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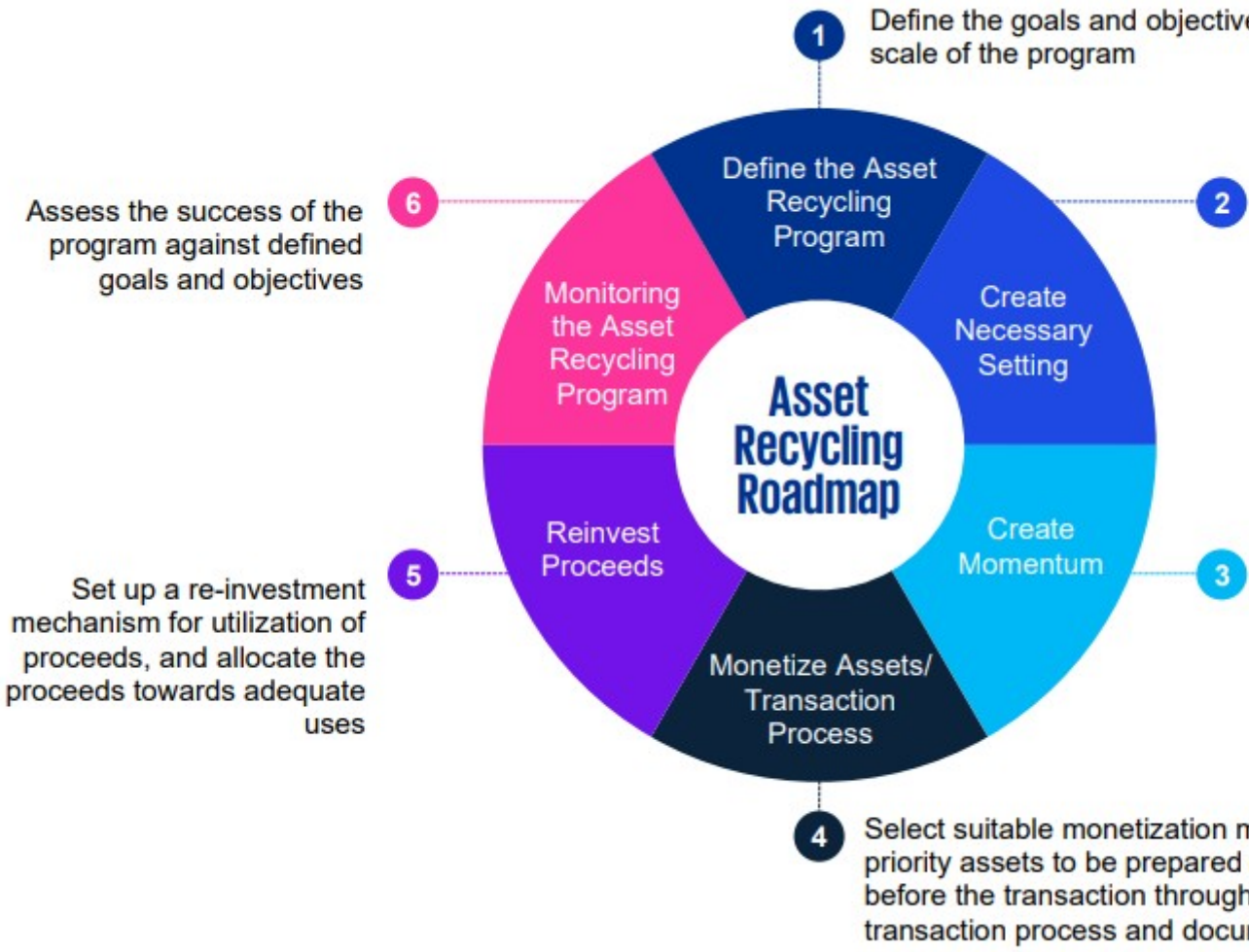

Summarizer
On this page, you'll find a concise explainer of long?term government–private contracts to deliver public assets and services, covering core terminology, contract structures, payment mechanisms, sector applications, and how these arrangements differ from other forms of private participation.

1.1 What is a PPP: Defining "Public-Private Partnership"

The introduction to this Reference Guide provided a broad definition of a PPP:

A long-term contract between a private party and a government entity, for providing a public asset or service, in which the private party bears significant risk and management responsibility, and remuneration is linked to performance.

This section fleshes out this definition with more detail, describing PPP contract types (Section 1.1.1 - PPP Contract Types and Terminology), the terminology used to describe them; and clarifying related types of partnership between public and private sector parties to which the definition and guidance material in this Reference Guide would generally not apply (Section 1.1.2 - What PPP is Not: Other Types of Private

Involvement).

1.1.1 PPP Contract Types and Terminology

This section describes in more detail the range of PPP contract types under the definition of PPP used in this Reference Guide; and some of the common terminology used globally to describe PPPs.

Most PPP projects present a contractual term between 20 and 30 years; others have shorter terms; and a few last longer than 30 years. The term should always be long enough for the private party to have an incentive to integrate service delivery costs considerations into the design phase of the project. This includes maintenance considerations as well, in order for the trade-offs between initial investment cost and future maintenance and operation costs to be optimized. The "whole-life" approach, considering whole-life costs and whole-life benefits, maximizes the efficiency of service delivery. It is at the core of the rationale for using PPPs for the delivery of public services. The precise length of the contract depends on the type of project and policy considerations. Policymakers need to satisfy themselves that the demand for the services delivered by the project will be sustained over the whole-life of the contract; the private party should be able to accept responsibility for service delivery over its term; and the procuring authority should be able to commit to the project for its term. The availability of finance, and its conditions, may also influence the term of the PPP contract.

PPP Contract Types

Throughout the Reference Guide, PPPs are described in terms of three broad parameters: first, the type of asset involved; second, what functions the private party is responsible for; and third, how the private party is paid.

Many PPPs involve new assets—often called greenfield projects. For example, the United Kingdom's PPP program—the Private Finance Initiative (PFI)—involved private companies in financing, building, and managing new public assets, from schools and hospitals to defense facilities. PPPs can also be used to transfer responsibility for upgrading and managing existing assets to a private company—or brownfield projects. In either case, a key feature of a PPP is that the assets or services provided are specified in terms of outputs rather than inputs—that is, defining what is required, rather than how it is to be done.

A central characteristic of a PPP contract is that it bundles together multiple project phases or functions. Nonetheless, the functions for which the private party is responsible vary and depend on the type of asset and service involved. Typical functions include:

- Design (also called engineering work)—involves developing the project from initial concept and output requirements to construction-ready design specifications.
- Build or Rehabilitate—when PPPs are used for new infrastructure assets, they typically require the private party to construct the asset and install all equipment. Where PPPs involve existing assets, the private party may be responsible for rehabilitating or extending the asset.
- Finance—when a PPP includes building or rehabilitating the asset, the private party is typically also required to finance all or part of the necessary capital expenditure, as described further in Section 1.3 - How PPPs Are Financed.
- Maintain—PPPs assign responsibility to the private party for maintaining an infrastructure asset to a specified standard over the life of the contract. This is a fundamental feature of PPP contracts.
- Operate—the operating responsibilities of the private party to a PPP can vary widely, depending on the nature of the underlying asset and associated service. For example, the private party could be responsible for:
- Technical operation of an asset and providing a bulk service to a government off-taker—for example, a bulk water treatment plant.

- Technical operation of an asset, and providing services directly to users—for example, a PPP for a water distribution system.
- Providing support services, with the government agency remaining responsible for delivering the public service to users—for example, a PPP for a school building that includes janitorial service

- For the provision of these services, the private party typically creates a PPP company, a Special Purpose Vehicle (SPV). A dedicated SPV allows for the segregation of all assets and liabilities linked to the private provision of services.

  The PPP payment mechanism is a third defining feature. The private party can be paid by collecting fees from service users, by the government, or by a combination of the two—with the common, defining characteristic that payment is contingent on performance. The options for a payment mechanism can depend on the functions of the private party:

- Under user-pays PPPs, such as toll roads, the private party provides a service to users and generates revenue by charging users for that service. These fees (or tariffs, or tolls) can be supplemented by government payments—for instance, complementary payments for services provided to low-income users when the tariff is capped, or subsidies to investment at the completion of construction or specific construction milestones. The payments may be conditional on the availability of the service at a defined quality level. The social returns generated by user-pays PPPs may benefit the broader population, not only those who directly use the asset. For example, the value of real estate near the PPP project may rise as economic activity increases in the area. Non-users are then free riding unless property taxes are adjusted.

- In government-pays PPPs, the government is the sole source of revenue for the private party. Government payments can depend on the asset or service being available at a contractually-defined quality (availability payments)—for example, a free highway on which the government makes periodic availability payments. They can also be volume-based payments for services delivered to users—for example, payment from hospital care effectively delivered.

  These characteristics can be combined in various ways to create a wide range of PPP contracts. These contracts can be thought of as a continuum between public and private provision of infrastructure—transferring increasing responsibilities and risk to the private sector. Hybrid PPPs (see Box 1.16, Viability Gap Funding, RFB and Hybrid PPPs) are specific PPP structures in which government payment made during the construction phase, the operational phase, or both are combined with user fees to improve the project's affordability and to allow it to proceed as a PPP.

  The payment mechanism should be structured in such a way that the net remuneration of the private party is linked to performance. For the private party to have the right incentives to deliver services at the performance levels intended by the procuring authority, its remuneration, net of costs, should increase when approaching these levels. Additionally, sustained significant deviations from the intended performance levels should lead to contract cancellation, with termination payments designed so that quitting the project is never an easy solution for the private party. For details regarding the payment mechanism see also Section 3.4.2 Payment Mechanism.

  PPPs are not the only way the private sector can be involved in infrastructure. These adjacent arrangements are described further in Section 1.1.2 - What PPP is Not: Other Types of Private Involvement.

PPP Terminology

- This Reference Guide uses the term PPP to describe the wide range of contract types, regardless of the terminology in any specific country or jurisdiction. While PPP contracts can be categorized using the parameters above, there is no consistent, international standard for naming and describing these

different types of contracts.

- This varying terminology can create confusion when comparing international experience.

  Some governments define PPP in their PPP policies or laws to mean a specific range of contract types, as described in Section 2.1- PPP Policy. Other terms are sometimes used as synonyms for PPP or refer to particular types of PPP—either in law or in common usage. For example:

- Brazilian law distinguishes between user-pays and government-pays projects—the Concessions Law governs PPP projects fully paid for by users; other PPP projects are governed by the PPP Law. Accordingly, only the latter are commonly referred to as PPPs. In France, the term PPP is restricted to government-pays contracts implemented under the PPP Law; user-pays contracts are referred to as concessions.
- In the United Kingdom, government-pays PPPs for new assets are known as Private Finance Initiative or PFI projects, while PPPs for existing assets (such as hospitals or railways) are some- times known as franchises.
- In some jurisdictions, the term concession is used to refer to specific types of PPPs. For example, in Brazil, a concession is a fully user-pays PPP. In Chile, all PPPs are called concessions and implemented under the country's Concessions Law.

- The process of entering into a PPP is sometimes referred to as privatization, or for the resulting assets to be termed private—although this Reference Guide makes a distinction between PPP and privatization, as described further in the following section.

  In some cases, PPPs are described by the functions transferred to the private party. For example, a Design-Build-Finance-Operate-Maintain, or DBFOM contract would allocate all those functions to the private party. Other nomenclatures such as Build-Operate-Transfer (BOT) focus instead on the legal ownership and control of assets.

  The asset may be property of the public or private partner—usually decided by the legal constraints in place in any given country. The relevant factor for PPPs is not who the legal owner of an asset is, but who holds the economic rights to exploit that asset. The SPV may use an asset as collateral or simply use the flow of funds generated by the operation of the asset. Therefore, a BOT may not be significantly different from a BTO, in which transfer occurs immediately after construction. For example:

- In France, the roles governing the domanialité (defining the public domain) stipulate that the public domain can never be sold, seized by a tribunal, or subject to statutes of limitation. Consequently, the assets built on public land belong to the public authority, although the private partner in a PPP can be grant- ed specific economic rights to those assets.
- In other countries, public land can be leased to private operators who built and own the asset on that land until its ownership is transferred to government at the end of the contract. The ownership is not significant for accounting and statistical purposes—IPSAS, the International Public Sector Accounting Standards focuses on who controls the use of the infrastructure instead of who owns it to determine whether the asset should be consolidated on the government's balance sheet.

- The 2016 Eurostat Guide to the Statistical Treatment of PPPs (EPEC 2016) states that asset ownership does not influence statistical classification—but ownership of the asset following the expiration of the PPP contract may.

  Table 1.1 - Infrastructure Contract Nomenclature explains common PPP terminology, and how each relates to the description by asset type, functions, and payment mechanisms described above.

The following resources provide more information on PPP contract types and nomenclature:

- The Global PPP Certification Guide (APMG 2025, Chapter 1, Section 2) gives an overview of various forms of private sector involvement in the development, financing, and management of infrastructure and related approaches. It provides detailed information on the types of contracts that can be regarded as PPPs as well as those that do not qualify together with the respective nomenclature.
- Delmon's paper on understanding options for PPPs in infrastructure (Delmon 2010) provides the most detailed discussion. Delmon classifies PPPs by five factors similar to the characteristics described above: (1) whether the PPP is a new or existing business or asset; (2) the responsibility of the private party for construction; (3) the level of private finance involved; (4) the nature of the project company's service delivery obligations (bulk supply or retail level); and (5) the source of revenue stream.
- Yescombe and Farquharson chapter "What are Public-Private Partnerships" (Yescombe and Farquharson 2018, Chapter 2) also describes the range of PPP structures and how these are classified.
- Farquharson et. al. chapter "Defining Public-Private Partnerships" (Farquharson et al. 2011, 9–14) focuses on how PPPs differ from privatization and management contracts; and describes user-fee and availability-based PPPs.
- The World Bank explanatory notes on key topics in water sector regulation (Groom et al. 2006, Note 4) describe common contract types for managing existing assets in the water sec- tor: concession, lease or affermage, and management contracts.
- Engel, Fischer and Galetovic's book The Economics of Public-Private Partnerships: A Basic Guide (2014) provides a concise overview of PPP contract types and key lessons from academic literature and real-world experience. It highlights when governments should choose PPPs, how to implement them effectively, and the appropriate governance structures.

- The World Bank's Public-Private Partnership Resource Center website (PPPRC 2025) provides information on a range of PPP types, categorized by the extent of private sector participation and the specific contracting models used (Legal Framework/Contracts Agreements).

Section 3.3 - Structuring PPP Projects provides guidance and hyperlinks on PPP contract structures, and how governments can decide which to use for a particular project.

Table 1.1 Infrastructure Contract Nomenclature

Contract Nomenclature	Overview Description and Reference	Type of Asset	Functions Transferred	Payment Source
Design-Build-Finance-Operate-Maintain (DBFOM); Design-Build-Finance-Operate (DBFO); Design-Construct-Manage-Finance (DCMF)	Under this nomenclature, the range of PPP contract types is described by the functions transferred to the private sector. The maintain function may be left out of the description (so instead of DBFOM, a contract transferring all those functions may simply be described as DBFO, with responsibility for maintenance implied as part of operations). An alternative description along similar lines is Design-Construct-Manage-Finance (DCMF), which is equivalent to a DBFOM contract.	New infrastructure	As captured by contract name	Can be either government or user pays

Build-Operate-Transfer (BOT), Build-Own-Operate- Transfer (BOOT), Build-Transfer- Operate (BTO)	This approach to describing PPPs for new assets captures legal ownership and control of the project assets. Under a BOT project, the private company owns the project assets until they are transferred at the end of the contract. BOOT is often used interchangeably with BOT, as Yescombe and Farquharson (Yescombe and Farquharson 2018) describe. In contrast, a Build-Transfer-Operate (BTO) contract, asset ownership is transferred once construction is complete. As Delmon (Delmon 2021) describes, ownership rights mainly affect how handover of assets is managed at the end of the contract.	New infrastructure	Typically, design, build, finance, maintain, and some or all operations Under some definitions, BOT or BTO may not include private finance, whereas BOOT always includes private finance	Can be either government or user pays<
Rehabilitate-Operate-Transfer (ROT)	In either of the naming conventions described above, Rehabilitate may take the place of Build where the private party is responsible for rehabilitating, upgrading, or extending existing assets.	Existing infrastructure	As above, but rehabilitate instead of build	As above

Concession	Concession is used for a range of types of contracts, as described in Delmon (Delmon 2010, Box 1). In some jurisdictions, concession may imply a specific type of contract, while in others it is used more widely. In the PPP context, a concession is mostly used to describe a user-pays PPP. For example, in Brazil, the Concession Law applies only to user-pays contracts; a distinct PPP Law regulates contracts that require some payment from government. On the other hand, concession is sometimes used as a catch-all term to describe a wide range of PPP types—for example, all recent PPPs in Chile have been implemented under the Concession Law, including fully government-pays contracts.	New or existing infrastructure	Design, rehabilitate, extend or build, finance, maintain, and operate—typically providing services to users	Usually user pays— in some countries, depending on the financial viability of the concession, the private party might pay a fee to government or might receive a subsidy
Operations and Maintenance (O&M)	O&M contracts for existing assets may come under the definition of PPP where these are performance-based, long-term, and involve significant private investment (sometimes also called performance- based maintenance contracts).	Existing infrastructure	Operations and maintenance	Government pays
Affermage	An affermage contract is similar to a concession, but with the government typically remaining responsible for capital expenditures. Affermage in particular may have a specific meaning in some jurisdictions. The World Bank's explanatory notes on water regulation (Groom et al. 2006, 36–42) describe lease contracts, as well as concessions. Such contracts may or may not come under the definition of PPP, depending on the duration of the contract.	Existing infrastructure	Maintain and operate, providing services to users	User pays—private party typically remits part of user fees to government to cover capital expenditures

Management Contract	The state retains asset ownership, and capital expenditure is the responsibility of the public sector, whereas operation and maintenance is handled by the private sector. These types of contracts are 3-5 years in duration.	Existing infrastructure	Operations and maintenance	Management fees extended to the contractor
Franchise	Franchise is sometimes used to describe an arrangement similar to either a concession or a lease or affermage contract, as described in Yescombe and Farquharson (Yescombe and Farquharson 2018).	Existing or new	May include design, build, and finance, or may be limited to maintaining and operating an asset	User or government pays

Figure 1.1 Examples of PPP Contract Types

Extent of private sector participation

1.1.2 What PPP is Not: Other Types of Private Involvement

Besides defining the essence and the main features of PPPs, it is also helpful to clarify what they are not. This is useful to help us understand why the various features of the PPP model all contribute to generating efficient, affordable, and sustainable projects, and why deviation from the standard PPP model can cause project failure. This does not mean that projects and contracts developed as variants of the PPP model are not useful. On the contrary, they may be very useful in certain circumstances; however, often, when projects and contracts that are structured as a PPP fail, the cause(s) can be tracked to deviations from the defining characteristics of a PPP. This can, for example, be seen in the UK Audit Office's report on the failure of a PPP to upgrade London's underground transportation infrastructure (NAO 2009a). The IADB report Bringing PPPs into the Sunlight – Synergies Now and Pitfalls Later? also underscores this point. It provides case studies (e.g. from Lesotho, Peru, and Portugal) that illustrate how the departure from defining characteristics of PPPs, such as proper risk analysis and allocation, the absence of competitive bidding, or a lack of a stable PPP framework with reliable institutional responsibilities and robust fiscal risk management, can lead to PPP project failure (Reyes-Tagle et. al. 2018).

Other types of contracts for providing public assets and services

Governments enter into a wide range of contracts with private companies. Some of these contract types share some of the typical PPP characteristics—such as being long-term, output based, or performance-related—but they are not PPPs as defined above. For example, these include:

- Management contracts do not share the long-term characteristic of PPPs, the significant private capital investment, and the high level of responsibility for long-term performance brought by investment in infrastructure assets. However, they typically include similar performance indicators and requirements to PPPs.

Performance incentives are created primarily through payment and penalties schemes. Being performance-based, they have a role to play where the private sector is not willing to invest, or where government is not willing to make a long-term commitment. The World Bank's explanatory notes on water regulation (Groom et al. 2006, 36–42), for example, describe how management contracts are used in the water sector. Operations and Maintenance (O&M) and performance-based maintenance contracts may also fall outside the definition

of PPP where they are of short duration and lack substantial investment by the private operator.

- Affermage contracts are contracts under which a government delegates management of a public service to a private company in return for a specified fee. For example, in an affermage contract in the water sector, the remuneration of the operator is a fixed amount per cubic meter of water sold, although this amount can be adjusted over the years based on inflation and the operator's performance. Affermage contracts also have no infrastructure investment by the private operator—again, they have been the solution when appetite for investment is low, or when government is able to invest and does not wish to transfer so much management responsibility to a private party.
- Design-build or turnkey contracts include similar output-based specifications; however, as shorter-term contracts that do not include maintenance or operation, they do not create the same long-term performance incentives as PPPs. For complex infrastructure, these contractual requirements in a design-build contract may not result in optimal design, allowing contractors to cut corners, leading to additional maintenance and operational costs. Design-build contracts are short-term contracts, with no long-term responsibilities allocated to the private party. They are commonly used for simple projects, or for projects where the performance is credibly expected to keep at the same level with proper maintenance, and therefore corner-cutting is not relevant.

- Financial lease contracts are long-term contracts for providing public assets. However, these contracts transfer significantly less risk to the private party than PPPs because government maintains a larger proportion of risk than it normally would in a PPP. Financial lease contracts do not transfer significant responsibility for management and performance to the private party. They are not expected to produce significant improvements in service performance, or to reach efficiency savings.

  While the material in this Reference Guide focuses on PPP arrangements, the references provided in this Guide may also be useful for governments considering these related contractual arrangements; conversely, some references concerning these contract types may provide applicable lessons for PPPs. However, practitioners should bear in mind that differences in risk allocation will likely trigger differences in bidding and operational behavior from the private party.

Other concepts of "public-private partnerships"
The expression public-private partnership is commonly used for several other types of arrangements between public and private entities—all of which differ significantly from the contracts we discuss in this Reference Guide.

A few examples of arrangements not covered in this Guide:

- Public-private partnerships for innovation—the U.S. Food and Drug Administration (FDA) and the University of Rochester initiated a so-called public-private partnership to improve pain treatment called Analgesic Clinical Trial Innovations, Opportunities, and Networks (ACTION) in 2011—this multiyear initiative aims to promote and accelerate the development of novel analgesics by identifying faults in the design of clinical trials.
- Public-private partnerships for environment protection—the petroleum industry has a long history of so-called public-private partnerships aimed at finding cooperative solutions to environmental, educational, and community issues—these partnerships are voluntary activities aimed at ensuring that oil and natural gas companies are perceived as an integral and contributing part of society and the communities in which the industry operates.
- Public-private partnerships for public health or against neglected diseases—in 2010, COTCO, the oil firm that operates the Chad-Cameroon pipeline in Cameroonian territory, initiated a so-called public-private partnership project to control malaria (a major public health problem in the area) along the pipeline corridor. These collaborations leverage resources, expertise, and community engagement to improve health outcomes. Such partnerships are increasingly recognized for their potential to address public health crises, particularly in response to COVID-19 and other endemic health issues. For

example, the U.S Departments of Health and Human Services (HHS) and of Defense (DOD) collaborated with pharmaceutical companies and non-profit organizations to accelerate the development of vaccines and treatments, particularly evident during the COVID-19 pandemic with initiatives like Operation Warp Speed (GAO 2021).

- Public-private partnerships for terrorism insurance—in the aftermath of the 9/11 attack, the Terrorism Risk Insurance Act, also known as TRIA, was approved, creating a so-called public-private partnership with the purpose of stabilizing the insurance market, ensuring that private terrorism coverage would be widely available and providing for an orderly recovery in the event of future catastrophic losses. Under the program, insurers would have to absorb significant losses—approximately $30 billion in industry-wide deductibles—before the government would step in to provide additional coverage.
- Public-private partnerships against health care fraud—a voluntary, collaborative partnership between U.S. federal and state governments, private health insurance organizations, and health care anti-fraud groups designed to share information and best practices to improve fraud detection, prevent payment of fraudulent health care billings, and find and stop scams.
- Public-private partnership against terrorism—the United Nations Global Counter-Terrorism Strategy encourages “public-private partnerships”; the G8 launched a Global Forum for Partnerships between States and Businesses to Counter Terror- ism (Moscow 2006) which resulted in the G8 Strategy for Partnerships between States and Businesses to Counter Terrorism.

This *Reference Guide* does not address these types of contracts. Their characteristics and properties are too different from the PPPs referred to in the Guide. In particular, they do not exhibit the link between high capital investment and strong performance commitments that we witness in the PPPs we are addressing—some of those agreements do not have significant capital investment, others do not have any kind of credible commitment on performance, but simply a commitment to apply an entity’s best efforts towards a certain goal.

1.1.3 How PPPs Are Used: Sectors and Services

PPPs have been used in a wide range of sectors to procure different kinds of assets and services. In all cases, the PPP project contributes to the provision of public assets or services; and it involves long-life assets.

The definition of public services may vary across countries, and over time. The material presented in this Reference Guide is neutral to this definition; considering as a public service any service that the government considers its responsibility to provide or ensure is provided. The focus on long-term assets highlights the long-term nature of a PPP contract. PPPs generally involve fixed assets, but projects may also include related long-life assets that are purpose or site-specific, such as train rolling stock. Table 1.2 - PPPs by Sector—Examples and Resources provides a few examples of the types of assets and services that can be procured by PPPs together with some references providing more in-depth analysis on the range of worldwide experiences with PPPs.

Some countries focus their use of PPPs on certain sectors only, as described in Section 2.1 - PPP Policy. The rationale for such narrow focus can include the desire to support the government's investment priorities; to improve service delivery; or give precedence to sectors in which PPPs are expected to be most successful. Conversely, some countries define certain sectors or services with- in sectors, for which PPPs may not be used. These are sometimes called core services—that is, services that should be provided exclusively by the government. The definition of core services varies across countries, depending on local preferences and perceptions. For example, in the healthcare sector in the United Kingdom, PPPs have been used to construct hospitals and provide ancillary services such as maintenance, but the core medical services remain publicly-run (McKee et al. 2006). On the other hand, in a PPP hospital project in Lesotho, the private operator provided the full range of health- care services.

Useful resources providing cross-sector overviews of PPP experience in developing countries include:

- The World Bank's Private Participation in Infrastructure (PPI) database records data related to private sector investment commitments in infrastructure projects in low and middle-income countries across sectors. It includes PPP case studies across regions and sectors in the section Resources.
- The Uongozi Institute's case studies on PPPs in Sub-Saharan Africa (Yescombe 2017) present projects in the water, road, rail, energy, health, and accommodation sectors.
  The Caribbean PPP Toolkit (Caribbean 2017) includes references to projects in a broad range of sectors across the region, utilizing various PPP models.
- Yong's chapter on PPPs in Commonwealth countries (Yong 2010, 87–104) includes 11 case studies in the water, transport, power, and health sectors in Africa, Asia, and the Caribbean
- A paper by Farlam on PPP experience in Africa (Farlam 2005) presents lessons learnt from eight PPP projects in the transport, prisons, telecommunications, water, power, and tourism sectors.
- The World Bank's review of lessons learned from Output-Based Aid projects (Mumssen et al. 2010) summarizes the experience accumulated to date from infrastructure projects involving private sector participation and output-based aid provisions—including PPPs —in the communications, roads, energy, water, health, and education sectors.
- The Asian Development Bank's scoping study on irrigation and drainage (Varma et al. 2013) identifies the areas where private sector participation can be envisaged in consonance with India's policy framework.
- The PPIAF/Global Infrastructure Hub (GIH) Knowledge Hub, along with the "Sectors" section on the PPPRC website, offers access to case studies and other resources on PPPs across various infrastructure sectors. These materials can be searched by sector and sub-sector.
- The IFC's PPP website also showcases cross-sectoral PPP projects where IFC's Transaction Advisory helped governments design and implement PPPs that deliver essential infrastructure and high-quality services.
- For more information on how PPPs have been used in developed markets, see the European Investment Bank's Report Public-private partnerships financed by the European Investment Bank from 1990 to 2024 (EIB 2025) which offers an overview of the EIB's involvement in financing PPPs over more than three decades with a focus on European countries.

Table 1.2 PPPs by Sector - Examples and Resources

Sector	Project Types	Overview Sources
Transport		The Handbook on Public-Private Partnerships in Transportation (Hakim et. al. 2022), Volumes I and II, provides a comprehensive analysis of the design, implementation, and policy implications of PPPs across diverse transportation sectors-including roads, bridges, parking, airports, seaports, and mass rapid transit systems-drawing on international case studies and sector-specific insights to highlight both strategic models and practical challenges.
	Roads, tunnels, and bridges	The USDOT Case Studies of Transportation PPPs (US 2007) reviews international PPP experience with PPPs in transport, including case studies on bridges and highways from the United Kingdom, Europe, Australia, China, India, Israel, and Argentina.
	Airports	PPPs in Airports in LAC: Main Figures and Trends in the Sector (IADB 2020d) documents a profile of airport PPPs in the region analyzing 75 airport PPP projects.

	Ports	PPPs in Airports in LAC: Main Figures and Trends in the Sector (IADB 2020d) documents a profile of airport PPPs in the region analyzing 75 airport PPP projects. PPPs in Ports in LAC: Main Figures and Trends in the Sector (IADB 2020e) reviews the profile of PPP ports across 23 countries. The data covers the characteristics of port terminals, infrastructure planning, regulation, management, and PPP structuring process.
	Rail	Menzies and Mandri-Perrott's publication on private sector participation in light rail (Menzies and Mandri-Perrott 2010, Annex 1) includes detailed case studies of PPPs for 12 light rail systems in the United Kingdom, Malaysia, the Philippines, Thailand, Canada, and South Africa.
	Mass transit systems	PPPs for Transport section of the PPPRC provides subsections for comprehensive insights, sample laws, regulations, agreements, and case studies related to airports, ports, roads, railways, and urban passenger transport, BRT and gender considerations in transport projects.
Water & Sanitation	Bulk water treatment	Water & Sanitation section of the PPPRC explores the following subsections for comprehensive insights, sample laws, regulations, and agreements related to water and sanitation sector reforms, including joint ventures, PPP contracts, and gender mainstreaming in water projects.
	Water distribution and sewerage systems	Marin (Marin 2009) reviews in detail experience with PPPs for urban water utilities in developing countries, drawing from over 65 PPPs. An IFC report on lessons learned (IFC 2010) presents lessons from several water PPPs.
	Solid waste management services	Solid Waste Management section of the PPPRC provides useful resources and case studies on solid waste management PPP projects.
Power & Renewable Energy	Generation assets	Eberhard and Gratwick (2010) explore the development and challenges of Independent Power Producers (IPPs) in Sub-Saharan Africa. Building on this, Eberhard et al. (2016) present five country case studies from the region, while Eberhard et al. (2014) specifically examine renewable energy IPPs in South Africa. Separately, Vagliasindi (2013) analyzes power sector reforms that facilitated public-private partnerships (PPPs) in China, Peru, Brazil, and Mexico.
	Distribution systems	An IFC report on lessons learned (IFC 2010) presents lessons from several power PPPs.
		Power & Renewable Energy section of the PPPRC provides an overview of power sector PPP projects, reforms, and legislation across various jurisdictions, highlighting the roles PPPs play in developing power infrastructure. Explore the subsections for in-depth details on energy laws, licenses, agreements, and other key components.

Social Infrastructure	Education-school facilities and services	PPPs in Health page of the PPPRC offers a range of case studies of PPPs in small specialist facilities or general hospitals. IFC's lessons from 15 case studies in expanding access to affordable diagnostic services can be found here.
	Health-hospitals and other health facilities and services	Grain Storage PPPs page of the PPPRC offers examples of PPPs in agriculture including case studies.
	Prisons	PPPs in School Infrastructure in the Caribbean (IADB 2014) present case studies of early-childhoods education centers and primary schools PPP projects.
	Urban regeneration and social housing projects	The Role and Impact of PPPs in Education (WB 2009) explores how PPP contracts can support countries in achieving education goals. Also review lessons from innovative PPPs in Arab countries.
	Agriculture	A Deloitte report on how PPPs can help close the infrastructure gap (Deloitte 2006, 19–28) provides a helpful overview of PPP experience in a wide range of sectors, particularly social infrastructure. IFC's Handshake (WB 2015c) publication presents examples and cases on health care and other economic and social infrastructure PPPs. LaRocque's paper on contracting for the delivery of education services (LaRoque 2005) includes examples of PPPs in the education sector.
Telecommunications & ICT		Telecommunications & ICT PPPs section of the PPPRC provides an overview of sample telecommunications PPPs across a range of different jurisdictions, highlighting the varying PPP structures used in markets at different stages of development. It also provides case studies on PPP arrangements for Telecommunications.
Urban & Cities	Housing	Public-Private Partnerships for Investment and Delivery of Affordable Housing in Emerging Market Economies (WB 2020h). This report (i) take stock of the knowledge base and experiences with affordable housing PPPs globally; (ii) develop a working definition of housing PPPs; (iii) begin establishing the basic parameters of a housing PPP decision-making framework, primarily in the context of affordable housing in developing countries; and (iv) lay the groundwork for further research around the different procurement options, institutional structures, and financial models for successful PPPs for affordable housing.

Cross-sectoral	World Bank's report Infrastructure in Asia and the Pacific: Road Transport, Electricity, and Water and Sanitation Services in East Asia, South Asia, and the Pacific Islands (WB 2020a) provides an overview of infrastructure provision in three key economic sectors-road transport, electricity, and water and sanitation.

Key References: What is a PPP?

Reference	Description
APMG. 2025. Global PPP Certification Program Guide. APMG-International. Website.	Chapter 1 Section 2 of the PPP Certification Guide discusses the definition of PPPs and the variety in interpretation that exists.
Delmon, Jeffrey. 2010. "Understanding Options for Private-Partnership Partnerships in Infrastructure: Sorting out the forest from the trees: BOT, DBFO, DCMS, Concession, Lease" Policy Research Working Paper 5173. Washington, DC: World Bank	Describes in detail the different PPP contract types and nomenclature, and which also introduces a new classification of PPP contracts intended to clarify and facilitate comparison
E.R. Yescombe, Edward Farquharson. 2018. Public-Private Partnerships for Infrastructure: Principles of Policy and Finance (Second Edition), Chapter 2 - What Are Public-Private Partnerships? Pages 7-24. Butterworth-Heinemann	Chapter 1: "What are Public-Private Partnerships" describes the range of PPP structures and how these are classified.
Farlam, Peter. 2005. Working Together: Assessing public-private partnerships in Africa. NEPAD Policy Focus Series. Johannesburg: South African Institute of International Affairs.	Reviews PPP experience in Africa, with detailed case studies of eight projects in the transport, prisons, telecommunications, water, power, and tourism sectors.
Engel, Eduardo, Ronald Fischer, and Alexander Galetovic. 2014. The Economics of Public-Private Partnerships: A Basic Guide. New York: Cambridge University Press	Provides a concise overview of PPP contract types and key lessons from academic literature and real-world experience.
PPPRC. "PPP Arrangements/Types of Public-Private Partnerships". Public-Private Partnership Resource Center. Website	The PPP Resource Center hosts a collection of actual PPP contracts and sample agreements for a range of contract types and sectors.
Reyes-Tagle, Gerardo, et al. 2018. Bringing PPPs into the Sunlight: Synergies Now and Pitfalls Later. Washington, DC: Inter-American Development Bank	Chapter 2 explores the underlying reasons for the expansion of PPPs, the definitions and scope of PPPs in different contexts, and the historical trajectory of PPPs throughout the world, highlighting the common factors that have led to their current popularity. Chapter 3 details the multitude of institutional frameworks built to accommodate PPPs. It highlights the frameworks for national and subnational entities commissioning PPPs and deals with the involvement of state-owned enterprises.

Groom, Eric, Jonathan Halpern, and David Ehrhardt. 2006. “Explanatory Notes on Key Topics in the Regulation of Water and Sanitation Services.” Water Supply and Sanitation Sector Board Discussion Paper 6. Washington, DC: World Bank	Note 4: “Regulation and Private Sector Contracts” describes typical features of concession, lease, and management contracts in the water sector.
Farquharson, Edward, Clemencia Torres de Mästle, E. R. Yescombe, and Javier Encinas. 2011. How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets. Washington, DC: World Bank.	Chapter 2: “Defining Public-Private Partnerships” focuses on how PPPs differ from privatization and management contracts; and describes user-fee and availability-based PPPs. Several case studies throughout the book provide examples of PPPs in developing countries.
Yescombe, E.R. 2017. PPPs in Sub-Saharan Africa: Case Studies for Policymakers. Dar es Salaam, Tanzania: Uongozi Institute.	Presents ten case project studies examining the practical policy issues and lessons from each case.
Caribbean. 2017. Caribbean PPP Toolkit. Washington, DC: World Bank, Inter-American Development Bank and Caribbean Development Bank.	Each module presents several project examples and case studies illustrating best practices in the PPP project cycle.
Yong, H.K., ed. 2010. Public-Private Partnerships Policy and Practice: A Reference Guide. London: Commonwealth Secretariat.	Section 7 reviews PPP experience in Commonwealth developing countries. Annex 5 presents case studies of 11 PPP projects, in the water, transport, power, and health sectors in Africa, Asia and the Caribbean.
Mumssen, Yogita, Lars Johannes, and Geeta Kumar. 2010. Output-Based Aid: Lessons Learned and Best Practices. Directions in Development Finance. Washington, DC: World Bank.	Reviews experience with private participation in infrastructure projects supported by output-based aid, in the communications, roads, energy, water, health, and education sectors.
Woetzel, Jonathan, Nicklas Garemo, Jan Mischke, Martin Hjerpe, and Robert Palter. 2016. Bridging Global Infrastructure Gaps. New York: McKinsey Global Institute.	Describes state of global infrastructure needs and opportunities to mitigate the spending deficit.
Reyes-Tagle, Gerardo, and Karl Garbacik. 2016. Policymakers’ Decisions on Public-Private Partnership Use: The Role of Institutions and Fiscal Constraints. Washington, DC: Inter-American Development Bank.	Evaluates the criteria that governments utilize when deciding to procure a project using a PPP.
Dobbs, Richard, Herbert Pohl, Diaan-Yi Lin, Jan Mischke, Nicklas Garemo, Jimmy Hexter, Stefan Matzinger, Robert Palter, and Rushad Nanavatty. 2013. Infrastructure productivity: How to save $1 trillion a year. New York: McKinsey Global Institute.	Describes the deficit in infrastructure investments and makes the case for improved project selection/management as well as more efficient usage of existing infrastructure.

Menzies, Iain, and Cledan Mandri-Perrott. 2010. “Private Sector Participation in Urban Rail: Getting the structure right.” Gridlines Note No. 54. Washington, DC: Public-Private Infrastructure Advisory Facility.	Annex 1 provides case studies of light rail PPP projects from the United Kingdom, Malaysia, the Philippines, Thailand, Canada, and South Africa.
Eberhard, Anton, and Katharine Nawal Gratwick. 2010. IPPs in Sub- Saharan Africa: Determinants of success. Washington, DC: World Bank.	Reviews experiences of Independent Power Producers (IPP) in Sub-Saharan Africa, including a comprehensive list and details of all IPP projects in the region.
Marin, Philippe. 2009. Public-Private Partnerships for Urban Water Utilities: A Review of Experience in Developing Countries. Trends and Policy Options No. 8. Washington, DC: World Bank.	Reviews the experience of 65 PPPs in the water sector in developing countries, finding consistent improvements in efficiency and service quality.
IFC. 2011. “Health and PPPs.” Handshake, A Journal on Public-Private Partnerships. Washington, DC: International Finance Corporation.	The issue on Healthcare examines international experience in healthcare PPPs, particularly in developing countries, and draws lessons for how successes can be replicated. Features the Lesotho Hospital PPP, and reviews experience in Ghana, India, and Mexico.
US. 2007. Case Studies of Transportation Public-Private Partnerships Around the World. Washington, DC: United States Government, Department of Transportation, Federal Highway Administration	Reviews international PPP experience with PPPs in transport, including case studies on bridges and highways from the United Kingdom, Europe, Australia, China, India, Israel, and Argentina.
LaRoque, Norman. 2005. “Contracting for the Delivery of Education Services: A Typology and International Examples.” Paper presented at the PEPG and World Bank Conference, “Mobilizing the Private Sector for Public Education.” Cambridge, MA, October 5-6.	Describes the different ways in which the private sector is engaged in education, including through PPPs. Pages 20–24 focus on international PPP experience in schools.
Hakim, S., Clark, R.M., Blackstone, E.A. (eds). 2022a. Handbook on Public Private Partnerships in Transportation, Vol I; Vol II. Competitive Government: Public Private Partnerships. Springer, Cham.	This two-volume handbook offers a comprehensive analysis of public-private partnerships (PPPs) in transportation infrastructure across global contexts, covering sectors such as airports, ports, rail, roads, bridges, and parking. Through empirical case studies and policy evaluations, it provides actionable insights for both public and private stakeholders navigating the legal, financial, and operational complexities of PPPs.
IADB. 2020d. Public-Private Partnerships in Airports in Latin America and the Caribbean: Main Figures and Trends in the Sector. Washington, DC: Inter-American Development Bank	This report presents key data and trends on airport PPPs across Latin America and the Caribbean, highlighting their role in expanding infrastructure and improving service quality. It analyzes investment flows, contractual models, and regional performance to guide policymakers and stakeholders in optimizing future airport partnerships.

IADB. 2020e. Public-Private Partnerships in Ports in Latin America and the Caribbean: Main Figures and Trends in the Sector. Washington, DC: Inter-American Development Bank	This publication examines the evolution and impact of public-private partnerships in the port sector across Latin America and the Caribbean, offering detailed metrics and regional comparisons. It highlights investment patterns, operational models, and governance challenges to inform future PPP strategies in maritime infrastructure.
IADB. 2014. Learning in Twenty-First Century Schools: Note 4: Public-Private Partnerships in School Infrastructure in the Caribbean. Washington, DC: Inter-American Development Bank	This note explores the use of public-private partnerships to address infrastructure gaps in Caribbean schools, emphasizing innovative financing and delivery models. It outlines lessons learned from regional experiences to support more effective, sustainable education infrastructure development.
WB. 2009d. The Role and Impact of Public-Private Partnerships in Education. Washington, DC: World Bank.	This study evaluates how public-private partnerships contribute to expanding access, improving quality, and enhancing equity in education across diverse country contexts. It synthesizes evidence on PPP models, their effectiveness, and policy considerations to guide governments in designing impactful education reforms.
WB. 2020a. Infrastructure in Asia and the Pacific: Road Transport, Electricity and Water and Sanitation Services in East Asia, South Asia, and the Pacific Islands.?Washington, DC: World Bank	This report provides a regional overview of infrastructure development in road transport, electricity, and water and sanitation across East Asia, South Asia, and the Pacific Islands. It identifies investment gaps, service delivery challenges, and policy priorities to support inclusive and sustainable infrastructure growth in emerging economies.
WB. 2020h. Public-Private Partnerships for Investment and Delivery of Affordable Housing in Emerging Market Economies. Washington, DC: World Bank	This report explores how public-private partnerships can mobilize investment and improve delivery of affordable housing in emerging market economies. It presents policy frameworks, financing mechanisms, and case studies to guide governments in scaling inclusive, sustainable housing solutions.

Research and Publications in PPPRC

BROWSE BY REGION

- East Asia and Pacific (EAP)
- Europe and Central Asia (ECA)
- Latin America and Caribbean (LAC)
- Middle East and North Africa (MENA)
- North America (NA)
- South Asia (SA)
- Sub-Saharan Africa (SSA)

BROWSE BY SECTOR

- Power & Renewable Energy
- Urban & Cities
- Water & Sanitation
- Transport
- Telecom & ICT

- Solid Waste Management

BROWSE BY Topic

- Asset Recycling
- Climate
- Disruption
- Emission Reduction Credit
- Fragile and Conflict-Affected States (FCS)
- Gender
- Innovative Revenues for Infrastructure