G20
SOUTH AFRICA 2025

Solidarity
Equality
Sustainability

EFFECTIVE PLANNING AND PREPARATION PRACTICES

Framework

Infrastructure Working Group Priority 1: Developing an Investable Infrastructure Pipeline

October 2025

Global Infrastructure Facility
A G20 INITIATIVE

PPIAF
Global Infrastructure Hub

Abbreviations

ADB	Asian Development Bank
BID	Benchmarking Infrastructure Development
CBA	Cost-Benefit Analysis
DFIs	Development Finance Institutions
EMDEs	Emerging Markets and Developing Economies
EPEC	European PPP Expertise Centre
ESCAP	Economic and Social Commission for Asia and the Pacific
FCCL	Fiscal Commitments and Contingent Liabilities
FDN	The Financiera de Desarrollo Nacional
GDP	Gross Domestic Product
GI Hub	Global Infrastructure Hub
GIF	Global Infrastructure Facility
IMF	International Monetary Fund
IPA	Infrastructure and Projects Authority
IWG	G20 Infrastructure Working Group
KPIs	Key Performance Indicators
KRW	Republic of Korea Won
MDBs	Multilateral Development Banks
MoF	Ministry of Finance
NDBs	National Development Banks
OECD	Organisation for Economic Co-operation and Development
PDF	Project Development Funds
PIM	Public Investment Management
PIMAs	Public Investment Management Assessments
PPI	Private Participation In Infrastructure
PPIAF	Public-Private Infrastructure Advisory Facility
PPPs	Public-Private Partnerships
QII	Quality Infrastructure Investment
SPV	Special Purpose Vehicle
UNECE	United Nations Economic Commission for Europe
USP	Unsolicited Proposals
WBG	World Bank Group
WEF	World Economic Forum

Table of Contents

Executive Summary

Context and Objectives

Global infrastructure investment needs are expected to reach US$18.5 trillion by 2040, with emerging markets and developing economies (EMDEs) accounting for 70% of the anticipated shortfall. Despite the urgency to mobilise private capital to meet these needs, private infrastructure investment in EMDEs has remained stagnant over the last decade and continues to be concentrated in a few countries.

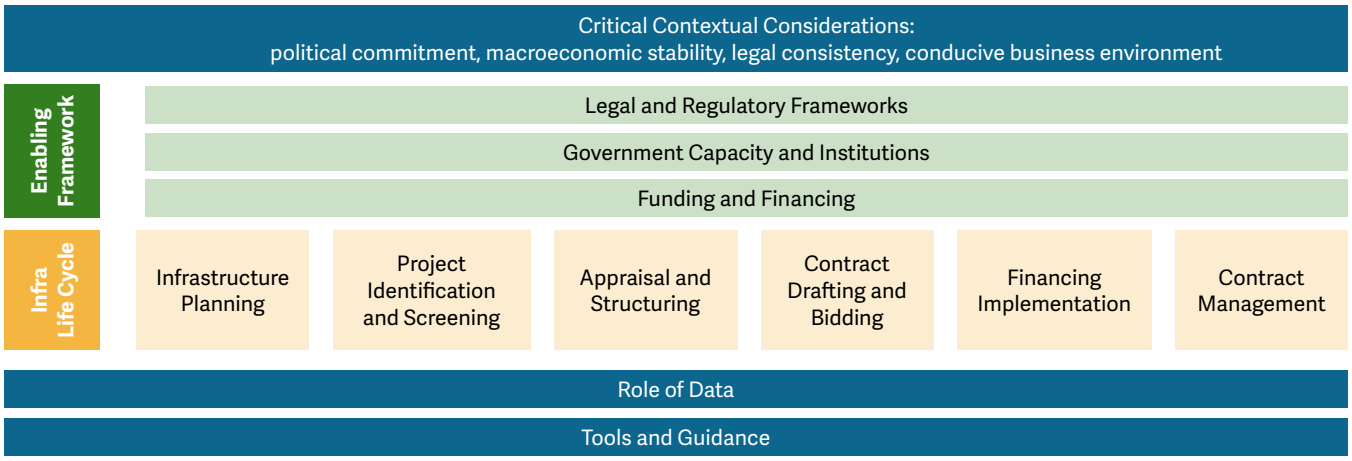
Recognising this, the Group of Twenty (G20) Infrastructure Working Group (IWG) under South Africa's Presidency has prioritised developing investable infrastructure pipelines to catalyse greater private participation in infrastructure (PPI). This document provides guidance to governments on improving planning and project preparation to scale up the development of an investable pipeline of infrastructure projects.

This Framework is intended for a broad spectrum of infrastructure professionals, including government stakeholders—such as ministries of economy and finance, Public-Private Partnership (PPP) units, infrastructure ministries, other relevant line ministries, and local governments—as well as development partners, private sector participants, and organisations engaged in infrastructure project design and development. The Framework serves as a reference tool rather than a prescriptive directive, enabling governments to adapt its use in alignment with their national policies and strategies. As such, the Framework is voluntary and non-binding, with its adoption and implementation left to the discretion of individual countries.

Key Pillars of the Framework

The mobilisation of private capital for infrastructure is an inherently long-term and deliberate undertaking that requires a conducive investment environment and a robust pipeline of investable infrastructure projects. Thus, the Framework centres around two key pillars: (i) the establishment of a supportive enabling environment, and (ii) the development of well-structured infrastructure projects. Supported by favourable macroeconomic conditions, political commitment, and the rule of law, these pillars are vital to creating investable opportunities and fostering private sector participation. Figure 1 provides a comprehensive overview of the Framework and its components.

FIGURE 1
Framework Overview



Enabling Environment

An enabling environment is a foundational element for increasing PPI as long-term private capital only flows where there is certainty, facilitated by a conducive environment for investment. An enabling environment consists of three critical dimensions: (i) legal and regulatory frameworks, (ii) government capacity and institutions, and (iii) funding and financing mechanisms. This Framework elaborates on these critical dimensions, providing insights and examples from various countries to guide the development and implementation of successful infrastructure projects with private participation:

- **Legal and Regulatory Frameworks:** Having sound policies, laws, regulations, and structures enables PPI and gives both public and private stakeholders the confidence, clarity, and predictability needed to engage in long-term partnerships. Legal models range from basic enabling laws to detailed PPP-specific legislation, according to each nation's context and administrative capacity. Effective PPI legal frameworks balance simplicity and comprehensiveness, adapting to market maturity and complexity. In developing PPI legal and regulatory frameworks, countries may consider factors such as: (i) the flexibility of these frameworks to accommodate country-specific challenges and varying levels of progress, (ii) addressing capacity limitations through institutional development and training, (iii) aligning international best practices with local requirements, and (iv) integrating social and environmental considerations to support sustainability and resilience, in line with national strategies and commitments.

- **Government Capacity and Institutions:** Building public authorities' capacity and expertise to plan, structure, implement, and manage infrastructure projects is critical in translating legal and regulatory frameworks into projects and programs. Effective institutions, such as dedicated PPP units, robust capacity in contracting authorities across government, and institutional coordination, are critical, as are clear mandates and embedded technical expertise. Capacity building combines classroom training, certifications such as the Certified Public-Private Partnerships Professional (CP3P) and learning-by-doing through active participation in projects. Embedded advisors and external consultants support practical skills and knowledge transfer. Capacity assessments should be targeted, supporting advanced training and institutional functions.

- **Funding and Financing Supporting Mechanisms:** Beyond legal and regulatory frameworks and empowered mandates, early funding for project preparation is essential, and mechanisms such as project development funds (PDFs) can help ensure the availability of such financing. Government financing mechanisms such as viability gap funding, blended finance, and risk mitigation instruments can help translate economically viable infrastructure needs into affordable, bankable projects. Moreover, managing fiscal commitments and contingent liabilities (FCCLs) is critical to ensure fiscal sustainability and transparency throughout the project life cycle.

Infrastructure Life Cycle Process

PPI requires an enabling environment; yet even with that in place, developing projects and large-scale programmes remains highly complex and characterised by long life cycles. Project preparation involves engaging multiple public and private stakeholders in a multifaceted, often lengthy decision making process, requiring substantial resources to advance projects from concept to execution.

A comprehensive approach that spans all stages of the infrastructure life cycle is essential, including setting development objectives, developing strategies, and corresponding actions to support their

achievement. It is also important to identify the best opportunities for private sector involvement, undertaking extensive structuring and project preparation activities to demonstrate strong political commitment and government technical capacity to interact with potential private investors while promoting transparency, value for money, and a competitive environment for the private sector. This process should also ensure there is a robust financing ecosystem that can attract private capital in the volumes and tenors required for infrastructure and facilitate the effective management of relationships with private partners through transparent and robust contract management.

The five different stages of the infrastructure life cycle outlined in this Framework are:

- **Planning:** Infrastructure planning should align with national development goals, integrate demand assessments, and involve cross-government coordination. Data can be an essential tool to simulate future needs and set priorities.

- **Project Identification and Screening:** A robust filtering process ensures alignment with strategic goals and suitability to partner with the private sector. A thorough project screening helps identify strategic and political priorities while ensuring early-stage viability.

- **Appraisal and Structuring:** General guidelines and key considerations for structuring projects should be in place, emphasising the importance of technical requirements, a balanced risk matrix, and a sound financial model.

- **Contract Drafting and Bidding:** A well-drafted contract is the foundation of effective projects and key to their long-term success, while transparent and competitive bidding processes are vital to establish credibility with the private sector and maximise value for money.

- **Implementation, Financing, and Contract Management:** Execution depends on strong contract oversight and performance tracking. The Framework highlights tools for institutional capacity building and the role of post-award governance.

Developing a robust pipeline of infrastructure projects through clear project identification and selective prioritisation is essential to attract private sector participation. Rather than generating long lists of potential projects, the focus should be on those with the highest impact and strongest chance of success, as early wins build credibility and momentum. Pipeline assessments should also integrate broader information, prioritising development objectives, gauging political commitment through senior-level support, and engaging the private sector. In nascent markets, prioritising sectors with established precedents of PPI is a good first step. Early market sounding also helps capture investor appetite and concerns, ensuring scarce resources are directed toward opportunities most likely to advance to successful implementation.

The Role of Data

Data is an enabler of well-functioning infrastructure markets and is a critical input for developing an investable infrastructure pipeline, influencing both the enabling environment and the multiple stages of the infrastructure life cycle.

To complement this Framework, two supporting notes have been developed: namely, the *Note on Improving the Accessibility and Availability of Key Market Data* and *Practice Guide for Leveraging Infrastructure Project-Level Data and Digitalising the Pipeline*. These notes explore the role of data for developing an investable infrastructure pipeline, existing gaps, and the proposal of measures to address these.

CHAPTER 1

Introduction

Infrastructure is fundamental to economic development, forming the backbone of societies by enabling economic activity, enhancing productivity, and improving living standards. Despite pressing and increasing infrastructure needs, the global infrastructure investment gap remains substantial and is estimated to reach US$18.5 trillion by 2040. Emerging markets and developing economies (EMDEs) account for 70% of this investment shortfall, with the annual infrastructure investment needs in low- and middle-income economies estimated to reach nearly double those of advanced economies by 2040, translating to approximately 5% of global gross domestic product (GDP).

Yet, most governments face significant fiscal constraints, limiting their ability to finance infrastructure development at the necessary pace and scale through public spending alone. In this context, mobilising private capital is essential to augment public resources and accelerate progress. However, private capital flows to EMDEs have remained largely stagnant over the past decade. Moreover, almost 80% of infrastructure investment in EMDEs with private participation was concentrated in only five countries in 2023.[1]

A nation's ability to attract sustained private investment in infrastructure is shaped by several critical contextual factors, including: (i) macroeconomic stability and sound fiscal management; (ii) political commitment; and (iii) a consistent legal framework underpinned by the rule of law. This Framework focuses on actionable measures that governments can undertake to mobilise greater private capital for infrastructure investment within the context of these fundamental elements, without providing an in-depth exploration of each factor.

PPI has long been recognised as critical to accelerate effective infrastructure service delivery. However, the PPI ecosystem requires an authorising environment and a systematic preparation process to ensure projects integrate private participation sustainably. While there is no one-size-fits-all solution for guaranteeing success, several factors can support PPI, including clear policy frameworks, stakeholder engagement, risk management, pipeline development, and performance monitoring.[2] Effective planning and project preparation practices are thus essential for the successful development and implementation of a pipeline of infrastructure projects.[3]

There is a broad spectrum of contractual and institutional arrangements that enable PPI. Each form of PPI allocates responsibilities and risks differently between public and private parties, ranging from basic management contracts to complex PPPs that involve full-service delivery, including designing, building, financing, and operating public infrastructure services in fully regulated markets (see Figure 2).

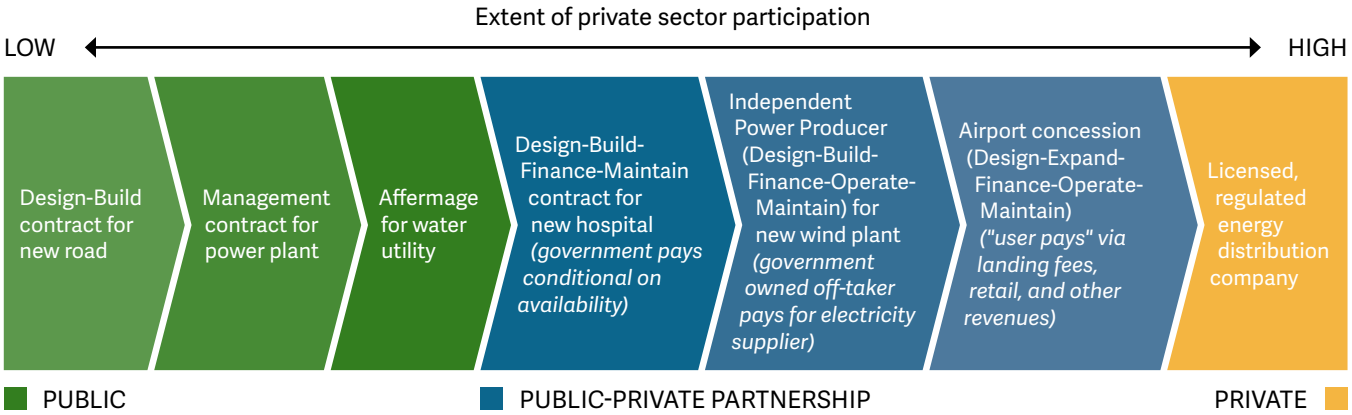
PPPs constitute one of the most sophisticated forms of PPI, serving as an essential means of accelerating investment to address infrastructure deficits through the mobilisation of private capital. For this reason, this Framework uses PPPs to apply a

1 Benchmarking Infrastructure Development: PPP Regulatory Landscape: https://documents1.worldbank.org/curated/en/099091724141032233/pdf/P500458-fa9a6675-ed6d-4129-a87d-a08e7c377b6f.pdf.

2 These factors are discussed in the enabling environment section.

3 This is covered in further detail in the infrastructure life cycle chapter.

FIGURE 2
Range of Private Participation in Infrastructure



more complex form of PPI. Governments equipped to design and manage complex PPPs are generally capable of effectively handling simpler types of PPI. Consequently, this Framework provides reference materials and practical resources intended to assist governments in the administration of all forms of PPI. While a universally agreed-upon definition of PPPs does not exist, this Framework uses a broad definition of a PPP, focusing on long-term engagements with significant risk transfer and private investment, rather than legal definitions.

Recognising the importance of PPPs in mobilising private capital at scale, countries have embarked on regulatory reforms to improve their uptake; however, overall global progress on the quality of PPP regulations has been modest. Data from the World Bank Benchmarking Infrastructure Development (BID) 2023 tool shows that while scores have increased in all four thematic areas since 2020, the average improvement globally was only 2 out of 100 score points.[4] The thematic areas of PPP Preparation and Unsolicited Proposals (USP) increased their global scores the most, but PPP preparation remains the thematic area with the most room for improvement, particularly in low-income and Western and Central African economies. Figure 3 highlights broader trajectories in global PPP capacity scoring.

Acknowledging that effective planning, early-stage project preparation, and structuring are fundamental to attracting private investment and mobilising capital for infrastructure, the IWG, under South Africa's G20 Presidency, made "Developing an Investable Infrastructure Pipeline" a priority. This agenda builds on previous works by highlighting gaps in planning, project preparation, and the enabling environment, while placing renewed emphasis on the consistent integration of data to strengthen these processes.

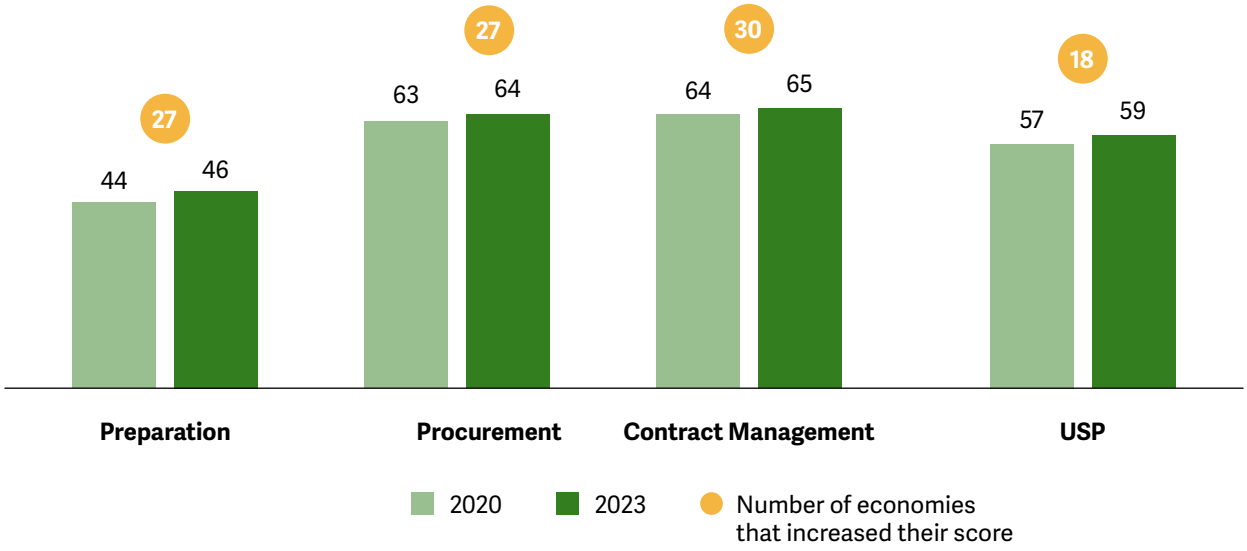
In view of this priority, this high-level Framework is intended to guide governments in creating an enabling environment and improving planning and project preparation practices to catalyse greater PPI. The Framework focuses on key cross-cutting enablers and their application across the asset life cycle, from investment planning through to project development and implementation. It offers practical guidance and links to helpful resources at every stage of the project life cycle, ensuring that projects are well prepared and capable of attracting private sector investments.

4 Benchmarking Infrastructure Development 2023, World Bank Group: https://bpp.worldbank.org/en/economies#:~:text=Benchmarking%20Infrastructure%20Development%202023%20assesses,survey%20covers%20140%20economies%20worldwide.

The Framework builds upon the practical experience from the Public-Private Infrastructure Advisory Facility (PPIAF), which supports developing-country governments to strengthen policies, regulations, and institutions; and the Global Infrastructure Facility (GIF), a G20 initiative, which leverages resources and expertise from multilateral development banks (MDBs) and private sector partners to support countries in project structuring to develop a pipeline of sustainable infrastructure projects. In addition, G20 member countries and invited countries provided case studies and suggestions for regional or global resources to inform the Framework. Moreover, the Framework draws from and builds on vast existing materials, practical tools, and insights, including the World Bank's PPP institutions building program[5]; the PPP Reference guide;[6] the APMG PPP Certification Program[7]; and the Guidance on PPP contractual provisions,[8] among others listed in Annex 1. These resources provide in-depth guidance on the essential components of effective PPP planning and preparation, showcasing successful case studies and addressing common challenges.

The Framework is voluntary and non-binding, with its implementation left to the discretion of governments according to their needs.

FIGURE 3
Average PPP Score Across 140 Economies by Thematic Areas Between 2020 and 2023



Source: World Bank — Benchmarking Infrastructure Development 2023.

5 World Bank's PPP institutions building program: https://www.ppiaf.org/documents/6116.
6 PPP Reference Guide https://ppp.worldbank.org/PPP_Online_Reference_Guide.
7 The APMG PPP Certification Program: https://ppp-certification.com.
8 Guidance on PPP contractual provisions: https://ppp.worldbank.org/library/guidance-ppp-contractual-provisions-2019.

CHAPTER 2

Enabling Environment

The enabling environment, defined herein as the set of policies, laws and regulations, institutions, resources, and practices that collectively enable PPI, is a critical foundational element for the successful development and implementation of public infrastructure projects. It involves the legal and regulatory frameworks (laws, policies, and legal structures) that enable PPI, and gives both public and private stakeholders the confidence, clarity, and predictability needed to engage in long-term partnerships with governments. Government capacity and government institutions are equally critical aspects of the enabling environment, as they refer to the institutional capability and expertise of public authorities to effectively plan, structure, implement, and manage complex contractual arrangements that involve the private sector. Funding and financing complete the proposed enabling environment framework by covering the early stages of funding required to develop projects, government affordability, and fiscal sustainability and liabilities management.

This chapter will examine these three critical dimensions, outlining the key considerations and practical steps for developing and delivering successful PPP projects and programmes. While stable investment conditions that enable long-term financing for infrastructure and potential de-risking instruments are also important at a macro level, these are not the focus of this Framework.

Legal and Regulatory Frameworks

The Importance of Legal and Regulatory Frameworks

A legal framework is a critical enabler of PPPs and should cover all stages of the project life cycle. A legal framework outlines "how" to implement PPPs—specifically the laws, regulations, and contractual requirements that govern PPPs—while the broader framework addresses "why" governments use PPPs and "what" they are used for —often referring to the PPP policy beyond the laws. There is a wide range of legal models that underpin PPP frameworks, from basic legislation that includes simple PPP enabling provisions to more comprehensive PPP-specific legislation that captures project development, procedural, institutional, and other governance issues. These models should be tailored to the specific context of each

BOX 1

PPP Legal Framework Can Include:

- PPP-specific legislation and regulations (i.e., in the form of primary or secondary legislation).
- Official PPP-specific government guidelines, manuals or other documents issued by relevant governmental entities, these may not, strictly speaking, always have the force of law but often amount to mandatory policy to be followed by contracting authorities and, where relevant, private sector participants, by virtue of requirements to be satisfied in the approval and bid process.
- Other legislation and regulations that are not PPP specific but have an impact on PPP projects, for example, general procurement, contract or environmental law.

country, considering its legal traditions, administrative capacity, and development goals. Box 1 showcases the typical components and provisions that PPP legal frameworks encompass.

Legal consistency ensures project agreements are enforceable and disputes are resolved fairly and in a timely manner. A legal and regulatory framework should clarify the roles and responsibilities of stakeholders and promote transparency and accountability throughout the project life cycle. The framework should also include guidance for project planning and preparation, competitive tendering, contract management, and dispute resolution. Additionally, it should consider the best international practices while ensuring full alignment with national legal systems and development priorities and be adaptable to changes in economic, social, and environmental conditions. This flexibility allows governments to respond to emerging challenges and opportunities effectively. Box 2 provides an overview of the impact of the legal framework[9] on the PPP market in the Republic of Korea.

Legal frameworks often evolve, starting with basic enabling legislation or sector-specific legislation, to a more comprehensive legal framework with related guidance (as illustrated in Annex 1). Developing a legal framework for PPPs is a complex, multifaceted, and often iterative process that should be carefully designed to address the specific needs of different PPP projects and programmes across multiple infrastructure sectors while addressing typical challenges. This process should strive to include:

- **Customisation:** There is no one-size-fits-all solution for PPP legal frameworks. Each country needs to tailor its framework according to its specific context, needs, and maturity of the PPP programme.

- **Addressing Capacity Constraints:** Skill gaps can significantly impede effective legal frameworks and PPI, requiring the development of qualified government entities and ongoing capacity building. Countries are likely to benefit from incorporating practical experiences and country context based on their PPI experience.

9 "PPP Laws/Concessions Laws – Republic of Korea," World Bank PPP Resource Center: https://ppp.worldbank.org/library/ppp-laws-concessions-laws-korea-rep.

BOX 2

PPP Investment Growth in the Republic of Korea Following the Establishment of a PPP Legal Framework

While Korea delivered several PPP projects before putting in place a PPP legal framework, PPI increased following the establishment of its legal framework. The first PPP legislation was enacted in 1994, followed by amendments in 1998. Additionally, various PPP-related policies were introduced, including the establishment of a government agency focused on PPPs. In 2005, further amendments extended the definition of PPPs to include previously excluded projects, such as social and environmental initiatives. Subsequent years have shaped the framework as it stands today, with (i) Enforcement Decree on the Act on Private Participation in Infrastructure (2010), (ii) Act on Public-Private Partnerships in Infrastructure (2016), (iii) Act on Public-Private Partnerships in Infrastructure (2016), and (iv) Basic Plans for PPP (2024). Korea's PPP model is among Asia's most advanced, combining state oversight with private sector incentives.

During the same period, private investment in Korean PPPs increased considerably, from KRW7 trillion (~US$6 billion) for the 1994–1997 period to KRW27 trillion (~US$26 billion) for the 1998–2004 period, and finally KRW98 trillion (approximately ~US$83 billion) over the 2005–2019 period.

- **Aligning Best Practices with Local Needs:** While aligning with international best practices can be beneficial, it is important to address local barriers specific to the country's projects or programmes.

- **Flexibility:** Countries should focus on less prescriptive legislation to enable projects while allowing room for experimentation and promoting transparency. Flexibility encourages innovation and adaptive management.

Additionally, many countries (particularly those with federal systems) have substantial subnational PPP activities alongside federal PPP programmes. Capacity at the subnational level varies considerably and programme implementation can be uneven, with some states developing their own legal and institutional frameworks to tailor PPP legislation to their specific needs. For example, in Brazil and India, multiple states have established independent PPP policies and pipelines that operate in parallel with national-level programmes. The United Arab Emirates also has both federal and local-level legislation and guidance that promulgates a favourable regulatory environment for the preparation of PPP projects.

Legal frameworks continuously evolve. After enacting a PPP law, many countries— including countries that have gone through a series of reforms and well-established frameworks— find it necessary to reform and refine their legal frameworks over time to reflect the lessons learnt and practical challenges encountered during the structuring and management of PPP projects (Box 3 illustrates the case in South Africa). Legal and regulatory frameworks often provide an initial structure, but as governments gain experience in implementing PPPs— structuring projects, implementing bidding processes, managing risks, and addressing disputes— they often identify gaps, ambiguities, or procedural bottlenecks that require legal adjustments. Such reforms may involve clarifying institutional roles, strengthening oversight mechanisms, refining requirements or procedures, and reflecting interactions with investors. This process of legal evolution reflects the maturing of PPP programmes, helping ensure the regulatory environment stays responsive, transparent, and effective.

Between June 2019 and June 2022, 45 economies introduced reforms that improved their BID[10] scores. These improvements in regulatory quality are important, as the report also showed a significant correlation between PPP regulatory reforms and PPP investments, with major regulatory PPP reforms associated with an almost US$488 million increase in infrastructure PPP investments.

BOX 3

Reforms to South Africa's PPP Framework

South Africa is one of the countries in Sub-Saharan Africa with a well-established PPP legal and regulatory framework. In 2019, South Africa undertook a comprehensive review of its PPP framework to inform reforms aimed at improving the PPP policy, legal and regulatory framework, strengthening of institutional arrangements, and improving the reporting of fiscal risks and contingent liabilities.

In February 2025, new amendments to the Treasury Regulation 16 governing national and provincial government PPPs were issued, effective 01 June 2025. The amendments to the municipal PPP regulation are set to be published in 2026. Also being updated are the National Treasury's PPP Manual, Standardised PPP Provisions and Municipal Service Delivery and PPP Guidelines that set out the application of the legal and regulatory framework. The amendments will unlock significant PPP potential across all spheres of government.

10 The BID report evaluates the governance factors that lead to successful PPP programmes, assesses the quality of global PPP regulatory frameworks, and highlights areas for improvement. Additionally, it provides insights into the complexity of recent regulatory reforms through country case studies. See: "Benchmarking Infrastructure Development: PPP Regulatory Landscape: Assessing Quality and Exploring Reforms," PPIAF: https://documents1.worldbank.org/curated/en/099091724141032233/pdf/P500458-fa9a6675-ed6d-4129-a87d-a08e7c377b6f.pdf.

In Indonesia, Kenya, and Vietnam, PPP legal and institutional frameworks evolved due to practical, country-specific challenges. For example, Indonesia successfully introduced several decree-like instruments for PDF operationalisation. In Vietnam, overlapping decrees led to the development of a clearer PPP Law that is now being refined with directives, and Kenya recently implemented Public Investment Management (PIM) and FCCL frameworks, although their impact remains uncertain.

Guiding Principles and Key Considerations for Regulatory Framework Assessment and Development

The legal framework for PPPs can establish clear guidelines, promote transparency, and adapt to changes. Simpler frameworks can be more effective in less-mature markets, while comprehensive frameworks are better suited to addressing markets with more complex issues. Once established, PPP frameworks typically evolve continuously, as shown with frequent updates of PPP laws and the issuance of new regulations, decrees and/or other guidance material. This ongoing refinement helps ensure the framework remains relevant, responsive, and effective amid changing circumstances. Table 1 summarises key considerations for legal framework development.

Given the complexity and multistakeholder nature of infrastructure development, the enabling environment should explicitly incorporate social and environmental considerations in addition to economic factors. Embedding these dimensions from the outset in line with national circumstances will support the creation of a pipeline of infrastructure projects that deliver long-term value in line with national development priorities (as outlined in Box 4). As with the broader institutional and regulatory framework, incorporating these elements requires a degree of flexibility and should be adapted to local contexts to ensure relevance and effectiveness.

BOX 4

Social and Environmental Considerations in PPP Frameworks

PPP legal frameworks should reflect nationally adopted policy objectives and international commitments, including environmental and social goals, where relevant.

Impact assessment and risk management strategies should be included in PPP frameworks to ensure physical and technical risks are fully considered and managed. Social considerations should align with the needs of communities to minimise negative externalities and include mechanisms for local participation. Environmental risk frameworks should consider climate-related risks to ensure infrastructure resilience to the associated impacts (e.g., flooding, temperature extremes, etc.) and adaptation strategies under multiple scenarios. Embedding resilience in legal and regulatory frameworks can enhance asset value, reduce costs, and protect revenues.

These elements should help countries promote long-term sustainability of infrastructure throughout the infrastructure life cycle. Beyond sustainability, these features foster social acceptability and contribute to the pipeline's attractiveness to the private sector.

TABLE 1
Summary of Key Considerations for Legal Frameworks

Stage	Key Considerations
PPP Framework Development	The legal and institutional framework should be flexible to address specific barriers, considering country contexts and the maturity of local markets. This approach leverages a continual and iterative framework development process. Where practical, consider developing guidance or policy as a first step. Alternatively, pilot approaches address challenges before creating legal instruments. Assess whether key barriers to PPP programme growth can be addressed through other interventions prior to embarking on the development of new legal instruments. Key barriers that may be better addressed through different interventions include: • **Need for Clarity of Institutional Roles and Responsibilities.** Awareness and capacity building or operationalisation support should be considered as a first step, where legal instruments are generally clear. When legal framework revision is necessary, these components should be considered to support the implementation of institutional changes. • **Lack of Investable Projects.** Procedural challenges and lack of capacity are frequent issues. Where procedures captured in law are generally appropriate, consider support to pipeline development or project pre-feasibility and contracting authorities' capacity building around project development. • **Strengthening the Investment Framework and Addressing Finance Constraints.** Some challenges may extend well beyond the scope of the PPP framework instruments. Issues such as foreign exchange shortages, for example, often cannot be resolved through legislation alone. In such cases, it may be more practical to focus on developing projects designed to proceed despite these broader constraints. • **Best Practices and Local Context.** Ensuring legal and institutional framework development takes into consideration best practices, guided by the local context, and a clear understanding of post-award project governance and contract management practice can help reinforce clarity around institutional roles throughout all stages of the PPP project life cycle. • **On-Site Learning** through study tours or other engagement with more experienced PPP units may be particularly useful to support the development of new policy/procedures, when there is a clear learning objective and where careful selection of appropriate client participants is feasible.
PPP Framework Assessment	Identify Specific Barriers to PPP Transactions. This should go beyond the identification of previous projects and a review of PPP frameworks relative to best practices. The assessment should explore the practical challenges PPP projects or programmes experience during their development and implementation stages. The goal should be to identify and obtain consensus around explicit barriers to PPP transactions, which form the basis for the PPP framework review. Diagnostics and assessments should also routinely include specific challenges that may not impede initial PPP project development, but which can expose PPP programmes to considerable risk that may undermine their development. This may include: • A review of a country's fiscal constraints and general fiscal management practices, including client capacity to manage the constraints. • A review of relevant law governing fiscal management and related accounting practices, as well as actual practice with respect to managing FCCLs in PPP projects. • A review of post-award project governance and contract management practice. • A review of laws and practice with respect to USPs. The Public Investment Management Assessment (PIMA) framework is a useful tool to provide a systematic, evidence-based approach to diagnosing the strengths and weaknesses of a country's PIM framework. It evaluates 15 key country institutions and processes that shape the effectiveness of public investment across three broad stages: (i) planning, (ii) selection and prioritisation, and (iii) implementation, empowering countries to maximise value for money in infrastructure investment.[11]

11 "PIMA Handbook," IMF 2022: https://www.imf.org/en/Publications/Books/Issues/2022/07/12/PIMA-Handbook-Public-Investment-Management-Assessment-1st-Edition-50166.

Government Capacity and Institutions

Effective PPP delivery relies on strong government capacity and institutions, including (i) dedicated and specialised PPP units staffed by skilled professionals in project management and infrastructure financing and (ii) line ministries or contracting authorities in charge of project implementation. PPP institutions provide the necessary framework, guidelines, and oversight to ensure that projects are executed effectively and transparently. The development of these institutions is key to fostering trust and cooperation among stakeholders. Building and sustaining the necessary capacity, while ensuring it is effectively shared across PPP programmes, is complex and depends on both the technical expertise of the central PPP institution and its influence within government. It is therefore essential to carefully examine each step of the process to provide clear, actionable guidance.

Importance of Institutional Structure and Capacity Building

Institutional Structure

A strong institutional arrangement for PPPs requires a framework that clearly defines roles and responsibilities for all stakeholders, including the public sector, private sector, and regulatory bodies. Many countries have centralised institutions that support the development of PPP programmes. These institutions are often established to specifically focus on PPPs (and are commonly known as PPP units); alternatively, PPP attributions and responsibilities are added to the functions of existing institutions, such as the Ministry of Finance (MoF). While these institutions vary widely in scope and function, their core mandates are generally consistent, focusing on supporting PPP development and implementation regardless of the maturity of the country's PPP programme. In establishing these institutions, it is important to ensure the separation of functions between project promotion and development and fiscal oversight.

Several PPP institutions have contributed to the success of PPP programmes by strengthening institutional and technical capacity. Drawing on extensive institutional experience, these institutions facilitate the transfer of necessary planning, structuring, and project management skills and knowledge. However, their operational approaches differ significantly across different contexts. Globally, 87% of economies have established and/or operationalised dedicated PPP units, with 80% of these providing advisory services to procuring authorities, mainly contracting authorities (BID, 2023).

PPP institutions can contribute to the success of PPP programmes, but their contribution is contingent upon their own internal capacity to drive institutional credibility, as well as the commitment of governments and contracting entities who retain responsibility for developing individual PPP projects within the broader context of sector planning. Aligning with best practices in the establishment and operation of PPP institutions can significantly enhance their effectiveness. These practices include:

- **Transparency:** Ensuring transparency in all stages of the PPP process, from project selection to execution and monitoring.
- **Accountability:** Establishing clear roles and responsibilities for all stakeholders to foster accountability.
- **Risk Management:** Developing comprehensive risk management strategies to identify, assess, and mitigate potential risks.

- **Innovation:** Encouraging innovative approaches and solutions to address challenges and enhance project outcomes.

- **Monitoring and Evaluation:** Implementing robust monitoring and evaluation mechanisms to track progress and measure impact.

Additionally, skilled staff within contracting authorities are important for effective PPP project development due to their role in project implementation and contract management. In this scenario, it is critical to incorporate their views, to ensure lessons learnt are considered in new projects being developed, and to preserve their institutional memory through staff retention and capacity building. The capacity of these authorities demonstrates government commitment and directly influences the broader credibility of the entire PPP model in a country.

Capacity Building and Training

Investing in capacity building and training programmes is crucial for the sustainability of PPP institutions. As mentioned earlier, many PPP institutions have a mandate to support capacity building across their national and potentially subnational PPP programmes. Although institutional support to establish PPP units may include the development of basic job descriptions or organisational charts, support to enable nascent institutions to effectively build capacity within a country could, if successful, have a multiplier effect in terms of PPP programme capacity.

Support for developing the capacity-building function of PPP institutions primarily focuses on helping them plan how best to strengthen their ability to deliver on country-specific PPP programme needs, using the various tools identified for capacity development. This may include developing long-term training programmes but should ideally be focused on meeting practical constraints that will arise through the project development and implementation process in the near term. In most less-developed PPP programmes, this will need to focus on how to bring in the right external support, using a mixture of consultants and embedded and on-demand advisors to support capacity building through a learning-by-doing process. However, additional work would likely be required to identify lessons learned to support this kind of advisory support.

BOX 5
Examples of PPP Capacity-Building Initiatives

India's Private Investment Unit in the MoF provides a broad library of standardised documents and guidance material designed to build the capacity of sectoral institutions. It also plays a role in the assessment of project documentation within the PPP project cycle.

Jordan's PPP law establishes two bodies that collaborate to develop and manage PPP projects. The working team, composed of ministers from various sectors, identifies priority projects, formulates PPP policies, and submits tenders for parliamentary approval. The PPP unit supports contracting authorities, proposes policy documents, and oversees project management.

Russia's National PPP Center has significantly strengthened PPP institutional capacity over the last decade. It operates as a national platform fostering coordination across levels of government, enhancing transparency and knowledge transfer through large-scale infrastructure forums and hands-on project support.

Key Considerations for Building Capacity and Institutions

Enhancing capacity and effectively sharing expertise across PPP programmes is not straightforward. It demands both technical expertise within the central PPP institution and strong institutional influence across government. Approaches to strengthening expertise and authority may include repositioning PPP institutions within government

structures, ensuring adequate funding and staffing to sustain operations, expanding their role in funding allocation and contracting, and integrating public planning and fiscal management functions, particularly in more mature programmes. Table 2 summarises key considerations for capacity building of institutions.

As global examples demonstrate, the success of PPPs depends on the strength and effectiveness of the institutions that support them. Therefore, strengthening these institutions can pave the way for more innovative and resilient partnerships, driving progress and development across various sectors.

TABLE 2
Key Considerations for Capacity Building of Institutions

Stage	Key Considerations
Capacity Assessments	• A focus on capacity building is essential for the development of PPP institutions, regardless of the level of development. • Attention should be given to identifying the most effective ways to ensure capacity building elements are considered and incorporated in PPP institutional support and memory. • There is no common approach to assessing PPP capacity. However, two methods are most used: (i) formal capacity assessments, which include an internal questionnaire to self-assess capacity or an in-depth externally administered questionnaire and interview process; and (ii) informal capacity assessments, which occur outside a formal assessment through consultations and sequencing institutional support components. While capacity assessments are often not routinely undertaken for general PPP training, bespoke assessments may still be useful to support advanced training, which has specific prerequisites. This may include support focused on the development of a PPP unit's capacity-building function.
Classroom-Based Approaches	• Bespoke classroom-based training and awareness building can be a key component of broader support across PPP institutions. • Standardised training tools, such as CP3P certification, can be complemented with bespoke capacity building. • General *PPP 101*-type training should be the focus for less-developed programmes, with some use for new/entry-level staff in maturing programmes. • Specialised/advanced training should be the focus for mid-to-mature levels of development. • Countries need effective public institutions to manage social and environmental considerations, including climate. Enhancing the capacity of relevant government institutions supports the development and implementation of sustainable infrastructure.
Learning by Doing and On-the-Job Training	• Learning through active participation in PPP project preparation, procurement, or contract management processes is also a source of capacity building for PPP units in less-mature markets. • Support of embedded and external advisors can enhance technical knowledge and build capacity within PPP units by embedding practical experience directly into teams. • Consider developing a knowledge product focused on practical approaches and a review of PPP unit staffing and practices, while capturing programme lessons.

Funding and Financing

Funding and financing are central to the development of an investable infrastructure project pipeline. Governments should ensure sufficient funding is in place to support the institutions and activities that create an enabling environment for investment and support project structuring at the policy level. At the project level, targeted funding can bridge viability gaps for priority projects that are socially or economically important but require public funding to address affordability and bankability issues. On the financing side, governments should promote macroeconomic stability through sound fiscal and monetary policies, while also supporting local capital market development, encouraging long-term financing instruments, and incentivising infrastructure investments from local actors. These measures can prompt investors to commit resources at the volumes and frequency required in infrastructure finance. Governments can also support investment by providing direct or indirect support through de-risking instruments.

This section covers multiple aspects of funding and financing at the strategic level while also providing an overview of funding and de-risking instruments commonly used in PPPs. Given the Framework's focus on the enabling environment and early stages of project preparation for pipeline development, a special focus will be given to PDFs and FCCLs, which provide specific funds for these early-stage activities and support pipeline development by ensuring long-term fiscal sustainability of PPP projects and programmes, respectively.

Funding the Enabling Environment and Project Preparation

As demonstrated in Chapter 1 and earlier sections, the development of investable infrastructure pipelines starts at the policy level, which precedes specific project development by creating a conducive enabling environment that encourages private sector participation. In this context, government funding dedicated to infrastructure policy development and capacity building (e.g., through training, staff retention, and learning by doing) is critical to ensure governments are equipped with the proper skill set to navigate the complexities of project structuring that will culminate in pipeline development.

At the project level, adequate and timely funding for project preparation is fundamental to ensure governments' dedicated PPP units have the in-house capacity to lead the project structuring process. Although project structuring will be covered in detail in the infrastructure life cycle chapter (Chapter 3), it is worth highlighting two key complexities of structuring endeavours in this section. First is the multi-stakeholder engagement involved in this undertaking, which requires skilled and technically sound staff capable of negotiating with multiple internal and external counterparts to understand bottlenecks and obtain necessary approvals to take a project to market. Second is the need for external advisors. Mature governments with experienced staff and proven success may only need specialized subject matter experts (i.e., engineering, environmental, financial, etc.), while those still building their PPP capacity and track record may benefit more from comprehensive project structuring advisory services. Through these fully-fledged engagements, governments also have an opportunity to develop their capacity in a learning-by-doing process.

Given the complexity and long periods required to structure infrastructure projects, the learning curve for effective project preparation is steep and cumulative.[12] Experienced staff, working consistently over the long term, are better equipped to navigate these challenges, engage effectively

12 Based on the GIF's experience, project structuring in EMDEs takes on average of 30 months from mandate signing to commercial close.

with private partners, and adapt strategies based on lessons learnt. Without dedicated and predictable funding, governments risk fragmented policy development, high staff turnover, and repeated mistakes at the structuring stage, undermining pipeline development and investors' trust.

The advisory teams of MDBs and national development banks (NDBs) also play critical roles in this process by providing comprehensive, neutral advisory services and technical assistance to governments to support their development mandate. With the assistance of skilled staff, these institutions advance projects while fostering capacity building to strengthen in-house government expertise. Combining consistent public funding with targeted external expertise helps deliver projects that are well structured and effectively managed by the government at the implementation and operation stages.

Moreover, EMDE governments can leverage donor resources in this process to help accelerate pipeline development. Donors with PPP expertise also add value by supporting the assessment and prioritisation of projects, increasing efficiency in fund allocation and the probability of obtaining positive outcomes. Moreover, these entities can play a role in cross-sector and regional development, scaling up best practices and required policies.

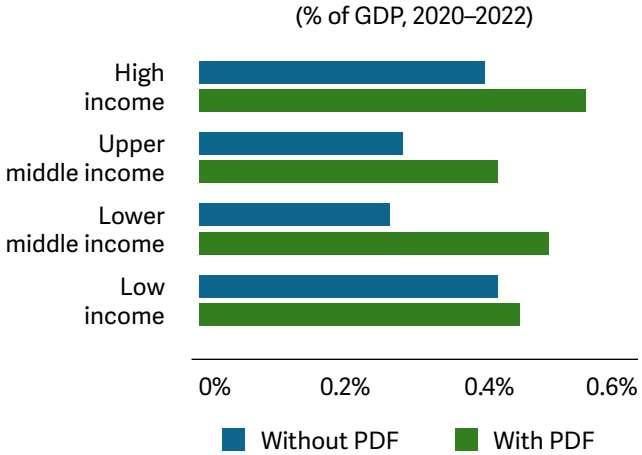
Despite its critical importance, public funding for early-stage initiatives is often neglected by governments, and inadequate preparation remains a key bottleneck to expanding the pipeline of transactions coming to market. A common solution adopted by governments to address funding needs for project preparation is through PDFs.

Project Development Funds

PDFs are dedicated vehicles that fund project preparation and serve as tools that can increase and recycle the pool of funds dedicated to early-stage pipeline development.[13]

Several countries have created PDFs to support project preparation, frequently after accumulating practical PPP experience and in conjunction with strong political commitment for PPPs. Moreover, government funding to support establishing and maintaining PDFs demonstrates government belief in the value of project preparation and/or transaction advisors and government commitment to PPI. Donors have also supported the creation of PDF-like instruments. Both mechanisms have had mixed results on PPP programme development, showing that PDFs are not sufficient on their own. At the same time, many countries have had considerable success without them. Nevertheless, PDFs are very useful to channel resources for project preparation. They require careful design to ensure sustainability. As illustrated in Figure 4, countries with access to project development facilities attracted private investment amounting to 0.45% of their GDP (compared to 0.28% without).

FIGURE 4
Private Investment in Infrastructure Projects With and Without PDFs



Source: World Bank — Benchmarking Infrastructure Development and authors' calculations based on Realfin data.

13 "Project Development Funds: A Primer," World Bank Group: https://documents1.worldbank.org/curated/en/099053124132550754/pdf/P179271-a64e304b-e2ef-480c-92d8-d6c646824c90.pdf.

BOX 6

Examples of PDFs in Action

In the Philippines, a facility that was part of a broader PPP reform programme was established in 2011 to support project development and monitoring. This facility supports contracting authorities through all stages of the project life cycle and is designed as a revolving fund to ensure sustainability.

In Kenya, the World Bank Group provided PDF-like support for PPP project preparation and transaction advisory. Subsequently, the government of Kenya established its own permanent fund for project preparation support and, in the longer term, project financing.

In Colombia, the Financiera de Desarrollo Nacional (FDN), established with an initial investment of US$2 billion, provides project preparation support in addition to other funding and financing functions dedicated to infrastructure development, which has been critical to catalyse private investments.

Key Considerations for PDFs (Design and Operation)

PDF Structure: Determining a PDF's structure involves specifying its location, legal structure, decision-making process, and daily administration. This should align with the PPP regulatory framework while considering specific PDF objectives and country context.

PDF Funding Strategy: A PDF funding strategy should identify the sources and expected timing of capitalisation that enable a PDF to achieve its objectives. The PDF strategy should also specify its approach to sustainability or be set as a finite instrument. If donor participation is expected, it is important to align this funding strategy with potential processes and requirements, including those related to disbursement.

PDF Operational Approach: Defining a PDF's operational approach may include determining how or whether a PDF provides support for upstream project identification, selects which projects it will support, and facilitates the retention and oversight of advisors. This may be done through the development of operation manuals or other guidance documents, including template documents (e.g., PDF informational presentations, PDF application forms, support agreements, PPP Advisor Terms of Reference, etc.), that define and guide the day-to-day operations of PDFs. It may also include other organisational development support, such as developing PDF organisational charts and staffing plans, as well as associated capacity-building support. Box 6 provides examples of the roles of PDFs in mobilising private investments.

Government Funding and Financing for Project Support

PPPs offer a significant opportunity for governments to mobilise private sector expertise and resources for public infrastructure delivery. Private sector management capacity can improve service delivery, while private resources can accelerate infrastructure development. Although PPPs allow the public sector to reduce the upfront financial burden on public sector resources by leveraging financing from the private sector, affordability and fiscal capacity should still be considered, especially for projects that are not financially viable based solely on user fees.

Government funding can be instrumental in transforming projects that are not financially viable on their own into opportunities that attract private investment. Many socially or economically important infrastructure projects, such as those in underserved regions or sectors with low revenue potential, cannot generate sufficient returns to cover full capital and operating costs. Targeted public support, through mechanisms such as viability gap funding, capital grants, guarantees, concessional financing or blended finance, can bridge this gap by improving the project's risk-return profile. By strategically deploying such funding, governments can ensure that priority projects move forward without overburdening

public finances, while also creating opportunities for private participation. This approach not only enables the delivery of essential infrastructure but also signals to investors that the government is committed to sharing risks appropriately, fostering market confidence, and encouraging broader participation in the infrastructure programme, as does a track record of reliable support.

In this context and based on the importance of de-risking instruments, the IWG under the South African Presidency has developed a Report on Blended Finance De-risking Measures as part of Priority 2, "Scaling Up Sustainable Infrastructure Investment through Blended Finance." The report explores how to further leverage guarantees and credit enhancements provided by MDBs, NDBs, development finance institutions (DFIs), and export credit agencies to mobilise more and better private capital flows towards sustainable infrastructure in EMDEs.[14]

Box 7 presents common funding and de-risking instruments used in PPPs and complements Section 3.5 of this document, which offers an overview of the financing instruments commonly used in PPPs.

Governments often leverage NDBs or local DFIs to provide comprehensive support to infrastructure development, tackling the challenges of privately financed infrastructure across PPP projects or programmes. These institutions frequently operate at arms-length from governments on commercial or concessional principles and provide products that may include, among others, PPP advisory, funding, debt, equity, and guarantee instruments. When used, these instruments should be carefully designed to align with the specific country context and support addressing market failures to crowd in private investors rather than compete with the market.

Lastly, it should be noted that PPPs, as well as government support if required to increase PPP viability, create direct or indirect financial obligations and contingent liabilities. Having a robust system to manage these risks ensures fiscal sustainability, transparency, and accountability, helping governments make informed decisions and mitigating risks that could otherwise threaten not only PPP programmes, but also public finances and long-term development goals.

BOX 7

Common Funding and De-risking Instruments Used in PPPs

Viability Gap Funding: A public financial contribution that is typically provided upfront to bridge the gap between a project's full cost and the revenue it can generate, making it commercially viable.

Capital Grants: Non-repayable public funds given to cover part of a project's capital expenditure, reducing the amount that could be financed by debt or equity.

Guarantees: Commitments by a government or development institution to cover specific risks (e.g., payment defaults, political risk) partially or entirely, reducing private exposure and increasing interactivity.

Concessional Financing: Loans or other financial instruments offered on terms more favourable than market rates (e.g., lower interest rates, longer grace periods) to reduce financing costs for the borrower.

Blended Finance: The strategic use of development finance for the mobilisation of additional finance (OECD, 2022). It leverages concessional public or donor funds with commercial funds to de-risk investments and increase commercial activity investments.

Fiscal Commitments and Contingent Liabilities

In this context, it is critical to build client awareness of the importance of FCCL issues to encourage their engagement by systematically incorporating

14 Blended Finance De-Risking Measures.

FCCL topics across the PPP framework, government capacity, and institutional procedures. The process of implementing PPPs should take into consideration budget capabilities and undergo a proper fiscal assessment to avoid exposing public finances to excessive fiscal risks.[15]

At the preparation stage, PPP proposals should be subject to a structured gateway process for an early-stage fiscal risk assessment to ensure that potential PPP commitments are fiscally sustainable from the beginning. Once projects are operational, managing PPPs from a fiscal perspective requires a robust framework for identifying, evaluating, mitigating, and monitoring FCCLs. This should be integrated into the country's infrastructure governance system. Many countries either have emerging fiscal frameworks or struggle to maintain these.

To help develop the necessary engagement around fiscal issues, FCCL considerations can be incorporated in different areas of the enabling environment.

TABLE 3
Summary of Key Considerations for Fiscal Assessments

Stage	Key Considerations
Fiscal Assessment and Practices at the Framework Level	• Legal and institutional framework support is often informed by an understanding of institutional roles with respect to FCCLs. Project preparation should include an assessment of expected project FCCL requirements and their fiscal implications. A gateway process led by the MoF should be incorporated into the PPP assessment for projects that may have fiscal implications.[16] • Preventing Off-Budget Use of PPPs. To ensure fiscal transparency and avoid the off-budget use of PPPs, PPP projects should be subject to the same selection criteria, cost-benefit analysis (CBA), and budget scrutiny as traditional public investment projects.[17] • Reporting of PPP Contingent Liabilities. Contingent liabilities arising from major PPPs should be reported to the central government and fully reflected in budget documents,[18] in accordance with national fiscal management and public finance frameworks.
Developing Capacity on FCCL	• General training on PPPs includes appropriate coverage of FCCLs at a high level, diving deeper into this issue, where appropriate. This issue can also be covered in training and awareness-building sessions targeted at broader audiences, including oversight/evaluator/approver agencies. • Diagnostics and assessments should review relevant law governing fiscal management and related accounting practices, as well as actual practice with respect to managing FCCLs in PPP projects.

15 IMF Infrastructure Governance: https://infrastructuregovern.imf.org/content/PIMA/Home/PPPs-and-PFRAM.html.
16 Public-Private Partnerships Fiscal Risk Assessment Model (PFRAM): https://www.ppiaf.org/documents/5782.
17 "Budgeting and Reporting for PPPs," OECD and ITF: https://www.oecd.org/content/dam/oecd/en/publications/reports/2013/04/budgeting-and-reporting-for-public-private-partnerships_g17a22bc/5k46n41mwp6g-en.pdf.
18 "PIMA Handbook," IMF 2022: https://www.imf.org/en/Publications/Books/Issues/2022/07/12/PIMA-Handbook-Public-Investment-Management-Assessment-1st-Edition-50166.

CHAPTER 3

Infrastructure Life Cycle

Infrastructure development is highly complex and characterised by long project life cycles. It engages several public and private stakeholders in a multi-faceted, often lengthy decision-making process, and requires initial capital investment to advance projects efficiently from concept to execution. As a result, a well-functioning infrastructure life cycle process (spanning from early project conceptualisation to implementation and monitoring) is essential. A clearly defined process that assigns roles and responsibilities to key stakeholders is critical to ensuring successful infrastructure development through private sector participation.

Building upon the enabling environment that creates the right conditions for PPI presented in the previous chapter, this chapter highlights key considerations and critical aspects required for infrastructure development during different stages of the infrastructure life cycle. Although the sections will cover all stages of the life cycle (see Figure 4), the focus will be on its early stages, which are fundamental for the development of an investable infrastructure pipeline. As a result, the later stages of the project life cycle (financing, implementation, and contract management) are discussed collectively.

The early stages of the infrastructure life cycle often receive less attention than the later stages that involve financing activities, yet they are critical for setting strategic objectives and organising long-term infrastructure needs. Governments that proactively define long-term objectives and create processes to identify, prioritise, and select solutions are more likely to commit and deliver infrastructure that is fiscally sustainable, technically sound, and socially valuable. Without upfront clarity and strategic coordination, a project risks being derailed by misalignment with public priorities and financial inefficiencies.

FIGURE 5
Project Life Cycle

Infrastructure Planning

Infrastructure planning is the foundation for effective infrastructure delivery. A sound PIM system is essential, offering both long-term vision and short-to-medium term operational guidance necessary to identify, prioritise, and coordinate infrastructure investments. In many countries, infrastructure accounts for a substantial share of public expenditure and long-term liabilities, whether funded directly or delivered through PPPs. Without a strategic and structured planning process, these investments risk becoming inefficient, uncoordinated, or misaligned with economic and social needs. Infrastructure planning enables governments to make informed decisions, anticipate future challenges, sequence projects realistically, and optimise limited fiscal and institutional resources.

Infrastructure planning should be driven not just by technical requirements but primarily by its alignment with high-level policy goals set out in national development plans. These plans reflect long-term visions for economic growth, social inclusion, environmental sustainability, and macro considerations.

In addition to long-term development goals and macro considerations, assessing demand and infrastructure needs is a fundamental pillar of planning. It ensures that investments are grounded in evidence, respond to real socioeconomic needs, and are timed and scaled appropriately to support long-term development. Demand and needs assessments also involve the analysis of current and projected requirements for infrastructure services (i.e., transport, energy, water, sanitation, health, and education) at the national and regional levels. This assessment should be forward-looking and help identify service gaps, bottlenecks, and emerging pressure points, useful for developing sectoral plans.

The alignment between strategic development goals and demand assessments is vital. National policies such as universal access, economic diversification, or regional integration guide infrastructure planning. Demand data helps identify high-need areas and evaluate the economic returns of different interventions, supporting decisions that provide equity, sustainability, and inclusive growth.

The development of sectoral infrastructure plans is the next critical step to translating national development goals and demand assessments into actionable infrastructure investments required within each sector while helping define priority interventions. These plans use sector-specific metrics to evaluate bottlenecks, future demand, service coverage, quality, and asset conditions. They also address cross-cutting challenges such as ageing infrastructure, institutional bottlenecks, or climate vulnerabilities, ensuring interventions are strategic and fiscally sound. This approach enables optimal resource allocation and filters out politically driven and opportunistic proposals.

Data is a crucial input for infrastructure planning. Specifically, reliable data on assets, demand forecasts, and performance informs scenario development and decision making. Integrated data sources allow planners to visualise disparities, simulate future demand, and test alternative investment strategies. Conversely, limited data availability or weak data quality can constrain effective planning.

Given infrastructure's cross-cutting nature, intergovernmental coordination is essential. Effective infrastructure requires coordination between political leadership and technical entities such as finance, planning, regulators, line ministries and PPP units, among others. Ministries of planning

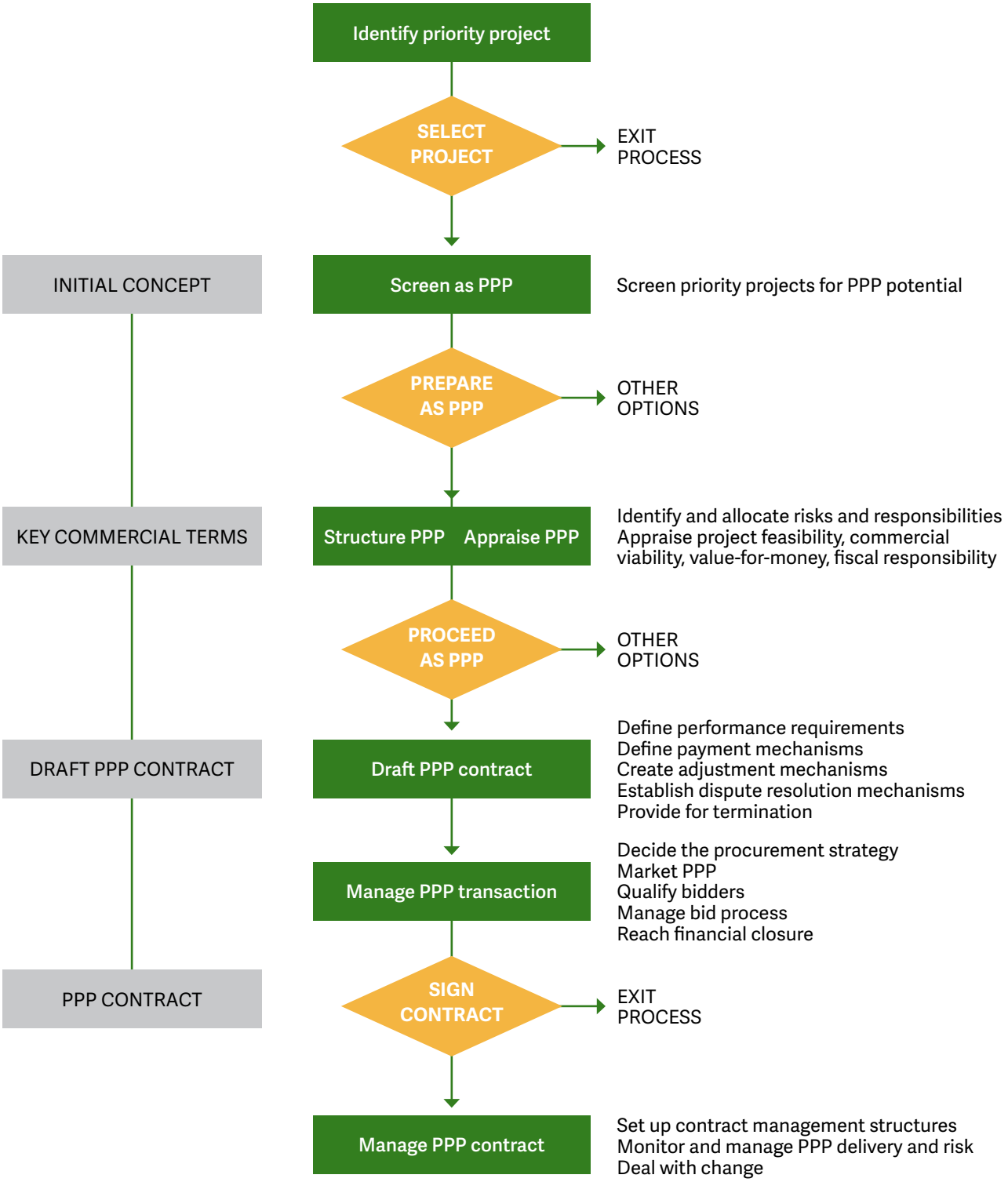
or finance typically provide strategic and fiscal oversight, while line ministries identify and implement sector-specific projects. Coordination mechanisms, such as planning committees or joint review processes, ensure that proposals from line ministries are aligned with sector strategies, fiscally viable, and consistent with national priorities. Clear rules of engagement and defined roles and timelines help synchronise efforts across institutions, reducing duplication and enhancing coherence.

Infrastructure planning should be dynamic with regular reviews to remain responsive to evolving conditions. Economic shocks, technological advances, demographic changes, and environmental risks can shift priorities. A robust planning process includes mechanisms for periodic review of both long-term strategies and investment plans. These reviews should assess performance and validate assumptions, as well as help set priorities.[19] Many infrastructure projects have a regional or cross-border dimension, particularly in the transport and energy sectors, which can add a degree of complexity to investment planning. These factors are discussed in detail in the Cross-Border Infrastructure Toolkit.

Following robust national and sectoral planning, the subsequent step is project identification and screening under the PIM system. This involves selecting projects that align with the strategic infrastructure plan and contribute to expected outcomes while assessing the existing delivery options, including the possibility of private participation (Figure 5, below, outlines a typical screening and identification process).

19 "What is PIMA?", Infrastructure Governance Facility: https://infrastructuregovern.imf.org/content/PIMA/Home/PimaTool/What-is-PIMA.html.

FIGURE 6
Exemplified PPP Process[20]



20 World Bank (2017). Public-Private Partnerships Reference Guide (Version 3).

Options Assessment

The process begins with a preliminary options analysis that explores the most effective ways to address a defined infrastructure or service delivery problem. Instead of immediately assuming the need for new infrastructure or a specific delivery model for private participation, this step encourages decision makers to consider a range of potential interventions, which can vary from the rehabilitation of existing assets to full-scale greenfield development. The analysis should include a comparative assessment of various technical alternatives and implementation methods, focusing on factors such as cost-effectiveness, construction duration, environmental and social impacts, institutional complexity, and scalability.

The Use of Data in the Assessment of Alternatives

The lack of sufficient project data often hampers government reviews for comparing and/or ranking projects, particularly during their conceptual planning phase.

When basic project information is available, comprehensive screening and prioritisation can be effectively done. However, if project data is limited to the conceptual level, a comprehensive screening and prioritisation exercise may not be possible. Instead, a targeted, qualitative approach is preferable. This may involve:

- Focusing on a small subset of higher-potential projects which have been identified through high-level sectoral assessments.
- Seeking to identify a pool of a few priority projects as opposed to a longer, prioritised list. This can likely be done in-house without detailed scoring and assessment to support project ranking, instead focusing on an informal assessment of project characteristics and political commitment.

Social and Economic Returns

Once preferred options are identified, a preliminary economic and social assessment may be conducted to assess the broader impacts of the project through a CBA. A CBA involves estimating the economic return of a project by comparing the anticipated benefits— such as time savings, reduced operating costs, improved outcomes, or increased productivity— against its expected costs. While not a full economic appraisal, this screening-level analysis helps eliminate projects with weak socioeconomic fundamentals early in the pipeline. This exercise is useful regardless of the procurement strategy and may also be impacted by the availability of data.

PPP Screening

This process evaluates whether the participation of the private sector is appropriate and likely to deliver added value compared to traditional public procurement. A PPP screening typically begins with a structured analysis based on a set of predefined criteria, including the potential for risk transfer; the project's scale and complexity, which should be sufficient to justify the transaction costs and long-term engagement; and the opportunity for life-cycle efficiency, where private operators can introduce optimised design, construction, and maintenance for better overall performance. The screening also considers the revenue model, assessing whether the project can be supported by user charges, government payments, or a combination of both, and whether this model aligns with private sector expectations of return and risk.

To increase the likelihood of identifying projects that are ultimately developed as PPPs, pipeline exercises should also incorporate:

- A wider range of information to identify projects that are more likely to receive political support. This should include a range of discussions with senior government officials to better understand political commitment to specific projects, whether as PPPs or otherwise.

- Sector considerations, especially in countries with limited PPP experience that are still in the learning stage. This involves prioritising sectors that are more suited for PPPs due to their inherent financial viability through clear revenue streams, global precedent for private sector involvement, and opportunities for long-term efficiency gains (e.g., airports, ports, telecommunications, energy generation, etc.)

For projects that involve innovation, new markets for PPPs or in countries where private sector participation is still nascent, an initial market assessment to understand the private sector perspective, potential interest, main concerns, and expected risks at the conceptual stage may be useful during the PPP screening process (see Box 8 for more details on this process).

Affordability and Fiscal Impact Check

Assessing the affordability and fiscal impact of a project is also a critical step in the PPP screening process to ensure that a proposed project does not place an unsustainable burden on public finances. This involves estimating the government's potential financial commitments—through fiscal instruments such as viability gap funding, availability payments, guarantees, and contingent liabilities— over the project's life cycle. In addition, the assessment examines whether these commitments are manageable within the current and projected fiscal space. Lastly, the check considers budget predictability and risk exposure, helping decision makers understand whether a project aligns with long-term debt sustainability. This early-stage review safeguards against taking forward PPPs that may be attractive in concept but unaffordable in practice.

PPP screening is only the initial step in identifying priority projects. Once a project is screened and designated as a potential PPP, a complex and often lengthy structuring process should follow to bring it to fruition. Based on the GIF's experience, PPP projects in EMDEs take an average of about 30 months to reach commercial close from project identification.

BOX 8

PPP Screening Checklist

Risk transfer feasibility: Can key risks (e.g., construction, demand, maintenance) be transferred and priced effectively?

Project scale and complexity: Is the project of sufficient size and duration to justify a long-term PPP arrangement?

Revenue model: Can the project generate revenues through user fees, or does it depend on public payments? What are the implications for viability?

Innovation and efficiency potential: Does the private sector bring clear value beyond financing?

Political and stakeholder support: Is there high-level political commitment and buy-in from affected stakeholders?

Private sector perspective: Are there private sector players that would be interested in the project, what are their views on the prosed concept?

Appraisal and Structuring

Appraisal and structuring of PPP projects involve detailed analysis of project feasibility, financial structuring, and risk allocation. Box 9 highlights the conditions and considerations inherent in the pre-feasibility phase. This stage is typically one of the most time-consuming in project preparation, requiring thorough project assessment and multiple rounds of decision making to finalise the project scope and proposed structure. A well-structured project ensures the project is affordable, financially viable, sustainable and that risks are appropriately allocated between the public and private sectors.

Interdisciplinary Process and Expertise

Appraising and structuring a PPP project requires specialised expertise across a range of fields, including engineering, economics, finance, law, environmental management, and procurement. Each component of the appraisal requires input from professionals with deep subject-matter knowledge, whether it is conducting a CBA, modelling financial viability, assessing legal constraints, or designing a risk allocation framework.

As a result of the expertise required in the structuring and appraisal of PPPs, governments often rely on external technical advisors and interdisciplinary teams drawn from different areas to support the process. Once all inputs are gathered, a consolidation process follows, where findings from the various assessments are integrated into a cohesive project structure. Significant government capacity and experience is required to manage this process, especially for countries with limited PPP experience and technical knowledge. In these cases, relying on support from MDBs, as independent advisors, is critical in order to help lead the process while supporting capacity building.

BOX 9

Pre-Feasibility Studies: A Valuable and Efficient Instrument for Preliminary Assessment

In the context of scarce resources and potential uncertainties, project pre-feasibility analysis serves as a crucial bridge between early project identification and detailed appraisal, helping decision makers determine whether a proposed infrastructure project warrants further development. At this stage, the analysis focuses on identifying major technical, institutional, environmental, social, financial, and legal bottlenecks that affect the project's implementation. Rather than providing full details, the aim is to understand the project based on estimates and flag what could derail the project later, including problematic land acquisition, regulatory constraints, weak demand, or limited institutional capacity.

A pre-feasibility analysis helps prioritise resources by screening out non-viable projects before costly, detailed studies are undertaken.

Guiding Principles and Key Considerations for Appraising and Structuring a Project

As illustrated above, the know-how required for appraising and structuring PPP projects is robust and combines multiple areas of expertise, which becomes increasingly complex depending on the sector and characteristics of a project. Multiple guidelines and manuals, some of which are referred to in this report, describe each step of the process. Useful guiding principles and broad considerations during appraisal and structuring stages in different areas of the process are provided below.

Project Design and Technical Feasibility Studies

A well-conceived project design ensures the infrastructure solution is fit for purpose, while technical studies validate that it is technically feasible. These studies, ranging from engineering assessments, basic project designs, and estimated requirements, help define the project's scope and performance requirements that will serve as a basis for private sector proponents.

Guiding Principles

- Focus on outcomes and performance standards, rather than prescriptive specifications, to allow innovation and life-cycle optimisation by private bidders.
- Ensure proposed solutions are technically sound, context-appropriate, and consistent with local capabilities, maintenance requirements, and regulatory standards.
- Evaluate design options based on construction, operation, and maintenance requirements over the full asset life cycle.
- Design for adaptability to accommodate future growth, evolving technologies, and potential regulatory or climate-related changes, where relevant.

Key Considerations

- Site Assessment: Assess geotechnical, environmental, and spatial limitations that could impact construction, cost, and timelines. Project Demand and Capacity Analysis: Estimate expected usage, peak loads, and capacity needs to ensure the infrastructure can meet forecasted demand.
- Assess Alternatives and Trade-offs: Compare technical configuration requirements and basic layouts in terms of cost, durability, environmental impact, and operational complexity.
- Capital Expenditure Requirements: Estimate capital expenditure based on engineering designs, construction timelines, material and labour costs, and site-specific factors.
- Operational Expenditures and Maintenance Requirements: Estimate annual and life cycle operational expenditure and maintenance requirements, staffing needs, energy, and material use. Operational expenditure should be aligned with service-level targets and performance standards.
- Technical Interfaces and Integration: Assess how the project connects to or depends on existing infrastructure and identify interface risks or integration challenges.

Environmental and Social Feasibility Studies

Environmental and social studies ensure PPPs are not only technically and financially viable, but also environmentally sustainable, socially inclusive, consistent with nationally defined standards, and compliant with national policies. Vulnerability to climate hazards should be considered as part of the appraisal and structuring process, where relevant, as they may pose a significant threat to infrastructure assets over the lifetime of a project and are increasingly driving investment decisions by private investors.

Guiding Principles

- Promote the consideration of sustainability to better manage or mitigate the environmental and social impacts of projects and ensure long-term sustainability, in alignment with national legislation, policies and relevant practices.[21]
- Promote fair and equitable access to project benefits and ensure that no group is disproportionately disadvantaged.
- Take into consideration environmental and social aspects from the outset, rather than as post-approval compliance exercises, to reduce risks and improve project outcomes.
- Ensure meaningful, ongoing consultation with affected stakeholders and communities.

Key Considerations

- Environmental and Social Impact Assessment: Consider conducting a comprehensive environmental and social impact assessment to identify and evaluate potential environmental and social risks and impacts.
- Land Acquisition and Resettlement: Analyse land use impacts, including potential displacement. Prepare and implement a Resettlement Action Plan where applicable, ensuring fair compensation, livelihood restoration, and stakeholder consent.
- Climate Mitigation: Countries that have climate-related policies and goals should evaluate the project's likely carbon footprint to formulate strategies to manage these in alignment with national climate goals.
- Physical Risk and Resilience: Identify weather-related risks, such as flooding, drought, sea-level rise, and extreme heat, as well as geological conditions and associated risks, that require integrating resilience measures into the infrastructure design and operations. Also consider future-proofing techniques such as elevating structures, enhancing drainage systems, or selecting climate-resilient materials.
- Labour and Safety Standards: Ensure compliance with fair labour practices, occupational safety regulations, and protection measures for workers and surrounding communities.
- Community and Stakeholder Engagement: Establish a structured stakeholder engagement plan with provisions for ongoing dialogue, grievance redress, and inclusive participation.
- Consider clear environmental and social contractual responsibilities, allocate risks appropriately between public and private parties, and establish monitoring protocols, which may include key performance indicators (KPIs) or appropriate accountability mechanisms such as incentives and/or penalties.

21 Examples of environmental and social standards include the IFC's Performance Standards on Environmental and Social Sustainability. See: https://www.ifc.org/en/insights-reports/2012/ifc-performance-standards.

PPP contracts should be outcome-oriented, with input specifications typically far less detailed than in traditional procurement structures to encourage private sector innovation. Technical specifications should be designed with sufficient flexibility, provided that performance-based outcomes and public service objectives are clearly defined. If this principle is not well understood or consistently applied across government entities, it can become a significant bottleneck during project structuring, as some departments may insist on overly detailed specifications that hinder innovation. This risk should be proactively managed within the broader PPP framework and capacity building. Where relevant, technical studies should ensure that project design and costs take into consideration aspects of climate adaptation and resilience.

In the context of persistent environmental hazards such as flooding, droughts, extreme heat, and sea-level rise, climate-related threats present significant risks to infrastructure projects. These risks should be systematically addressed during the appraisal and structuring of PPPs, where relevant. Failure to do so can result in higher construction and maintenance costs, service disruptions, or even premature contract termination. As such, climate considerations should be integrated early in the project life cycle, where relevant. In addition, technical and financial assessments should be stress-tested against a range of climate scenarios to evaluate potential impacts on asset performance and cost-efficiency. Decision makers are encouraged to rigorously assess projected climate risks alongside the cost implications of resilience

Risk Allocation

Risk allocation is critical in PPPs as it directly influences project viability, value for money, private sector interest in a project, and long-term service delivery outcomes. At the appraisal stage, a comprehensive risk assessment should be undertaken to map project risks and define potential risk allocation between both public and private stakeholders. The final risk matrix, to be concluded in the contract, will define responsibilities, serve as input to pricing, and support the development of potential mitigation strategies.

Guiding Principles

- Assign each risk to the party that has the best ability, resources, and incentive to mitigate or absorb its impact at the lowest cost. Also consider that positive and negative impacts will be absorbed by the party.
- Avoid shifting risk disproportionately to the private sector such that it cannot reasonably manage, as this can increase financing costs or deter participation.
- Risk allocation should be designed to deliver better long-term outcomes through efficiency and service quality (i.e., value for money), not merely transfer liability to another party.
- Clearly define risk-sharing mechanisms (to be further detailed in the contract) to minimise ambiguity and reduce potential disputes during project implementation.

Key Considerations

- Comprehensive Risk Identification: Conduct a structured assessment of risks across all project phases (development, construction, operation, and asset reversion), including financial, technical, legal, environmental, and political risks.
- Categorisation and Quantification: Distinguish between risks that can be managed by the parties (e.g., delays) and/or can be insured, and risks that are a result of external factors beyond their control. If possible, quantify risks to inform mitigation strategies and pricing.
- Market and Lender Perspectives: Incorporate the private sector perspective, including sponsors and financiers, to understand how risk allocation affects viability and appetite. Private stakeholders often price risk conservatively if not clearly defined.
- Life cycle Risk Alignment: Ensure that risks are aligned with responsibilities throughout the asset life cycle.

Financial Feasibility Studies

Financial studies, along with technical studies, risk allocation, and project contracts, are core to PPPs. This section compiles multiple aspects of the structuring processes (e.g., affordability, payment mechanisms, commercial feasibility, profitability, etc.) that are usually explored in detail in guides and manuals, which should be reviewed in detail by practitioners. The section focuses on the critical inputs and outputs from the financial model, which emulates the financials of the Special Purpose Vehicle (SPV) to be created by the private sector for project development.

Guiding Principles

- Ensure the project's revenue streams and cost structure support long-term financial sustainability and investment recovery.
- Demonstrate that the PPP offers better outcomes compared to public procurement, not only in cost but also in service provision and risk management (i.e., value for money).
- Assess the government's and/or users' capacity and willingness to meet financial obligations under the PPP, including long-term payments and contingent liabilities.
- Consider potential public contributions (e.g., viability gap funding, guarantees), if needed. Public or concession resources should be targeted and used in a way that optimises and addresses market gaps without distorting competition or creating dependency.

Key Considerations

- Project Revenues: Select appropriate revenue sources, such as user fees, availability payments, or hybrid models, based on demand certainty, willingness to pay, and public policy. In some circumstances, private players may require complementary risk mitigation instruments to safeguard payment reliability and reduce exposure to budget risk and political interference.
- Project Costs: Base capital and operational expenditure estimates on realistic assumptions and use benchmarked market data to ensure reliability.
- Financial Modelling: Develop a financial model that projects revenues, expenses, debt service, and returns over the life of the PPP contract.
  - » Capital Structure: Consider an optimal mix of debt and equity, aligned with risk allocation, market practices and cash flow stability, to ensure financial feasibility.
  - » Calculate key financial metrics such as the internal rate of return (IRR), debt service coverage ratio (DSCR), and net present value (NPV).
  - » Run sensitivity and scenario analysis to test the project's resilience to changes in critical variables (e.g., cost overruns, revenue shortfalls, and delays).
  - » Assess the financial viability for the private partner and the fiscal implications for the public sector.
- Structure equity returns to reflect risk-sharing arrangements and incentives that reward efficiency and performance. Ensure that payment mechanisms are transparent and linked to service delivery, considering KPIs.
- Estimate the PPP term, striking a balance between the long-term outcomes of the PPP and sufficient time for the private partner to recover investments and earn expected returns.

measures to determine the most efficient project structure. Selecting a prudent and plausible climate scenario as the basis for planning assumptions is essential to ensure the long-term viability and sustainability of the PPP model, safeguarding value for money and continuity of public service.

Moreover, PPPs should incorporate sufficient contract flexibility to accommodate unforeseen (and often uninsurable) environmental, social and climate-related hazards that may arise over the course of the project life cycle.

The risk allocation, defined as part of the appraisal and structuring, will have a significant impact on project costs and drive the final PPP scope. As a result, this allocation serves as a critical input for decision makers and should be revised throughout the structuring process and contract drafting processes.

Legal Due Diligence and Legal Studies

Legal due diligence helps identify potential legal obstacles during the appraisal process that could derail the project in the later stages (e.g., procurement restrictions, land ownership issues, etc.). Moreover, it assures the project is aligned with the broader legal and regulatory framework of the country.

Guiding Principles

- Ensure that the project and the procuring authority have the legal mandate to enter into a PPP and that the proposed structure complies with national laws and regulations.
- Anticipate legal and regulatory risks that could affect the project during its life cycle, and design mechanisms to manage potential changes.
- Ensure that the process supports transparency, competitive procurement, and equal treatment of bidders.
- Embed legal counsel throughout the PPP appraisal and structuring process; this is especially relevant to ensuring government attorneys are informed and supportive of the project legal structure, which may require their sign-off.

Key Considerations

- Review of Legal and Regulatory Framework: Where applicable, analyse the national PPP law, procurement laws, policies, sector-specific regulations, investment laws, environmental laws, and foreign exchange controls that could impact the project's legal viability.
- Institutional and Contracting Authority Mandate: Confirm the public authority has the legal right to procure and enter a PPP and sign long-term contracts with private entities.
- Permits, Approvals, and Regulatory Interfaces: Identify the approvals and licences needed from different government agencies and assess the legal processes and timelines for securing them.
- Governing Law: Determine the appropriate legal avenue and mechanism for resolving disputes (e.g., local courts, arbitration).
- Termination Regulation: Assess whether national law provides a sufficient legal basis for enforcing contract termination, step-in rights, compensation mechanisms, and relief from performance due to force majeure.
- Restrictions on Foreign Participation and Currency Flow: Review any legal limitations on foreign investment, repatriation of profits, or currency exchange that could affect project bankability and investor interest.
- Legal Precedents and Jurisprudence: Examine relevant court decisions, past PPP contract disputes, and lessons from previous transactions to identify potential legal risks or opportunities for strengthening contract design.

Financial models rely on macroeconomic financial assumptions such as inflation, interest rates, demand growth, accounting and tax treatment, and currency risks (if applicable), which will directly influence the accuracy and credibility of projected revenues, costs, and overall project viability. Incorrect or overly optimistic assumptions can lead to unrealistic cash flow forecasts and ultimately, unattractive or financially unsustainable projects. Therefore, it is essential that assumptions are grounded in credible macroeconomic data, aligned with national forecasts or central bank guidance, and tested through sensitivity analysis. This allows decision makers to understand how changes in economic conditions may impact fiscal exposure, private sector interest and overall bankability while highlighting the importance of the overall enabling macroeconomic environment for mobilising long-term private capital in infrastructure.

The findings from the due diligence and legal studies serve as critical inputs for the drafting of the PPP contract and bidding documents. They help define the contractual boundaries, clarify the authority of the contracting entity, and inform key provisions such as dispute resolution mechanisms, termination rights, land access, and regulatory obligations. By addressing legal uncertainties early and translating legal requirements into a contract, this process can expedite the next stage of the infrastructure life cycle.

The Importance of Considering Standards

In PPPs, where contracts often span several decades, many private investors and DFIs rely on established principles and standards to guide their investment decisions. While countries are free to define their own requirements, they may also consider augmenting local principles and standards with those recognised internationally to attract investors, including MDBs and DFIs. Aligning with such standards not only reassures initial investors that the asset will remain attractive to future buyers at the time of exit but also provides consistent, measurable, and widely accepted indicators. This ensures that stakeholders share a common interpretation and understanding of infrastructure quality and performance. In this regard, it is important for countries to first consider the suitability or applicability of international standards, guidelines, and principles with the national and local context.

The *Note on Improving the Accessibility and Availability of Key Market Data* that complements this Framework provides a set of non-exhaustive examples of such standards, labels, or principles, including the G20 Quality Infrastructure Investment (QII) principles[22], MDBs' Common Set of Aligned Sustainable Infrastructure Indicators, BlueDot, Green Investment Principles for the Belt and Road, FAST-Infra, the Impact and Responsible Investing for Infrastructure Sustainability, among others. To become viable market benchmarks for investors, these will need to cover high volumes of transactions globally.

Decision Making

As mentioned previously, the appraisal and transaction structuring process in PPPs is dynamic, involving successive rounds of analysis, consultation, and refinement. Throughout this process, parties should consider incorporating the perspectives of public agencies, regulatory bodies, potential investors and financiers, and affected communities. This inclusive and iterative approach helps to identify and address risks, align incentives, and build consensus around a structure that is both investable and implementable.

22 The QII principles include six voluntary principles guiding infrastructure investment and emphasising infrastructure as a key economic prosperity and highlighting the importance of a sustainable, impactful process. See: Quality Infrastructure Investment Partnership: https://www.worldbank.org/en/programs/quality-infrastructure-investment-partnership. The GIF applies these principles systematically, screening its supported projects against them to ensure the development of high-quality infrastructure.

The final transaction structure is a product of this collaborative effort, followed by government decision making. The final structure should include a clearly defined project scope, a well-articulated role for the private partner across the asset life cycle, and a detailed understanding of the government's financial obligations and commitments. It also reflects a strategic policy decision by the government either to proceed with the transaction, implement final adjustments, or reconsider the approach. By this stage, the project has already been deemed a priority for private participation and has consumed significant resources in the form of time, funding, and institutional effort. A clear and robust transaction structure serves as the basis to finalise contract drafting and enable a competitive and transparent procurement process.

BOX 10
Managing Unsolicited Proposals

Governments often leverage USPs or private initiatives as an alternative to public-initiated and government-led project structuring processes. Even in such cases, governments still require robust internal expertise and a technical skill set to evaluate these proposals, which pose risks of misalignment with national and sector priorities, poor value for money, and transparency concerns. Moreover, for most countries with limited technical expertise, USPs do not have the same capacity building and learning effect compared to government-led processes. As demonstrated throughout this Framework, government capacity is a prerequisite for long-term infrastructure development through private participation.

Therefore, USPs should only be used exceptionally and managed with strong policy guidelines to protect the public interest. To prevent the issues linked to USPs, governments should ensure they are managed under the same strict rules and appraisal standards as those applied to public sector-originated PPPs and maintain clear procedures within their legal frameworks.

The World Bank has provided substantial guidance for governments considering USPs, particularly in its publication, *Unsolicited Proposals: An Exception to Public Initiation of Infrastructure PPPs* (*USP Policy Guideline* – World Bank, 2014). The World Bank policy documents recommend that governments set transparent policies for handling USPs, require competitive processes whenever possible, and implement safeguards to protect innovation without sacrificing fairness. These guidelines also emphasise building government expertise to properly evaluate proposals and establishing robust systems to prevent conflicts of interest and ensure oversight.

Countries such as Australia, South Africa, and the Philippines have adopted World Bank-aligned approaches to managing USPs, prioritising transparency, competitive processes, and public interest safeguards while encouraging private-sector innovation.

Contract Drafting and Bidding Process

Drafting the PPP Contract

Appraising and structuring a PPP project requires specialised expertise across a range of fields, including engineering, economics, finance, law, environmental management, and procurement. Each component of the appraisal requires input from professionals with deep subject-matter knowledge, whether it is conducting a CBA, modelling financial viability, assessing legal constraints, or designing a risk allocation framework.

Guiding Principles

- Use unambiguous language to define obligations, responsibilities, and procedures.
- Avoid vague terms that may lead to differing interpretations. The private sector will usually adopt a conservative approach. Consider that not all potential investors may have the same level of familiarity with local jurisdiction and practices.
- Embed the risk allocation agreed during structuring into specific, enforceable contractual provisions, including relief and compensation mechanisms.
- Ensure the contract is legally valid under national laws and regulations, enforceable in the chosen jurisdiction, and includes a forum for dispute resolution. Arbitration can increase a project's attractiveness to international private players.
- Incorporate mechanisms that allow for adjustment over time (e.g., change in law, refinancing, contract modifications), while maintaining contractual certainty.
- Include reporting, audit, and disclosure provisions to support oversight and protect public interest throughout the contract's duration.

Key Considerations

- Project Scope and Service Requirements: Define the physical assets involved in the project and services to be delivered, required performance standards, and KPIs. Use output-based specifications where feasible.
- Roles and Responsibilities: Clearly delineate the roles of the contracting authority, private partner, subcontractors, and third-party oversight entities.
- Risk Management Provisions: Refine and detail risk allocation, define how key risks are addressed in the contract, including force majeure, material adverse government action, relief events, and insurance requirements.
- Payment Structure: Set out payment formulas, potential indexation rules and reference indices to be used, deductions for underperformance, and any bonuses or incentives.
- Changes in Procedures: Include mechanisms to manage contractual changes, defining thresholds, approval processes, and potential cost-sharing arrangements.
- Reporting and Performance Management: Define how performance will be tracked, audited, and enforced. Include inspection rights and applicable penalties. Verification from a third-party independent verification entity can be included to assure neutrality, if necessary.
- Dispute Resolution: Establish a clear hierarchy of dispute resolution mechanisms (e.g., negotiation, mediation, arbitration), including governing law and jurisdiction.
- Termination and Compensation: Outline termination grounds (i.e., default by one of the parties, force majeure, convenience/voluntary, mutual agreement), procedures, cure periods, and rules for calculating compensation due to either party. Consider lenders' step-in rights before termination is finalised.
- Handback and End-of-Term Obligations: Specify asset condition requirements at handback, transfer processes, and inspection rights to ensure service continuity and asset integrity.
- Contract Management Provisions: Incorporate required governance structures, contract management rules, and institutional responsibilities to support effective long-term oversight. This may include requiring the creation of an SPV, setting obligations, and regulating ownership changes.

Contract drafting in PPPs should be led by an experienced legal team, which is usually also involved in the legal due diligence and legal feasibility studies, with continuous and structured input from technical, financial, and policy experts to ensure the contract is comprehensive, coherent, and aligned with the project's structure and public objectives. Equally important, governments should integrate lessons learned from previously structured PPP projects and from managing existing contracts. This practice not only improves standard PPP contracts (if applicable) but also contributes to capacity building and institutional memory, helping government teams become progressively more effective in managing the complexities of long-term partnerships. Nevertheless, as PPP programmes evolve, governments may have multiple versions of PPP contracts, and moving towards standardisation in clauses or similar contracts can help provide certainty to the market and simplify the contracting process.

The Bidding Process

Following complex structuring and contract drafting processes, the tender stage marks a critical turning point, representing the moment when the private sector fully engages and gains comprehensive visibility of the proposed project. All prior analytical work, risk allocation, financial modelling, and contractual design culminate in this phase, where private players evaluate whether the opportunity is investable, commercially attractive, and operationally feasible from their perspective.

Bidding processes that promote transparency, fairness, and competition are essential for building market confidence, attracting credible investors and operators, and maximising value for money for the government. They also safeguard public interests by providing a structured, rules-based framework to evaluate proposals and select the most competitive bidder.

Before launching the tender process for a PPP project, it is essential to obtain all required approvals and authorisations from relevant government entities. This step ensures the project is legally and institutionally cleared to proceed to the tender stage and aligns with the government's policies and regulatory framework. Securing these approvals provides certainty to potential bidders that the project has political backing, which can help avoid procedural delays or reversals, and it helps protect the public sector from legal or reputational risks associated with launching a procurement process that lacks internal coherence or violates regulatory requirements. Approval should be obtained in accordance with the country's PPP framework, often involving MoFs, planning, infrastructure, legal authorities, and oversight bodies. This institutional sign-off is a prerequisite for a credible and successful tender process.

Similar to the government-led structuring process, project appraisal and proposal preparation undertaken by private players also require capital and adequate time to thoroughly review tender documentation, understand the proposed contract provisions, assess project specifications, provide feedback, obtain internal approvals, and eventually develop a proposal. Private players will also often hire technical, financial, and legal advisors to support the preparation of their proposal.

The Bidding Process

Providing transparent, reliable and realistic timelines for bid preparation while widely promoting PPP projects and programs through bidders' conferences and roadshows is critical to promote competition.

Guiding Principles

- The bidding process should be open, rules-based, and provide equal access to all qualified participants. Clear procedures and evaluation criteria should be publicly disclosed and consistently applied.
- Procurement timelines and documentation requirements should be realistic and well-managed to avoid unnecessary delays or costs for both government and bidders.
- Safeguard sensitive bidder information while preventing conflicts of interest, collusion, or political interference. Institutional integrity is key to sustaining private sector confidence.
- Engage with the market early through pre-bid consultations or roadshows and remain responsive to bidder feedback through structured clarifications or addenda.

Key Considerations

- Qualification Stage: Establish objective and proportionate pre-qualification criteria, including legal, financial capacity, and relevant experience requirements to ensure only capable bidders advance to the request for proposal stage.
- Evaluation Framework: Apply a transparent and objective evaluation process. In cases of technical and financial components, use clear weighting for technical and financial criteria and independent evaluation panels, ensuring scoring reflects project priorities (e.g., innovation, life cycle cost, service quality).
- Clarifications: Allow for structured interactions during the bid period, such as bidder conferences, written questions and answers, or bilateral meetings, while maintaining fairness and transparency. Consider creating a virtual data room to store and share project information while monitoring private sector traffic.
- Bid Submission: Define secure and accountable procedures for bid submission and opening.
- Bidder Selection and Final Contract: After selecting the preferred bidder, follow a clear process for finalising the contract within a set timeframe, ensuring no material deviation from the final contract and bid without proper justification.
- Standstill Period: Implement a standstill period. This is especially important in jurisdictions with legal challenge rights.
- Procurement Oversight and Auditability: Ensure the process is documented and auditable, with oversight mechanisms (e.g., procurement monitors and audit bodies) in place to uphold integrity and compliance.

Contract Signing and Commercial Close

As an outcome of the tender process, the government selects a successful bidder according to the predefined evaluation process. This marks another pivotal milestone in the PPP life cycle, as the government formally chooses the private partner best positioned to deliver the project successfully. Following selection, the parties proceed to finalise and sign the PPP contract.

Contract signing signifies the legal and commercial commitment of both the public and private parties to the project. It also initiates the transition from procurement to implementation, triggering a new set of activities, including financial close, design finalisation, and mobilisation for construction or service delivery. The signed contract embodies the outcomes of the entire appraisal, structuring, and tendering process, and it becomes the primary reference document for managing the project throughout its life cycle. From this point forward, the emphasis shifts to contract management, performance monitoring, and governance, ensuring the project delivers its intended benefits.

Implementation, Financing, and Contract Management

The initial phase of PPP project implementation is focused on mobilising the resources necessary to bring a project to life. Following the commercial close, the private project sponsor is expected to ensure the required capital (including its own capital and third-party financing) is in place to proceed. Concurrently, the project company engages design and construction contractors, finalises detailed designs, and secures outstanding permits and regulatory approvals, as delays in these can disrupt construction schedules and escalate costs. Once these conditions are met, physical construction activities commence, marking the physical start of project delivery.

In parallel, the public authority should shift into an active contract management role. This includes monitoring the private partner's adherence to performance obligations, tracking compliance with construction timelines, managing risks, and verifying progress against agreed milestones. Effective contract management at this early stage is essential not only to detect and resolve issues promptly but also to establish a strong working relationship between the parties.

Financing

Thus far, this Framework has devoted a great deal of attention to infrastructure financing. This section highlights the importance of macroeconomic conditions for long-term financing, emphasises governments' strategies from the PPP program perspective, and illustrates the main financing instruments used in PPPs.

Macroeconomic stability is a critical prerequisite to creating a conducive environment that attracts local and international investors to provide capital with the long-term financing terms required for infrastructure. Macroeconomic stability ensures a stable and predictable investment environment, resulting in reduced perceived risk, improved access to affordable finance, and safeguarding returns on investments for financiers. In this context, governments should also strategically focus on developing local capital markets while unlocking and incentivising domestic sources of capital for infrastructure.

BOX 11

Most Common Financing Instruments Used in PPP Projects

EQUITY INSTRUMENTS

Sponsors Equity: Contributions from shareholders (i.e., developers, construction firms, operators, investment funds, institutional investors) who take on project risks in exchange for a share of project returns.

Junior equity/Quasi-equity: Often used to reduce risk, optimise returns and leverage, but not necessarily adopted in all projects.

DEBT INSTRUMENTS

Senior Commercial Loan: Project finance loans from commercial banks based on a non-recourse or limited-recourse, repaid from project cash flows. Most PPPs use this structure, especially in mature PPP markets.

Corporate Loan: In some cases, the sponsor's balance sheet may support financing through corporate borrowing.

Subordinated Loan: Higher-risk loans ranking below senior debt in repayment priority. Mezzanine debt is a hybrid form of subordinated loan that includes equity-like features.

DFI INSTRUMENTS

Global, regional, and national DFIs offer long-term financing, concessional, blended finance solutions and risk mitigation instruments to enhance bankability. These are especially relevant in nascent PPP markets, where international financiers may have small exposure limits, and local financing is not yet developed.

BOND FINANCING

Project Bonds issued by a project SPV to raise long-term capital from capital markets, refinancing, or large-scale projects. Often suitable for mature or operational projects with stable revenues.

GREEN AND SUSTAINABLE FINANCE

Green bonds, climate funds, or environmental, social, and governance-linked loans can be accessed through climate or sustainability-focused financing sources for projects aligned with environmental goals. They may include environmental, social, and governance performance indicators.

REFINANCING

Given the long-term nature of PPP contracts, refinancing is an option that can be considered by project sponsors and investors as the risk profile of a project changes over time.

Chapter 2 highlighted government-led mechanisms, ideally structured at the programme level, which can be deployed at the project level. Examples include viability gap funding, capital grants, capital subsidies, as well as publicly backed loans with concessional terms or lower repayment priority (subordinated debt). These mechanisms can improve projects' financial viability and/or reduce a project's overall financing costs. The use of guarantees to cover against revenue shortfalls, political risks, or termination events is also relevant to improve the project's creditworthiness and attractiveness. In most nascent PPP markets, the deployment of some of these instruments is a prerequisite to attract the private sector, special international sponsors, and developers.

Experience shows that projects that are well structured, backed by a robust project contract, a committed government, and a reputable private partner will be able to attract qualified sponsors and mobilise financing in the market. Box 11 outlines financing instruments that can be mobilised to finance well-structured bankable projects.

Contract Management

Contract management is a critical function in the life cycle of a PPP project. The real test of a PPP's success lies in its long-term implementation, during which effective contract management safeguards service delivery according to contract performance requirements and ensures that a project delivers its expected outcomes.

Proper contract management also allows for early detection of issues such as underperformance, financial stress, or compliance failures, enabling timely interventions and minimising disruption. Without strong contract management, even well-structured projects can face delays, cost overruns, or service quality deterioration. Ultimately, effective contract management is essential not only to protect public interest and ensure user satisfaction, but also to preserve the integrity and credibility of the broader PPP programme.

From a programme perspective, a government's track record on existing PPP projects serves as one of the most powerful indicators of its commitment to private investment in infrastructure. Successful implementation of existing PPPs, usually reflected in timely financial close, fair contract enforcement, effective dispute resolution, and reliable payment performance, signals to the market that the government is a credible, competent, and trustworthy partner. This track record builds investor confidence, reduces perceived risk, and plays a vital role in attracting new participants, including developers, financiers, and operators, especially in competitive or emerging markets.

Moreover, a consistent and transparent approach to project execution demonstrates the strength of the government's institutional capacity, policy continuity, and respect for long-term obligations. It reinforces the credibility of the broader enabling environment and reduces uncertainties, amplifying the visibility and attractiveness of the overall PPP programme.

CHAPTER 4

The Role of Data for Developing an Investable Infrastructure Pipeline

How Data Supports Stakeholders Across the Elements of the Framework

Data is an enabler of well-functioning infrastructure markets and a critical input for developing an investable infrastructure pipeline, influencing both the enabling environment and the multiple stages of the infrastructure life cycle.

Data is a vital tool for governments, informing policy design, priority setting, and regulatory frameworks. During project preparation, high-quality, real-time data enables accurate cost estimation, scope definition, and the need for potential funding sources. It also underpins transparent procurement, benchmarking against national and international standards, consistency, and performance monitoring.

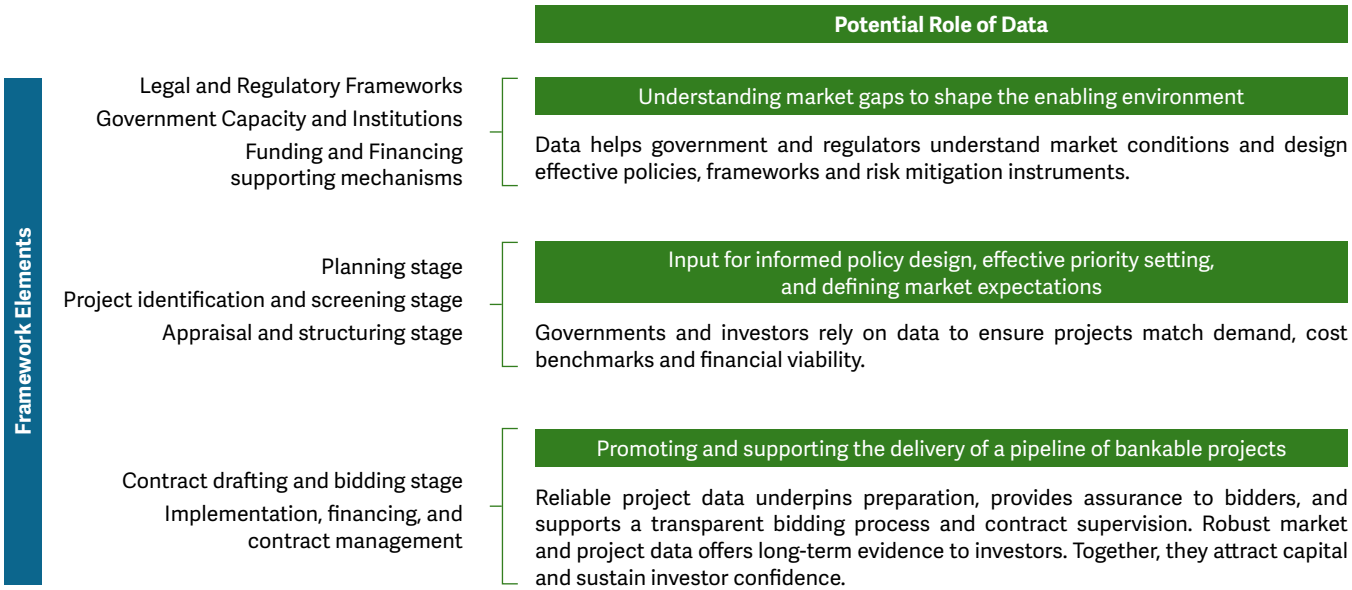
For investors, reliable market and project data enable accurate benchmarking, risk-return assessment, and performance comparison across sectors and regions. It informs both strategic and project-level decisions, helping quantify risks and define required returns. Transparent, data-backed government pipelines signal commitment to private participation, fostering investor confidence, improving risk measurement, and supporting a more transparent and efficient investment environment.

Financial regulators can also leverage infrastructure investment data to assess impacts on macro-financial and fiscal stability. Inadequate, non-standardised data often leads to conservative regulatory approaches, such as higher capital charges on infrastructure investments by banks and insurers. Improved data availability can help refine risk-weighted capital requirements and promote more balanced regulatory frameworks.

Figure 6 illustrates how data can support the various elements of the Framework presented in this document.

At the macro (market) level, robust, timely, and standardised data support governments and private sector stakeholders in shaping the enabling environment, facilitating informed strategic decision making, effective policy formulation, and transparent priority setting. It enables a clearer understanding of market conditions, sectoral needs, and investment opportunities, which in turn fosters investor confidence and encourages long-term capital flow. A complementary note was developed to explore existing data resources beneficial to these elements within the Framework and to highlight existing gaps (see Box 12).

FIGURE 7
Potential Role of Data Across the Framework Elements



BOX 12
Complementary Market Data Note

The *Note on Improving the Accessibility and Availability of Key Market Data* was developed to improve understanding of market data barriers. It provides a structured mapping of key infrastructure market data, evaluating the extent to which consolidated and comparable global data is available and accessible while highlighting how data can support informed decision making and a stronger enabling environment. The Note leverages the Infrastructure Monitor 2024 report to present an overview of current global market data trends to illustrate the value of making this data available and accessible.

Global trends and data gaps are analysed for eight data themes, selected for their alignment with the Framework and the relevance of global benchmarks to practitioners. These cover costs, regulatory frameworks, institutional capacity, financing and performance benchmarks, market liquidity, and project delivery, as well as investors' development goals and climate risks. Together, these themes capture the economic, financial, operational, and sustainability factors essential to developing and managing investable infrastructure. The Note demonstrates how closing market data gaps has the potential to strengthen and scale up public and private sector collaboration in developing an investable pipeline.

Reference: Note on Improving the Accessibility and Availability of Key Market Data.

At the project level, data is essential throughout the infrastructure life cycle, particularly during project preparation, where it informs technical, financial, and economic assessments. Beyond supporting the project preparation phase, project-level data may also support competitive tender processes, data analytics capabilities, asset performance monitoring, and benchmarking. Moreover, well-structured, data-backed projects not only improve investment decision making but also foster credibility, which helps crowd in private sector participation, contributing to a more efficient and resilient infrastructure investment ecosystem (see Box 13).

Despite its importance, critical gaps linked to data persist in many countries, ranging from inconsistent definitions and reporting methods to partial coverage or limited time series. In addition to the unavailability of quality data, the difficulties in accessing the data are detrimental to scaling up private investment, especially in emerging markets. Data availability gaps at the macro and project level hinder and delay project preparation, decision making, and ultimately the establishment of infrastructure as a recognised asset class. Overcoming these challenges requires coordinated action across governments, the private sector, and international stakeholders.

BOX 13

Complementary Practice Guide

The *Practice Guide on Leveraging Infrastructure Project-Level Data and Digitalising the Pipeline* was developed to improve the reliability, accessibility, and transparency of project-level data. Grounded in three foundational building blocks of systematic project data collection, interoperability of systems, and domestic customisation, the Practice Guide provides principles for effective data collection and management and outlines a structured pathway towards a comprehensive digital solution. A digital solution approach, which is based on strong coordination across ministries and between levels of government, offers an opportunity for improving efficiencies in the collection and management of project-level data. The steps covered in the Practice Guide can support the development of projects throughout different stages of the infrastructure life cycle—especially, project preparation. By adopting such an approach, countries can ensure that digital tools not only integrate and streamline data collection and management but also strengthen long-term infrastructure planning and pipeline visibility.

Reference: Practice Guide for Leveraging Infrastructure Project-Level Data and Digitalising the Pipeline.

How Countries Can Unlock the Potential of Data

Drawing on the Market Data Note and Practice Guide, this section outlines practical measures that could help countries unlock the full potential of data for infrastructure planning, financing, and delivery.

Establishing a Common Framework for Infrastructure Data

A foundational step for all countries is to address any absence of consistent definitions and taxonomies for infrastructure. Without a shared language, datasets become difficult to compare, undermining policy analysis and investment decisions. Globally, this is particularly pressing in the context of evolving global frameworks such as Basel IV, where misalignment in definitions can have unintended regulatory and financial consequences.

Any definition will need to remain flexible and enable each country to retain specific taxonomies or standards. Nonetheless, countries can work through international platforms, such as a G20-convened global forum, to engage regulators, standard-setters, and industry stakeholders in developing consensus on key infrastructure definitions and classifications. Such collaboration would not only enhance data consistency but also advance the recognition of infrastructure as a distinct and investable asset class.

Mapping and Integrating Existing Datasets

While substantial infrastructure-related data exists, it is often dispersed across multiple institutions, formats, and systems, limiting its usability. Strategic mapping and harmonising existing national and global datasets can make data easier to access, interpret, and apply.

By undertaking and facilitating such mapping exercises, countries can identify overlaps, inconsistencies, and gaps in their data ecosystems. Enhanced accessibility enables the creation of integrated and interoperable data platforms, which allow stakeholders to benchmark performance, assess market conditions, and make evidence-based investment decisions. Institutional capacity building—particularly within line ministries and planning agencies—and strategic partnerships with international organisations, private data providers, and industry associations are also essential to enhance data accessibility and ensure that public and private actors can fully leverage these datasets.

Leveraging Digital Solutions Technology for Systematic Data Practices

Unlocking the potential of data also requires complementing market-level indicators with detailed project-level information to inform decision making from policy makers and build credible, investment-ready infrastructure pipelines that can attract long-term private capital. A digital approach helps streamline and standardise processes, thereby driving efficiencies in infrastructure planning, implementation, and management.

Conclusion

The urgency for action to develop infrastructure is undeniable, with a large portion of the need concentrated in EMDEs. Public spending alone will not be sufficient to meet this gap; yet private investment in infrastructure in these regions has stagnated over the past decade and is concentrated in a few major economies. Guided in part by this Framework, urgent action and effective partnerships are essential to develop investable infrastructure pipelines, a key priority of the G20 IWG under South Africa's Presidency.

As such, this Framework is intended for a broad spectrum of infrastructure professionals, including government stakeholders such as ministries of economy and finance, PPP units, infrastructure ministries, other relevant line ministries, and local governments, as well as development partners, private sector participants, and organisations involved in infrastructure project design and development. The Framework serves as a guiding resource rather than a prescriptive tool, enabling governments to tailor its application to align with their national development policies and strategies.

At its core, the Framework underscores the critical importance of prioritising the early stages of project development, anchored on two foundational pillars: (i) a conducive enabling environment, which requires effective legal and regulatory tools, empowered institutions, and adequate funding mechanisms; and (ii) robust early-stage project preparation processes, which requires rigorous planning, screening, analysis, and contract drafting and management, ensuring a project delivers on its intended objectives. More broadly, the Framework highlights the pivotal role of data as a critical input for market development and throughout the infrastructure life cycle, as well as the need for governments to remain invested and engaged throughout the project life cycle.

Ultimately, the Framework reinforces a central premise: the successful development of investable infrastructure pipelines depends on long-term government policy commitment; institutional strength and regulatory environment; and targeted support for project preparation. Developing a credible, sustainable, and investable pipeline is an iterative process that demands coordinated efforts across the public and private sectors, underpinned by commitment, capacity, and data. Noting these imperatives, the Framework and its supporting tools aim to enhance governments' ability to attract private investment, thereby accelerating the delivery of inclusive and resilient infrastructure at the scale and pace required to meet the evolving needs of growing populations and dynamic markets.

ANNEX I Evolution of Legislative Frameworks

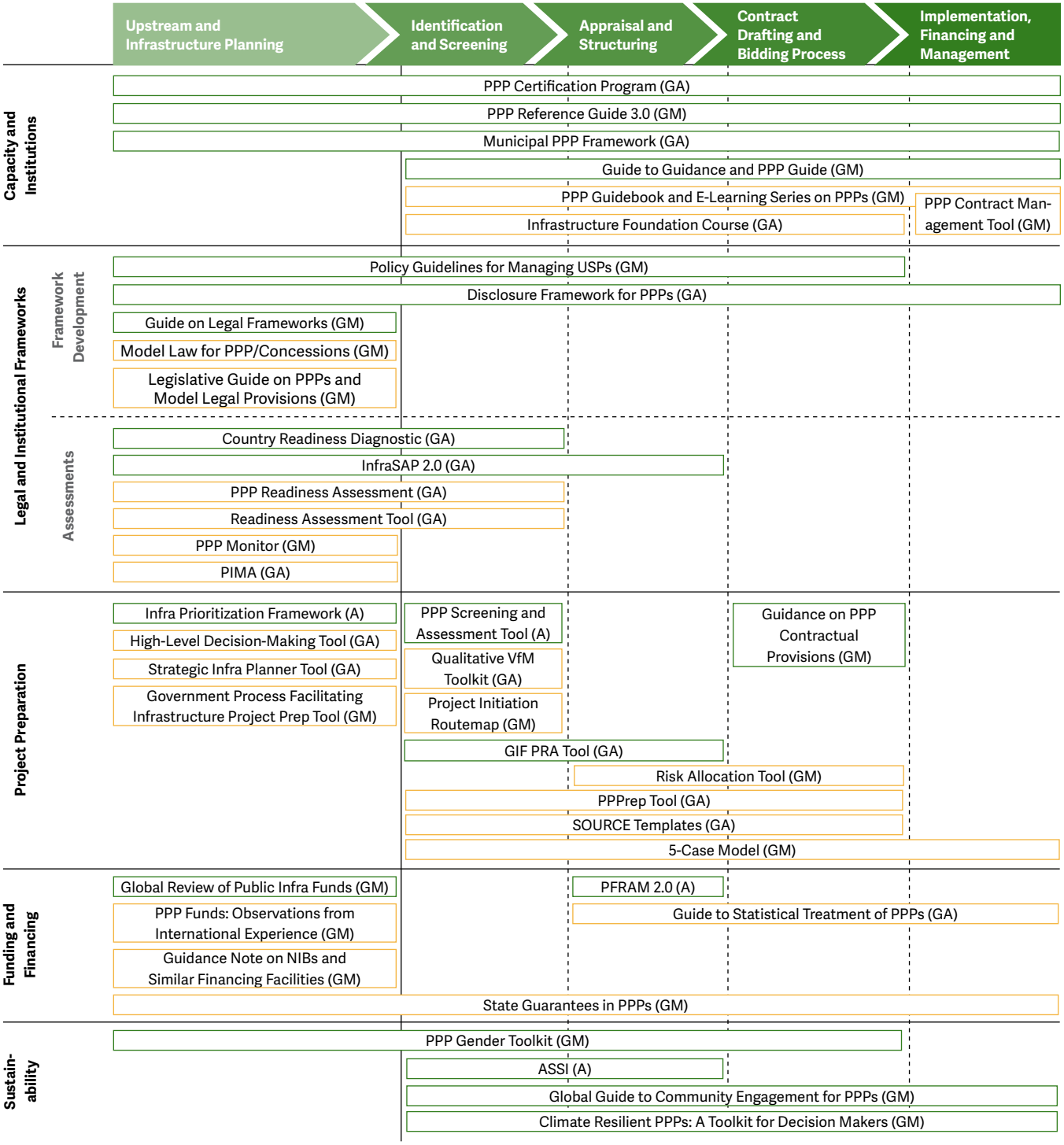
	Basic Enabling Legislation	PPP Legal Framework	Guidance Material
Australia	**1996:** National Electricity Act (South Australia) **2007:** Water Act **2011:** National Energy Retail Law (South Australia)	**2015:** National PPP policy	**2007:** Provisions, Contingent Liabilities and Contingent Assets **2016:** The Asset Management Accountability Framework **2018:** Australian Drinking Water Guideline update
Brazil	**1993:** Public Procurement Law **1995:** Concessions Law	**1952:** Government Financing Vehicle (Brazilian National Development Bank) **2004:** PPP Law (amended in 2012) **2004:** PPP Unit (Ministry of Planning, Budget, and Management) **2007:** Project Development Fund (Brazilian National Development Bank-International Finance Corporation)	**2015:** Unsolicited Proposals **2016:** PIM-PPP Framework (PPI Law)
Colombia	**1991:** Ports Concessions Law **1993:** Public Procurement Law (amended in 2007)	**2011:** PPP Unit (Transport) **2011:** Government Financing Vehicle (FDN) **2012:** PPP Law and PPP Unit (MoF)	**1998:** Contingent Liabilities **2015:** Aggregation of PPP-related regulatory decrees **2015-16:** PPP Pipeline and PIM-PPP Prioritisation Methodology/Tool (National Planning Department)
India	**1991:** Electricity Law **1995:** National Highways Act **2012:** Public Procurement Bill (amended in 2015)	**2005:** Government Support Vehicle (Viability Gap Funding) **2006:** PPP Procedures and Guidelines **2006:** PPP Cell and PPPAC (MoF) **2006:** Government Financing Vehicle (India Infrastructure Finance Company Limited) **2008:** Project Development Fund (India Infrastructure Project Development Fund)	**2014:** Renegotiation of PPP Contracts **2015:** Post-Award Contract Management **2017:** PPP Procurement **2017:** Municipal Bond Financing

	Basic Enabling Legislation	PPP Legal Framework	Guidance Material
Indonesia	**2009:** Act on Traffic and Road Transport **2014:** Law on Geothermal Energy **2019:** Law on Water Resources **2014:** Government regulations on the National Energy Policy **2017:** Regulations on the National Energy Plan **2022:** Regulations on the Acceleration of Renewable Energy Development for Electricity Generation	**2005:** Presidential Decree (Perpres) **2009:** Establishment of PT Sarana Multi Infrastruktur and Indonesia Infrastructure Guarantee Fund **2010:** Establishment of PT Sarana Multi Infrastruktur **2014:** Creation PPP unit Committee for Acceleration of Priority Infrastructure Delivery **2015:** Presidential Regulation 38/2015 updated by Regulation PPN Reg 7/2023 (effective 2023)	**2021:** Asset recycling guidelines for state-owned enterprises **2024:** Ministerial Regulation (the New Carbon Capture and Storage Regulation) on Implementation of Carbon Capture and Storage activities
Jordan	**2000:** Privatization Law **2012:** Renewable Energy Law	**2014:** PPP Law and PPP Unit (MoF) **2015:** PPP Regulations **2020:** PPP Law Revision and PPP Unit (Prime Minister's Office)	**2015:** PPP Pipeline Tool **2018:** FCCL Framework **2018:** PIM-PPP Framework
Kenya	**1995:** Energy Act **2002:** Water Act **2005:** Privatization Act	**2010:** PPP Steering Committee **2011:** PPP Policy **2013:** PPP Act and PPP Unit (MoF) **2014:** PPP Regulations **2017:** Project Development Fund	**2016:** PPP Pipeline Tool **2018:** PIM-PPP Framework **2019:** FCCL Framework
Philippines	**1990:** Build-Operate-and-Transfer Law **2001:** Energy Sector Reforms	**2010:** PPP Center (National Economic and Development Authority) **2011:** Project Development Fund (Project Development and Monitoring Facility) **2012:** BOT Law expanded to PPPs **2013:** PPP Governing Board	**2012 Onwards:** Policy briefs on all aspects of the PPP project cycle **2015:** Identification, Selection and Prioritisation of PPP Projects
Russia	**2005:** Public Procurement Law **2005:** Concessions Law	**2007:** Government Financing and Support Vehicle (Vnesheconombank) **2009:** National PPP Center **2011:** Agency for Strategic Initiatives **2015:** PPP Law **2020:** Investment Protection and Promotion Law	**2005 Onwards:** Governmental and Ministerial Regulations and Guidelines on PPP **2012:** Aggregation of PPP Projects **2018:** Rosinfra Investment Platform **2021:** Regional Investment Standard

ANNEX II **Mapping of Tools and Resources**

The World Bank Group and other partners offer expertise, data, tools, and services for PPP development and implementation. This annex provides a selection of guides and tools designed to enable stakeholders to make informed decisions on PPPs.

Tool Mapping by Theme Across the PPP Project Cycle



Source: World Bank Group PPP institutions building program: https://www.ppiaf.org/documents/6116.

Development Partners	Tools/Products	Links
ADB	**PPP Monitor:** Online tool that tracks the development of the PPP enabling environment across a range of countries.	https://www.pppmonitor.adb.org
ADB	**Public-Private Partnership Funds: Observations from International Experience:** Lessons learnt from international experience in the implementation of project funding and financing facilities.	https://www.adb.org/publications/public-private-partnership-funds
EPEC	Guide to Guidance and PPP Guide (EPEC – 2011 and 2015): Guidance material and web tool that aggregates material and best practices from PPP guides globally.	https://www.eib.org/en/publications/epec-guide-to-public-private-partnerships
EPEC	Guide to Statistical Treatment of PPPs: Guidance on the evaluation of PPP projects/contracts to determine appropriate statistical treatment.	https://www.eib.org/files/publications/thematic/epec_eurostat_statistical_guide_en.pdf
EPEC	State Guarantees in PPPs: Guidance on the range and use of guarantees as appropriate policy options.	https://www.eib.org/files/epec/epec_state_guarantees_in_ppps_en.pdf
EPEC	Managing PPPs During their Contract Life: Supports governments in planning and executing their own operational management strategy.	https://www.eib.org/files/epec/epec_managing_ppps_en.pdf
ESCAP	PPP Readiness Assessment: Standardised analysis of key areas relevant to building a country's PPP enabling environment.	https://www.unescap.org/sites/default/files/ESCAP%20PPP%20Readiness%20Tool.pdf
ESCAP	PPP Guidebook (ESCAP – 2011): Guidance material covering all stages of the PPP project cycle.	https://www.unescap.org/sites/default/files/ppp_guidebook.pdf
ESCAP	PPP E-Learning Series: Online training modules to support learning across all stages of the PPP project cycle.	https://e-learning.unescap.org/thematicarea
ESCAP	Qualitative Value for Money Toolkit: Supports governments in early-stage identification and selection of suitable projects to be delivered on a PPP basis.	https://repository.unescap.org/server/api/core/bitstreams/4558b3d5-06af-4650-ba8b-5e3157866412/content
GI Hub	Risk Allocation Tool (GIH – 2019): Provides sample annotated risk allocation matrices for PPP transactions across core sectors.	https://www.gihub.org/resources/publications/ppp-risk-allocation-tool-2019-edition
GI Hub	The Africa Infrastructure Fellowship Program aims to bring governments and the private sector together to support an innovative capability building programme for public sector infrastructure professionals.	https://cdn.gihub.org/umbraco/media/2410/aifp_brochure_en.pdf

Development Partners	Tools/Products	Links
GI Hub	GIH's tool on Managing PPP Contracts After Financial Close: Guidance material for governments in managing PPP projects after financial close, through construction and operations.	https://content.gihub.org/live/media/1465/updated_full-document_art3_web.pdf
GI Hub	Guidance Note on National Infrastructure Banks and Similar Financing Facilities: Guidance and lessons learnt on establishing or reforming national infrastructure banks and other facilities to support PPP project financing.	https://cdn.gihub.org/umbraco/media/2621/gih-national_infrastructure_banks_-full_report-web.pdf
IMF	Public Investment Management Assessment: Standardised analysis of procedures, tools, decision making, and monitoring processes used by governments during the public investment cycle.	https://www.imf.org/external/np/fad/publicinvestment/pdf/PIMA.pdf
IPA	Infrastructure Foundation Course: Training course covering all stages of the PPP project cycle.	https://www.learning-center.iil.com/courses/infrastructure-business-cases-foundation-8210-put
UNECE	Standard on Public-Private Partnerships/ Concession: Legal framework in support of the Sustainable Development Goals and its Accompanying Guide.	https://unece.org/sites/default/files/2024-09/2319184_E_ECE_CECI_35_0_1.pdf
UNECE	The International Transport Infrastructure Observatory is an initiative of the UNECE Sustainable Transport Division and Islamic Development Bank. It is a multistakeholder, web-based geographic Information system platform that hosts data on a large variety of transport infrastructure networks and nodes across different transport modes.	https://gis.unece.org/portal/apps/sites/#/international-transport-infrastructure-observatory
UNICC	SOURCE's online infrastructure project development platform designed for both traditional procurement and PPPs and offers (i) comprehensive project development management, (ii) infrastructure intelligence solutions, and (iii) well-prepared pipelines of projects.	https://public.sif-source.org/source/
WBG	A Guide to Community Engagement for Public-Private Partnerships	https://documents1.worldbank.org/curated/en/099415306302239733/pdf/P149535-58c39c22-15f2-46c4-b408-3a3121c9fc64.pdf
WBG	Guide on PPP Legal Frameworks: Guidance on suggested legal provisions to support the development of a PPP legal framework.	https://ppp.worldbank.org/sites/default/files/2022-07/P17521204fa5900710ba160e9613aa44291.pdf
WBG	Country PPP Readiness Diagnostic: The diagnostic covers a range of issues that are beyond the legal and institutional frameworks theme, including capacity and institutions, funding and financing, and project preparation.	https://ppp.worldbank.org/sites/default/files/2022-03/CountryPPPReadinessDiagnosticTool.pdf

Development Partners	Tools/Products	Links
WBG	InfraSAP2.0:Standardisedanalysisofprivatefinancing constraints to create a roadmap to scale up private participation in sustainable infrastructure.	https://thedocs.worldbank.org/en/doc/96550c14d62154355b6edc367d4d7f33-0080012021/original/Infrastructure-Governance-Assessment-Framework-December-2020.pdf
WBG	Policy guidelines for managing USPs: The guidelines provide recommendations and considerations to assist governments in developing and operationalising a USP policy.	https://www.ppiaf.org/sites/default/files/documents/2017-01/UnsolicitedProposals_V2Guidelines_WEB.pdf
WBG	Disclosure Framework for PPPs: Framework that introduces the topic of disclosure in PPPs, including key benefits and challenges of disclosure.	http://pubdocs.worldbank.org/en/143671469558797229/Framework PPPDisclosure-071416.pdf
WBG	PPP Gender Toolkit designed to offer practical, systematic guidance on making PPPs gender-responsive throughout the various stages of the project cycle.	https://thedocs.worldbank.org/en/doc/61714f214ed04bc-d6e9623ad0e215897-0400012021/related/10050-PPP-Gender-Toolkit-1.pdf
WBG	PPP Certification Program (2016): Training curriculum and certification program covering PPP framework establishment and the PPP project cycle.	https://ppp-certification.com/pppguide/download
WBG	PPP Reference Guide 3.0 (2017): Guidance on all aspects of PPP development and implementation, including external resources/bibliography.	https://library.pppknowledgelab.org/documents/4699/download
WBG	Municipal PPP Framework: Guidance material, checklists, and sample documents to help subnational/local governments understand and implement municipal PPPs.	https://ppp.worldbank.org/public-private-partnership/subnational-and-municipal/municipal-public-private-partnership-framework
WBG	Public-Private Partnerships Fiscal Risk Assessment Model: Version 2.0: Quantitative tool to assist governments in assessing and managing the fiscal risks and costs of potential and ongoing PPPs.	https://www.ppiaf.org/documents/5782
WBG	Global Review of Infrastructure Funds: Lessons learnt and guidance material on the design of public infrastructure funds to leverage private financing.	https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2022-02/PIF_Global_Review-Volume_I_-_final.pdf
WBG	PPP Contract Management	https://3p-cmt.pleximus.co.in/login[24]
WBG	Mainstreaming Climate Mitigation, Adaptation, and Resilience and Gender Inclusive Approaches in Infrastructure Advisory	https://documents.worldbank.org/en/publication/documents-reports/documentdetail/099120004052270615/p1746330d584ff0210a9670dcf49a5becb0
WEF	Strategic Infrastructure Planner Tool (World Economic Forum – 2011): Used to assess a country's infrastructure readiness.	http://www3.weforum.org/docs/WEF_IU_StrategicInfrastructure_Report_2012.pdf

24 Tool not accessible unless the user is signed in.

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