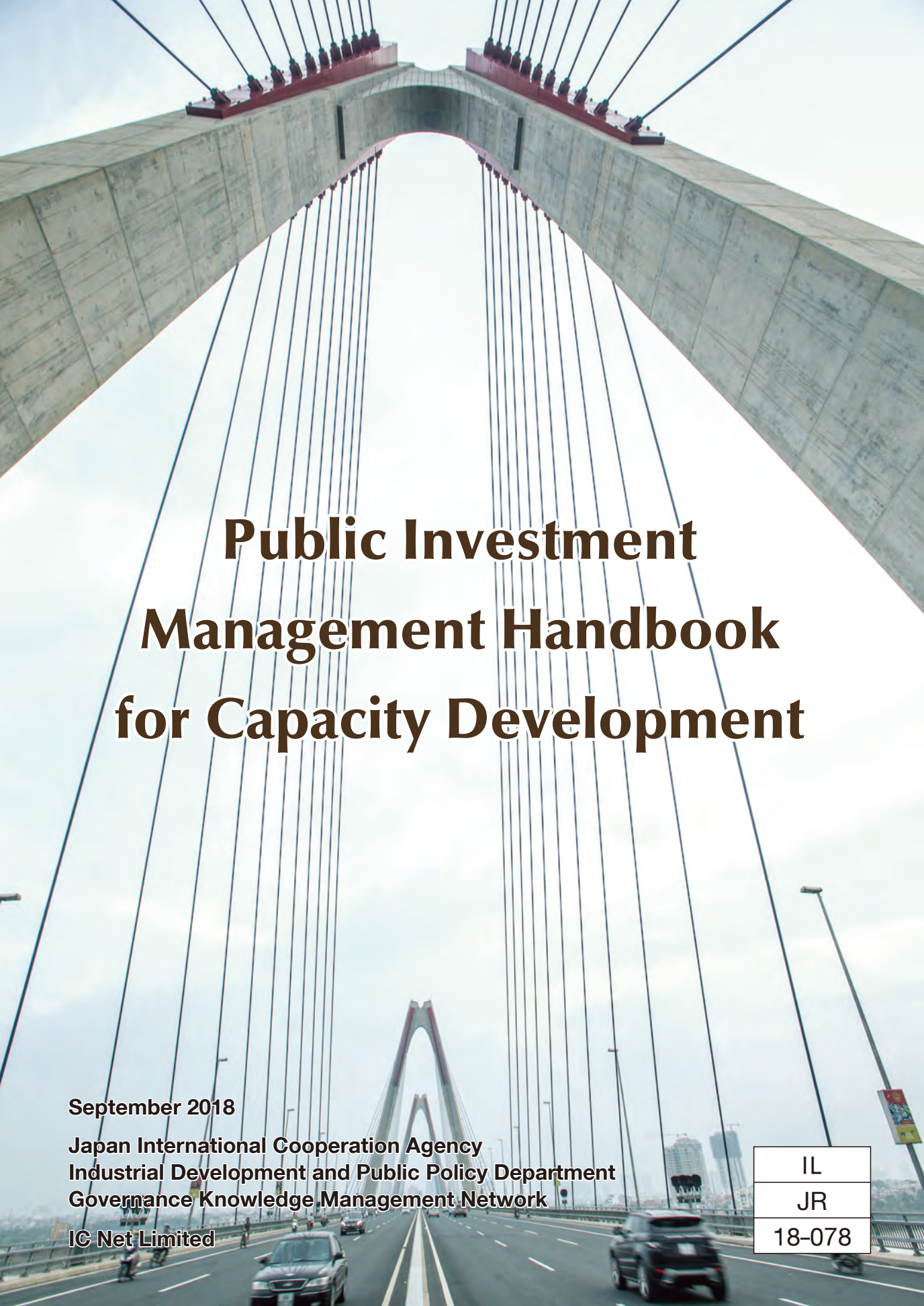

Public Investment Management Handbook for Capacity Development

September 2018

Japan International Cooperation Agency
Industrial Development and Public Policy Department
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Table of Contents

List of Figures

List of Tables

List of Boxes

Preface

Public Investment Management (PIM) is an approach to managing government expenditures for public infrastructure strategically and efficiently. PIM – consisting of the management of public investment programs (PIPs), development budgets, and individual infrastructure projects – builds on the achievements and lessons of donor assistance since the 1950s.

Donor assistance from the 1950s to the 1970s centered on individual projects for public infrastructure. In the 1980s, donors realized that support for projects alone was not sufficient to achieve development goals and saw the need to link national and sector policies and plans with overall public expenditures. This led to the development of PIPs in the 1980s to link public expenditure and policy framework for large projects funded by donors. In reality, however, many PIPs were shopping lists for requesting foreign aid and only covered public expenditures financed largely by foreign donors.

In the late 1990s, many developing countries introduced the Medium-Term Expenditure Framework (MTEF) under public financial management (PFM) reforms that link overall medium-term public expenditure with a medium-term policy framework. Building on MTEFs, some developing countries started introducing "Second Generation" PIPs in the mid-2000s. The salient feature of these new PIPs is that they are closely linked with MTEFs to ensure that projects are formulated and implemented within the budget envelope and enhance public investment efficiency by allocating budget according to national and sector priorities. Second generation PIPs are now seen as a core component of the PIM system in which PIPs, budgets, and individual projects are managed in an integrated and coordinated manner.

PIM has become increasingly important in the implementation of medium-/long-term development plans and strategies as well as PFM. PIM is also important to ODA project management in many developing countries that still depend heavily on development partners. The JICA began this Research Project on "Public Investment Management in view of Public Financial Management" since October 2017 in order to create a methodology for diagnosing and strengthening PIM capacity in developing countries, based on lessons from technical cooperation in Bangladesh, Laos, and Malawi.

I hope that a wide range of government officials in developing countries as well as staff members and experts from donor agencies in charge of economic and social infrastructure development, sector development, and country development assistance strategy as well as PIM/PFM reforms find value in this handbook.

Last but not the least, I sincerely thank all those who provided resources and support to this research project.

September 2018

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Abbreviations

CBA	Cost Benefit Analysis
DF-PIM	Diagnosis Framework for Public Investment Management
FMIS	Financial Management Information System
GDP	Gross Domestic Product
IMF	International Monetary Fund
MIS	Management Information System
MTBF	Medium-Term Budget Framework
MTEF	Medium-Term Expenditure Framework
ODA	Official Development Assistance
O&M	Operation and Maintenance
PDCA	Plan-Do-Check-Act
PDM	Project Design Matrix
PFM	Public Financial Management
PIM	Public Investment Management
PIMA	Public Investment Management Assessment
PIM-CDF	Public Investment Management – Capacity Development Framework
PIP	Public Investment Program
PIU	Project Implementation Unit
PPP	Public Private Partnership
QI	Quality Infrastructure
SDGs	Sustainable Development Goals
SOEs	State Owned Enterprises

Introduction

Public investment management (PIM) has recently been attracting attention in the field of public financial management (PFM) in developing countries for the following reasons:

First, the growth of "infrastructure deficits" around the world. Many developing countries are experiencing infrastructure deficits while trying to sustain high economic growth. Developed countries must address the increasing need to renovate public infrastructure facilities that were built in the 1950–1970s.[1] At the same time, developed countries have experienced a steady decline in the public investment-gross domestic product (GDP) ratio since the 1980s, leading to growing concerns regarding the sustainability of economic growth. In response, the government of Japan has been advocating quality infrastructure investment (QI investment) to address the growing demand for public infrastructure around the world.[2]

Second, recognition that improvement of PIM is a critical component of PFM reforms in developing countries. Limited PIM capacity has been identified as a major bottleneck to securing and strategically allocating government resources, and therefore a bottleneck to addressing the rapidly increasing need for public infrastructure in developing countries.

Finally, weak institutional foundations for managing development plans, national budgets, and individual projects to achieve long-term visions and targets in many developing countries. Since the adoption of the sustainable development goals (SDGs) in 2015, many developing countries have been required to strengthen those institutional foundations to achieve their own SDGs and national development visions and targets by 2030.

To address these issues, JICA has been implementing technical cooperation projects in Bangladesh, Laos, Malawi, and Indonesia since the mid-2000s. The current Handbook takes stock of the experiences of those projects and provides useful information for JICA officials and experts tasked with diagnosing PIM capacity and formulating and implementing capacity development projects.

The current Handbook is organized according to the following three themes:

1) Understanding the outline of the PIM system

Chapter 1 provides background information on the importance of strengthening PIM in developing countries, along with an overview of the PIM capacity development framework (PIM-CDF).

[1] See IMF (2014). For infrastructure deficits, see MGI (2016), World Economic Forum (2014).
[2] See Ministry of Foreign Affairs of Japan (2016).

Chapter 2 explains the first of the four stages of the PIM-CDF and provides guidance for collecting and organizing basic information on PIM in a developing country. This chapter delineates the outline of public investment and identifies the main characteristics of the PIM system in a country.

2) Analyzing PIM issues and capacity

Chapter 3 explains the second stage of the PIM-CDF for analyzing PIM issues and capacity. This chapter will guide readers in conducting in-depth analyses of the issues and capacity for PIM in the country concerned.

3) Formulating and implementing PIM cooperation strategy and capacity development projects

Chapter 4 explains the third stage of the PIM-CDF for formulating and implementing a cooperation strategy and projects for PIM. This chapter uses the information on PIM issues and capacity collected in Chapter 3 to formulate a comprehensive cooperation strategy for PIM for the country concerned. This will allow readers to design JICA technical cooperation projects. Some critical points requiring attention at the design stage of PIM support are also summarized in this chapter.

Chapter 5 highlights additional critical considerations that require attention at the implementation stage of PIM support. These insights are based on experience from past JICA technical cooperation projects conducted in Bangladesh, Laos, Malawi, and Indonesia.

Chapter 1

Outline of Public Investment Management and the Capacity Development Framework

1. Outline of Public Investment Management and the Capacity Development Framework

1.1 Importance of Strengthening Public Investment Management

(1) Definition of public investment

Public investment refers to government spending on public infrastructure,[3] which is categorized into two types: i) economic infrastructure such as airports, roads, railways, ports, water and sewage, power, gas, and telecommunication; and ii) social infrastructure such as schools and hospitals.[4] Both economic and social infrastructure become public physical assets once they are completed.

Public investment is generally disbursed from capital budgets (or expenditures) at the construction stage, whereas costs for operation and maintenance (O&M) are disbursed from recurrent budgets (or expenditures). For this reason, budget management for public investment requires adjustment and arrangement from both categories of expenditures over the life-cycle of the public infrastructure.[5] Many developing countries use the term "development budget (or expenditures)" to indicate capital budget (or expenditure).[6] Following this convention, this Handbook uses the term "development budget."

(2) Transition in approaches to PIM

The primary interest of PIM in the 1950s to 1970s lay in improving individual public investment projects for public infrastructure. The governments of developing countries formulated national development plans and implemented public investment projects, while development partners filled the financing gaps and provided technical assistance for cost-benefit analysis (CBA).

However, this traditional approach had several weaknesses. These included: i) the tendency for projects to become disconnected from fiscal constraints; ii) a mismatch between required funding and budgetary allocations for projects; iii) pro-cyclical spending; iv) dual budgeting, in which investment spending was handled separately from the rest of the budget; v) ineffective sequencing and prioritization of projects; and vi) inadequate planning, design, and monitoring of projects.[7]

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[3] The definition comes from Miller and Mustapha (2016) and Miller and Hart (2017).
[4] See IMF (2015b).
[5] In the OECD countries, the term "capital expenditure" is commonly used, following the UN's System of National Account (SNA) and IMF's Government Financial Statistics Manual (GFSM).
[6] See Sarraf (2005).
[7] See Fainboim, Last, and Tandberg (2013).

In the 1980s, the World Bank initiated the concept of the public investment program (PIP).[8] PIPs were expected to create well-prepared projects and establish linkages between public investment projects and development plans. In many countries, however, PIPs became long wish lists that lacked prioritization and sequencing and were used merely for seeking funding from development partners. By the 1990s, the effectiveness of the PIP approach was questioned.

In response, development partners recognized that PFM needed to be strengthened in order to achieve three objectives: i) aggregate fiscal discipline, ii) strategic allocation of resources, and iii) efficient service delivery. In PFM reform, the dual budgeting system was criticized as one of the major obstacles to achieving the PFM objectives.[9] However, the shift from a dual budget toward an integrated budget was a major challenge for many governments. As of today, many developing countries still use the dual budgeting system.[10] Many developing countries also started introducing the Medium-Term Expenditure Framework (MTEF) in the late 1990s to bring medium-term perspectives into budgeting.[11] While some countries integrated PIPs with the MTEF to resolve budget resource issues, many other developing countries still use them in parallel.

In the mid to late 2000s, PIM has become a critical PFM reform agenda to address huge infrastructure gaps around the world and achieve the SDGs by 2030. The World Bank published the Diagnostic Framework for Public Investment Management (DF-PIM) in 2010.[12] The International Monetary Fund (IMF) then introduced the Public Investment Management Assessment (PIMA) in 2015.[13] The IMF conducted an assessment with the PIMA in many countries and updated the PIMA in 2018.[14]

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[8] Public investment program (PIP) is also called public investment plan in some developing countries. In this Handbook, PIP is used to indicate them.

[9] For example, see World Bank (1998).

[10] Among the countries supported by JICA's PIM projects, Laos and Bangladesh manage public investment under the dual budget system, whereas Malawi integrated planning and finance ministries into a single ministry in the early 2010s.

[11] MTEF is called Medium-Term Budget Framework (MTBF) in some countries although both concepts are the same.

[12] Rajaram et al. (2010) developed the DF-PIM that defines eight "must-have" features of an efficient PIM: 1) investment guidance, project development, and preliminary screening; 2) formal project appraisal; 3) independent review of appraisal; 4) project selection and budgeting; 5) project implementation; 6) project adjustment; 7) facility operation; and 8) basic completion review and evaluation.

[13] IMF (2015b).

[14] The updated PIMA in IMF (2018) includes elements similar to other PIM diagnostic tools such as DF-PIM, but provides a more comprehensive assessment of PIM at three key stages of public investment– planning, allocation, and implementation. Each stage of PIMA consists of five key institutions: for the planning stage, 1) fiscal principles and rules, 2) national and sectoral plans, 3) coordination between entities, 4) project appraisal, and 5) alternative infrastructure financing; for the allocation stage, 6) multi-year budgeting, 7) budget comprehensiveness and unity, 8) budgeting for investment, 9) maintenance funding, and 10) project selection; and for the implementing stage, 11) procurement, 12) availability of funding, 13) portfolio management and oversight, 14) management of project implementation, and 15) monitoring of public assets.

(3) What can be achieved through strengthening PIM system?

Strengthening PIM systems is expected to achieve the following three outcomes in developing countries.

1) Contribute to achieving long-term development visions and development plan targets

Strengthening the PIM system is expected to contribute toward the achievement of long-term visions and targets in national development plans and sector plans. Under a strengthened PIM, public investment projects are selected based on the priorities of development and sector plans within the resource envelope and are formulated and implemented with proper management of a plan-do-check-act (PDCA) cycle, thereby contributing to the achievement of the vision and targets.

Ensuring consistency among development plans, PFM, and investment projects is a common challenge in developing and developed countries alike. For example, some progressive sub-national governments in Japan have been developing a comprehensive sub-national government management system, called "total system," that aims to achieve a long-term vision by establishing close linkages among various administrative and financial management systems. The experiences of those sub-national governments may offer useful cases to strengthen PIM systems in developing countries (see Box 1-1).

2) Achieve PFM objectives

Strengthening PIM will contribute to the achievement of the three PFM objectives. Table 1-1 shows the relations between PIM and the three PFM objectives.

Table 1-1 Contribution to PFM Objectives through Strengthening PIM

PFM objective	Contribution through strengthening PIM
Aggregate fiscal discipline	Fiscal sustainability and consistency with total public investment spending over the long term
Strategic allocation of resources	Requiring that selected projects are consistent with the government's national and sectoral priorities, and budgetary resources are sifted to more productive sectors.
Efficient service delivery	Operational efficiency with projects and programs delivering outputs and outcomes in a cost-efficient manner.

Source: Authors' summary based on Fainboim, Last and Tandberg (2013).

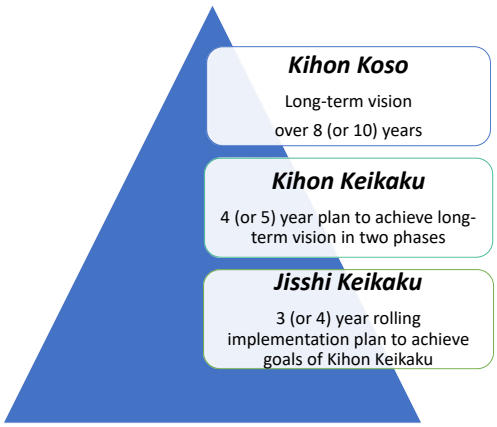
Box 1-1 Case Study: Challenges Facing Sub-National Governments in Japan and Responses

This Handbook introduces two good practices of PIM in Japanese sub-national governments as case studies. First, Amakusa City has been introducing a "total system" that aims to achieve development goals while maintaining fiscal discipline (see Box 3-1). Second is Saitama City, in which public facility management with the concept of life-cycle cost has been introduced (see Box 3-2). Those case studies will bring useful insights to strengthening the PIM system in developing countries. The current situation of sub-national governments in Japan is summarized below as background to understanding those case studies.

Sub-national governments in Japan face some major challenges. The first is declining local tax revenues over the long term, resulting from prolonged economic stagnation and a declining working-age population. The second is increasing public expenditures required to address the needs of residents in a rapidly aging society. Finally, O&M and renewal costs of old public facilities and infrastructure built in 1950-1970 are projected to increase dramatically soon.

Without addressing those challenges, sub-national governments would become incapable of providing adequate services to residents, and even worse, could face a huge risk of bankruptcy in the medium to long term.

Three Levels of *Sogo Keikaku* (General Plan)

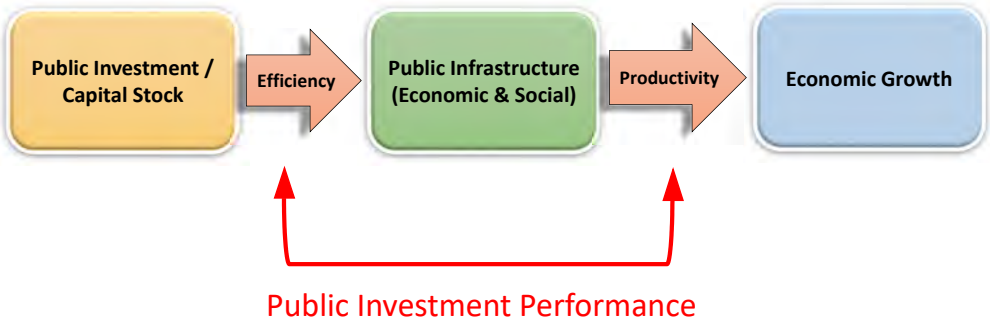


To face those challenges, some progressive sub-national governments use *Sogo Keikaku* (general plan) as the backbone of public management and attempt to develop a total system — an integrated planning, financial, and administrative management system — that aims to achieve the city's vision while maintaining fiscal discipline. *Sogo Keikaku* consists of three levels: *Kihon Koso* (long-term vision), *Kihon keikaku* (basic plan), and *Jisshi Keikaku* (implementation plan). *Jisshi Keikaku* is updated annually on a rolling basis.

Some other progressive sub-national governments have been introducing public facility management to address those challenges. Public facility management aims to plan and implement O&M and renewal of all pubic facility and infrastructure of a sub-national government in a holistic way over 30 years, considering the life-cycle costs of facilities and infrastructure.

3) Improve public investment performance

Strengthening the PIM system is expected to improve performance, characterized by efficiency and productivity, in overall public investment.



Source: Based on IMF (2015b)

Figure 1-1 Public Investment Efficiency, Productivity and Performance

Figure 1-1 identifies causal relationships among public investment and public capital stock (accumulation of public investment) as "input," public infrastructure as "output," and economic growth as "outcome." Strengthening PIM will contribute to improving public investment efficiency at the project and program levels. First, improving management of individual public investment projects will enhance the quality and cost-benefit ratios of those projects, and achieve the outcomes and impacts in a more efficient and effective way. In addition, better-managed PIPs will enhance strategic allocation of resources within and between sectors and achieve development goals more efficiently. Taken together, strengthening PIM will enhance public investment efficiency directly, and contribute to improving the productivity of public capital in achieving economic growth.[15]

1.2 Approaches to Understanding PIM Systems

PIM systems are diverse, and their features are unique to each country. It is often the case that applying one-size-fits-all solutions, approaches, and projects for all countries does not necessarily lead to desired outcomes in all countries. When we are tasked with identifying PIM issues and engaging in capacity development for a country, it is essential to understand the unique national systems that affect the overall performance of PIM.

This section explains the basic approaches to understanding PIM systems. This forms a basis for the explanation of the PIM-CDF presented in the next section.

[15] See IMF (2015b) for definitions and estimation methods of public investment efficiency and productivity.

(1) PIM system and management cycles

As explained in the previous section, strengthening PIM is expected to contribute to achieving i) the long-term development vision and development plan targets; ii) the three objectives of PFM; and iii) overall improvement of public investment performance.

In line with those objectives, PIM systems consist of the following management cycles: i) PIP management to achieve a long-term vision; ii) budget management to achieve the three objectives of PFM; and iii) project management to improve public investment performance. By analyzing these three management cycles, it is possible to capture the overall picture of PIM.

Table 1-2 explains the three management cycles of PIM.

Table 1-2 Three Management Cycles of PIM

Management cycle	Content
PIP management	Management system for national and/or sector-level PIPs that are managed over the medium term and/or on a rolling basis.
Budget management	Management of development budget. It is essential to coordinate with the Medium-Term Budget Framework (MTBF) if the country has adopted it. It is also important to coordinate closely with the recurrent budget for operation and maintenance costs of public infrastructure.
Project management	Management of public investment projects, including their planning, formulation, implementation, completion, evaluation, and operation.

Source: Authors.

(2) Organizations involved in PIM

Many organizations are involved in PIM. Depending on the country, however, the allocation of tasks to these organizations varies considerably.

In countries where PIM does not perform effectively, communication within and among organizations tends to be excessively complex, and management processes are neither transparent nor consistent. When analyzing the PIM system in a supported country, it is very important to understand the division of tasks among key organizations as well as their methods of communicating with each another.

It is also important to understand the positioning of each organization. This Handbook proposes to categorize the primary PIM organizations into two types: (1) central organizations; and (2) project-implementing organizations. Box 1-2 defines the two types of the organizations.

Box 1-2 Type of PIM Organizations

Central organizations:

In any government, certain administrative organizations are tasked with overseeing the core functions of PIM. In this Handbook, such organizations are defined as central organizations, and these organizations are categorized under three PIM management tasks: *PIP*, *budget,* and *projects*.

In many countries, the Ministry of Planning, the Ministry of Finance, or equivalent organizations are assigned as central organizations. There may be more than one central organization, and some may be divided at the ministry level, whereas others may be at the department level or be independent agencies. Allocation of authority depends on the government's political, administrative, and governance systems. Some governments assign the planning and budgeting functions to a single central organization, whereas others assign these functions to separate central organizations. In this Handbook, allocation of tasks among central organizations is studied both *de jure* (legal frameworks) and *de facto* (actual operation).

Project-implementing organizations:

In this Handbook, the organizations that are assigned the responsibility of implementing public investment programs and projects, and supervising individual public investment projects, are defined as project-implementing organizations. These organizations are actively involved in the planning, formulation, budget request, contracting, monitoring, and completion of public investment projects. In many countries, ministries are authorized as project-implementing organizations. In some other countries, ministries and sub-national governments are equally authorized as project-implementing organizations. It should be noted that project-implementing organizations do *not* include contractors such as private companies that perform project work or provide goods and services.

Table 1-3 explains the outline, tasks, and assumed organizations that are categorized as central organizations and project-implementing organizations.

Table 1-3 Outline and Tasks of PIM Organizations

Category	Central organization	Project-implementing organization
Outline	• Organizations responsible for overseeing PIM system in a country. • Analyses of division of tasks, both *de jure* and *de facto*, among central organizations are essential.	Organizations responsible for managing programs and/or projects, including planning, formulation, budget request, contracting, monitoring and completion.
Main Tasks	• Design, establishment, and dissemination of PIM system • Compilation of PIP • Third-party appraisal • Allocation of budget to projects • Completion evaluation	• Observance and use of PIM framework • Development of programs and projects in PIP • Plan, design and formulation of projects • Request for budget • Project management at the implementation stage, including contracting, monitoring and reporting

Category	Central organization	Project-implementing organization
		• Completion report of projects
Organizations	• Ministry of Planning • Ministry of Finance • Organizations authorized to compile development plans, strategies and programs • Organizations assigned to oversee Public Private Partnerships (PPPs), funds, special projects, etc. • Planning and finance sections in sub-national governments	• Sector ministries/agencies • Sector organizations within sub-national governments

Source: Authors.

The explanation in the table above is based on standard PIM functions. However, careful attention should be paid to the unique national system in each country because some tasks or the division of tasks in each country may vary considerably.

(3) Project implementation by sector ministries/agencies and sub-national governments

Economic and social infrastructure is expected to contribute to the development of targeted sectors or regions, and therefore sector ministries/agencies or sub-national governments take charge of implementing public investment projects. However, which organizations oversee project implementation and what tasks are assigned vary, depending on the *de jure* (legal frameworks) and *de facto* (actual operation) arrangements of the government. Table 1-4 illustrates the possible variation of the division of tasks among the national and sub-national governments.

Table 1-4 Patterns of Division of Tasks Between Sector Ministries/Agencies and Sub-National Governments

Pattern	Description
Sector ministries are solely assigned as project-implementing organizations	Public investment projects are planned, formulated, budgeted, and implemented at the national government level. Sub-national governments are not authorized to plan or budget projects.
Certain sector ministries become project- implementing organizations for all projects requested by sub-national governments	Certain sector ministries responsible for sub-national governance compile project requests submitted from sub-national organizations. Those sector ministries plan, formulate, and budget those projects. Sub-national governments submit requests and information required for the projects but rely on the capacity of ministries to formulate and prioritize projects.

Pattern	Description
Division of tasks based on project size or budget source	Sector ministries/agencies are responsible for the planning, budgeting, and implementation of projects, except for small-scale ones financed by special financing sources such as sub-national development funds or poverty reduction funds, and planned, budgeted and implemented by sub-national governments. In most cases, the scale of projects is limited up to a certain budgetary threshold.
Both national and sub-national governments have equal authority as project-implementing organizations	Both sector ministries/agencies and sub-national governments assume equal authority in identifying, planning, formulating, and budgeting projects.
Sub-national governments have own budgetary resources	Sub-national governments use their own resources to plan, budget and implement projects.

Source: Authors.

It should be noted that the division of tasks between national and sub-national governments may not fall in the patterns mentioned above. Even within the central government, there may be various organizational levels that have different authority levels. Division of PIM tasks between central and sub-national governments critically depends on the level of decentralization (or de-concentration) of the country.

1.3 Overview of the PIM Capacity Development Framework

The PIM Capacity Development Framework (PIM-CDF) provides a framework to understand and analyze the PIM system, and to formulate and implement PIM cooperation strategy and capacity development projects in developing countries. It also provides useful tips at the designing and implementing stages of PIM capacity development projects, based on the experience and lessons learned from the JICA technical cooperation projects for PIM in developing countries.

The PIM-CDF consists of the following four stages.

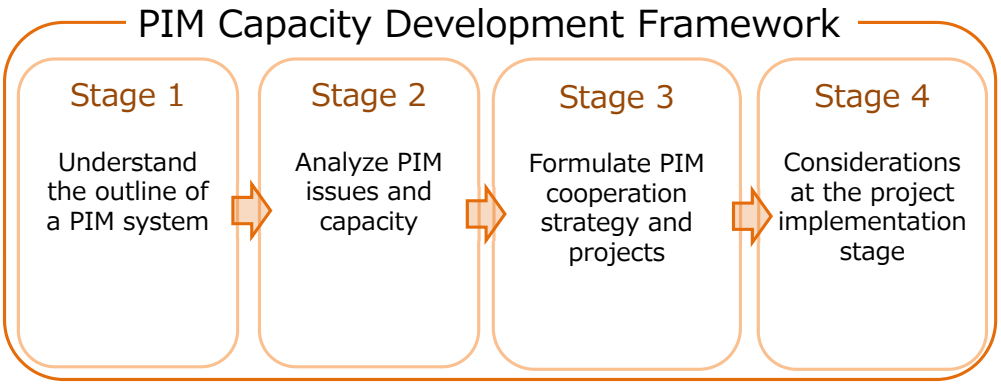


Table 1-5 (next page) provides an overview of each stage in PIM-CDF. The first and second stages are diagnostic studies, consisting of sets of points to check. These points are numbered consecutively throughout the first and second stages. It is expected that readers will conduct diagnostics in the order of the points. However, they can do so randomly if all points in the two stages will be covered. The third and fourth stages are related to designing and implementing a PIM cooperation strategy and specific capacity development projects.

Table 1-5 Overview of PIM-CDF

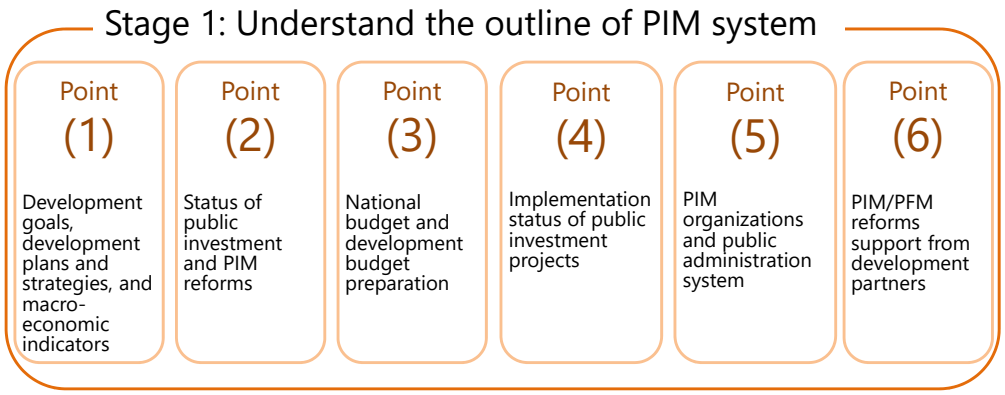
Stage	Points to review
Stage 1 Understand the outline of a PIM system	(1) Development goals, development plans and strategies, and macroeconomic indicators (2) Status of public investment and PIM reform (3) National budget and development budget preparation (4) Implementation status of public investment projects (5) PIM organizations and public administration system (6) PIM/PFM reforms support from development partners
Stage 2 Analyze PIM issues and capacity	(7) Public investment program (PIP) management (8) Budget management (9) Project management (10) Other management cycles (11) Management information systems
	Analyses
	(1) Analysis of PIM issues (2) Capacity analysis
	Steps for project formulation
Stage 3 Formulate PIM cooperation strategy and projects	(1) Formulation of PIM cooperation strategy (2) Narrowing down project candidates (3) Designing capacity development projects
	Considerations at the project design stage
	(1) Confirm government procedures to formalize new PIM methods and tools (2) Consider working relations between planning and finance organizations (3) Examine the extent to which PIM stakeholders are involved (4) Consider management cycles of PIP, budget and projects (5) Examine the scope for collaboration with initiatives on development planning, PFM reform, and PPP. (6) Confirm IT environment for collecting, analyzing, and sharing PIM information (7) Confirm categorization, position, and authority of PIM personnel (8) Incorporate activities to validate the effectiveness of new PIM methods and tools
Stage 4 Considerations at the project implementation stage	**Considerations at the project implementation stage**
	(1) Align project activities with the government's management cycles (2) Maintain flexibility in adjusting activities based on the country's changing needs and requirements (3) Explore cooperation with development partners supporting PFM reform (4) Coordinate with JICA projects in sectors (5) Explore ways to institutionalize PIM reform (6) Consider utilization of training institutions to strengthen PIM capacity development system (7) Use overseas training effectively (8) Incorporate measures to contain PIM-related corruption

Chapter 2

Stage 1: Understand the Outline of a PIM System

2. Stage 1: Understand the Outline of a PIM System

In Stage 1, basic information on PIM in a supported country is collected. Collection of the information required in this stage should be relatively easy for people who are not necessarily familiar with PIM. However, information on PIM is often not open to the public and some administrative officials tend to keep the information to themselves. It is therefore assumed that this stage is conducted through on-site interviews. Although an intensive interview may not be required, it is necessary to obtain contacts with key officials who have the knowledge and expertise on the workings of the PIM system in the government. The following shows the six points to investigate in this stage. The results of Stage 1 will be compiled in the *PIM Outline Sheet* in Annex 1.



The points to investigate are summarized as follows:

Point (1) Development goals, development plans and strategies, and macroeconomic indicators

The purpose of Point (1) is to confirm the presence of a national development plan and strategies by reviewing policy documents and clarifying the development goals of those plans and strategies. Point (1) also confirms the macroeconomic situation of the country. This review will help understand the development goals that PIP is expected to achieve. The following table summarizes the sub-points to review in detail.

Sub-points		Approach
(1)-1	Development plan structure	• Study development goals and strategies, and medium-term development plan structures. • Study their relations including time span.
(1)-2	Existence of development plans at the sector, regional, and sub-national government levels and their links to a national plan	• Study development plans/strategies of sub-national governments. • Confirm the relations of sub-national government plans with the national plan, and their relationships.

Sub-points		Approach
(1)-3	Macroeconomic and development indicators	• Study the macroeconomic situation from reports of government and development partners.
(1)-4	Global agenda	• Study consistency of the country's development policies with the level of commitment to SDGs and other global agenda

Point (2) Status of public investment and PIM reform

The purpose of Point (2) is to confirm the outline of public investment and PFM/PIM reforms. The following table shows the sub-points to review in Point (2).

Sub-points		Approach
(2)-1	Institutional and policy frameworks of public investment	• Study institutional and policy frameworks (*e.g.*, laws, regulations, orders, or any other policy documents) on public investment. • Study the contents of those frameworks, including PIP management, budget management, and project management. • Study the role of public investment in the institutional and policy frameworks. ➢ This sub-point corresponds to PIMA indicators 1a and 1b.
(2)-2	Existence and scope of PIPs	• Confirm the existence of PIP document(s); if yes, confirm its scope (*e.g.*, sector, budget, and period).
(2)-3	Contents of public investment	• Study the contents of public investment by category (*e.g.*, the number and amount of public investment projects funded by government budget, Official Development Assistance (ODA), sub-national government, extra budgetary funds, state owned enterprises (SOEs), PPP, debt). ➢ This sub-point corresponds to PIMA indicators 3b, 7a and 7b.
(2)-4	Status of ODA, extra budgetary funds, SOEs, PPPs, and sub-national governments	• Study institutional and policy frameworks for ODA, development funds, SOEs, PPPs and sub-national government. • Confirm the number and amount of public investment projects funded by ODA, development funds, SOEs, PPP, and sub-national government. ➢ This sub-point corresponds to PIMA indicators 3a, 3b, 3c, 5a, 5b, 5c, and legal framework.
(2)-5	Existence and progress of PFM/PIM reforms	• Confirm the existence and contents of PFM/PIM reform programs.

Point (3) National budget and development budget preparation

The purpose of Point (3) is to confirm the outline of budget expenditures (allocation and disbursement), public debt, and budget management. The following table summarizes the sub-points to review.

Sub-points		Approach
(3)-1	Budget allocation	• Study allocation of recurrent and development budgets.
(3)-2	Budget disbursement	• Study disbursement of recurrent and development budgets, gaps between allocation and disbursement of budgets, and the reasons behind the gaps.
(3)-3	Presence and contents of medium-term frameworks	• Study MTBF in operation or planned. • Study the government's intention to link MTBF with development budget. ➢ This sub-point corresponds to PIMA indicators 1c, 6a, 6b and 6c.
(3)-4	Fiscal balance and debt	• Study institutional and policy frameworks on debt management and budget deficit. • Confirm debt sustainability analysis under the IMF Article IV Consultation. • Confirm medium-term debt management strategy and study debt repayment plan. ➢ This sub-point corresponds to PIMA indicators 1a and 3c.
(3)-5	Annual development budget preparation schedule	• Establish standard annual budget calendar. Find the common tasks related to project management. ➢ This sub-point corresponds to PIMA indicators 7c.

Point (4) Implementation status of public investment projects

The purpose of Point (4) is to confirm the situation of project management by reviewing cost overruns and time overruns of public investment projects. This will help assess the extent to which project management is properly managed according to planned timelines and project budgets.

Point (5) PIM organizations and public administration system

The purpose of Point (4) is to confirm which organizations are involved in PIM. This will help confirm the scope of PIM stakeholders and target officials supported by PIM capacity development projects. The following table shows the sub-points to review under Point (5).

Sup-points		Approach
(5)-1	Organizational structures	• Identify key central organizations and confirm their authorities and roles in PIM. • Identify key project-implementing organizations and confirm their authorities and roles in PIM.
(5)-2	Relations among key PIM organizations	• Analyze division of roles and tasks among key organizations, particularly between: 1) planning and finance ministries; 2) planning ministry and project-implementing organizations; and 3) national and sub-national governments
(5)-3	Analysis of key PIM organizations	• Confirm internal structures and processes of key organizations, and relationships with external organizations.
(5)-4	Public administration system	• Confirm personnel management and capacity development of officials involved in PIM.

Point (6) PFM/PIM reform support from development partners

The purpose of Point (6) is to confirm the status of PFM/PIM support by development partners. This will help identify the roles of JICA's capacity development projects for PIM and identify the scope for cooperation with other development partners in Stage 3 explained in Chapter 4 of this Handbook.

Chapter 3

Stage 2: Analyze PIM Issues and Capacity

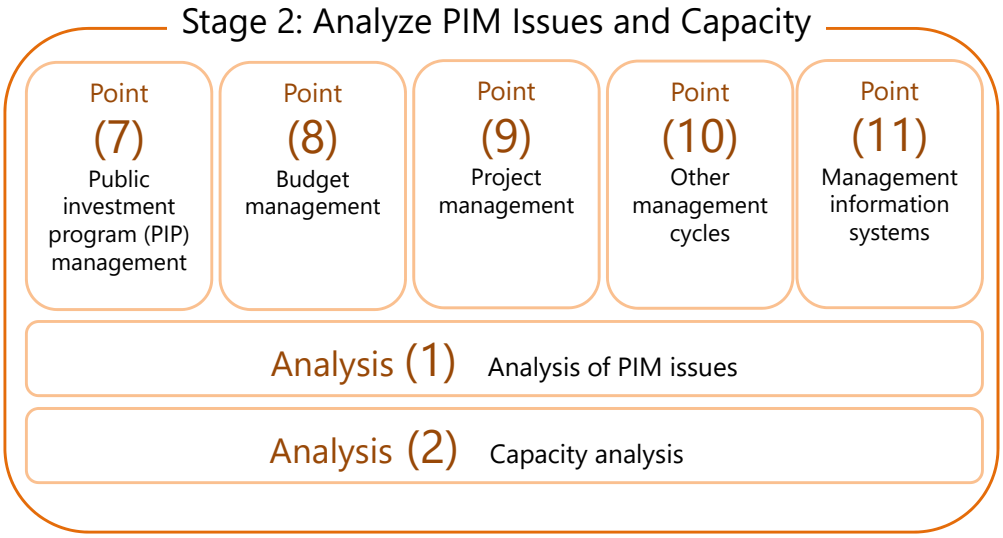
3. Stage 2: Analyze PIM Issues and Capacity

3.1 Overview of Stage 2

Based on the review of the PIM system in Stage 1, Stage 2 is analyzing PIM issues and capacity. This creates information for the formulation of JICA's PIM cooperation strategy and capacity development projects in Stage 3.

Stage 2 has three objectives: 1) collect in-depth information on linkages among three management cycles; 2) analyze PIM issues to be addressed; and 3) analyze PIM capacity underlying the PIM issues.

The stage consists of six points to review, and two analyses.



Points (7) to (11) are a preparation work for "Analysis (1) Analysis of PIM issues," and "Analysis (2) Capacity Analysis."

Figure 3-1 below shows which points in Stage 1 feed information to those in Stage 2. We recommend that readers utilize the information collected in Stage 1 for the work in Stage 2.

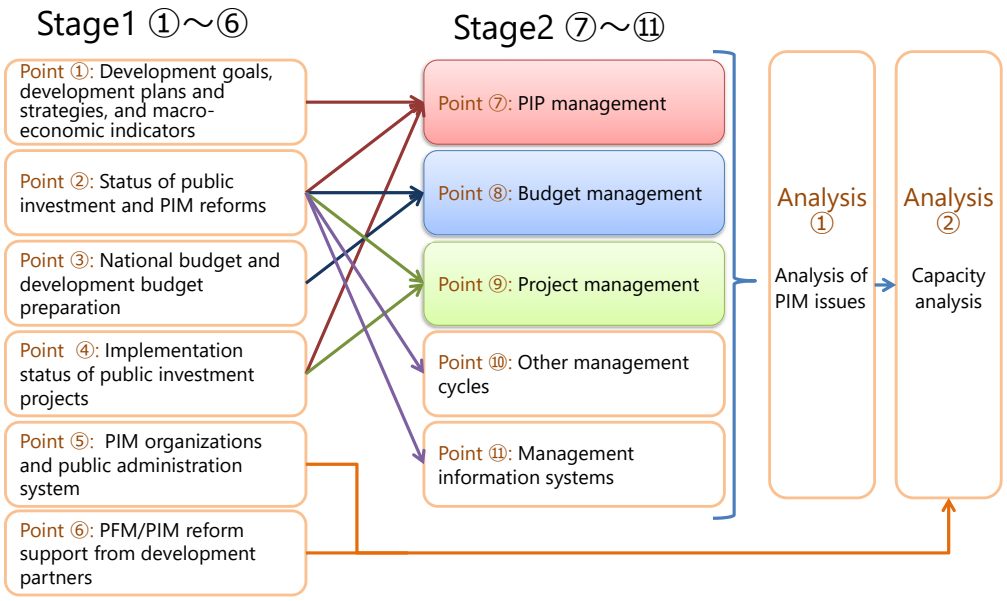


Figure 3-1 Relationships Between Stages 1 and 2

In Analysis 1 of PIM issues, key issues identified in Points (7) to (11) are organized and analyzed, with a special focus on linkages among the three management cycles — PIP management, development budget management, and project management.

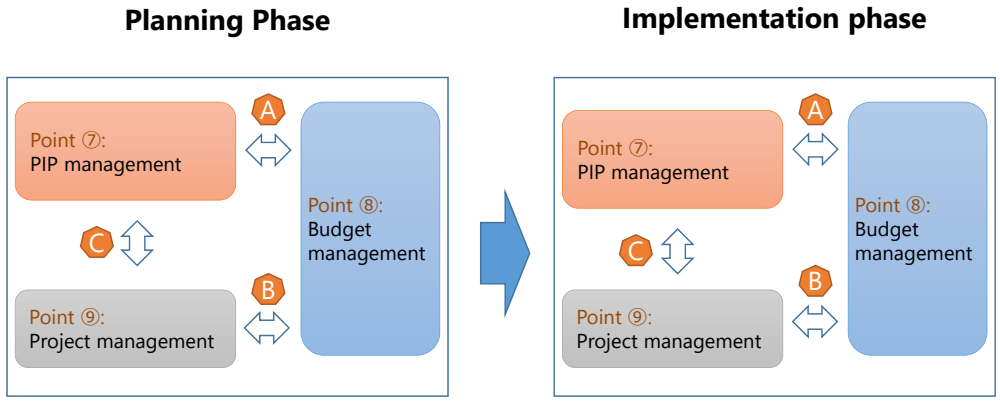
Analysis 2 of PIM capacity will investigate capacity that has been causing the key issues identified in Analysis 1. This capacity analysis is undertaken from the perspectives of three levels of capacity — institutions, organizations, and individuals. In this analysis, attention will be paid to *de jure* and *de facto* aspects of institutions and organizations as well as to PFM/PIM reform initiatives of a country.

In the following, the linkages of the three management cycles of PIM and their potential issues are explained in detail.

The flow of PIM and the linkages among the three management cycles are shown in Figure 3-2 in the next page.

PIM consists broadly of two phases: planning and implementation. In both phases, PIP management, development budget management, and project management need to be managed properly.

PIM in the planning phase will be analyzed on the following four standard features of PIM: (1) strategic guidance; (2) formulation of new project investment projects; (3) third party appraisal; and (4) budgeting and prioritization of projects.



* Arrows A, B, C (⇔) denote the linkages between management cycles

Standard features in planning phase:

1. **Strategic guidance**
2. Formulation of new public investment projects
3. Third party appraisal
4. **Budgeting and prioritization of projects**

Standard features in implementing phase:

5. Project implementation and monitoring
6. **Project modification and adjustment**
7. Project completion and terminal/ex-post evaluation
8. Operation and maintenance

Figure 3-2 PIM Flow, Linkages, and Standard Features

PIM in the implementation phase is analyzed from the following four standard features: (1) project implementation and monitoring; (2) project modification and adjustment; (3) project completion and terminal/ex-post evaluation; and (4) operation and maintenance. Table 3-1 summarizes the key questions of eight standard features of PIM.

It should be noted that the planning and implementation phases are a cycle, in which the results of the implementation phase will be fed back into the planning phase of the next cycle.

Besides properly managing the respective management cycles of PIM, a major challenge in PIM is to closely coordinate and link the management cycles among PIP management, development budget management, and project management. The types of the linkages are presented in Table 3-2.

Table 3-1 Standard Features of PIM and Key Questions

Standard Features		Key questions
1	**Strategic Guidance**	
		Are there programs/plans designed for PIM that function as linkages among public investment projects, development goals and plans, and budgets? Are they used as guidance for the management of public investment projects?
2	**Formulation of New Public Investment Projects**	
		Are there established procedures for planning and formulating public investment projects that include feasibility studies, appraisal, and approval? Are new projects planned and formulated based on the established procedures?
3	**Third Party Appraisal**	
		Are there established procedures to conduct third-party appraisals? Is appraisal conducted by a third party with standard procedures?
4	**Budgeting and Prioritization of projects**	
	Budget Formulation Process	Are there established procedures to formulate a development budget under an overall government budget formulation process? Are they followed?
	Project Prioritization	Are there established procedures to prioritize projects for budgeting? Are they followed?
	Budget Allocation	Are there standardized and transparent procedures to calculate development budget allocation to concerned organizations? Are they used?
	Debt Management	Has the government stated clear policies on debt management? Is the policy in effect?
5	**Project Implementation and Monitoring**	
	Contracting and Procurement	Are there established procurement and contracting procedures? Are they followed?
	Project Monitoring	Are there established project monitoring methods and checking procedures? Are they followed?
6	**Project Modification and Adjustment**	
		If a project needs modification during implementation, are there any standard procedures that allow modifications of project contents including budget and/or PIP? Are they followed?
7	**Project Completion and Terminal/Ex-Post Evaluation**	
	Project Completion and Reporting	Are there standard procedures for project completion and its reporting? Are they followed?
	Terminal and Ex-Post Evaluation	Are there standard procedures for project terminal and ex-post evaluation (involving a third party)? Are they followed?
8	**Operation and Maintenance**	
	Asset Registration	Are there standard procedures to register assets after project completion? Are they followed?
	Operation and Maintenance	Are there standard procedures to confirm whether operations and maintenance are properly conducted after completion of a project? Are they followed?

Source: Authors.

Table 3-2 Linkages Among Three Management Cycles of PIM

Type of linkages	Descriptions	Standard features requiring strong linkages
Type A: PIP and budget	• Medium-term overall budget forecasting in PIP (connection between PIP and MTBF) • Budget allocation forecasting to each sector and sub-national governments in PIP • A process to determine budget ceiling, including adjustment of the budget ceiling on the basis of the rolling plan • A process to determine budget allocation, including adjustment of budget ceiling on the basis of the rolling plan	(1) Strategic guidance (4) Budgeting and prioritization of projects (6) Project modification and adjustment
Type B: Budget and project	• Budget appropriation to newly approved projects (budgeting based on prioritization of projects) • Budget appropriation to ongoing projects (budgeting of the ongoing projects) • Budget adjustment according to the change of the project's contents	
Type C: Project and PIP	• Individual projects within the PIP • The contribution of individual projects to the PIP • The adjustment of the PIP according to the implementation status of on-going projects	

Source: Authors.

3.2 Outline of Points (7) - (11) and Analyses (1) - (2)

Point (7) Public investment program (PIP) management

(7)-1: Functions of PIP

The purpose of sub-point (7)-1 is to confirm the functions and characteristics of PIP. This will help understand the linkages among PIP management, budget management, and project management. Table 3-3 below shows a list of suggested questions regarding the functions of PIP.

Table 3-3 Key Questions: Functions of PIP

	Key Questions*
1	**Development indicators:** • Does each public investment project in the PIP indicate a set of development indicators to achieve?
2	**Development indicators:** • Does the PIP in its entirety indicate a set of development indicators to achieve? • Are those indicators consistent with the indicators in the medium or long-term development plan?
3	**Project cost:** • Does each public investment project in the PIP indicate total project cost?
4	**Project cost:** • Is the amount of total project cost in the PIP target value or actual value?
5	**Project duration:** • Does each public investment project in the PIP indicate project duration?
6	**Operation and maintenance:** • Does the PIP indicate operation and maintenance (O&M) costs after the completion of public investment projects?

*The key questions correspond to PIMA indicators 2b, 2c and 6c.

(7)-2: PIP management

The purpose of (7)-2 is to confirm the following three points on PIP management: (1) the process of PIP management and division of tasks among concerned organizations, both *de jure* and *de facto*; (2) the roles of organizations in respective PIM standard features and working relationships among those organizations; and (3) future reform plans.

This will help understand the current situation from the perspective of day-to-day management of a PIP and provide information for analysis of PIM issues Analysis (1). Table 3-4 below shows a list of suggested questions regarding PIP management.

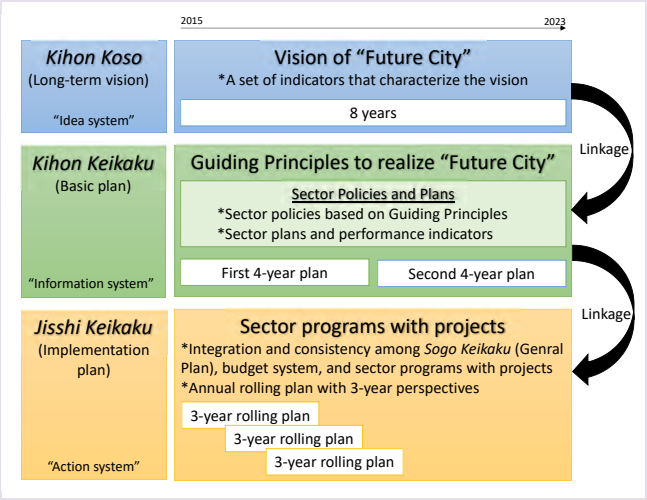
Table 3-4 Key Questions: PIP Management

	Features	Key Questions
1	Strategic guidance	• Do the contents of the PIP (*e.g.,* development indicators) present an overall picture of all public investment projects?
2	Formulation of new public investment projects	• Do the contents of the PIP provide clear guidance for project formulation?
3	Third party appraisal	• Do the contents of the PIP provide clear guidance for project appraisal?
4	Budgeting and prioritization of projects	• Do the contents of the PIP provide clear guidance for project approval, prioritization, and budgeting? • Do the contents of the PIP reflect annual budget and multi-year forward cost estimates of each public investment project? Is the PIP periodically (*e.g.,* annually, semi-annually) updated?
5	Project implementation and monitoring	• Is monitoring of PIPs conducted periodically? • Is mid-term evaluation of PIPs conducted?
6	Project modification and adjustment	• Do the contents of the PIP reflect properly the results of monitoring and/or mid-term evaluation? • Do the contents of the PIP reflect the change in project cost? • Do the contents of the PIP reflect the change in the budget envelope?
7	Project completion and terminal/ex-post evaluation	• Is terminal evaluation of the PIP conducted? • Are the results of terminal evaluation reflected in the contents of the PIP?
8	Operation and maintenance	• Is the information on operation and maintenance in the PIP consistent with the annual budget and MTBF?

Box 3-1 Case Study: Total System of Public Management of Sub-National Governments in Japan

This box introduces a case study of Amakusa City in Kumamoto Prefecture, a progressive sub-national government aiming to introduce a total system of public management.

Amakusa City was formed in March 2006 after a merger of two cities and eight towns in the area. In the eight years after the merger, 92 sector plans were formulated, the number of funded projects increased to around 1,400, and 64 committees were established. The city faced an overwhelming administrative burden. To address the challenge, Amakusa City formulated the *Second Amakusa Sogo Keikaku* (Second Amakusa General Plan) 2015-2023 (see Figure). In parallel, the City undertook a diagnostic study of the management system and formulated the *Guidelines Toward a Total System of Amakusa City Management* in 2014. This Guidelines aim to use a *Sogo Keikaku* as the backbone of city management, around which all administrative systems are linked and integrated.



Amakusa City took the following reform actions:

Integration of administrative and budgeting systems:
Integrate various administrative systems into the *Sogo Keikaku* with the following actions:

1. Establish linkages between budget and performance evaluation centered around the *Sogo Keikaku*
2. Adopt a 3-year rolling implementation plan to bring medium-term perspectives.
3. "Scrap and build" funded projects
4. Integrate implementation plan and budget request in a single format
5. Develop a monitoring and evaluation framework of the *Sogo Keikaku*
6. Strengthen linkages between the *Sogo Keikaku* and fiscal discipline
7. Establish linkages among management cycles of various administrative systems

Integration of plans:
Streamline various sector plans and integrate them with the *Sogo Keikaku* through the following actions:

1. Confirm and validate the roles of respective sector plans
2. Integrate and/or rationalize various sector plans
3. Synchronize the cycles and objectives of sector plans with those of the *Sogo Keikaku*
4. Establish linkages between the *Sogo Keikaku* and sector plans
5. Ensure the principle of autonomous formulation of sector plans
6. Rationalize the number of committees

Sources: Figure from *Second Amakusa Sogo Keikaku 2015-2023*

Point (8) Budget management

(8)-1: Breakdown of development budget

Point (8)-1 is to confirm the breakdown of development budgets, particularly in the following aspects: (1) details of financing sources (*e.g.*, domestic and ODA) and their respective shares in the development budget; (2) development budgets by organization/ministry (*e.g.*, national government, sub-national governments, SOEs, extra budgetary fund) and their trends; and (3) development budgets by sector and their trends.

This information will help identify and examine potential targets (financing sources, organizations/ministries, and sectors) for capacity development projects.

(8)-2: Budget management

Point (8)-2 is to confirm the management of development budgets in the following aspects: (1) the process of development budget management and division of tasks among concerned organizations, both *de jure* and *de facto*; (2) the roles of organizations in respective PIM standard features and working relationships among those organizations; and (3) future reform plans.

This information will help identify the gaps between expected and actual development budget management. This will feed useful information for analysis on PIM issues in Analysis (1). Table 3-5 below presents a set of key questions on management of development budget.

Table 3-5 Key Questions: Budget Management

	Feature	Key Questions
1	Strategic guidance	• Are medium-term budget estimates available? • Is a system in place to ensure budgets for medium-term project costs of proposed projects?
2	Formulation of new public investment projects	• Are the process of project formulation, appraisal and approval, and the process of budget preparation coordinated? • To what extent is the availability of funding discussed in the process of project formulation, appraisal, and approval? • Is the adequacy of a project budget (including operation and maintenance costs after project completion) examined?
3	Third party appraisal	
4	Budgeting and prioritization of projects	• Are recurrent and development budgets prepared independently? • Are prioritization and selection of projects conducted, based on the latest budget ceiling of each sector ministry and sub-national government? Are there any specific criteria for prioritization of projects?

	Feature	Key Questions
		• Is a system in place to synchronize between the contents of budget documents (*e.g.*, MTEF/MTBF and annual budget) and PIPs?
5	Project implementation and monitoring	• Is the performance of procurement monitored periodically against the budget plan? • Is the performance of a disbursement monitored periodically against the budget plan?
6	Project modification and adjustment	• In a country where MTBF provides medium-term budget estimates, is the adjustment of the budget envelope for each project discussed, considering the change in project plan?
7	Project completion and terminal/ex-post evaluation	• Is the execution rate of a project's cost evaluated?
8	Operation and maintenance	• Is the budgeting of O&M costs discussed?

*The key questions correspond to PIMA indicators 6a, 6b and 9c.

Point (9) Project Management

Point (9) is to confirm the following aspects of the management of individual projects: (1) the process of project management and division of tasks among concerned organizations, both *de jure* and *de facto*; (2) roles of concerned organizations in respective PIM standard features and working relationships among those organizations; and (3) future reform plans.

This information will help identify the gaps between *de jure* and *de facto* project management. This will feed useful information for analysis on PIM issues in Analysis (1). Table 3-6 below presents a set of key questions on project management in PIM.

Table 3-6 Key Questions: Project Management

	Feature	Key Questions
1	Strategic guidance	• Is a pre-feasibility study conducted? Are the contents of the pre-feasibility study defined? • Is a system in place to conduct preliminary screening of pipeline projects based on the priorities in the development plan and/or PIP?
2	Formulation of new public investment projects	• Is a feasibility study conducted? Are the contents of the feasibility study defined? • Is a credible cost-benefit analysis on the project conducted in the feasibility study? • Is a project appraisal conducted? Are the contents and criteria for project appraisal defined?

	Feature	Key Questions
		• Is O&M cost studied in the project appraisal? ➢ The key questions correspond to PIMA indicators 4a, 4b, and 4c.
3	Third party appraisal	• Is a project appraisal conducted by a third party other than the project-implementing organizations? Are the content and criteria for the third-party appraisal defined?
4	Budgeting and prioritization of projects	• Is prioritization conducted by a comparison among proposed projects, based on a multi-year or single-year budget forecast? • Are the contents of projects adjusted based on budget ceilings? • Is a procedure stipulated for proposed projects that did not receive budget allocations after prioritization? • Are funds for O&M requested and budgeted, based on O&M plan and financing plan? ➢ The key questions correspond to PIMA indicators 8c, 10a, 10b, and 10c.
5	Project implementation and monitoring	• Are procurement rules and regulations in place? • Are the financial and physical progress of projects monitored periodically? • Is mid-term evaluation of projects conducted? ➢ The key questions correspond to PIMA indicators 11a, 11b, 11c, 12a, 12b, 12c, and 14a.
6	Project modification and adjustment	• Are projects modified or adjusted based on the results of monitoring and mid-term reviews/evaluations? Are the following procedures in place? – Procedure for revision of project proposal (in case of large modifications) – Procedure to adjust project budget (in case of cost overrun and time overrun) – Procedure to adjust a PIP (in case of a change in project purpose) ➢ The key questions correspond to PIMA indicators 13a, 13b, and 14b.
7	Project completion and terminal/ex-post evaluation	• Is a project completion report prepared for each project? • Is terminal evaluation conducted? • Is ex-post evaluation and/or impact evaluation conducted? ➢ The key questions correspond to PIMA indicators 13c and 14c.
8	Operation and maintenance	• Are the facilities established by a project ready to operate after project completion? • Is an O&M plan prepared during project implementation to start operations smoothly after project completion? • Does the O&M system reflect the results of the project completion report and terminal evaluation? • Is a system for asset registration and management in place? ➢ The key questions correspond to PIMA indicators 9a, 9b, and 15b.

Recently, public facility management has been receiving attention in developed countries as an approach to manage public facilities owned by project-implementing organizations such as sector ministries and sub-national governments.

In public facility management, project-implementing organizations collect information (numbers and conditions) on all public facilities, including public infrastructure, owned by the organizations, and formulate and implement their long-term operation and maintenance (O&M) plans, considering the entire life cycles of public facilities over 30 to 40 years. An increasing number of sub-national governments in Japan, which face the challenges of an aging society and old public infrastructure, have been introducing public facility management.

The experience of public facility management in developed countries also could be useful for strengthening operation and maintenance system in developing countries. Box 3-2 presents a case study of public facility management in Japan.

Box 3-2 Case Study: Public Facility Management in Japan

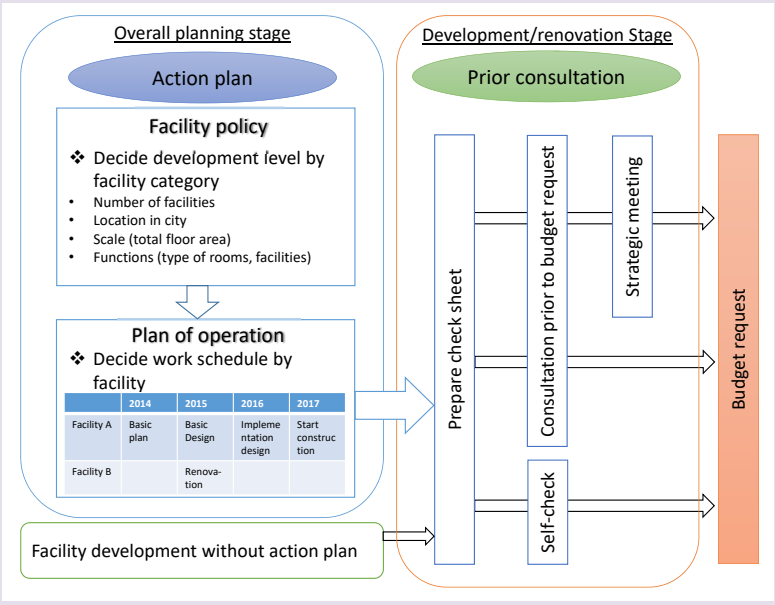
Saitama City in Saitama Prefecture owns 1,670 public facilities. Many of them were built in the 1970s and 1980s and are not earthquake-resistant under contemporary standards. In addition, a massive wave of rebuilding is expected since large-scale renovation needs to be undertaken after 30 years and reconstruction after 50 years. Consequently, the O&M costs of public facilities are expected to increase on an unprecedented scale. If the current practice of O&M is continued, the city will inevitably go bankrupt or its public services will dramatically deteriorate. Another urgent issue is to address the changing needs of city residents for public facilities since the city is moving toward an aging society and declining population.

To address those issues, Saitama City decided to introduce public facility management in the early 2010s with the following steps:

1. Establish institutional arrangements for public facility management within the city hall and establish external organizations
2. Conduct diagnostic assessment (identification of all public facilities, estimation of future costs, sharing of issues with stakeholders, dissemination of diagnostic reports in the form of city white papers)
3. Formulate strategies and implementation plans (setting goals, promoting multi-purpose facilities, introducing O&M based on a lifecycle cost approach, setting sector strategies, forging consensus)
4. Manage implementation within city hall and with residents.

After steps 1 and 2, Saitama city formulated a set of basic principles:

In 2012, Saitama City developed the *First Public Facility Management Plan 2012-2041*, and the *First Action Plan 2014-2020*. The First Action Plan set the basic principles of renovation, layout, and functions of public facilities under 30 categories, and developed a detailed plan of operation to manage activities in a fiscal year. To control the cost of renovation, only the facilities listed in the Action Plan can request funding in the annual budget formulation process. In addition, public facility management unit and sector departments in charge of public facilities must negotiate which facilities can request funding for construction or O&M, *prior to* the annual budget formulation process.



Point (10) Other management cycles

Point (10) studies other important management cycles that need to be considered in PIM.

(10)-1: Management cycles of project-implementing organizations

Point (10)-1 analyzes the information on PIM of sector ministries and sub-national governments, focusing on the following aspects: (1) the process of PIM and division of tasks among concerned organizations, both *de jure* and *de facto*; and (2) future reform plans. This will help confirm the expected and actual levels of coordination among central ministries, sector ministries, and sub-national governments, and investigate the issues to be addressed.

(10)-2: Management cycles of ODA, extra budgetary funds, SOEs and PPPs

Under Point (2) in Stage 1, the information on ODA, extra budgetary funds, SOEs and PPPs were collected. Based on this information, Point (10)-2 analyzed them by focusing on the following aspects: (1) management cycles of public investment projects using ODA, extra budgetary funds, SOEs and PPPs, and division of tasks among concerned organizations, both *de jure* and *de facto*; and (2) future reform plans. This is to identify PIM issues related to public investment projects using ODA, extra budgetary funds, SOEs and PPPs, which are often managed with different management cycles.

(10)-3: Management cycles of regional development plans (land use plans)

Some countries use regional development plans and/or land use plans as part of development planning. Point (10)-3 analyzes regional development plans and/or land use plans, focusing on the following aspects: (1) management cycles of regional development plans and land use plans and division of tasks among concerned organizations, both *de jure* and *de facto*; and (2) future reform plans. This will help understanding of the roles of regional development plans and land use plans in overall development planning, and their relationships to management cycles of PIM.

Point (11) Management information systems

Point (11) studies management information systems (MIS) for public investment. We suggest that the following three aspects of MIS be studied: (1) general IT infrastructure; (2) public investment MIS; and (3) utilization of public investment MIS. The table below presents key questions to identify PIM issues regarding MIS.

Point		Key questions
(11)-1	General IT infrastructure	• IT infrastructure of government: ○ Are there any E-government initiatives in government? What is the status of the progress of the initiatives? ○ What are the current situations of IT infrastructure (*e.g.*, hardware and software) at national and sub-national government offices? ○ What are the current situations of internet connectivity and management of national and sub-national government offices? ○ What is the level of IT literacy of government officials?
(11)-2	Public investment MIS	• Is there any public investment MIS? What are the functionality and coverage of the public investment MIS? • Is there any ODA MIS? Is it connected with the public investment MIS? • Is there any financial MIS (FMIS)? Is it connected with the public investment MIS? • Are there any other MIS? (*e.g.*, a sector-specific project management system or a procurement management system) ➢ The key questions correspond to PIMA cross-cutting issue on IT support.
(11)-3	Utilization of public investment MIS	• Are there any legal frameworks that support public investment MIS? • Are there any manuals for the operation of public investment MIS? • What is the level of capacity of officers to operate and maintain public investment MIS?

Analysis (1) Analysis of PIM issues

Based on the information collected in Points (1)-(11), Analysis (1) identifies and investigates key issues related to PIM. The issues of interest to us are the bottlenecks that cause underperformance on public investment efficiency and productivity.

Step 1: Prepare PIM issues table

Answering the key questions in Points (7)-(11) helps identify a set of key issues to be addressed through capacity development on PIM. Table 3-7 presents the format of a PIM issues table. We suggest you record those key issues briefly in each cell in the format. We also suggest you record a summary of answers to the key questions in Points (10) and (11) as reference information in the format.

Table 3-7 Step 1: Format of PIM Issues Table

		Points		
		(7) PIP management	**(8) Budget management**	**(9) Project management**
Standard features of PIM				
A. Planning Phase				
1 Strategic guidance		Record results of the key questions according to standard features of PIM (Table 3-4)	Record results of the key questions according to standard features of PIM (Table 3-5)	Record results of the key questions according to standard features of PIM (Table 3-6)
2 Formulation of new public investment projects				
3 Third party appraisal				
4 Budgeting and prioritization of projects				
B. Implementation Phase				
5 Project implementation and monitoring				
6 Project modification and adjustment				
7 Project completion and terminal/ex-post evaluation				
8 Operation and maintenance				
Reference				
Points	**(10) Other management cycles**			
	(11) Management information system			

Step 2: Prepare a table for analysis of relationships among PIM issues

The PIM issues table prepared in Step 1 summarizes all key issues identified in Points (7)-(11). Step 2 is to look at all PIM issues in the respective planning and implementation stages horizontally and identify the key issues related to linkages among PIP management, budget management, and project management. See the top panel of Figure 3-3.

As explained in Table 3-2, there are three types (A, B and C) of linkages. We suggest you examine key issues for three respective types of linkages. See the lower panel in Figure 3-3.

The main reason to focus on key issues on linkages is because various PIM issues result from weak linkages among PIP management, budget management, and project management in many developing countries.

For instance, the following key issues on linkages can be found in many developing countries.

- **Type A:** Because of the weak linkages between PIP management and budget management, new projects are adopted without considering the budget ceiling, undermining fiscal discipline.
- **Type B:** Because of the weak linkages between project management and budget management, the budget for ongoing projects and operation and maintenance costs of completed infrastructure projects cannot be secured.
- **Type C:** Because PIP does not clearly indicate strategic guidance, project cannot be prioritized at the planning stage of project management.

PIM Issues Table

	Points		
	(7) PIP management	(8) Budget management	(9) Project Management
Standard Requirements of PIM			
A. Planning Phase			
1 Strategic guidance			
2 Formulation of new public investment projects			
3 Third party appraisal			
4 Budgeting and prioritization of projects			
B. Implementation Phase			
5 Project implementation and monitoring			
6 Project modification and adjustment			
7 Project completion and terminal/ex-post evaluation			
8 Operation and maintenance			
Reference			
Points (10) Other management cycles			
Points (11) Management information system			

Examine the relationship among PIP management, budget management, and project management in **Planning Phase**

Examine the relationship among PIP management, budget management, and project management in **Implementation Phase**

Relationship analysis of PIM issues

	Type of Linkages		
	A. PIP and budget	B. Budget and project	C. Project and PIP
Planning Phase			
Implementing Phase			

Figure 3-3 Step 2: From PIM Issues Table to Relationship Analysis

Analysis (2) Capacity analysis

Analysis (2) assesses capacity that causes the PIM issues identified in Analysis (1). Capacity is analyzed at three levels – institutions, organizations, and individuals.[16] This capacity analysis is aimed to identify the causes underlying the PIM issues to be addressed. The results of capacity analysis will feed information into the formulation of a PIM cooperation strategy and capacity development projects in Stage 3.

Figure 3-4 below illustrates the process of capacity analysis at three levels of capacity.

Issues	Concerned organizations	Organizations	Individuals	Institutions
Key issues identified in Stage 2 (linkages among PIP management, budget management and project management)	Name of concerned organizations (analyze by organization)	Relations between key issues and concerned organizations (Examples) • Authority, scope of duty • Work process • Human and physical resources	Relations between key issues and personnel (manager and staff) (Example) • Position to exercise authority and fulfil duty • Knowledge and experience to perform duties	Relations between key issues and institutions (Examples) • Roles of organization stipulated in formal rules • Extent of Coordination with other organizations • Standard format and process to implement tasks
Write down key issues identified in Analysis (1)	Write down organizations concerned with key issues	Analyze capacity at organizational level	Analyze capacity at individual level	Analyze capacity at institutional level

Figure 3-4 Process of Capacity Analysis

The initial step is to write down the key issues identified in Figure 3-3, and the organizations that are concerned with those key issues. The concerned organizations of our interest include: (1) organization that is directly in charge of addressing key issues; (2) organizations that are deemed causing key issues; and (3) organizations that are directly or indirectly affected by key issues. Write down all organizations if

[16] For general descriptions of capacity assessment, see JICA (2008a).

there are more than one. The information collected under Point (5) in Stage 1 could be a useful source to identify concerned organizations.

The second step is to focus on a key issue and concerned organizations, and analyze capacity at the institutional, organizational and individual levels. This analysis is to be repeated for all key issues.

Table 3-8 below summarizes a set of key questions at the respective levels of capacity.

Table 3-8 Key Questions: Capacity Analysis

Capacity level	Key questions
Organizations	Is the organization equipped with adequate resources and systems to perform assigned tasks and responsibilities? • **Human resources**: Do the concerned organizations have adequate organizational structure, job classification, task assignments, and number of personnel? • **Physical resources**: Do the concerned organizations operate in an appropriate work environment with necessary equipment and management information system? • **Management**: Do the concerned organizations operate with adequate budget, personnel management, organizational strategy, and organizational culture?
Individuals	• **Position:** Do personnel have sufficiently high rank to perform duties defined by institutions? • **Knowledge**: Do personnel—managers and officers—have enough knowledge to perform assigned duties? • **Skills**: Do personnel—managers and officers—have enough skills to perform assigned duties?
Institutions	• **Rules**: Are there any formal rules concerned with key issues? Which legislative levels are the rules – law, administrative order, and so on? • **Authority**: Do the formal rules clearly stipulate authority over key issues? • **Processes**: Do the formal rules clearly stipulate the processes concerned with key issues? • **Standards**: Do the formal rules clearly stipulate the standards concerned with key issues? • **Format**：Are there any formats to support managers and officers to perform tasks concerned with key issues?

Source: Based on JICA (2008)

Among the three levels of capacity, we recommend you start analysis of organizations first. This is because capacity development to address key issues starts initially from concerned organizations, including project counterpart, in many projects.

At the organizational level, analysis focuses on whether, and to what extent, the concerned organizations are equipped with adequate resources and systems to

perform assigned duties, confirming the factors that cause problems. It should be noted that organizational capacity analysis focuses on the factors internal to the organization, whereas institutions are regarded as the factors external to the organization.

Individual capacity analysis investigates the personnel of concerned organizations. It is important to investigate individual capacity of both managers and officers of the organizations. This will help confirm whether the issues arise from managerial capacity of managers, technical and knowledge capacity of officers, or both. It is also important to keep in mind job classification under the personnel management system as reviewed in Point (5) in Stage 1.

Institutional analysis focuses on whether, and to what extent, formal rules (laws, orders, regulations, etc.,), authority, processes, standards, and formats are related to key issues. It is also important to investigate the working relationships between organizations if there are more than one concerned organization.

Finally, it is important to pay enough attention to the aspects of *de jure* and *de facto* when capacity analysis is undertaken. This is because, in many developing countries, legal frameworks are in place, and yet actual operation does not follow legal frameworks in actual work environments of the government. Another important aspect to keep in mind is reform initiatives, both ongoing and planned.

3.3 Summary of Stage 2

In Stage 2, the following three outputs are produced.

PIM issues table

- This table puts together all key PIM issues, based on the review of Points (1)-(6) in Stage 1, and Points (7)-(11) in Stage 2.
- The key issues are organized according to the three management cycles of PIM – PIP management, budget management, and project management. In the respective management cycles, key issues are analyzed for each of the eight standard features of PIM (see Table 3-7).

Relationship analysis of PIM issues

- Using the PIM issues table above, relationships among key issues are analyzed for planning and implementation stages of PIM. This analysis identifies the linkage issues among three management cycles – PIP management, budget management, and project management (across Points (7)-(9)). The linkage issues identified are summarized in the table of relationship analysis (see Figure 3-3).

Capacity analysis table

- Among the linkage issues in the relationship analysis above, some of the most critical issues that could be a bottleneck are taken up to conduct capacity analysis (see Figure 3-5).
- A capacity analysis table is developed for each critical issue, analyzing capacity of concerned organizations at the organizational, individual and institutional levels. In this analysis, the aspects of *de jure*, *de jure*, and reform initiatives are considered.

Issues	Name of concerned organizations	Organizational level	Individual level	Institutional level
	Ministry of Planning			
	Ministry of Finance			
	Sector ministries			

Figure 3-5 Capacity Analysis Table

Box 3-3 shows the case study of Laos, highlighting the images of the three outputs in Stage 2.

Box 3-3 Case Study of Stage 2: Analyses of PIM Issues and Capacity

Laos

Analysis (1): Relationship analysis of PIM issues

	Linkages among three management cycles of PIM		
	A: PIP management and budget management	**B: Budget management and project management**	**C: Project management and PIP management**
Planning phase	The PIP consisting of 5-Year Public Investment Plan (5YPIP) and the 3-Year Public Investment Priority List (3YPIL) are not fully disseminated among stakeholders. Consequently, budgetary support for medium-term plan for public investment is not available. The criteria of development budget allocation to project implementing-organizations are not clear. Project prioritization and budgeting are conducted without considering budgetary support implications, since medium-term indicative budget allocation is not available.	The timeline is set too tight between the proposal and appraisal process of new projects and the budget process. As a result, the budget process is delayed due to the delay in the proposal and appraisal process of new projects. In addition, the whole process of budget preparation and approval faces the risk of delay.	The linkage between individual projects and the Socio-Economic Development Plan (national plan in Laos) is missing, since PIP (=5YPIP and 3YPIL) is not fully disseminated among stakeholders. The amendment of Public Investment Law clarified the classification and functions of project appraisal. However, previous procedures and formats are still being used since they have not been adjusted to the new classification. The procedure of project approval and budgeting has not been adjusted either.

Some of the most critical issues related to the linkage among three management cycles that could be a bottleneck are taken up to conduct capacity analysis

Analysis (2): Capacity analysis

PIM Issues	Key organizations	Organizational level	Individual level	Institutional level
The PIP consisting of 5-Year Public Investment Plan (5YPIP) and the 3-Year Public Investment Priority List (3YPIL) is not disseminated as a tool to achieve overall goals of development plan.	Department of Planning (DOP) and Ministry of Planning and Investment (MPI)	DOP has not issued the guidelines for implementing 5YPIP and 3YPIL. Activities for disseminating 5YPIP and 3YPIL for project-implementing organizations have been delayed.	The number and capacity of individual officers to provide guidance on 5YPIP and 3YPIL is limited.	The government has not published necessary regulations and guidelines for 5YPIP and 3YPIL.
	Project-implementing organizations (Ministries and provincial governments)	The project-implementing organizations do not recognize the 5YPIP and 3YPIL as public investment planning tools.	The officers of project-implementing organizations have not had opportunities to receiving guidance of 5YPIP and 3YPIL. Their knowledge on 5YPIP and 3YPL is limited.	

Stage 3: Formulate PIM Cooperation Strategy and Projects

Chapter 4

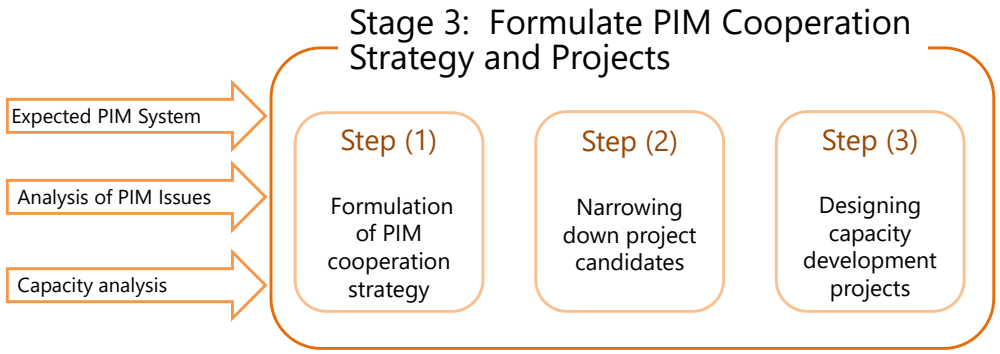
Stage 3: Formulate PIM Cooperation Strategy and Projects

4. Stage 3: Formulate PIM Cooperation Strategy and Projects

4.1 Overview of Stage 3

The main purpose of Stage 3 is to formulate a PIM cooperation strategy using the information collected and analyzed in Stages 1 and 2, and design PIM capacity development projects based on the PIM cooperation strategy.

A PIM cooperation strategy should present a clear path for capacity development with expected levels of capacity improvement and impact. Based on this strategy, potential capacity development projects are narrowed down, and a capacity development project is designed in detail.



The key criteria to select project candidates are fourfold:

1) Contents of the request for support from a recipient country;
2) Progress and contents of PIM and PFM reform programs;
3) Support for PIM/PFM reform programs by development partners; and
4) JICA's experience and strengths in capacity development of PIM.

It is essential to hold discussions with potential counterpart organizations and development partners that may have started projects earlier, because their intentions should be respected.

The next section outlines the three steps to formulate a PIM cooperation strategy capacity development projects. This is followed by a summary of key points to consider in formulating capacity development projects in PIM, which is based on JICA's experience and lessons learned from technical cooperation projects in Laos, Malawi, Indonesia and Bangladesh.

4.2 Outline of Steps (1)-(3)

Step (1) Formulation of PIM cooperation strategy

(1)-1 Confirm the expected PIM system

The first task is to confirm the expected (or ideal) PIM system in a developing country. As the first step, we recommend you set a prototype of the expected PIM system as the starting point, and then fine-tune it in formulating a PIM cooperation strategy.

An example of a prototype PIM system is the following:

"Under the initiative of central organizations, a PIM system is properly managed through strong linkages among PIP management, budget management, and project management." The image of a PIM cooperation strategy is presented in Box 4-1 in the next page.

(1)-2 Select central organization

Based on the analysis in Stage 2, the next task is to select a central organization that will be a counterpart organization for capacity development projects. There may be more than one central organization, depending on which capacity development measures are supported. It is also important to note the points that central organizations could influence, directly and indirectly.

(1)-3 Examine capacity development measures

Based on the capacity analysis in Stage 2, the next task is to examine capacity development measures to narrow the capacity gaps that have been causing specific issues. In this examination, it is important to keep in mind which management cycles – PIP, budget, and project – are addressed.

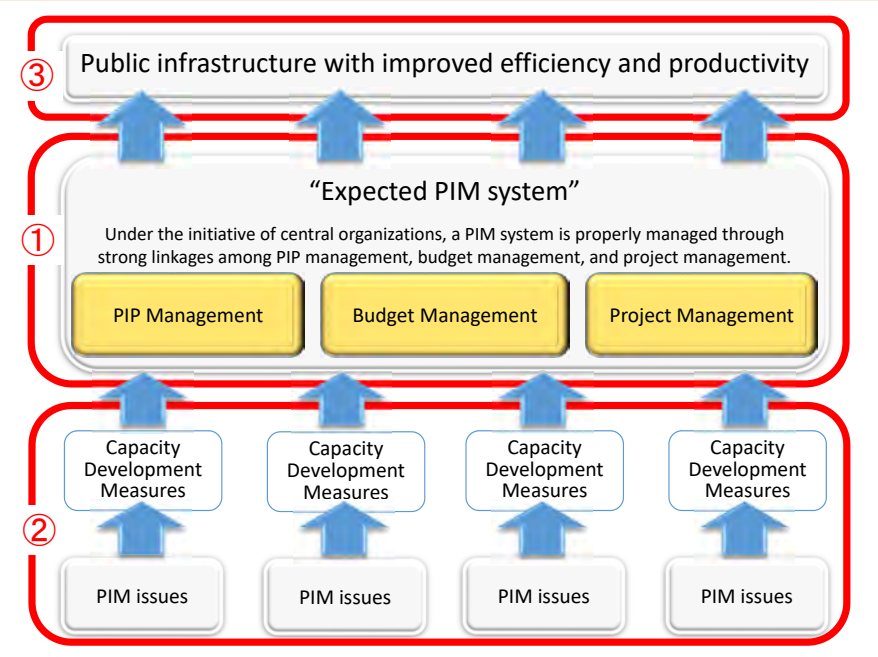
These three tasks should be repeated as necessary to fine-tune the expected PIM system that a country should achieve.

Figure 4-1 below presents the format of a cooperation strategy for PIM capacity development. In this format, a few critical PIM issues are listed in the first column. Then, the second column shows the expected results of the PIM system after respective critical PIM issues are addressed. The second column makes clear which of the three management cycles specifically is improved. Finally, the third column presents capacity development measures to address respective PIM issues at the institutional, organizational, and individual levels.

Box 4-1 Image of a PIM cooperation strategy

The following figure presents the image of a PIM cooperation strategy.

Panel① in the figure shows the expected PIM system. I.e., under the initiative of central organizations, the PIM system is properly managed through strong linkages among PIP management, budget management, and project management. Panel② shows capacity development measures to address specific PIM issues. Panel③ shows that the realization of the expected PIM system will contribute to achieving improved public investment performance (=efficiency and productivity).



Issues	Expected results (expected PIM system)*	Capacity development measures
Issue 1：	What improvements in PIM issues are aimed for, and to what extent?	＜Central organizations＞ 【Institution/Society】 【Organization】 【Individual】
Issue 2：		＜Central organizations 【Institution/Society】 【Organization】 【Individual】

Measures to address the PIM issues

＊In the column "Expected results (expected PIM system)," the improved situation of the three management cycles of the PIM system — PIP management, budget management, and project management — are explained separately.

Figure 4-1 Format of a PIM Cooperation Strategy

Step (2) Narrowing down project candidates

The purpose of Step (2) is to narrow down the candidates for capacity development projects, based on the PIM cooperation strategy developed in Step (1).

The main reason for narrowing down is that PIM reform is large in scale and requires many years to achieve the expected PIM system. Therefore, PIM reform is typically planned and implemented under large-scale PFM reform programs. PFM reform programs consist of a few components, and a project can support part of the actions in a PIM component of PFM reform programs.

Using the cooperation strategy developed, the task is to examine a capacity development project within the scale and budget envisaged. The following points should be considered when narrowing down project candidates:

- Consider the contents of the request for support from a supported country;
- Ensure consistency with the contents and progress of PFM/PIM reform programs, if any;
- Ensure complementarity with projects supported by other development partners, if any;
- Identify whether the focus of a capacity development project is PIP management, budget management or project management, and examine the extent to which the other management cycles are included in the scope of the project;
- Examine which central organization would be most suitable for implementing a capacity development project; and
- Examine whether the capacity development measures to address a PIM issue can be implemented in one phase; if not, consider sequencing those measures in more than one phase.

Step (3) Designing capacity development projects

The purpose of Step (3) is to design PIM capacity development projects, based on the project candidates in Step (2).

(3)-1 Confirm the logical level of a PIM cooperation strategy and projects

The PIM cooperation strategy in Step (1) is based on the logical steps of Project Design Matrix (PDM). Figure 4-2 illustrates a comparison of logical levels between a PIM cooperation strategy and a capacity development project. A capacity development project should be formulated with the logical level of PDM and a PIM cooperation strategy in mind.

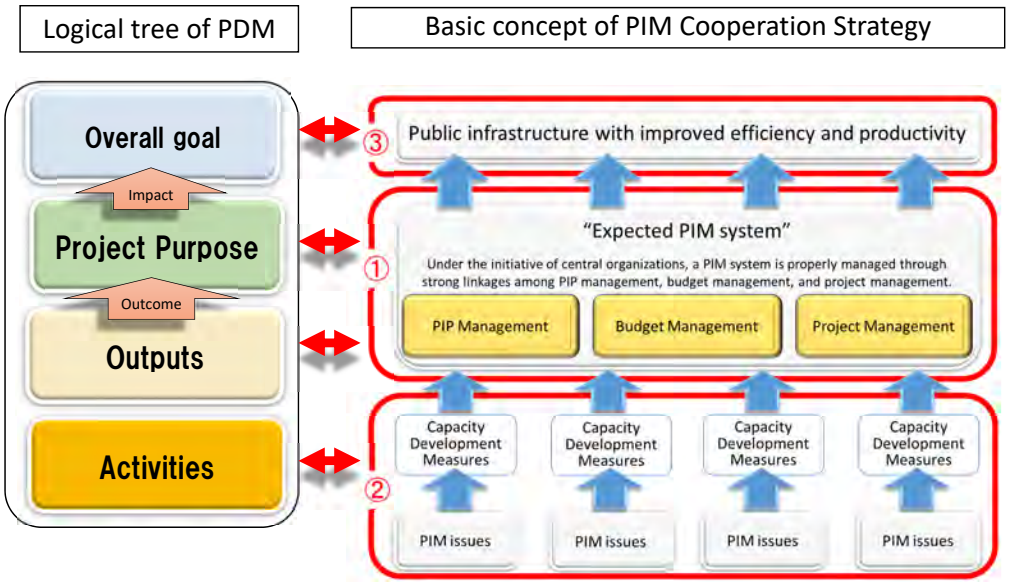


Figure 4-2 Logical Level of PDM and PIM Cooperation Strategy

(3)-2 Set objectives of capacity development project

The purpose of a capacity development project is "a PIM system is properly managed through strong linkages among PIM management, budget management, and project management." The selection of performance indicators depends on which management cycle the project would focus on in Step (2).

The outputs of a capacity development project are capacity development of any or all of PIP management, budget management, and project management, and the activities are capacity development measures.

The overall goal of a project is "public infrastructure with improved efficiency and productivity," which is in line with the logical level of a PIM cooperation strategy. The indicators of overall goals should be based on the narrowing down of projects in Step (2).

It should be noted that the scope and contents of capacity development projects vary considerably, depending on the request for support from a recipient country, the cooperation scheme, the project scale, and so on.

4.3 Considerations at the Project Design Stage

The following points should be considered when designing a PIM support project.

(1) Confirm government procedures to formalize new PIM methods and tools

PIM capacity development projects involve activities to support central functions of the government. In particular, they usually require the introduction of new PIM methods, tools, and procedures and the resulting amendment of rules and regulations. It is therefore important to confirm government procedures to proceed with these changes as part of the project design. It is also important to confirm the extent to which the counterpart organization has the authority and responsibility to initiate those changes and how it can influence the approval of those new methods, tools, and procedures.

(2) Consider working relations between planning and finance organizations

The design of PIM projects depends on the division of authority and responsibilities among the planning and finance organizations in the country; it therefore requires careful analysis. When PIM projects entail the involvement of both planning and finance organizations, counterpart organizations should be carefully selected through discussions with the organizations concerned. If both are selected as counterpart organizations, opportunities for active collaboration should be embedded in project activities. If one of the two entities is selected, it is still important to involve the other in some substantive activities such as joint coordination committees, seminars, and workshops.

(3) Examine the extent to which PIM stakeholders will be involved

In delineating the scope of a PIM capacity development project, it is important to decide on the extent to which PIM stakeholders will be involved in the project. For instance, when a PIM project involves validation of new methods and tools in pilot sectors, it is important to ensure that project-implementing organizations in the pilot

sectors, such as sector ministries and sub-national governments, be actively and effectively involved in the validation process of the new methods and tools. To this end, validation activities should involve technical-level officials who would use the new tools in pilot organizations once officially adopted. Besides, some activities may be considered to seek support at senior management levels: (1) promoting understanding among heads and key senior officials of pilot organizations through their participation in key events and workshops of the project; and (2) ensuring support for project activities through timely debriefing of the heads of pilot organizations in face-to-face meetings.

(4) Consider management cycles of PIP, budget, and projects

As emphasized earlier, the PIM system consists of PIP management, budget management, and project management, and all are undertaken by respective management cycles. Therefore, when planning project activities, the management cycles should be considered to ensure timely and effective support activities. When conducting seminars and training on a certain topic, for instance, those activities should be planned and designed to be held at the appropriate timing so that concerned officials can make full use of their results. The distribution of manuals and the announcement of government guidelines should also be considered in the plan. To realize this, close coordination with counterpart organization on activity plans is essential.

(5) Examine the scope for collaboration with initiatives on development planning, PFM reform, and PPPs

In parallel with PIM reform, other initiatives such as development planning, PFM reform and PPPs are undertaken in many countries. It is therefore important to confirm and ensure that the objectives and activities of a PIM project are properly integrated as part of the initiatives of development planning, PFM reform, and PPPs. This will enhance recognition of the project within the government, raise the priority of the project within government policy, and help secure counterpart funding for the project. More importantly, it will increase the probability of securing recurrent funding for O&M of the public infrastructure developed, thereby enhancing the sustainable impact of the project.

(6) Confirm IT environment for collecting, analyzing and sharing PIM information

Many stakeholders are involved in the process of PIM. For instance, just the planning of a single project proposal requires intensive information flow among project-implementing organizations, their subordinating agencies, and central organizations. Furthermore, within central organizations, the ministry of planning needs intensive coordination with the ministry of finance for budget management. To serve this purpose, many countries envisage the introduction or upgrading of

public investment MIS. When supporting this initiative through a capacity development project, an important issue is to ensure consistency and connectivity between public investment MIS and financial MIS. To address this issue, there is a need to grasp the overall IT environment of the country first, including the IT capacity of personnel, and set an appropriate level of a public investment MIS that will be manageable and useful for the government.

(7) Confirm categorization, positions, and authority of PIM personnel

The public administrative system is another area where each country has unique features. When designing a PIM project, it is essential to understand the country's administrative system, particularly the placement and levels of authority of PIM personnel. PIM in general involves many organizations and their assigned authorities and responsibilities vary considerably. If a country's administrative system adopts a cadre system, for instance, officials in a certain cadre are assigned to positions in many organizations. Because officials in a cadre have strong networks among them, it may be worth utilizing the networks and conducting cross-organizational training.

(8) Incorporate activities to validate the effectiveness of new PIM methods and tools

PIM projects involve the introduction of new methods and tools that will be utilized in the PIM process. A good example is the introduction of new appraisal formats at the planning stage of public investment projects. To undertake this task, it is essential to conduct validation of the new methods and tools with users in PIM stakeholder organizations. If the new methods and formats are expected to be rolled out to all government organizations, validation should start from some pilot organizations first and be subsequently rolled out to other organizations. Workshops, seminars and on-the-job training are effective ways to validate the new methods and tools. Validation activities also serve well for capacity development of the officials who use them in their daily activities. Ensuring their familiarity with the new methods and formats in validation activities will facilitate the smooth introduction of the new methods and formats after official approval by government authorities.

4.4 Summary of Step 3

Stage 3 explains the three steps in formulating a PIM cooperation strategy and designing a JICA capacity development project. It also summarizes the points to consider when formulating PIM capacity development projects, based on the experiences and lessons learned from JICA's technical cooperation projects in Laos, Malawi, Indonesia, and Bangladesh.

The PIM issues analysis and capacity analysis in Stage 2 feed critical information to the three Steps of Stage 3 – (1) formulating a PIM cooperation strategy, (2) narrowing down project candidates, and (3) designing a capacity development project.

The outputs of Stage 3 are a PIM cooperation strategy and a project design matrix (PDM) of the capacity development project.

The process from Stage 2 to Stage 3 is illustrated in Box 4-2 in which a case study of Laos is presented

It is worth repeating that the design of a capacity development project requires in-depth discussion and cooperation with counterpart organizations and the development partners that have ongoing and planned programs and/or projects in PFM and PIM.

In the case of PIM, there will be cases in which counterpart organizations have strong interests and requests related to the design of capacity development projects. There is a need to consider incorporating their requests in the design of the projects to the extent possible.

Box 4-2 Case Study of Stage 3: PIM Cooperation Strategy and Project Formulation

Case of Laos PDR

【State 2】 Analysis (2): Capacity analysis

PIM Issues	Key organizations	Organizational level	Individual level	Institutional level
The PIP consisting of 5-Year Public Investment Plan (5YPIP) and the 3-Year Public Investment Priority List (3YPIL) is not disseminated as a tool to achieve overall goals of development plan.	Department of Planning (DOP) and Ministry of Planning and Investment (MPI)	DOP has not issued the guidelines for implementing 5YPIP and 3YPIL. Activities for disseminating 5YPIP and 3YPIL for project-implementing organizations have been delayed.	The number and capacity of individual officers to provide guidance on 5YPIP and 3YPIL is limited.	The government has not published necessary regulations and guidelines for 5YPIP and 3YPIL.
	Project-implementing organizations (Ministries and provincial governments)	The project-implementing organizations do not recognize the 5YPIP and 3YPIL as public investment planning tools.	The officers of project-implementing organizations have not had opportunities to receiving guidance of 5YPIP and 3YPIL. Their knowledge on 5YPIP and 3YPL is limited.	

Capacity development measure will be set to address respective PIM issues at institutional, organizational, and individual levels with attention to PIP management, budget management, and project management.

【Stage 3】 Step (1): Formulation of PIM cooperation strategy

Issues	Expected PIM system	Capacity development measures
The PIP consisting of 5YPIP and 3YPIL is not disseminated as a tool to achieve overall goals of development plan. Existing 5YPIP and 3YPIL are not budgetarily supported, since the medium-term budget forecasts provide limited information. The criteria for development budget allocation to project -implementing organizations are not clear.	**[PIP is established as a tool to achieve development goals of national development plan]** ● The medium-term PIP is materialized through the introduction of 5YPIP and 3YPIL. ● Institutional arrangements are established for discussion and consultation on project priorities between MPI and project-implementing organizations. **[Development budget management is improved]** ● Development budget ceiling is routinely discussed between MPI and Ministry of Finance in the preparation process of 5YPIP and 3YPIL. ● The mechanism of budget allocation forecasting and appropriation for each ministry and province are established in the preparation process of 5YPIP and 3YPIL.	**[Institutional level]** ● Review and verify the extent to which the functions of 5YPIP and 3YPIL are adequate to the PIM system and the amended Public Investment Law ● Revise 5YPIP and 3YPIL based on the results of the review, if required. ● Install the revised 5YPIP and 3YPIL as the new medium-term PIP ● Consider the following issues in the process of introducing the above-mentioned measures: ➢ Clarify the linkages between the new 5YPIP/3YPIL and the 5-year SEDPs. ➢ Synchronize the procedures to prepare both SEDP and 5YPIP/3YPIL. ➢ Establish a joint committee between MPI and Ministry of Finance to discuss the medium-term budget framework for development budget ➢ Use 3YPIL as a tool for project prioritization. 3YPIL is revised in the process of annual development budget preparation. **[Organizational and individual levels]** ● Develop and operationalize a system for training, guidance, and training of trainers' to introduce 5YPIP and 3YPIL ● Consider the following issues in formulating the above measure: ➢ Study possible measures to introduce 5YPIP to all stakeholders. If this is not feasible, introduce 5YPIP to provinces first, and then sector ministries since the latter manages ODA-funded projects in addition to locally-funded projects.

* A prototype of expected ideal PIM system is set as "Under the initiative of central organizations, a PIM system is properly managed through strong linkages among PIP management, budget management, and project management."

Step (2): Narrowing down project candidates

	PIP management	Budget management	Project management
Short-term	● Introduce 5YPIP under the 9th NSEDP 2021 to 2016. ● Introduce 3YPIL together with annual budget preparation, starting from pilot ministries and provinces		
Medium-term	● Operationalize 5YPIP and 3YPIL in all ministries and provinces		
Medium- to long-term	● Operationalize 5YPIP and 3YPIL under the 10th NSEDP ● Operationalize an integrated Public Investment MIS		

The key criteria to narrow down project candidates are 1) Contents of the request for support from a recipient country; 2) Progress and contents of PIM and PFM reform programs; 3) support for PIM/PFM reform programs by development partners; and 4) JICA's experience and strengths in capacity development of PIM.

Step (3): Designing capacity development projects

To design the projects, based on the project candidates in Step (2)

Chapter 5

Stage 4: Considerations at the Project Implementation Stage

5. Stage 4: Considerations at the Project Implementation Stage

PIM capacity development spans many years because PIM involves almost all organizations within the government. JICA's technical cooperation can support projects that span over three to five years and have more than one phase. It is therefore possible for JICA to incorporate activities that help enhance ownership and sustainability of the recipient government.

The following should be considered at the implementation stage of PIM capacity development projects in developing countries.

(1) Align project activities with the government's management cycles

One of the most important considerations in implementing a PIM project is to align its activities with the government's key management cycles in PIM — PIP, budget, and project. A set of specific activities is needed to introduce new methods and tools in the government PIM system, for instance: i) situation analysis and identification of needs; ii) joint development of new methods and tools with officials; iii) consultation with stakeholders; iv) training program development and delivery; v) validation of new methods and tools in pilot sectors; and vi) improvement of the methods and tools after validation. Aligning those activities with the management cycles will contribute significantly to developing practical, useful methods and tools in the PIM system of a country. This will also pave the way to roll out those methods and tools in other sectors of the government. Therefore, it is expected that a PIM project will align its activities with the annual management cycles of the PIM system, working closely with the government in the medium- to long-term process of development planning.

(2) Maintain flexibility in adjusting activities based on the country's changing needs and requirements

The government may change policies and measures during the project period of a technical cooperation project, and the need for PIM projects may also change accordingly. The progress of development plans, strategies, and PFM reform, for instance, may likely affect the need for PIM reform. In those cases, adjusting schedules and activities based on thorough discussions with the counterpart organizations is necessary. It is essential to respect the ownership of the government while maintaining the thrust of PIM reform.

(3) Explore cooperation with development partners supporting PFM reform

As mentioned in Stage 3, initiatives to support development planning, PFM reform and PPPs are likely to proceed in parallel with PIM reform and capacity development. In PFM reforms in many countries, for instance, the World Bank, IMF and bilateral donors support the entire PFM reform programs as well as technical assistance projects targeting specific areas of PFM. It is therefore important to explore the scope for cooperation with other development partners to ensure that JICA's PIM project has a clear role to play in the larger PFM reform programs. More concretely, there is a need to engage in dialogues with the programs and projects supported by other development partners at both the donor and project levels and agree on measures to ensure complementarity from the programmatic perspective. Simultaneously, the JICA field office and the expert team for the project need to hold intensive dialogues with counterpart organizations to explore appropriate measures.

(4) Cooperate with JICA projects in sectors

PIM has major influence on public investment projects in many sectors. If JICA supports public infrastructure projects such as roads, irrigation, schools and hospitals, active cooperation between a PIM project and those infrastructure projects could yield positive synergy. For instance, a PIM project could ensure registration of the infrastructure projects in PIPs and follow up on the provision of counterpart funds for those projects by the government. This will help enhance the sustainability of the infrastructure projects. In addition, a PIM project could improve PIM effectiveness by learning the progress (or lack thereof) of the concurrent infrastructure projects and taking appropriate measures. Thus, cooperation between a PIM project and infrastructure projects has great potential to find win-win solutions.

(5) Explore ways to institutionalize PIM reform

It is evident from experiences in many countries that PIM reform requires continuous reform efforts over a long period of time. This is unsurprising because many ministries and agencies of national and sub-national governments need to be involved in PIM reform. However, it is important to nudge governments toward sustaining PIM reform after the completion of donor support for that reform. A promising approach is to institutionalize the improved PIM system through laws or regulations. Another way may be to institutionalize the project implementation unit (PIU) for a PIM project as a permanent organization of the government dedicated to PIM reform.

(6) Consider utilization of training institutions to strengthen PIM capacity development systems

Development of appropriate training institutions is essential to sustain the capacity development of PIM officials. In many countries, planning and finance organizations have their own training institutions. Some of them provide training on PIM, and yet their programs seldom offer training of appropriate design, level, and frequency for PIM officials. Furthermore, many of the training programs are outdated and do not use the new methods and tools that are part of PIM reform. Therefore, it is essential to involve training institutions from the early implementation stage of the project and establish new training programs and train trainers on PIM.

(7) Use overseas training programs effectively

When overseas training is incorporated in a PIM project, it has great potential to enhance development impact, sustainability, and synergy. Overseas training for PIM stakeholders aims to achieve the following two objectives:

(i) Obtain knowledge and experience of the PIM system

Training in Japan. It can be useful for PIM stakeholders to learn about Japan's post-WWII experiences in national development planning, public finance, project evaluation, planning and financial systems in sub-national governments, and inter-governmental relations between national and sub-national governments. Some of the topics that can be considered in training in Japan are listed below:

- Post-WWII approach to National Land Planning and Economic Planning, including legal framework, resources management, and inter-agency coordination;
- Public investment evaluation system in national government ministries, including methods and legal frameworks;
- Relations between the national and sub-national governments regarding planning and budgeting;
- Planning and financial management systems of sub-national governments;
- Public infrastructure management system of sub-national governments; and
- Public investment evaluation system of sub-national governments, including their legal frameworks and methods.

Third-Country Training. JICA's PIM projects in Laos and Bangladesh organized training programs in Malaysia, a country regarded by the World Bank as having an advanced PIM system. A PIM project in Bangladesh supported by the World Bank organized a PIM study program in South Africa. Chile is also regarded as a good model for PIM.

(ii) Enhance involvement of PIM stakeholders through team building

Although the main purpose of overseas training is as stated in i) above, it can also be useful to enhance the involvement of PIM stakeholders and build a team for a PIM project. Strengthening central organizations through a PIM project is not sufficient to ensure PIM performance; it is essential to also involve project-implementing organizations in charge of public infrastructure and service delivery. It is therefore worth involving officials of project-implementing organizations in overseas training programs. This will help enhance awareness of the importance of PIM among officials in project-implementing organizations and promote the activities of the PIM project in their own country.

(8) Include measures to contain PIM-related corruption

It is essential to include anti-corruption measures in all aspects of PIM support. Corruption falls into four patterns: i) administrative corruption — small cash bribes at the officer level; ii) small-scale political corruption — politicians granting tax exemptions or guidance to bid advantages; iii) structural corruption — misuse of authority and ill-gotten wealth by high-level administrators; and iv) international corruption — cases involving foreign politicians, administrators, businessmen, mediators, and aid-related officials.

Patterns i) and ii) are a common risk in PIM. To narrow the scope of corruption, enhancing transparency with the involvement of third parties in PIM procedures is recommended. Pattern iii) can occur even if the PIM system is functioning properly. To counter those patterns of corruption, there will be a need to coordinate with organizations tasked with anti-corruption initiatives backed by the government's strong will.[17]

[17] See JICA (2014a).

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Annex 1. Formats in PIM-CDF

【Stage 1】

PIM Outline Sheet

Name of Country: Date of Study:

Point (1): Development goals, development plans and strategies, and macro-economic indicators
【Development plan structure】 【Existence of development plans at the sector, regional, and sub-national government levels and their links to national plan】 【Macroeconomic and development indicators】 【Global agenda】
Point (2): Status of public investment and PIM reforms
【Institutional and policy frameworks of public investment】 【Existence and scope of PIPs】 【Contents of public investment】 【Status of ODA, funds, SOE, PPP and sub-national governments】 【Existence and progress of PFM / PIM reform】
Point (3): National budget and development budget preparation
【Budget allocation】 【Budget disbursement】 【Presence and contents of medium-term frameworks】 【Fiscal balance and debt】 【Annual development budget preparation schedule】
Point (4): Implementation status of public investment projects
Point (5): PIM organizations and public administration system
【Organizational structures】 【Relations among key PIM organizations】 【Analysis of key PIM organizations】 【Public administration system】
Check Point (6): PFM/PIM reform support from development partners

【Stage 2】

(1) PIM issues table

	Points		
	(7) PIP management	**(8) Budget management**	**(9) Project Management**
Standard Features of PIM			
A. Planning Phase			
1 Strategic guidance			
2 Formulation of new public investment projects			
3 Third party appraisal			
4 Budgeting and prioritization of projects			
B. Implementation Phase			
5 Project implementation and monitoring			
6 Project modification and adjustment			
7 Project completion and terminal/ex-post evaluation			
8 Operation and maintenance			
Reference			
Points	**(10) Other management cycles**		
	(11) Management information system		

(2) Analysis of PIM issues sheet

	Type of linkages		
	A: PIP and budget	**B: Budget and project**	**C: Project and PIP**
Planning phase			
Implementation phase			

(3) PIM capacity analysis sheet

PIM Issues	Key organization	Organizational level	Individual level	Institutional level

【Stage 3】

PIM Cooperation Strategy

Issues	Expected PIM system*	Capacity Development Measures

* The expected PIM system can be classified according to the three management cycles of PIM, namely PIM management, budget management and project management.

Annex 2. JICA Capacity Development Projects for PIM

The following tables summarize the PIM capacity development projects in Bangladesh, Laos, Malawi and Indonesia supported by JICA. All projects were undertaken within the technical cooperation scheme of JICA.

1. Bangladesh

Period	One phase from February 2014 to June 2018 (4 years 5 months)
Project Name(s)	Project for Strengthening Public Investment Management System (SPIMS)
Counterpart Organization	Planning Commission, Ministry of Planning
Outline	Improvement of the PIM system by strengthening project formulation and approval, Annual Development Programme (ADP), and results-based monitoring and evaluation (M&E).
Main Products	Developed and validated the following new PIM tools: • Ministry Assessment Format (MAF) and associated manual for ministries • Sector Appraisal Format (SAF) and associated manual for Planning Commission • Handbook for Preparation of Development Project Proposals for sector ministries, divisions and agencies • Power and Energy Sector Strategy Paper (PE-SSP) and Local Government and Rural Development Sector Strategy Paper (LGRD-SSP) and associated guidelines for strengthening (i) strategic linkages between Five Year Plan, Annual Development Programme (ADP) and public investment projects, and (ii) results-based M&E with Sector Results Framework (SRF) in SSPs. • Power and Energy Sector Multi-Year Public Investment Program (PE-MYPIP) and Local Government and Rural Development Sector Multi-Year Public Investment Program (LGRD-MYPIP) associated guidelines for strengthening linkages between ADP and Medium-Term Budget Framework (MTBF) • Training programs for CBA, Logical Framework Analysis, SSP and MYPIP
Concerned must-have features in DF-PIM	1. Guidance & Screening 2. Formal Project Appraisal 3. Independent Review of Appraisal 6. Project Adjustment
Concerned institutions in PIMA	2. National & sectoral planning 4. Project appraisal 6. Multi-year budgeting 7. Budget comprehensiveness and unity 10. Project selection 12. Availability of funding

2. Laos

Period	Three phases from 2004 to 2016 (11 years 1 month): (1) November 2004 – October 2007 (3 years) (2) March 2008 – August 2011 (3 years 6 months) (3) March 2012 – September 2016 (4 years 7 months)
Project Name(s)	(1)Project for Capacity Building in Public Investment Program (PCAP1) (2)Project for Enhancing Capacity in Public Investment Program (PCAP2) (3)Project for Establishing Public Investment Plan under NSEDP (PCAP3)
Counterpart Organization	Department of Evaluation, Department of Planning and Department of International Cooperation, Ministry of Planning and Investment (MPI)
Outline	A twelve-year approach of developing an integrated PIM for nationally funded public investment projects from virtually zero base.
Main Products	• Project formulation and assessment methods (ministries, provinces, districts) • Medium-term public investment plan and three-year rolling plan, • Terminal and ex-post evaluation methods • ODA management methods • Supporting establishment of Public Investment Law
Concerned must-have features in DF-PIM	1. Guidance & Screening 2. Formal Project Appraisal 3. Independent Review of Appraisal 4. Project Selection and Budgeting 6. Project Adjustment 7. Facility Operation 8. Completion Review & Evaluation
Concerned institutions in PIMA	2. National & sectoral planning 3. Coordination between entities 4. Project appraisal 6. Multi-year budgeting 7. Budget comprehensiveness and unity 10. Project selection 13. Portfolio management and oversight

3. Malawi

Period	Two phases from 2009 to 2017 (6 years 6 months): (1) July 2009 – July 2011 (2 years) (2) March 2013 – September 2017 (4 years 6 months)
Project Name(s)	Capacity Enhancement in Public Sector Investment Programming (CEPSIP) Phases1 and 2
Counterpart Organization	Ministry of Finance, Economic Planning and Development (MFEPD)
Outline	Improving the PIM procedure through the introduction of a comprehensive PIM database to manage project financing over five years.
Main Products	• PSIP database • Technical notes for improvement of procedures

	• Manuals and handbooks related to PIM procedures and IT
Concerned must-have features in DF-PIM	1. Guidance & Screening 2. Formal Project Appraisal 3. Independent Review of Appraisal 4. Project Selection and Budgeting 5. Implementation 6. Project Adjustment
Concerned institutions in PIMA	4. Project Appraisal 6. Multi-year budgeting 7. Budget comprehensiveness and unity 10. Project selection 13. Portfolio management and oversight 14. Management of project implementation

4. Indonesia

Period	Two phases from 2010 to 2017 (6 years 5 months): (1) May 2010 – June 2013 (3 years 2 months) (2) September 2014 – November 2017 (3 years 3 months)
Project Name(s)	Planning and Budgeting Reform for the Performance-Based Budgeting (PBB) System Phases 1 and 2
Counterpart Organization	National Development Planning Agency (BAPPENAS)
Outline	• Introduced the PBB concept for the Annual Government Work Plan (RKP) considering the budget and project cycles • Introduced key performance indicators (KPIs) for the National Medium-Term Development Plan (RPJMN) • Introduced KPIs to the Ministry/Agency Annual Work Plans (Renja-K/L) for some pilot ministries • Improved the process of new initiatives and budget request at the ministry level
Main Products	• PBB framework applied in BAPPENAS • PBB framework applied in selected line ministries • Budget preparation guidelines • Standardized budget scrutiny process
Concerned must-have features in DF-PIM	1. Guidance & Screening 2. Formal Project Appraisal 3. Independent Review of Appraisal 4. Project Selection and Budgeting 5. Implementation 6. Project Adjustment
Concerned institutions in PIMA	4. Project Appraisal 6. Multi-year budgeting 7. Budget comprehensiveness and unity 10. Project selection 13. Portfolio management and oversight 14. Project management