the PDMF for all the project related costs.

4. Lessons Learned and Recommendations

There are some key features to bring out from the PPPC's experience on project preparation in the Philippines:

- » *PPP programs are most effective when there is a clear allocation of responsibilities for regulating the PPP process, promoting PPPs within government, supporting agencies to implement PPPs, and the overall approval process for PPPs.* The Philippines established the PPPC as a separate agency responsible for PPP development and implementation, while approvals rest with National Economic and Development Authority (NEDA) with its overall responsibility for economic development and planning. This allows the PPPC, through the PDMF, to clearly focus on supporting the assessment, preparation and implementation of a viable pipeline of PPP projects.
- » *Strong and effective PPP agencies can greatly improve the quality and pace of project preparation and implementation:* The directly mandated role of the PPPC has allowed it to engage with decision makers in government, the IAs and other stakeholders with authority and leadership. Its rapid mobilization of well-resourced advisory support has strengthened cooperation of the IAs, while cost-recovery from successful bids and a focus on continuing to move projects through the preparation process has given the Philippines a sustainable PPP pipeline to bid out.
- » *A comprehensive legislative framework for private sector financing of infrastructure is an important part of promoting an effective enabling environment in which viable PPPs can be prepared and implemented.* For many years, private sector involvement in infrastructure in the Philippines had laboured under disjointed policy and legislative frameworks, reducing the effectiveness of potential PPPs and lessening the interest of the private sector. Recent enhancements to legislation and regulation have clarified and improved the environment, with further significant improvements planned as the proposed PPP Act to replace the current BOT Law. A credible overall PPP environment and project pipeline provides much-needed predictability for the private sector so that it can 'see ahead' and commit in terms of its own interest and resourcing. Stronger bidding brings increased competitive tension to transactions and improved results for government.

9. Revolving basis of PDMF allows funds available for further projects.

- » *Strong, effective project preparation and delivery through to completed transactions need financial and technical inputs of relevant quality.* The PPPC's work to now has to a large part been due to the PDMF's procurement process, including the pre-qualified advisory panel that enables reputable advisers to be quickly engaged to work with the IAs and bringing early value-added advice and expertise on the financial and technical inputs into the preparation of projects. This has been a crucial element in securing the support of the IAs and, importantly, their working together with the PPPC to develop a viable PPP pipeline.
- » *Building the PPP-relevant skills of line agencies is vital in identification and preparation of a credible PPP pipeline.* The Philippines has used the development of and extensive communication/-training associated with PPP manuals and operating procedures to bring on the PPP expertise of staff in the IAs through the project preparation process while also strengthening the links between the IAs and the PPPC. This has also been promoted by the effective inter-agency coordination brought about by the joint IA-PPPC teams working on PPPs.
- » *Bidding processes need to provide the appropriate transparency to assure bidders while also meeting the needs of government.* The improvements in the legislative and regulatory enabling environment for PPPs have seen initiatives focused on transparency and predictability in the project preparation and transaction processes. These have provided greater certainty for the private sector but must also be balanced against market responsiveness, to ensure that credible market concerns on issues such as the timing of the transaction process and project structure are appropriately incorporated.
- » *Communication with stakeholders needs to be an integral part of each project's preparation through to completion of the transaction.* Over the course of the initial few years of its PPP program, the Philippines has come to recognise the importance of ensuring clear and effective communication with all stakeholders on the objectives, rationale, benefits and issues for projects. This has now led to strategic communications being mainstreamed in all transaction advisory TORs. At the overall program and policy levels as well as for specific projects, it is important to have 'national champions' to effectively argue the case for PPPs.
- » *Large, complex projects require governments to be able to undertake sophisticated assessment of bids*

to ensure a strong and sustainable outcome for all parties. Initially the PPPC has used a traditional budget model/-compliance approach to its assessment of projects. Future larger projects with greater funding requirements will require more innovative financing arrangements from bidders. For

government to be able to effectively assess such bids, it will need the PPPC to place a greater emphasis on project finance fundamentals such as risk allocation, cashflows and financial analysis in the project structuring phase.

Annex 1: PPP Centre Program Progress



	PROJECTS	EST. COST (PHP)	AGENCY	PROCUREMENT OF TRANSACTION ADVISOR	PREPARATION OF BUSINESS CASE/ FEASIBILITY STUDIES	FINALIZATION OF PROJECT STRUCTURE (by Implementing Agencies)	ICC APPROVAL	NEDA BOARD APPROVAL	BIDDING STAGE	CONTRACT AWARD
1	Daang Hari-SLEX Link Road Project	2.01 B	DPWH	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED
2	PPP for School Infrastructure Project (PSIP) Phase I	16.28 B	DepEd	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED
3	NAIA Expressway Project	15.52 B	DPWH	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED
4	PPP for School Infrastructure Project (PSIP) Phase II	3.86 B	DepEd	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED
5	Modernization of the Philippine Orthopedic Center	5.69 B	DOH	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED
6	Automatic Fare Collection System	1.72 B	DOTC	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED
7	Mactan-Cebu International Airport Passenger Terminal Building	17.52 B	DOTC	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED
8	Cavite - Laguna (CALA) Expressway	35.42 B	DPWH	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	ONGOING	
9	LRT Line 1 Cavite Extension and O&M	64.90 B	DOTC	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	ONGOING	
10	Integrated Transport System Project- Southwest Terminal	2.50 B	DOTC	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	FOR BID SUBMISSION	
11	Bulacan Bulk Water Supply Project	24.40 B	MWSS	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	FOR ISSUANCE OF ITPB	
12	Integrated Transport System Project- South Terminal	5.20 B	DOTC	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	FOR ISSUANCE OF ITB	
13	New Centennial Water Supply Source Project	18.72 B	MWSS	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	FOR ISSUANCE OF ITPB	
14	Operation & Maintenance of LRT Line-2	No CAPEX	DOTC	COMPLETED	COMPLETED	COMPLETED	COMPLETED	COMPLETED	FOR ISSUANCE OF ITB	
15	Operation and Maintenance of the Laguindingan Airport	15.92 B	DOTC	COMPLETED	COMPLETED	COMPLETED	COMPLETED	ONGOING		
16	Enhanced Operation and Maintenance of the New Bohol (Panglao) Airport	2.34 B	DOTC	COMPLETED	COMPLETED	COMPLETED	COMPLETED	ONGOING		
17	Laguna Lakeshore Expressway Diike	122.8 B	DPWH	COMPLETED	COMPLETED	COMPLETED	COMPLETED	ONGOING		
18	Davao Sasa Port	17.88 B	DOTC	COMPLETED	COMPLETED	COMPLETED	ONGOING			
19	Operation & Maintenance of the Puerto Princesa Airport	3.20 B	DOTC	COMPLETED	COMPLETED	COMPLETED	ONGOING			
20	Regional Prison Facilities through PPP	40.29 B	DOJ	COMPLETED	COMPLETED	ONGOING				
21	Operation & Maintenance of the Iloilo Airport	14.51 B	DOTC	COMPLETED	COMPLETED	ONGOING				
22	Operation & Maintenance of the Davao Airport	21.44 B	DOTC	COMPLETED	COMPLETED	ONGOING				
23	Operation & Maintenance of the Bacolod Airport	9.40 B	DOTC	COMPLETED	COMPLETED	ONGOING				
24	North-South Commuter Railway	271.19 B	DOTC	COMPLETED	ONGOING					
25	Mass Transit System Loop	135 B	DOTC	COMPLETED	ONGOING					
26	Motor Vehicle Inspection System Project	14.09 B	DOTC	COMPLETED	ONGOING					
27	LRT-1 Extension to Dasmariñas Project	TBD	DOTC	COMPLETED	ONGOING					
28	Central Luzon Link Expressway Phase II	TBD	DPWH	COMPLETED	ONGOING					
29	Improvement and Operation and Maintenance of Kennon Road and Marcos Highway	TBD	DPWH	COMPLETED	ONGOING					
30	Upgrading of the San Fernando Airport	TBD	BCDA	COMPLETED	ONGOING					



31	Batangas-Manila (BatMan) 1 Natural Gas Pipeline Project	TBD	PNOC	COMPLETED	ONGOING					
32	Modernization of the National Center for Mental Health	TBD	DOH	ONGOING						
33	Piaridel Bypass Toll Road	TBD	DPWH	ONGOING						
34	Manila Bay-Pasig River-Laguna Lake Ferry System Project	TBD	DOTC	ONGOING						
35	C-5 Transport Development Project	TBD	DOTC	ONGOING						
36	Trimedical Complex	TBD	DOH	ONGOING						
37	Vicente Sotto MMC Modernization Project	TBD	DOH	ONGOING						
38	Manila East-Mass Transport System Project	TBD	DOTC	ONGOING						
39	Clark International Airport Project	TBD	DOTC	ONGOING						
40	New Cebu Container Port and Redevelopment of Existing Cebu Baseport	TBD	DOTC	ONGOING						
41	Central Spine RORO	TBD	DOTC	ONGOING						
42	Clark Green City Food Processing Terminal	TBD	BCDA	ONGOING						
43	Manila Heritage and Urban Renewal Project	TBD	DOTC/ DOF	ONGOING						
44	R1-R10 Link Mass Transit System Project	TBD	DOTC	ONGOING						
45	Operations and Maintenance of NAIA	TBD	DOTC	ONGOING						
46	LTFRB Modernization Project	TBD	DOTC	ONGOING						
47	Civil Registration System – Information Technology Project Phase II	TBD	NSO	PROJECTS UNDER CONCEPTUALIZATION						
48	Ferry Passenger Terminal Buildings Development	TBD	DOTC							
49	C-6 Expressway (Southeast, East, and North Section)	TBD	DPWH							
50	PhilHealth Information Technology Project	TBD	PhilHealth/ DOH							
51	NLEX East Expressway	TBD	DPWH							
52	Freeport Area of Bataan (FAB) Barging Facility/ Port Project	TBD	FAB							
53	NIA Irrigation Project	TBD	DA-NIA							
54	Camarines Sur Expressway Project	TBD	DPWH							

Other Projects for Implementation

	PROJECTS	EST. COST (PHP)	AGENCY
55	NLEX-SLEX Connector Road	21.20 B	DPWH
56	Skyway Stage 3 Project	26.66 B	TRB
57	MRT Line-7	63.14 B	DOTC

Appendix C: Case Study – Cities Development Initiative for Asia

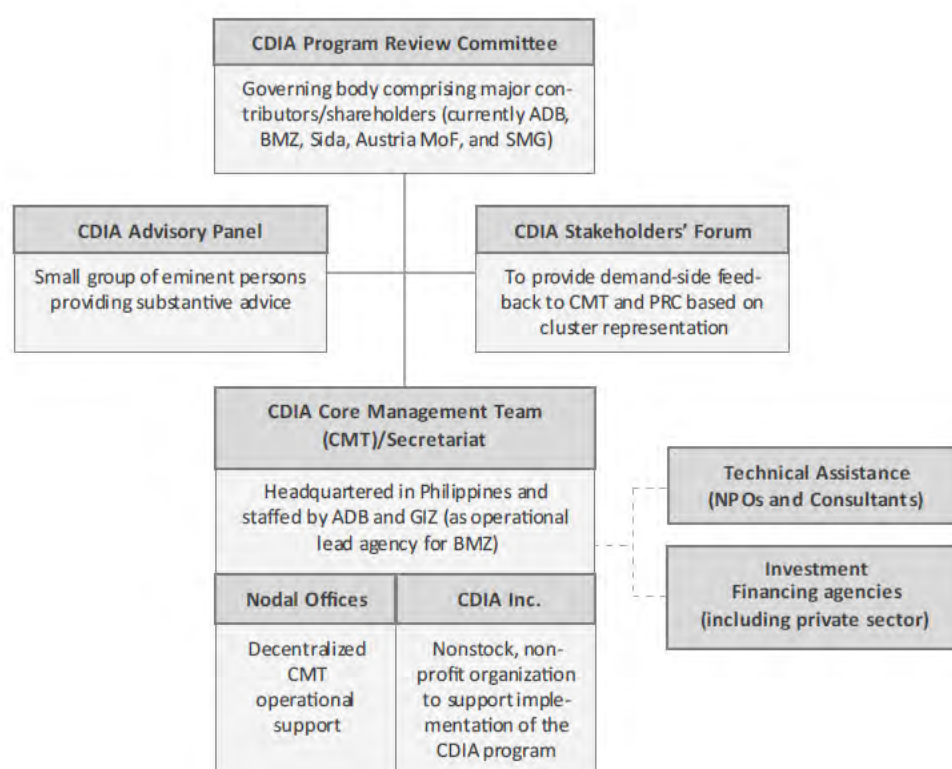
1. Background

A proposal to establish the Cities Development Initiative for Asia (CDIA) was presented at a conference on Investing in Asia's Urban Future held in Manila in February 2007. The ADB and the German Federal Ministry for Economic Cooperation and Development (BMZ) established the CDIA later that year and agreed to support it for a period of at least 4 years. The term of the CDIA has since been extended to 2017 and financial support from the founding members has been complemented by support from the Swedish International Development Cooperation Agency, the Austrian Federal Ministry of Finance, the Government of Spain, the Government of Switzerland, the Shanghai Municipal Government (SMG), the UK Government's Department for International Development (DFID), the Rockefeller Foundation and the World Bank.

The CDIA is governed by a Program Review Committee that consists of the agencies that provide funding support of at least US\$1 million per annum or its equivalent. It has other governance arrangements to provide technical expertise and stakeholder views (see Figure 1). It has also established a network of national and regional partner organizations and a legal entity (CDIA Inc.) to facilitate its operations.

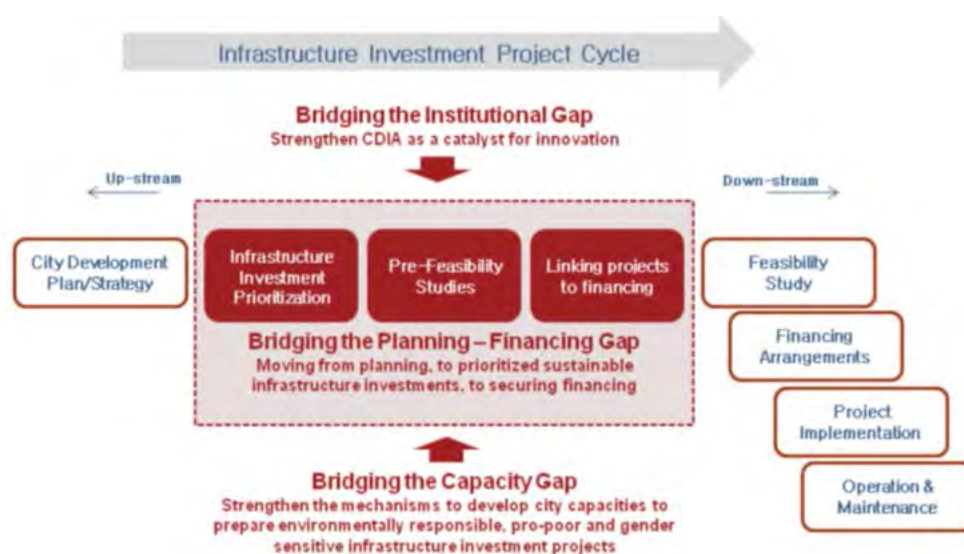
The overarching goal for CDIA is to “enhance the institutional capacity of cities and partner organizations (national and regional) to prepare sustainable urban infrastructure investment projects, with focus on the development impacts of environmental improvement, climate change mitigation/adaptation/resilience, pro-poor development and good governance” (CDIA 2012:6). Recognizing the roles of other development agencies, CDIA focuses on assisting medium-size cities to prepare and identify suitable financing sources for sustainable urban infrastructure projects. As shown in Figure 2, it focuses on the Project Concept Definition stage of the

Figure 1: CDIA Organization



Source: CDIA (2012)

Figure 2: CDIA Focus Areas



Source: CDIA (2012)

project preparation process, taking projects identified in city development plan and supporting investigations that prepare the projects for subsequent feasibility studies and further preparation activities.

CDIA does not initiate investigations, but rather responds to requests from project proponents. To qualify for CDIA support, cities need to have a population of between 250,000 people and 5 million people. They must also have:

- » prepared and adopted an urban development strategy and/or integrated urban development plan;
- » a demonstrable intent to address social and environmental issues in infrastructure provision, e.g. through identified priority actions to reduce urban poverty and/or improve the urban environment;
- » demonstrated commitment by pledging their own contributions to both preparatory studies (variable according to the circumstances, but generally at about 20 percent of total costs) and financing infrastructure projects in line with financing agencies requirements);
- » demonstrable in-principle central/state level support for the development of an urban infrastructure projects portfolio and its financing, and for the assistance application to CDIA; and
- » endorsement for the request from one of the CDIA funding members and completion of an application that also includes an endorsement for their involvement from their national government.

ADB and Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) provide management support to

CDIA. ADB undertakes most of the procurement of consulting services for CDIA, with remaining consulting services engaged following the procedures of GIZ and other institutions.

2. CDIA Activities

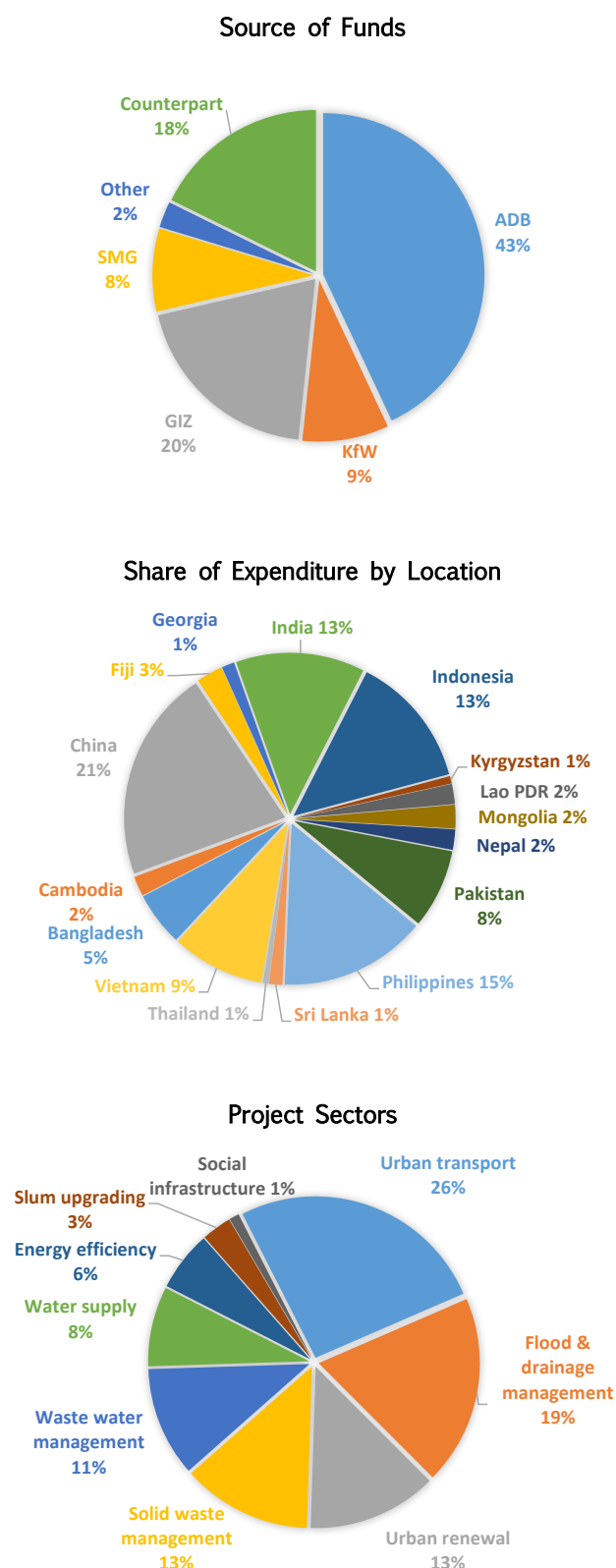
CDIA undertakes three sets of activities:

- » providing advisory support for urban infrastructure investment programming and prioritization, and technical assistance to undertake pre-feasibility studies for specific projects;
- » identifying potential sources of finance to implement these projects including the private sector; and
- » supporting capacity building through actions such as strengthening local capacity in programming and prioritization, development of guidelines and toolkits, research publications and the Young Asian Professionals Program for urban practitioners.

Between its inception and June 2014, CDIA has supported 110 pre-feasibility studies in 65 cities in 16 Asian countries. Of these, 67 pre-feasibility studies have been completed, 28 are ongoing and 40 have been linked to a financial source for downstream project implementation. The expected infrastructure investment value of all of the projects investigated with CDIA support is \$5.3 billion.

The principal sectors considered have been urban transport and flood and drainage management. Other significant sectors are urban renewal, solid waste management and waste water management. Technical activities typically involved review of city development plans, and project prioritization, and then pre-feasibility

Figure 3: Financing and Location of Studies and
Project Sectors (2008-14)



Source: CDIA

study assessment for specific investments and identification of potential sources of finance for project preparation and implementation. On-the-job training has been provided in the course of the work. The total value of the 110 infrastructure projects identified to date has been US\$10.0 billion. The cost of individual projects has ranged from US\$0.4 million to US\$2.3 billion, with around half of the projects having a cost of around US\$20 million or less.

The identification of a potential financing source at the time of pre-feasibility study is mostly intended to be indicative. It assists cities to understand funding opportunities and to focus their attention on those with the greatest potential. In half of the studies, the financier of the study was also identified as the potential principal financier for project preparation and implementation. Consideration is given to the potential for private sector financing in all studies, and 17 projects have been identified to date as being suitable for this mode of implementation.

Of the 110 individual projects considered in the pre-feasibility studies undertaken to date, feasibility studies were undertaken for 40 projects and 11 have moved on to implementation. Thirty additional projects are expected to be linked to financing sources for more detailed project preparation and eventually implementation.

The focus of CDIA activities is on screening project proposals, developing the concept for proposed projects and identifying potential financiers. These activities include elements of the Strategic Planning stage that occurs prior to project preparation and the Concept Definition stage of project preparation. In practice, CDIA also provide some advice and assistance to cities during ongoing feasibility studies and other ongoing project preparation activities but plays no formal role in them.

CDIA has developed a City Infrastructure Investment Programming and Prioritization Toolkit that it uses in its studies to determine the financial envelope of the city to undertake strategic infrastructure projects, to prioritize projects using a rational approach with a pre-determined set of indicators and then to establish a 5-year investment plan that matches the likely available financial resources available to the city. Prioritization is based on a single-score multi-criteria analysis that is based on the weighted value of around 40 criteria. The criteria are related to project purpose, public response, environmental impact, socio-economic impact and feasibility of implementation, and are mostly qualitative in nature. It takes a team of consultants and city officials around 2 days to apply the model and to develop a prioritized program of projects.

CDIA is currently developing a web-based tool that cities can use to gain understanding of potential financiers of urban infrastructure, including their roles, interests and procedures.

3. Experience

CDIA has been operational for 7 years. Its attraction of additional financial sponsors since its inception demonstrates donor interest in the work that it undertakes. Some features of its work that are of special relevance to the current review are considered in following subsections, with regard to the perspective of the cities, CDIA and potential project financiers.

In the case of actions to be taken by the cities:

- » *Cities identify CDIA as a source of assistance through formal and informal networks.* Cities get to know of CDIA through formal organizations of city authorities, the presence of CDIA at urban related forums and through contacts with officials in other government organizations.
- » *City-initiated applications and co-financing improve commitment and participation.* Cities must make a formal application that takes some effort to complete and must contribute towards the cost of technical assistance provided by CDIA. This ensures that there is a significant level of commitment to the work that is to be done.
- » *Formalization of city projects into donor programs can take time.* Most projects that are supported by donors are identified and set out in advance in agreements between the donors and the national government of the recipient country. There is a significant likelihood that projects that are identified and pre-appraised by CDIA-assisted studies of what are mostly regional cities are not amongst these pre-established aid projects. Hence, it can take time for projects that successfully pass through the pre-appraised process in the studies to be submitted and incorporated into future support programs. Sounder strategic planning and the development of prioritized programs by governments, combined with use of principle based approaches to the inclusion of appropriate projects into aid programs would reduce the delays currently experienced.
- » *Cities commonly need some ongoing support to progress project proposals.* Many cities have limited experience with the process of developing projects in the manner required by development agencies. CDIA seeks to connect the cities with potential financiers, and in many instances then provides a low level of continuing assistance to the cities to foster the link and to support the passage of projects through feasibility studies and ongoing project preparation.

Key issues related to the work undertaken by CDIA include:

- » *Strategic plans of cities are generally aspirational in nature.* Cities are required to have prepared and adopted an integrated urban development strategy and/or development plan in order to participate in a CDIA-assisted study. However, these plans generally have limited information on project proposals, with little evident technical investigation of proposals and development of financing plans. Matters such as improved capital and urban efficiency, demand-led infrastructure, and development significance and leverage are generally given only limited attention.
- » *Project prioritization is limited by the availability of information on initiatives.* A CDIA-assisted study reviews the project proposals set out in strategies and development plans with the objective of clarifying the proposals and identifying gaps and options. The proposals are then prioritized and programmed within a potential funding plan. This work is pragmatic. It does not seek to develop a comprehensive urban infrastructure development plan, but rather to ensure that projects with the greatest potential are identified and subject to more detailed review and refinement. In this manner, technical work is considered to be fit-for-purpose.
- » *Consultant and government capacity is considered to be acceptable.* CDIA staff consider that government staff and consultants who work on assignments have sufficient skills and capacity. Government technical capacity in larger cities is greater than in smaller cities, but is more likely to be subject to institutional and political constraints. Amongst other means, CDIA uses framework contracts to maintain a group of experienced consultant to undertake studies.

Finally, matter related to the role and interest of financiers include:

- » *Securing financier interest is important in motivating cities and facilitating implementation.* Linking potential financiers for projects with cities is considered to be of practical importance. The substantial share of projects identified for funding by the same financier that sponsored the pre-feasibility study also indicates financier interest in seeking meritorious projects for their programs. There remains flexibility regarding eventual funding of projects given that the work undertaken is at a pre-feasibility stage only.

- » *The potential for private sector participation is considered and some opportunities have been identified.* Opportunities for private sector financing are generally linked to revenue-generating infrastructure that is not in socially sensitive sectors. Cities often have high, unrealistic expectations for the role of private sector finance. At the same time, the structures to support private sector participation in infrastructure financing and implementation are considered to be weaker at the city level of government relative to the national level.

4. Lessons Learned and Conclusions

Five matters emerge from this case study:

- » *CDIA is an example of an entity that focuses on activities that are mostly upstream of project preparation activities.* Most PPFs act on projects that have been identified through prior means. The CDIA is the only example found of a PPF that focuses on activities prior to the feasibility study stage of project preparation. It does this in a pragmatic manner drawing on existing development plans to screen and prioritize previously proposed projects and to develop selected projects for subsequent feasibility study.
- » *CDIA is a self-standing organization that is not tied to any particular financial institutions.* While CDIA is co-managed by ADB and GIZ, it is functionally separate and is associated with other financiers of ongoing project preparation activities and project implementation. CDIA, together with PPP centres, are thus examples of PPFs that are not tied to a single financial institution. In the case of CDIA, this is facilitated by its focus on early stage activities. At this stage, even though a possible financier for project implementation has been identified, the

outputs of its activities are sufficiently general to meet the needs of all potential financiers.

- » *CDIA focuses on cities, generally at a sub-national level.* There is merit in specialization by PPFs. In the same manner as some PPFs address particular sectors, e.g. water supply or energy, CDIA focuses on urban development. Nevertheless, this encompasses a broad range of infrastructure and thus necessitates an equally broad range of skills. Similarly, while CDIA considers infrastructure in cities within a given population range, the range is sufficiently diverse to require it to also address projects that vary from being small to being exceptionally large.
- » *CDIA considers projects that are initiated by developing country governments.* This both ensures that cities entering the program demonstrate a level of motivation and is, to a considerable degree, a necessary approach given the large number of cities in Asia that meet the population criteria established by CDIA. In practice, it differs from the approach of other major development agencies only to the extent that it does not have a long term relationship with its participating governments wherein the partners respond to project needs raised by the governments.
- » *CDIA identifies potential financiers of projects in advance of feasibility studies and other ongoing project preparation activities.* This approach is potentially contrary to the preferred practice of establishing that a project is worth implementing prior to giving detailed consideration of how its implementation should be financed. However, the approach has the attribute of improving the prospects for implementation while not preventing a change in financing arrangements during ongoing project preparation activities.

Appendix D: List of Persons Met

Person and Affiliation
Australian Department of Foreign Affairs and Trade
Mr Daniel Sloper, G20 Special Representative and First Assistant Secretary G20
Ms Clare Walsh, First Assistant Secretary, International Policy and Planning Branch
Ms Caitlin Wilson, Assistant Secretary, G20 Development Policy and Planning Branch
Ms Cate Rogers, Director, G20 Policy Coordinator
Mr Rohan Nandan, Director, Trade and Economic Diplomacy Division
Mr Daniel Lambert, Executive Officer, G20 Development Branch
Mr David Hawes, Principal Specialist – Infrastructure
Mr Jeff Prime, Policy Manager, Trade and Economic Diplomacy Division
Mr Hugh Borrowman, Ambassador, Vietnam
Mr. Andrew Shepherd, First Secretary (Development Cooperation), Vietnam
Ms. Claire Ireland, Counsellor (Development Cooperation), Vietnam
Mr Vu Duc Cong, Development Cooperation, Vietnam
Ms Duong Hong Loan, Development Cooperation, Vietnam
Asian Development Bank
Ms Debra Kertzman, Director, Strategy, Policy and Interagency Relations Division, Strategy and Policy Department
Dr Gil-Hong Kim, Director, Sustainable Infrastructure Division, Regional and Sustainable Development Department
Mr Trevor Lewis, Senior Infrastructure Specialist (Public-Private Partnership), Sustainable Infrastructure Division
Mr Bob Finlayson, Director, Evaluation Division 2, Independent Evaluation Department
Mr James Lynch, Director, Regional Cooperation and Operations Coordination Division, Southeast Asia Department
Mr Jin W Cyhn, Principal Economist, Regional Cooperation and Operations Coordination Division, Southeast Asia Department
Mr Hiroyuki Ikemoto, Principal Planning and Policy Economist, Strategy, Policy and Interagency Relations Division, Strategy and Policy Department
Mr Grant Hauber, Principal PPP Specialist
Mr Hubert Jenny, Principal Urban Development Specialist, Vietnam Country Office.
Mr Srinivas Sampath, Principal Urban Development Specialist, Sustainable Infrastructure Division, Regional and Sustainable Development Department
Mr Hiroki Kasahara, Senior Financing Partnership Specialist, Office of Cofinancing Operations
Mr Safdar Parvez, Senior Planning and Policy Economist, Strategy, Policy and Interagency Relations Division, Strategy and Policy Department
Mr Aiming Zhou, Senior Energy Specialist, Sustainable Infrastructure Division, Regional and Sustainable Development Department
Mr Aziz Haydarov, Public-Private Partnership Specialist, Public Management, Financial Sector and Trade Division, Southeast Asia Department

Person and Affiliation
World Bank
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Keiko Sato, Manager, Portfolio and Operations, World Bank Office, Vietnam
Paul Vallely, Senior Transport Specialist, World Bank Office, Vietnam
Madhu Raghunath, Senior Urban Specialist, World Bank Office, Vietnam
Franz Gerner, Senior Energy Specialist, World Bank Office, Vietnam,
Duc Dang Cuong, Senior Operations Officer, World Bank Office, Vietnam
Hoa Thi Hoang, Senior Operations Officer, World Bank Office, Vietnam
ODA Agencies in Vietnam
Jean-Claude Pires, Deputy Director, L'Agence Française de Développement
Shiro Oda, Representative, Japanese International Cooperation Agency
Young-Seok Kim, Chief Representative, Korea Eximbank
Kang Sangjin, Senior Representative, Korea Eximbank
Benoit Legrand, Urban Specialist, Belgian Technical Cooperation
Non-Government Organizations
Dr Bernhard Dohle, Program Coordinator, Cities Development Initiative for Asia
Mr Massimo Petrone, Senior Urban Environmental Engineer, Cities Development Initiative for Asia
Sarah Schneider, Program Management Officer, Cities Development Initiative for Asia
Mr Sasank Vemuri, Climate Change Advisor, Cities Development Initiative for Asia
Joy Bailey, Regional Networking Specialist, Cities Development Initiative for Asia
Mr Joseph Lufkin, Executive Director, IFCL Group
National Governments
Vietnam
Tran Duc Toan, Deputy General Director, Infrastructure and Urban Development, Ministry of Planning and Investment
Dang Le Hoang, Transport Manager, Ministry of Planning and Investment
Nguyen Ngoc Hung, Director of Bilateral Division (Asia Pacific and Africa), Ministry of Finance
Nguyen Thanh Hung, Deputy Director General, Planning and Investment Department, Ministry of Transport
Vu Tuan Anh, Deputy General Director of PPP Management Department, Ministry of Transport
Nguyen Anh Dung, Expert, Ministry of Transport.
Tanh The Hung, Deputy Director, Planning Department, General Directorate of Energy, Ministry of Industry and Trade
Nguyen Phuong Mai, Deputy Director, International Cooperation Department, General Directorate of Energy, Ministry of Industry and Trade
Ha Thi Minh Hue, Manager of International Relations Department, Northern Power Corporation.
Hoang Minh Huong, Vice Manager of International Relations Department, Northern Power Corporation.
Philippines Public-Private Partnership Center
Ms Sherry Ann Austria, Deputy Executive Director, PPP Center
Mr Dick J. Borbe, Director, Project Development and Monitoring Facility Service, PPP Center
Mr Juan Alberto B. Mercado, Director, Capacity Building and Knowledge Management Service, PPP Center
Mr Jeffrey I. Manalo, Planning Officer, PPP Center

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