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Managing the Contract After Financial Close

Funded by PPIAF Enabling Infrastructure Investment

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The revised APMG PPP Certification Guide, referred to here as the PPP Guide, is the Book of Knowledge (BoK) detailing all relevant aspects of creating and implementing efficient, sustainable public-private partnerships (PPPs). The 2026 edition of the BoK addresses changing best practices of PPPs that take social aspects, such as gender equality, as well as climate change, and other external shocks under consideration. These include the impacts of the recent COVID pandemic and geopolitical impacts of the last few years. It also updates overall concepts, examples, and improves the text around the fiscal risk of PPPs and contract management based on the feedback received by those who have used the body of knowledge and taken the exam. This BoK is intended for use by PPP professionals, governments, advisors, investors, and others with an interest in PPPs. The PPP Guide is part of the family of CP3P credentials that, once obtained, allow individuals to use the title "Certified PPP Professional," a designation created under the auspices of the APMG PPP Certification Program. The APMG PPP Certification Program, referred to here as the Certification Program, is a product of the African Development Bank Group (AfDB), Asian Development Bank (ADB), the European Bank for Reconstruction and Development (EBRD), the Inter-American Development Bank (IDB), the Islamic Development Bank (IsDB), and the World Bank Group (WBG), partly funded by the Public-Private Infrastructure Advisory Facility (PPIAF).

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Introduction

After the PPP contract is signed and financial close has been achieved (refer to Chapter 6), the Implementation Phase commences, during which the Procuring Authority[1] will focus on the critically important activity of Contract Management.

This chapter contains four parts, as follows:

- Part A, consisting of Sections 1 through 3, presents an introduction to the concept of contract management; a discussion of the importance of this topic from the perspective of a Procuring Authority; and an examination of the institutional framework for contract management, including the establishment and functioning of the Procuring Authority's contract management team.
- Part B, consisting of Sections 4 through 11, deals with contract management during the Construction Stage of the Implementation Phase.
- Part C, consisting of Sections 12 through 21, deals with contract management during the Operations-Stage of the Implementation Phase.
- Part D, containing Sections 22 and 23, deals with contract management during the Exit and Handback Stage of the Implementation Phase.

Box 7.1. Learning objectives for chapter 7

After this chapter, the reader should understand:

- The definition of contract management.
- Why contract management is important.
- How to establish a government Procuring Authority PPP contract management team.
- The roles and responsibilities of the private partner Project Company and the government Procuring Authority in regard to contract management.
- How a government Procuring Authority should deal with contract management issues during each stage of the Implementation Phase of the PPP Project Cycle.

[1] Also referred as government Contracting Authority.

Part A – Introduction to Contract Management

1. Definition of PPP Contract Management

The objective of PPP contract management is for the Procuring Authority to oversee the private sector Project Company's delivery of the services defined in the output specifications of the PPP contract, ensuring ongoing affordability, Value for Money (VfM), and appropriate management of risk transfer, while managing the impacts of changes in the external environment. This process enables both public and private sector parties to meet their respective obligations to achieve the contract's objectives. Once the contract is signed and the "deal" agreed upon, each party should perform its respective role. Effective contract management requires a good working relationship between the two parties throughout the implementation phase of the project.[2]

A second dimension of PPP contract management is proactive management to anticipate future needs as well as the requirement to react appropriately to unforeseen situations that arise.

For the purposes of this PPP Guide, PPP contract management is applied from contract signature until the end of the PPP contract.

Effective contract management requires a number of activities that may fall outside the purview of the PPP contract but are essential to the success of the project. These include the following activities:

- Addressing the various needs, concerns, and expectations of the stakeholders in executing the project.
- Establishing, maintaining, and carrying out stakeholder communications that are active, effective, inclusive, and collaborative by nature.
- Managing stakeholders' efforts in meeting project requirements.
- Communicating project deliverables to these stakeholders in a way that improves their buy-in to the project.

From a private partner management perspective, good practice in PPP contract management requires balancing competing project constraints including scope, quality, schedule, budget, resources, and risks.

The specific project characteristics and circumstances can influence the constraints on which the contract management teams of both the government and private partner need to focus on. The relationship among these factors is such that if any one factor changes at least one other factor is likely to be affected. Box 7.2 provides examples of such circumstances.

[2] South African National Treasury (2004). *National Treasury PPP Manual Module 6: Managing the PPP contract.*

Box 7.2. Examples of a relationship between project constraints and outcomes

If the schedule is shortened, often the budget needs to be increased to add additional resources to complete the same amount of work in less time. If a budget increase is not possible, the scope or targeted quality may be reduced to deliver the required end result of the project in less time and within the same amount budgeted.

If the commencement of construction is delayed by unseasonable rain (but not such that a force majeure event or relief event is triggered), the Procuring Authority contract manager needs to understand that this may result in late completion of construction, or the private sector may incur additional expenditure in order accelerate construction and make up for the lost time. In this case, the Procuring Authority contract manager should be aware of a greater risk of financial stress for the private partner Project Company. Alternatively, the construction contractor may seek some recourse through relief or compensation regimes, in which case the Procuring Authority contract manager should be aware of the correct application of the contractual provisions related to these regimes.

2. The Importance of Contract Management

Unfortunately, contract management is, frequently, the "forgotten child" of many national PPP programs. Great attention is paid to the preparation and procurement of PPP projects, with celebrations held after the achievement of financial close. But it is during the Implementation Phase that the infrastructure services are actually built and then delivered to the public — and effective contract management by the responsible Procuring Authority is critical to the successful achievement of any PPP project.

As stated in the Reference Guide, contract management in PPPs differs from short-term public sector contracts as it requires a long-term, proactive approach to manage risks, enforce performance standards, and ensure the project evolves in line with public needs over time. This highlights the unique challenges of PPP contracts compared to shorter public sector contracts, emphasizing the need for ongoing oversight and adaptability.[3]

Sound contract management is, therefore, crucial to the success of a PPP. Failure to adequately manage the project will inevitably erode its VfM and may ultimately undermine its objectives.

The risk allocation provisions within the PPP contract are at the heart of the relationship between the parties. The initial allocation of risk must be managed over the whole life of the project, in order to:

- Enforce, clarify, and/or modify the risk allocation when unforeseen risks or consequences of those risks arise.
- Ensure the private partner bears the risks it is required to bear and mitigates them adequately.
- Monitor and effectively manage the risks borne by the government.

The EPEC 2014 report on *Managing PPPs during their Contract life – Guidance for Sound Management* states that proper project monitoring enables the government to develop a detailed understanding of the project issues and show the private partner that it is an informed and vigilant counterparty.[4] Once a PPP contract has been signed, opportunities for public expenditure savings often arise over its lifespan. Savings can be achieved and, better still, shared between the parties only if there is proper monitoring by the government (provided the PPP contract allows for such a sharing). These savings may enable the government to release financial resources that can be usefully reinvested in other activities or projects.

Contract management by the Procuring Authority is also important to the private sector PPP Project Company. It has been shown through reviews of PPP projects that, after a period of time, many private partners become complacent and do not execute their obligations as the contract dictates. Therefore, it is crucial that the private partner is familiar with the government's contract management procedures in order to enhance the efficiency and success of the PPP project.

[3] World Bank, Asian Development Bank, and Inter-American Development Bank. Public-Private Partnerships Reference Guide Version 3.0. Washington, DC: World Bank Group, 2017.
[4] European PPP Expertise Centre (EPEC) (2014), *Managing PPPs during their Contract life – Guidance for Sound Management,* at Page 6.

Finally, contract management is important because a project is rarely undertaken in complete isolation from other PPP initiatives. Engaging in the communication and knowledge sharing of existing PPPs is critical to the identification of improvements that could be made in future contracts, which in turn creates a virtuous cycle.

PPPs are first and foremost a collaboration between the parties. As a result, relationship management and communication are extremely important when dealing with PPP projects.

Changing climatic conditions can produce new hazards and increase the exposure of assets to novel hazards, which will exacerbate the vulnerabilities of the infrastructure.

Monitoring maintenance history from the private partner during the Contract Management Phase is recommended. This will help identify changes in climate change risk, and inform future projects with respect to the quantification of resilience benefits.

During the Contract Management Phase, all PPP partners are responsible for monitoring ongoing and evolving climate risks. Increased levels of communication among the PPP partners can help deal with climate-related changes and identify new and innovative resilience-building measures that can be incorporated in operations and maintenance. Knowledge-sharing workshops and the communication of "lessons-learned" can assist in improving the resilience of future PPP projects and refining the contractual agreements, where applicable.

3. Contract Management Framework

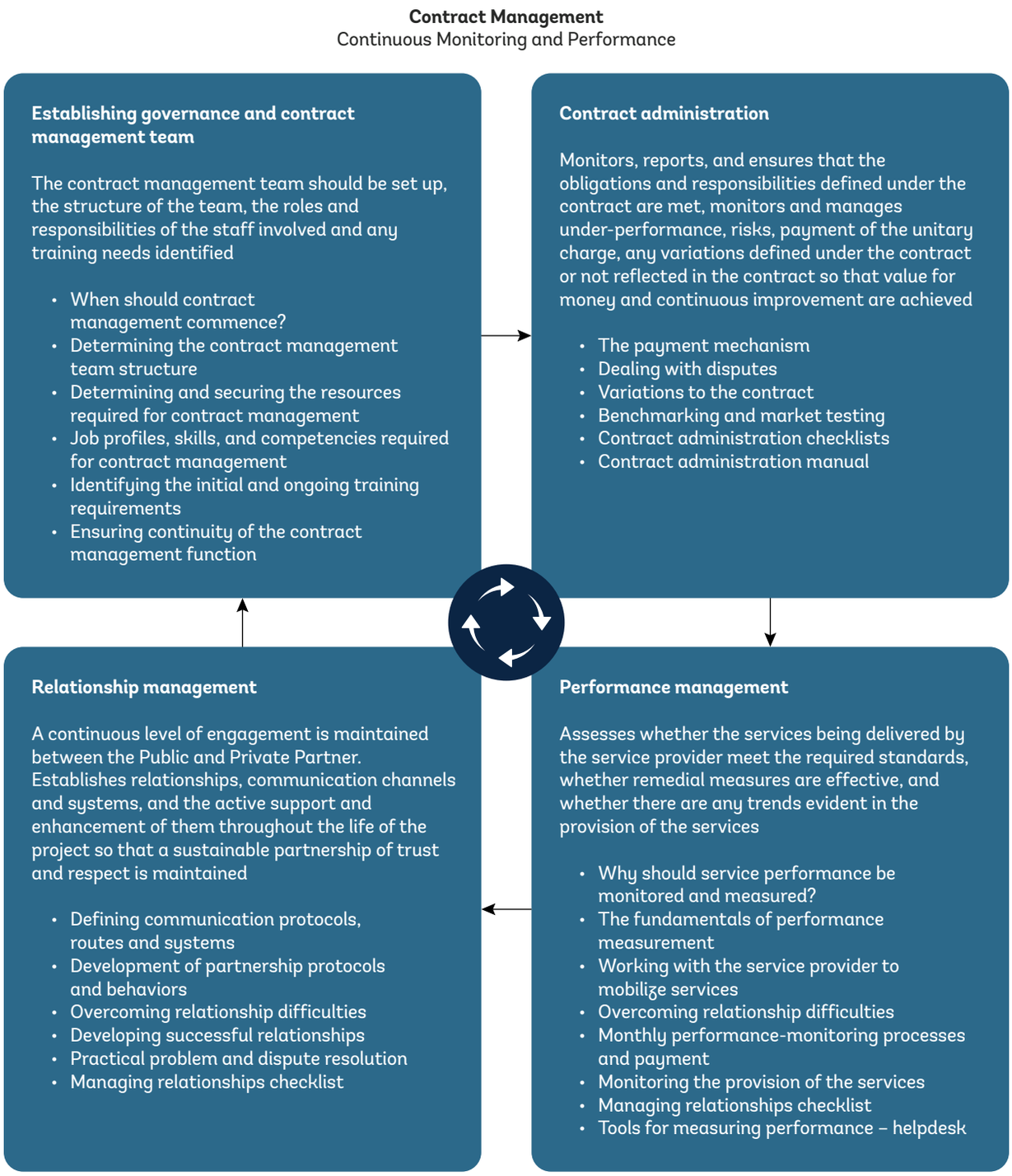
Contract management[5] is a complex function, which consists of multiple activities. However, the primary activities can be divided into four main components:

- Establishing the contract management team and its governance arrangements.
- Planning, establishing, and executing contract administration.
- Relationship management.
- Performance management.

Figure 7.1 below describes the four components of contract management and provides details on the steps to be taken in order for the contract management to be implemented and executed, in accordance with good practice.

[5] More detailed and comprehensive resources on contract management can be found at: World Bank. *Contract Management and PPP Portfolio Monitoring System (3P-CMT): User Guide (English).* Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/099647512222211698/P17425408007730a70a1e90b1b6c75b36d4.

Figure 7.1. Contract management: Four main components of PPPs



Source: 4ps, 2007.[6]

[6] 4ps in collaboration with Mott MacDonald (2007). *Public Private Partnerships Programme: A Guide to Contract Management for PFI and PPP Projects*, Pages 6-7.

3.1. Establishment of the contract management team and governance arrangements

According to the GI Hub's report on managing PPP contracts post-financial close, regardless of a project's size, complexity, or contract structure, the Procuring Authority must establish a dedicated team responsible for managing all phases of the PPP project. This team must possess the skills needed to manage the project's long-term risks and maintain value for money throughout its duration. The report emphasizes that contract management in PPPs differs from traditional government procurement due to the significant risk transfer and extended contract terms, making the role of the contract management team essential for the project's success.[7]

From a practical perspective, the VfM generated through a PPP depends on the quality of the private partner and the government's contract management systems and teams.

The PPP contract will set out the various obligations of the private partner with regard to the management and reporting of its activities and achievements against the project specification. Since many PPP contracts place more obligations on the private partner relative to those placed on the government, some Government Contracting Authorities make the mistake of assuming that the PPP contract will be self-regulating and self-reporting.[8] This assumption results in weak contract management regimes being established by the procuring authority. It can also result in a reduction in the overall benefits of the PPP.

In the Chapman's Peak example, set out in Appendix A of this chapter, the government was responsible for obtaining environmental approval for a permanent toll plaza. It had to pay a minimum revenue guarantee during the time in which the approval was outstanding. At the end of the project, the amounts paid as a result of a delay in the environmental approval far outweighed

[7] Global Infrastructure Hub (GI Hub) (2018). *Managing PPP Contracts After Financial Close,* Page 10.
[8] Dreyer, W., K. Breytenbach, M. Watters, W. Van Oudenhove, and P. Parking (2005), *Innovative PPP Saves Chapman's Peak: PPP Brings Together the Public and Private Sectors for Rehabilitation of Famous Road,* Proceedings of the 24th Southern African Transport Conference, Pretoria, July 11–13, https://repository.up.ac.za/bitstream/handle/2263/6594/051.pdf.

the cost that the government would have needed to pay for a specialist contract management unit (which could have been established within the government in order to manage and mitigate the risk of the outstanding approval).

Table 7.1 describes the characteristics of a contract management team.

Table 7.1. Characteristics of a contract management team

Function	Description
Mandate	The contract management team will have a clear mandate to act on behalf of the government. In this context, the contract management team acts as the representative of the government within the public regulatory environment. In some instances, this is achieved through internal delegations or institutional arrangements within the government, while in others a specific form of legislation may establish and empower the contract management team.
Contractual standing	The contract management team must be empowered within the terms of the PPP contract to act as the representative of the government and to exercise specific powers or rights under the PPP contract.
Resources	The contract management team must have the human and financial resources to fulfill these mandates and contractual rights effectively and efficiently.

The specifics of the mandate, contractual standing, and resources required will differ from sector to sector and even from one project to another. Factors that will influence these functions are as follows:

- Scale of a project or program of projects. A useful metric is the value of the assets created by the PPP.
- Administrative complexity of the projects, such as whether they are cross-border or cross-agency in jurisdiction.
- Extent of risk retained by the government in terms of the PPP contract (which can be determined by considering the financial consequences accruing to the government of a risk materializing).

These factors must be taken into account when designing the contract management team prior to the contract award and Signing Stage, as the contract management team should be involved in the stages that follow (financial close and construction implementation). In some cases, it will be preferable to establish a contract management team for a single project, particularly when the project is very large, complex, or unique. In other cases, it will be preferable to establish a single contract management team for multiple projects, particularly when the projects are smaller, less complex, and in the same or similar sectors.

According to the 2014 EPEC report on managing PPPs during their contract life, a multidisciplinary team is essential for effective contract management. This team must possess a wide range of skills to ensure proper oversight of various aspects of the project. These include:

- Technical expertise to verify compliance with design, construction, and maintenance standards.
- Administrative skills to manage information flow and contract payments.
- Legal knowledge to interpret obligations and handle changes in laws.
- Financial acumen to assess the impact of refinancing.
- Communication abilities to inform stakeholders.
- Insurance expertise to ensure adequate coverage throughout the project's life.

Figure 7.2 describes the stages and activities of the contract management function in each of the phases of a PPP project. In the Project Identification and Screening Phase, the contract management requirements should be defined and budgetary requirements should be discussed and agreed. During the Appraisal Phase, the contract management function should be described, at least on a preliminary basis, and the human resource requirements need to be outlined. An indicative budget also needs to be secured in order to be operational for the duration of the PPP contract.

During the Structuring Phase, the manager of the future contract management team (the Contract Manager) should be appointed and other contract team members should be identified. In addition, a detailed Contract Management Manual, setting out the activities of the contract management team, should be produced.[9]

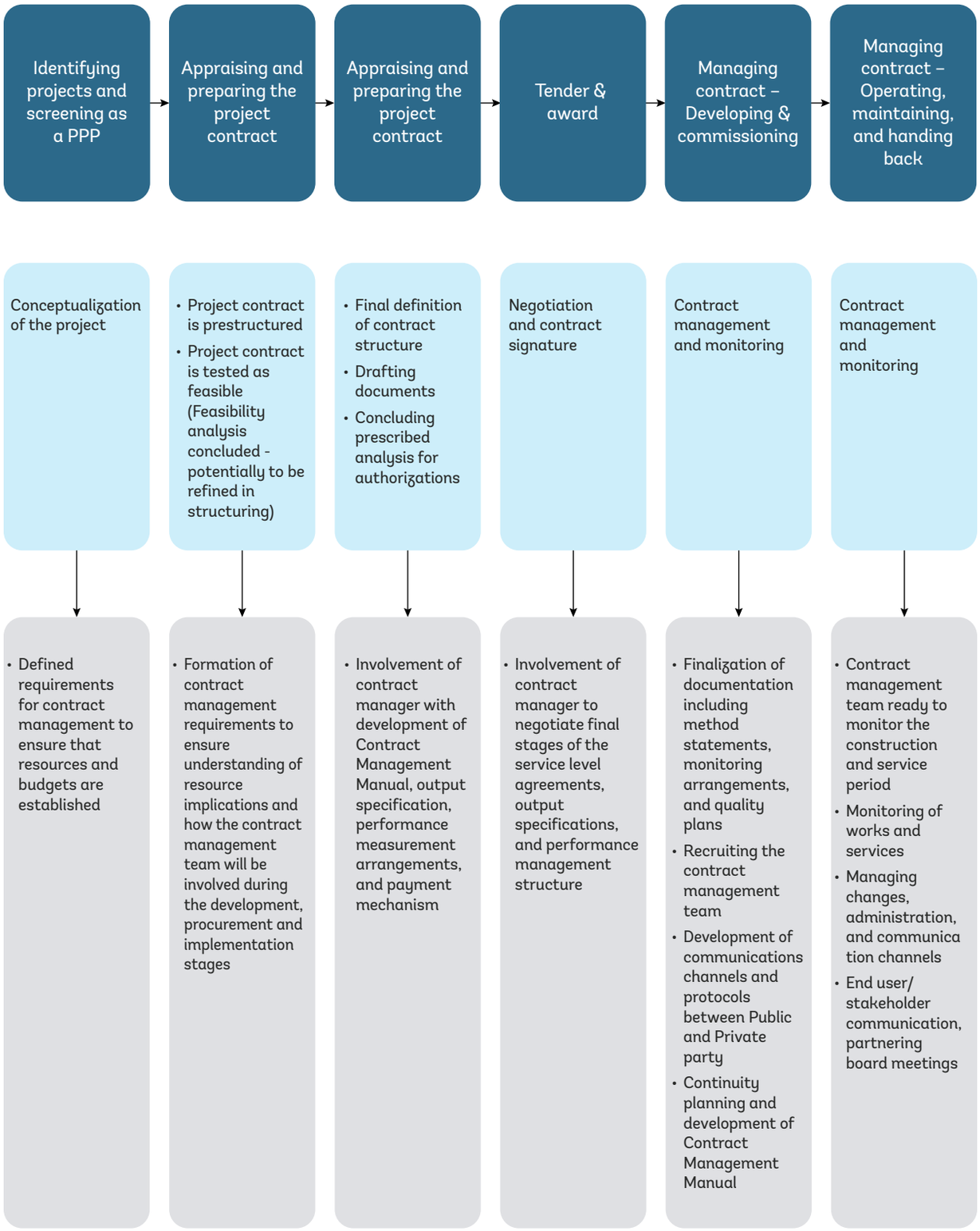
During the Tender Phase, representatives of the future contract management team should be involved with any negotiations pertaining to the operational requirements and outputs of the project.

At the end of the Tender Phase, the contract management team should be fully in place and the final Contract Management Manual (including method statements, monitoring arrangements, and quality plans) should be completed. Development of communications channels and protocols between the government and the private partner must also be completed. Any training required should also have been provided.

It is common in PPP projects for the majority of the project team for the Tender and Award Stage to leave the project following the award or financial close. Putting the contract management team in place prior to the end of the Tender Phase can, therefore, be an important means of preventing a loss of knowledge about the project as knowledge can be transferred to the contract management team before key project team members move on.

[9] The Contract Management Manual remains in draft form until the commercial close, ensuring that it accurately reflects the obligations outlined in the final signed contract. This process is crucial, particularly when the manual is intended to encapsulate the key provisions of the PPP agreement, as highlighted in Box 7.3. Finalization of the manual should take place after the commercial close, with necessary updates integrated as the transaction advances towards financial close.

Figure 7.2. Stages of contract management activities throughout the PPP lifecycle



The establishment of contract management functions by the government during the early stage of a project will unlock numerous benefits. Some examples are listed below:

- It will help build in-depth knowledge of the project from the inception and therefore a strong negotiating position when the project is in procurement.
- It will ease coordination and integration of all the stakeholders and works once in the Implementation Phase.
- It will help build familiarity with proposed service measurement targets and preparation for monitoring them.

The contract management functions should also reduce the chance of possible pitfalls such as those listed below:

- A lack of knowledge and understanding of what the private partner's intentions were when devising their solution as well as what has been incorporated into the contract, which could create conflict affecting the partnership.
- Poorly monitored and executed financial management because the contract management function was not involved in the design of the payment mechanisms at the Structuring Phase.
- A lack of opportunity to influence the implementation of services – a lack of awareness of problems can be avoided if the contract management function is involved from the inception of the project.
- A lack of knowledge of the signed contract, obligations, and roles and responsibilities arising from the late appointment of the contract management function may delay the project, create indecision, and in certain circumstances damage the relationship between the government and private partner.

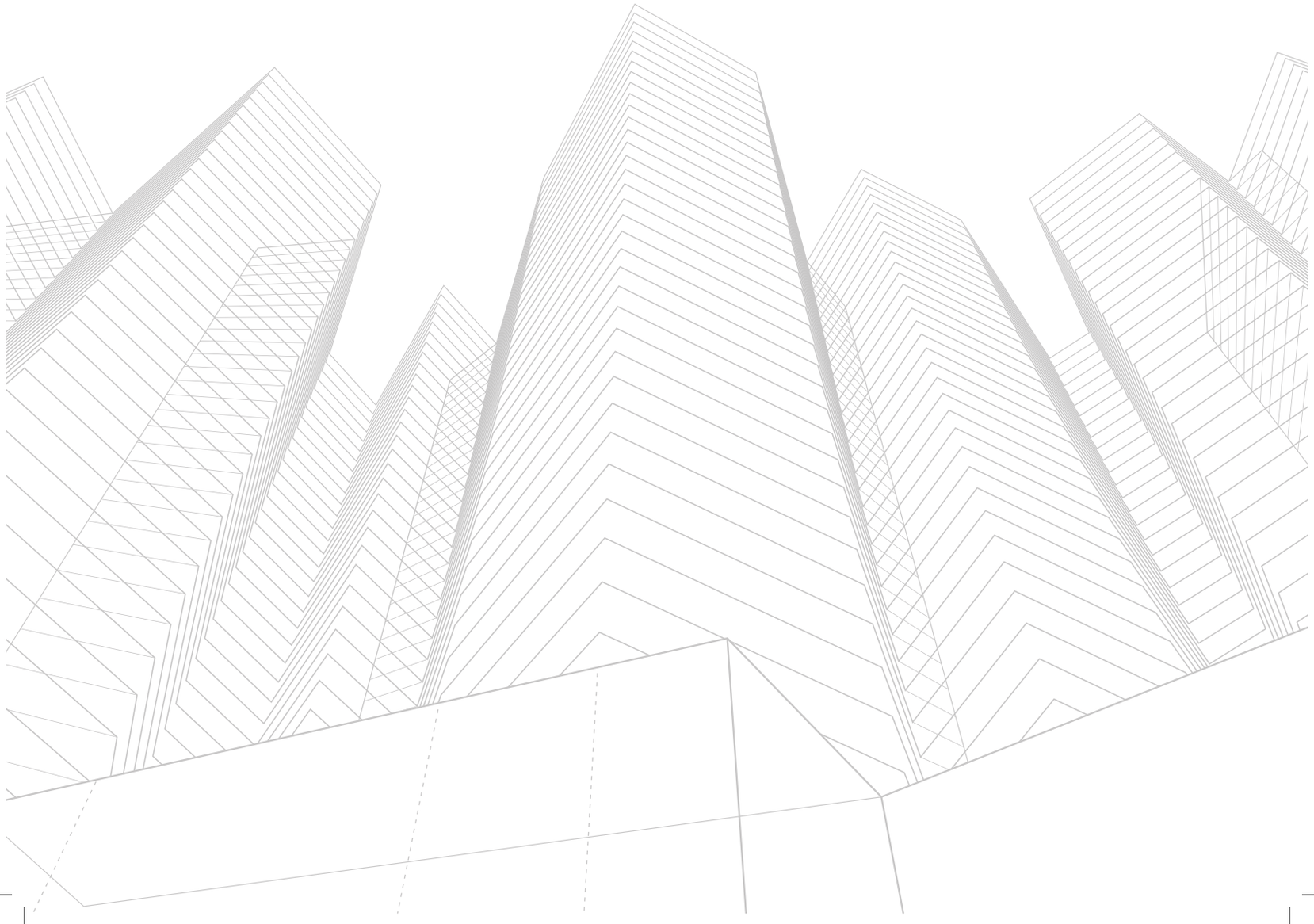
The Contract Management Team should include expertise in tracking climate indicators, qualitatively evaluating climate risks, and investigating options for reducing greenhouse gas emissions. A comprehensive plan is essential for overseeing climate-related construction and operations, integrating adaptation measures and strategies for reducing greenhouse gas emissions. It is vital to evaluate the appropriateness and effectiveness of monitoring climate-related Key Performance Indicators (KPIs) early in the process to quickly address any shortcomings. A practical method might include setting precise milestones in cooperation with the private partner to improve the objectivity and promptness of the monitoring process. This ensures a productive collaboration between public and private sectors in addressing the impacts of climate change.

3.1.1. PPP governance structure

Good practice for PPP contract governance structures requires various layers of interaction between the two parties. According to the PPP Reference Guide Version 3, several entities may play crucial roles in the contract management of PPP projects alongside the Procuring Authority. The Ministry

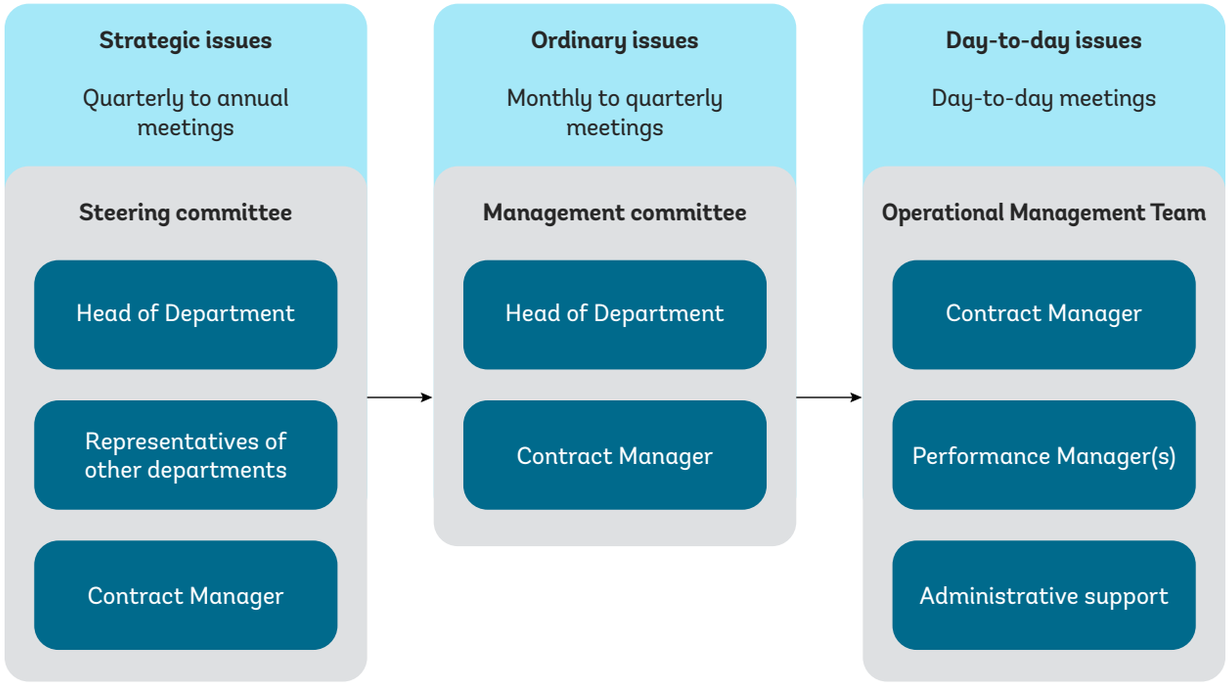
of Finance (MoF) often oversees the project's fiscal commitments, ensuring the financial risks are appropriately managed and that the public sector's financial exposure remains within acceptable limits. The PPP Unit typically provides oversight and guidance, helping to ensure the project aligns with broader PPP policies and best practices. Sector regulators, when applicable, are responsible for monitoring compliance with industry-specific standards and regulations, safeguarding service quality, and ensuring that performance benchmarks are met. Together, these entities support robust contract management by maintaining financial discipline, regulatory compliance, and effective risk management throughout the project's lifecycle.

The 2014 EPEC report on managing PPPs during their contract life emphasizes the critical importance of fostering a transparent, respectful, and cooperative partnership with the private partner. It highlights the need for continuity and commitment from the public sector's team, cautioning against frequent staff turnover and recommending a constructive and empathetic approach towards the private partner. However, the Authority must remain vigilant against potential opportunistic behavior. The report also stresses the value of establishing regular communication channels, such as weekly, monthly, and quarterly meetings to share information, resolve issues, and preempt disputes. Furthermore, it advises creating communication interfaces at various hierarchical levels to mitigate personal conflicts and prevent strategic-level disagreements from impacting day-to-day operations.



In terms of the internal governance structure for a Procuring Authority's contract management team, the 2014 EPEC report on *Managing PPPs during their Contract Life – Guidance for Sound Management* offers the following example[10] seen in Figure 7.3.

Figure 7.3. Example of a governance structure for a procuring authority's contract management team



Such a structure would in turn, facilitate the above-noted need for "various levels of interaction" between the Procuring Authority and the private sector PPP Project Company.

3.2. Roles and responsibilities of the government and the private partner within contract management

3.2.1. The roles and responsibilities of the private partner

To enable the government to effectively manage the PPP contract, certain roles and responsibilities must be required of the private partner throughout the contract. It is very important that the reporting system of the private partner complies with the government's requirements. In this context, the government will have clear policies and procedures with respect to private partner reporting. These requirements must have been communicated in the PPP contract to ensure the private partner has been given the opportunity to design and implement a reporting process and to allow for time to ensure that information management systems are compliant with the needs of the government.

[10] European PPP Expertise Centre (EPEC) (2014), *Managing PPPs during their Contract life – Guidance for Sound Management*, at Page 20.

As part of this process, the private partner should set up a Quality Management System (QMS) (see Section 6.5 below) through which the process and procedure of documentation issuing and monitoring of service and performance is recorded.

A Management Information Systems (MIS) will form a great part of the QMS (see Section 3.3.3. below). The importance of the MIS is to aid the reporting and monitoring of the private partner by the government, reduce time and costs in providing necessary documentation, and support record keeping and safety. The MIS also assists in the management of the documentation version controls and aids in reporting back to the end user if necessary. The aim is to ensure that performance can be measured and monitored using the information technology tools and that these IT tools generate reliable and accurate data on a regular basis, which will be part of the complete QMS.

It is critically important to keep the communication channels between the government and private partner continuously open and to raise issues promptly. However, one of the most vital points is that the government must not get involved in the actual decision making and execution of the project, as this would adversely affect the risk-transfer provisions in the PPP contract.

For the same reason, the government should be careful not to prescribe to the private partner how it should structure itself. This is because of the discipline imposed by the project finance structure. In particular, the lenders and shareholders to the private partner generally need to ensure that good practice is applied in terms of corporate governance.

There are, however, some areas in which the government should be prescriptive in setting out either explicit contractual obligations or requirements of formal approvals related to the private partner's governance arrangements. These include:

- Changes in shareholding.
- The ability of the private partner to perform its obligations with suitable experienced and qualified personnel.
- Changes in the financial structure of the private partner, such as distributions made by the private partner and refinancing.
- Reporting requirements, in terms of timing and contents of such reports.

3.2.2. Contract management by the government

The government will have a number of roles at different levels in managing the contract. It will have a strategic commercial contract management role in sharing policy and other strategic developments with the private partner. It will also have a role in:

- Monitoring the PPP contract to ensure the obligations therein are being met and remain with the party contracted to fulfill these.
- Monitoring the performance of the private partner so that services are delivered to the required standard and the actions for non performance set out in the contract are adhered to.

From the outset of the project, the government should follow the steps listed below:

- Clearly define roles and responsibilities of its contract management team.
- Monitor the project delivery.
- Manage changes permitted under the PPP contract.
- Manage changes not provided for in the PPP contract.
- Provide for dispute resolution.

In essence, the project's success will greatly depend on the monitoring and management of the project by the government.

After the PPP contract has been signed, responsibility for contract management will normally be transferred to the Procuring Authority's contract management team. The responsible person for driving the contract management team on a daily basis will be the Contract Manager. As noted above, it is good practice to include the proposed Contract Manager in the government's project management team at an early stage of the procurement process. The continuity as well as experience of a good Contract Manager can be beneficial for the formulation of a sound PPP contract. This early involvement will also provide the Contract Manager with a good understanding of the project and its inherent risks to enable him/her to devise an appropriate contract management strategy.

There is no simple formula when structuring the contract management team. This will greatly depend on the type of project, complexity, duration, and interface with the government and private partner as well as the end users. It is extremely important that the government has understood and reviewed the resource requirements for the various stages of the Implementation Phase. The government should also think carefully about the skills that will be needed as well as how it will secure those resources. Larger and more complex projects may require, in addition to the Contract Manager, a Contract Administrator and a Knowledge and Training Specialist. Other specialist skills in some areas can be obtained as and when needed (see Section 6.1.3 below).

If the government does not identify and appoint appropriately skilled staff with the right attributes and appropriate levels of empowerment to carry out contract management duties, this will inevitably lead to under-resourcing in the Implementation Phase, particularly in the intensive early stages and will lead to poor quality contract management.

Since PPPs are long-term projects (often enduring for 20 years or more), it is highly unlikely that the same team that started the project will see it through to the end. Therefore, it is extremely important to ensure there is continuity and transfer of knowledge within government. Two elements that ensure that can help support this are succession planning and putting the contract management policies, procedures, and manuals in place.

3.2.2.1. Roles of the contract management team

The contract management team has a number of primary and secondary roles within the government domain. The primary roles relate to the PPP contract itself and the oversight exercised over the private partner in the achievement of the project objectives and VfM. The secondary roles relate to a broader role in fulfilling public policy and communicating across a range of stakeholders to whom the private partner is not accountable.

Primary roles include:

- To act as the contractual representative of the government (to protect governmental interests) in performing obligations and enforcing the rights of the government in the PPP contract.
- To monitor the performance of the private partner in providing the services specified in the PPP contract and to enforce the payment or penalty mechanism associated with the performance monitoring.
- To liaise with the private partner in achieving the project objectives.
- To ensure that financial instruments such as securities and insurances are properly maintained.
- To manage any disputes that arises under the PPP contract.
- To manage the changes (variations and amendments) to the PPP contract in accordance with public policy and law so as to achieve VfM through such changes.
- To oversee the management of the project assets and ensure these are correctly maintained, accounted for, and reported on.
- To ensure that user charges are amended in accordance with the PPP contract and public policy and law (if relevant).
- To report on the financial performance of the project in accordance with generally accepted accounting practices applicable in the jurisdiction.
- To report on the contingent fiscal obligations accruing to the government from the project and any changes thereto.
- To monitor, evaluate, and report on the progress of the project and identify lessons learned for the project and for future PPPs.

Secondary roles include:

- To liaise with and promote cooperation between governmental structures in all spheres of government in relation to the project.
- To monitor the policy and legislative environment of the project.

- To enhance the integration of the project with other public services, programs, and projects.
- To manage the Procuring Authority's communications with end users, affected communities, and broader stakeholder groups.

The roles and responsibilities of individual functions need to be included in the formal mandate of the contract management team. They must also be well aligned with the PPP contract by incorporating reporting obligations that allow the contract management team to fulfill its role. The contract management team mandate must also be reflected in the dispute resolution process in the PPP contract.

The roles listed above will translate into the obligation of disclosing information, which can be categorized into two types of information, that is, information about the contract at closure and following that ongoing performance information through expiry or termination of the contract. This information would include the following: brief project information at contract award, contract summaries and full contracts at financial close, independent engineer and auditor reports during contract operation, and performance and financial information through the expiry of the contract term. It is also important that governments try to develop a database of aggregated project data over time.

In each phase of a project — contract award, financial close, and operational phase — careful selection of disclosed elements is crucial to meet the objectives of enhancing public confidence in service quality, pricing, and value for money. This includes providing detailed project and contract information at non-performance commercial and financial close as well as ongoing updates on service levels, penalties for tariff variations, financial performance, government payments, and VfM achievements. Full contract disclosure should be the default, with exceptions only for specifically exempt information. Additionally, any modifications due to renegotiations should be transparently disclosed, highlighting changes in risk allocation, costs, tariffs, and government exposure. All post-procurement disclosures should be accessible via public procurement portals and relevant websites at federal, subnational, and project levels. Please see the summary in Figure 7.4. below. Additional guidance on the topic can also be found at the Framework for Disclosure in Public-Private Partnerships.

Figure 7.4. Elements of post-procurement[11]

Element	Description	Rationale for Disclosure
Basic project information	High-level information	
Risk	Material risks, allocation, mitigation, actual risk events, and cost	Risk allocation is an important determinant of cost to government and to the paying public/user. Inadequate or excessive transfer of risk is undesirable. Disclosure will provide evidence of proper or improper risk allocation and its effect on costs.
Reasons for choice of PPP	Qualitative and quantitative analysis, including value-for-money analysis, where available	Choice of methodology affects the costs to the public and it is important to assure them that the PPP mode selected is the best possible in terms of cost, given equal standards of service in all modes tested.
Financial information	Financing structure, shares, voting, etc, estimates and actual revenues earned (in cases where there is a minimum revenue guarantee by government, or substantial support provided by government or there is provision for payment of revenue share by the SPV to the government); forecast and actual equity return (in cases where government has an equity stake or substantial government support has been provided to the SPV either as direct payments or as guarantees)	Provides evidence that government support is justified and required at the level and for the period for which it is being paid. Infrastructure PPP projects are often back-ended in terms of revenues, and especially in greenfield projects initial revenue projections can be inaccurate and often characterized by a high level of uncertainty. It is important to demonstrate to stakeholders the continued relevance of payments between the parties to the contract. Where government has equity stake in a project, it is important to provide information on the financial health of the project, including the returns.
Government support	Guarantees, grants, land rights, payments for service, and so on	Government support creates commitments and liabilities for government and impacts government budgets. Disclosure will demonstrate the level of such liabilities.
Tariffs	Tariff methodology and review/ regulation	Explains to users why they are paying what they are paying.
Major contracts concluded as part of execution of a PPP project	Contract description, method of tendering, value, and contractor/ supplier name and address	Demonstrates whether services agreed to and at the level agreed to are being provided.
Performance	Actual performance against targets, actual penalties against contract provisions, independent engineer or auditor performance monitoring report, user feedback or surveys, if any	
Contract termination	Termination provisions, handover provisions	Provides assurance to the public that government has provided for asset quality at termination as well as continuity in provision of service.
Renegotiations, changes	Details of changes with dates, specifying any impact of the change on cost, fiscal commitments or contingent liabilities, risk allocation, tariff, or payment	Has the potential to prevent unsound decisions based on vested interests of the SPV, government, or any other specific stakeholder.

[11] World Bank Group. (2017). Framework for Disclosure in Public-Private Partnerships. Retrieved from https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2022-03/FrameworkPPPDisclosure_101917__FINALFULL.pdf.

3.2.2.2. Contract manager roles and responsibilities

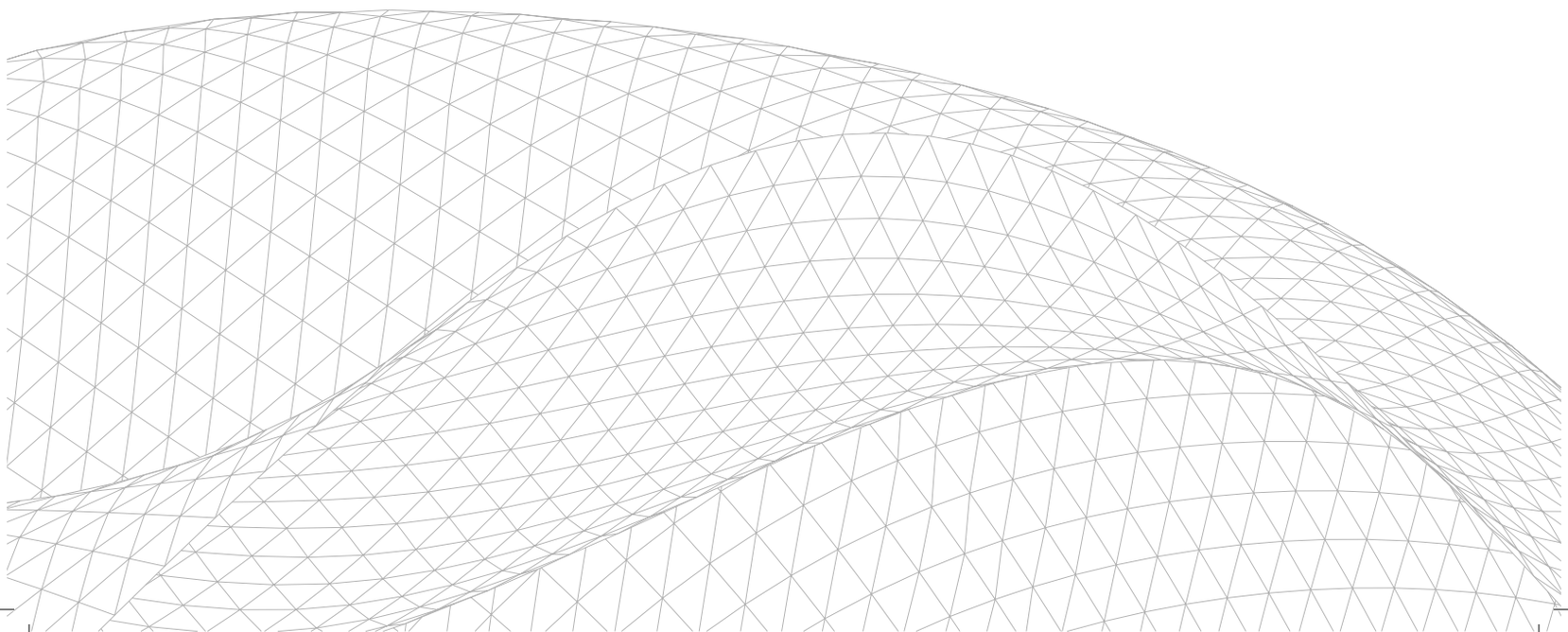
The individual appointed as Contract Manager is critical to the effective functioning of the team and the PPP itself. Such an individual has significant delegated authority from the Procuring Authority to manage the PPP contract and represent the government. The Contract Manager also has to lead the contract management team and make it a well-functioning unit. That person has to have adequate authority and seniority to liaise with the private partner and other government entities in a manner that enhances decision making and expedites action.

The Contract Manager should always be accountable for all decisions and ensuring that appropriate consultation and compliance with legal requirements takes place on major decisions (such as dispute resolution or amendment of the PPP contract).

A good Contract Manager acts within existing delegated authority to make decisions in the day-to-day management of the PPP contract so that the PPP is implemented efficiently. A high-performance Contract Manager is able to elevate extraordinary decisions with cost or risk implications to appropriate levels in government.

The Contract Manager should be given the following tasks:

- Responsibility for the development of a Contract Management Manual and related documentation that accords with the activities and reporting of the private partner under the PPP contract.
- Developing and leading the contract management team in accordance with that plan.
- Developing annual plans for areas of specific oversight, including audits and reports on key risk areas.
- Communication and liaison with the private partner in a structured manner about performance, financial, and dispute-related matters.
- Monitoring of risks and fiscal obligations that arise from the PPP contract.



The Contract Manager plays a key role in developing relationships with the private partner and monitoring the Project Company's performance, and therefore it is a critical appointment. As such, the appointment is likely to be full time and will take the risk and complexity of the project into account.

3.2.2.3. Contract administrator roles and responsibilities

The Contract Administrator must have good organizational skills, an eye for detail, and be at hand to assist the Contract Manager on administrative matters. Some of the responsibilities include:

- Organizing files and managing documents.
- Financial management.
- Keeping records of risks and their possible impacts.
- Managing the Contract Manual, processes, and procedures in relation to claims, organizing meetings, communication, and ensuring that all issues are resolved or brought to the attention of the relevant parties.

The Financial Stability Board created the Task Force on Climate-related Financial Disclosures (TCFD) to enhance and broaden the disclosure of climate-related financial data. The TCFD organizes its recommendations into four thematic pillars that reflect fundamental aspects of organizational operations: governance, strategy, risk management, and metrics and targets. These can help guide contract managers in tracking climate risks and their impact on project finances.

3.2.2.4. Training for the contract management team

When recruiting and mobilizing for the government contract management team, staff training might be needed depending on the past PPP experience of the individual and the knowledge obtained within the field. Therefore, the knowledge and training specialist will have an ongoing function with responsibility to identify initial and ongoing training requirements.

Generally, two types of training are required: an overall introduction to PPPs and the project lifecycle and specific training on contract and project management, payment mechanisms, risk analysis, etc.

General training in contract management would describe the basic contract management principles, some project management skills, negotiating skills, general commercial skills, and basic principles of effective communication.

Training for PPP contract management teams will typically involve training regarding all stages of the Implementation Phase (construction, operation, and handback), including training on performance monitoring, payment mechanisms, change and variation management, and dispute resolution.

3.3. Contract administration planning, establishment, and execution

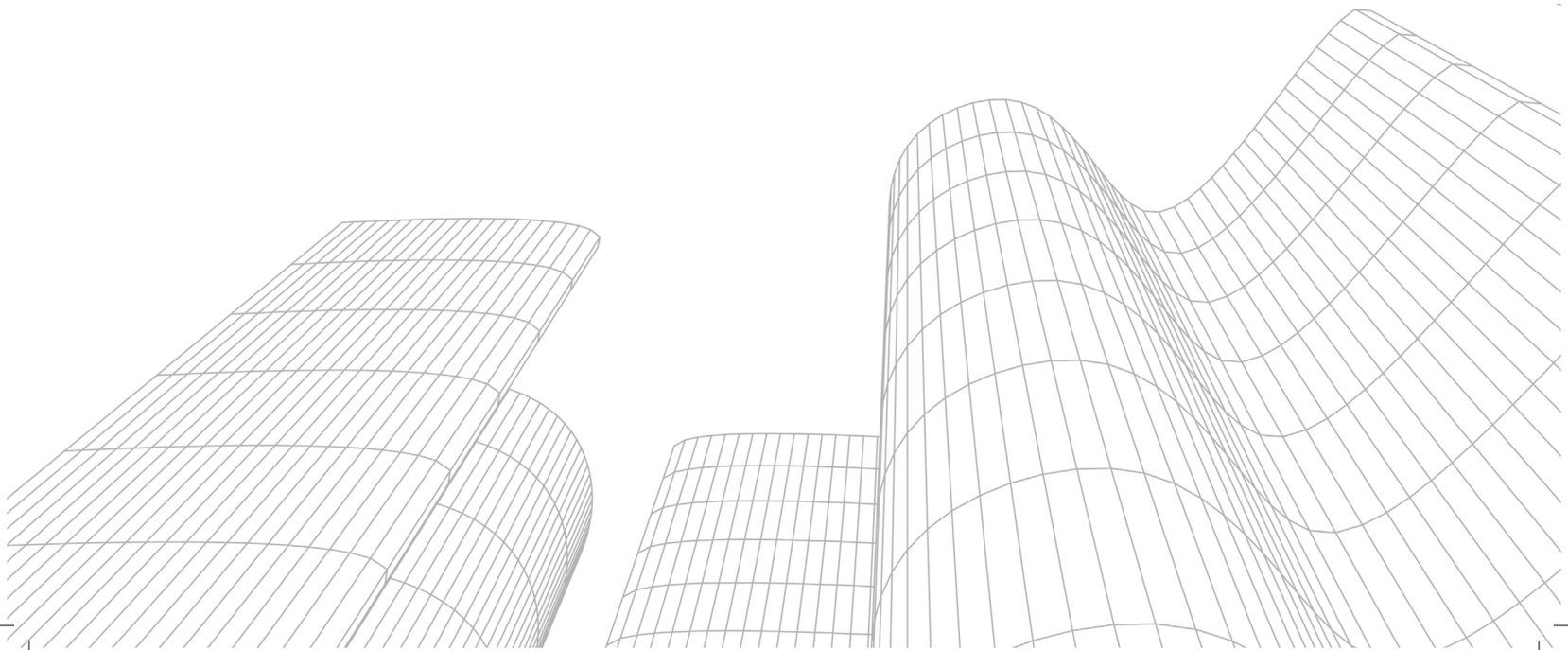
3.3.1. The Contract Management Manual

A Contract Management Manual is a collection of policies and procedures for effective PPP contract management by a Procuring Authority. It should be written in plain language and needs to explain what is expected from the Procuring Authority with respect to its duties and obligations as well as what needs to be done in order to successfully monitor the private partner's progress and delivery of the PPP project. The Manual should also set out processes and procedures that need to be followed between the organizational structures and departments of the Procuring Authority. This is typically the case for internal procedures involving different departments within the government's administration, for example the operational management team and accounts department for the payment procedure. With respect to projects that involve numerous public stakeholders, such as schools and hospitals, the scope of the manual may be broadened to deal with the interaction among the key public stakeholders.[12]

The Contract Management Manual should always be read in conjunction with the signed PPP contract and must be aligned with the processes contained within the contract. It should never be substituted for the contract itself. The Contract Management Manual must be practical and relevant to both the day-to-day and the longer-term management of the PPP contract. Box 7.3, below sets out the guidance found in the Partnerships Victoria 2018 *Contract Management Guide*.[13] Please note that in the Partnerships Victoria guide:

- The term "contract administration manual" is used to describe the Contract Management Manual.
- The term "contract director" is used to describe the Contract Manager.
- The term "project deed" is used to describe the PPP contract.

[12] European PPP Expertise Centre (EPEC) (2014), *Managing PPPs during their Contract life – Guidance for Sound Management,* at Page 27.
[13] Partnerships Victoria (2018) *Contract management guide,* at Page 59.



Box 7.3. Contents of a Contract Management Manual based on the Partnerships Victoria Contract Management Guide

- Provide a strategic context: The contract administration manual should provide a brief historical summary of the project to date, including the service delivery context, the rationale for key decisions and discussion of key issues with the Project Company, and outline key elements of the Project Company. It should also outline the strategy for achieving the government party's project objectives. The contract administration manual should include a summary of "the deal" that illustrates the intent behind the project deed and its key provisions rather than simply repeating or describing the meaning of contractual clauses. In this sense, it should capture what the project deed is trying to achieve and whether it is in fact being achieved.

- Highlight actions: The contract administration manual must highlight, on a rolling basis, the most immediate and critical actions that must be taken by the contract director to administer the project deed. These actions need to be set in the context of a clear understanding of the commercial intent of the parties and the relevant commercial, legislative, regulatory, and policy background. These actions should be included in an obligations register (see below for further details). Actions will extend beyond those listed in the project deed and should include matters such as the need to undertake gateway reviews during the service delivery phase and prior to contract expiry.

- Align resources: The contract administration manual must enable the contract director to identify the resources required to perform necessary tasks and manage the most time-critical and materially significant risks at various stages during the project lifecycle.

- Support governance: The contract administration manual must support public sector governance practices, including communications, accountability, and decision making processes. It should outline internal reporting processes, including to the senior responsible owner and the Department of Treasury and Finance (DTF).

- Collate contract management tools and processes: The contract administration manual must provide a cohesive set of contract management tools and processes. Some of these tools and processes may be developed separately from the contract administration manual. For example, the government party's communications strategy for the project may be integrated with the government party's agency-wide communications strategy.

Box 7.3. Contents of a Contract Management Manual based on the Partnerships Victoria Contract Management Guide(Cont.)

The contract administration manual needs to outline processes for:

- Identifying, monitoring, and reviewing a risk analysis for contractual and other risks.
- Understanding service obligations, obtain reports, monitor performance, and have clear payment arrangements.

Ongoing review and development — the contract administration manual must be a dynamic document, updated regularly so that it remains relevant throughout the project lifecycle. The contract director should implement procedures for reviewing and updating the contract administration manual at regular intervals.

Source: Partnerships Victoria, 2003.

The Contract Management Manual should also serve as a knowledge management tool and it will be particularly important for succession planning and transfer of knowledge. For that reason, when new members join the contract management team it is recommended that they be given specific training in use of the Manual.

Lastly, the Contract Management Manual will, as previously noted, also serve as a tool to facilitate the transition from one stage of the Implementation Phase to another and as a comprehensive reference document of the processes and procedures to be followed under such transitions.[14]

3.3.2. Implement information and documentation management

The Government Contracting Authority will need accurate information and relevant documentation in order to make sound decisions, monitor the Project Company's performance, comply with its contractual obligations, and manage project specific risks.[15] In a typical PPP project, most of the information is provided by the Project Company. The government's role consists primarily of receiving this information and verifying that it is accurate and consistent.

The most common requirement by a government is to ensure the private partner provides information surrounding financial, legal, and technical issues that are needed for the government to successfully monitor and review the performance of the private partner.

[14] Additional resources on contract management can be found at: World Bank. *Contract Management and PPP Portfolio Monitoring System (3P-CMT) : User Guide (English).* Washington, D.C. : World Bank Group. http://documents.worldbank.org/curated/en/099647512222211698/P17425408007730a70a1e90b1b6c75b36d4.

[15] European PPP Expertise Centre (EPEC) (2014), *Managing PPPs during their Contract life – Guidance for Sound Management,* at Page 31.

When drafting the contract, the government should be clear and prescriptive with regard to the level of detail, format, and deadlines of the data to be produced by the private partner. The type of information needed from the private partner should be carefully considered so as to avoid:

- Requiring too much information, which would be costly to produce and collate for the private partner and ultimately for the government to analyze.

- Requiring too little information, which would limit the government's ability to perform its duties.

Where a PPP contract includes social commitments, for example, output specifications related to gender (see Chapter 5, Section 9.2), contractual obligations regarding monitoring and reporting should mandate disaggregated data collection together with regular reports on progress toward specific gender targets, challenges, and the implementation of specific gender measures and activities. (For details regarding disaggregated data collection, see Chapter 4, Box 4.13).

3.3.3. Management information systems in a PPP environment

Activities and documentation management of a PPP project should be recorded and managed by a high-quality Management Information System (MIS). Because the PPP contract ultimately aims to deliver an efficient service to a range of end users, performance must be closely monitored by the government so as to ensure proper and constant engagement by the private partner.

In order to successfully implement an MIS solution as an integrated communication tool for PPPs, governments should:

- Stress in the tender documents that the government expects to have transparent access to these tools throughout the life of the contract.

- Discuss during the Procurement Stage (to the extent that this is possible under the applicable procurement rules) and which MIS solutions the bidders are planning to use and the extent to which they can be shared with the authority (for example, licensing rights, personal data protection issues).

- Request that the private partner design appropriate MIS interfaces for the government, such as dedicated web portals.

- Test-run the private partner's MIS solutions in advance of operations commencement in order to ensure they are functional.[16]

The objective of a sound MIS solution is to ensure that performance can be measured and monitored using the MIS and that the MIS generates reliable and accurate data on a regular basis. The Procuring Authority will need to ensure there is full consistency between the contractual performance of the private partner and the MIS interfaces that will be adopted.

[16] European PPP Expertise Centre (EPEC) (2014), *Managing PPPs during their Contract life – Guidance for Sound Management*, at Page 34.

Given the rapid evolution of MIS technology, the private partner should have the obligation to upgrade the MIS regularly. It should also avoid expensive, bespoke MIS solutions that rely on the unique intellectual property of one service provider. For example, open-source systems are typically cheaper to upgrade and are developed with innovation in mind. Such systems vary in their capabilities and they can provide: sophisticated document management solutions; clear, auditable communication between the parties; and drive efficiencies over weeks, months, and decades by linking approved processes, notice templates, and prescribed tasks to the underlying PPP documentation.

In some circumstances, however, the private partner or one of its consortium members may have an existing proprietary system that can be used for the project at a low cost. In such cases, it may not be VfM for the government to insist upon the use of a different system.

Some systems can also be used by the procuring authority during the tender process for document management and communication with bidders. If the procuring authority decides to provide its own standardized MIS it may have additional benefits as it helps streamline regulatory oversight and reduces the proliferation of fragmented systems across projects, especially when regulators must interface with multiple PPPs. However, it may not be VfM for the procuring authority to mandate the use of the same system throughout the life of the PPP contract.

3.4. Relationship management

PPPs, by their very nature, span a very long timeframe. They are detailed and complex when it comes to managing relationships between the various parties in the PPP contract. There are many stakeholders within a PPP, including the parties, lenders, the Project Company shareholders, end users, regulators, legislative and executive arms of the government, and wider communities. Critically, one risk that cannot easily be quantified is relationship risk. This risk is more complex than many other risks. Damage to a relationship can be the result of poor or unsatisfactory communication and cooperation and it usually follows and exacerbates a reduction in mutual trust. The principles and approaches outlined here apply not just to the construction stage but also to the operations stage.

3.4.1. Key factors in establishing good relationships

The effective management of relationships, especially between the Procuring Authority and the Project Company, is essential to achieve long-term success in a PPP project. The key to this is the establishment of a collaborative working relationship, together with systems and communications that actively support and enhance the relationship throughout the life of the project.

When things go wrong in a contractual relationship, a typical result would be a reduction in efficiency, which in turn would lead to a reduction in VfM. Procedures for quickly and informally rectifying issues and problems should be put in place from the outset of the project, with relationship management being a priority. Only if a mutual consensus cannot be reached should formal dispute management come into play.

The main attribute to effective relationship management is communication. Sometimes a lack of communication can lead to misinterpretation of the party's intentions to do positive things. For example, the Procuring Authority may perceive that poor reaction times from the private partner

Project Company are due to cost-reduction strategies, when in fact the reaction times originally specified were inappropriate. The Project Company might be concerned about a perceived slowness in decision making by the Procuring Authority, when in fact the private partner does not understand the Procuring Authority's sign-off procedures.

A partnership style of working is a commitment by the parties within a PPP contract to collaborate to achieve mutual goals. These goals are achieved through inter-partner collaboration and joint problem solving. The result is less conflict and improved performance in terms of quality, time, and cost. Over the life of the PPP contract, further benefits accrue as the whole team builds on lessons learned and continually improves. The overall statement of the partnering relationship that describes the principles of a good working relationship should be recorded in the Contract Management Manual (see Section 3.3.1, above).

Effective relationship management starts with a collaborative, rather than an adversarial attitude. If either party starts with an adversarial approach this can force the other party to adopt the same tactics and compromise the long-term interests of both parties.

3.4.2. Importance of stakeholder management

In addition to managing the relationship with the Project Company, the Procuring Authority's contract management team must also have regard to managing the relationship with other project stakeholders. Project success and failure is related to stakeholders' perceptions of the value created by the project. There is a clear link between the successful management of the relationships between the project and its stakeholders and the stakeholders' assessment of a successful project outcome.

Using a mechanism for assessing the relative influence of a project's stakeholders and understanding their expectations is a critical element for success, as this will help to define appropriate engagement procedures to influence the key stakeholders for the benefit of the project.

The purpose of stakeholder management at the project level is to ensure that the necessary individuals or groups are appropriately engaged, thereby ensuring their ongoing support of the project. Important external stakeholder groups may include critical suppliers, various governmental bodies, regulatory bodies, community groups, and third-party investors. In short, anyone who has a financial, business, or political interest in the outcome of the project should be considered when establishing relationship interfaces.

Even if the private partner Project Company has, under the PPP contract, assumed the risk associated with dealing with a particular stakeholder, the contract management team can play a supportive role in informing that stakeholder about the project. For example, where the Project Company is responsible for obtaining a permit from another government department, the contract management team can ensure that the other government department fully understands the project and the context in which the Project Company is seeking the permit — provided the contract management team does not provide any assurance to the Project Company that the permit will be granted.

The 2021 EPEC Guide to Public-Private Partnerships[17] identifies the key stakeholders in a typical PPP project:

- **Senior politicians,** who may be concerned with the relevance of PPP projects to the government's overall policy agenda. The contracting authority should ensure there is a political champion for the PPP program or project. Senior political figures who can influence project implementation and the overall PPP program are usually placed in the 'high interest/high influence' category of stakeholders.

- **The general public,** who may have limited interest in a PPP program or in PPP projects. The contracting authority should consider the level of public knowledge and awareness of a PPP program or individual PPP projects and the levels of acceptance of, trust in, or scepticism about the program or project.

- **End users,** who may have specific requirements, concerns, or expectations in regard to a PPP project. If an End-User Payment PPP project is being considered, the contracting authority's communication plan should be concerned with assessing the willingness and ability of end users to pay for the proposed infrastructure service (see 'affordability').

- **Project-Affected Persons (PAPs),** such as affected employees and local residents who will, as noted, be concerned with the impact that a particular PPP project will have on them. Different types of PAPs will normally be found in one or other of the "high interest" categories.

- **Senior civil servants,** who may be concerned with the track record for PPP projects in the sector or in similar projects. The contracting authority should also consider the key policy drivers for this group of stakeholders.

- **NGOs/unions/pressure groups/press,** who may have predetermined views on a PPP program or a particular PPP project. The contracting authority should carefully assess the likely issues to be raised by such groups (for example, environmental issues or taxpayer protection issues), and the potential impact these important stakeholders may have.[18]

Additional guidance can be found in the *AA1000 Stakeholder Engagement Standard 2015,* published by AccountAbility.[19]

[17] European PPP Expertise Centre (EPEC) (2021). *EPEC Guide to Public-Private Partnerships,* at Pages148-153.
[18] European PPP Expertise Centre (EPEC) (2021). *EPEC Guide to Public-Private Partnerships,* at Page 153.
[19] AccountAbility (2015). *AA1000 Stakeholder Engagement Standard 2015.*

Table 7.2 describes the key stakeholder management objectives, activities to achieve these objectives, and typical risks if the activities are not implemented.

Table 7.2. Stakeholder management procedure

Objective	Activity	Typical risks if the activities are not implemented
Determine and define engagement strategy, objectives, and scope	Establish a strategy for stakeholder engagement, ensuring establishment of the context, objectives, and scope for the engagement.	Engagement of stakeholders is not optimized and results are not achieved.
Identify stakeholders/ Accountability commitment	Establish a methodology, including systematic processes to identify and map stakeholders and manage the relationship between them in ways that build accountability to stakeholders and enhance overall performance. Adopt AA1000SES Stakeholder Engagement Standard (an international standard on stakeholder engagement), and commit to the practices of "exclusivity", which means giving the stakeholders the right to be heard and accepting the obligation to be accountable to them.	A stakeholder may adversely impact the project activities or outcome. Lack of accountability may result in an uncoordinated approach to address stakeholder needs. The ultimate impact of poor stakeholder management is that the project is completely derailed or stopped.
Build and strengthen capacity	Assess stakeholder capacity needs, both in resources (staff, money, time) and competencies (expertise, experience). The organization should commit itself to responding to these needs in order to enable effective engagement.	Without adequate resources committed to management of stakeholders there is a heightened risk that their expectations will not be effectively managed.
Establish engagement plan and implementation schedule	Demonstrate the intent to engage with stakeholders.	Interaction with stakeholders is inadequate both in terms of frequency and content.
Preparing and engaging	Establish procedures for appropriate ways to engage with stakeholders. There are numerous models available for stakeholder engagement.	Inadequate engagement and lack of clarity with regard to the approach in dealing with stakeholders may result in either miscommunication or poor outcomes that may ultimately impact the success of the project.

Objective	Activity	Typical risks if the activities are not implemented
Identify stakeholders	Establish a methodology, including systematic processes to identify and map stakeholders and manage the relationship between them in ways that build accountability to stakeholders and enhance overall performance.	A stakeholder may adversely impact the project activities or outcome.
Initial Identification and material issues	Establish processes to identify material issues associated with the project for which the government has either a management or legal responsibility or the ability to influence associated performance outcomes.	Incompleteness in understanding stakeholder concerns, views, needs, and performance expectations as well as perceptions associated with their material issues may adversely impact the project activities or outcome.
Engage with stakeholders in a way that facilitates understanding, learning, and improvement	Identify and understand stakeholder concerns, opportunities, and risks in a way that enhances the understanding of materiality. The government should identify enablers for learning and improving performance.	Project outcomes and progress are adversely impacted.
Reporting and measuring	Apply what is learned through stakeholder engagement to inform organizational strategies and operations, and to ensure that they are consistent with sustainable development. The government should communicate what it learns and how it intends to respond.	Project outcomes and progress are adversely impacted.
Measure and assess performance	Establish a process and mechanisms to measure, monitor, and assess the quality of organizational stakeholder engagement practice.	The consistency and intensity of activity results in suboptimal outcomes, which may impact directly on the progress and outcome of the project.
Assess, remap and redefine	Assess and remap stakeholders and redefine the stakeholder strategy where changes have occurred or new learning experiences have been gained.	Lack of assessing and redefining will become redundant and not applicable to the project.

Source: AA1000 SES.[20]

[20] *Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets*, IFC 2007.

In this context it is important to note that communities are not homogeneous. Different members and groups within the community, including disadvantaged and vulnerable groups of women, men, the young, elderly, and persons with disabilities may have different interests and concerns related to the PPP project, in particular as end users and PAPs, and the adoption of specific communication strategies may be necessary for each relevant group. For details see Chapter 3, Box 3.13.

The Waghdari-Ribbanpally State Highway-10 toll road PPP in the state of Karnataka, India, illustrates the benefits of systematic stakeholder management. All of the stakeholders worked together in a true partnership to ensure the success of the project. The PPP contract provided that the Project Company had a period of two years for the construction of the highway. However, through coherent partnership and stakeholder management the construction was completed three months ahead of planned schedule.

3.4.3. Relationship with communities and broader stakeholder groups

As noted above, there are many projects in which the government itself is not the end user. In these projects, the government should involve end users at an early stage because inadequate consultation of stakeholders can lead to delays in the implementation of the project or make contract management challenging. It can lead to certain risks being underestimated. It could also limit the ability of both the government and the private partner to mitigate certain sensitive risks such as:

- Public objection to related fees.
- Administrative risks, for example, land acquisition and construction permits.
- Local residents and communities objecting to the project.
- Operational staff objecting to the project, such as teachers in the case of a school project.

It is good practice to establish a database of key contacts at the start of the project and to regularly update this during the life of the contract. A dedicated website is often suggested to facilitate communication with stakeholder groups and to disseminate key/controlled messages. It is further good practice to appoint an experienced person or company to design and implement a sound communication strategy toward stakeholders.

3.4.4. Grievance management

Despite effective and inclusive stakeholder engagement and communication, grievances may arise during the term of a PPP project. If not managed properly, even small complaints can escalate and potentially have significant impact on business performance. Grievance and redress mechanisms provide a formal and transparent process for community members, users and workers — male and female alike — to express concerns, ask questions, give feedback or make complaints. Ideally, grievance procedures should be in place from the beginning of the social and environmental assessment process and exist throughout construction and operations through to the end of project life.[21]

[21] *Stakeholder Engagement: A Good Practice Handbook for Companies Doing Business in Emerging Markets*, IFC 2007.

Box 7.4. Gender-inclusive grievance and redress mechanism

Men and women, including disadvantaged and vulnerable groups within both communities, may face obstacles when it comes to voicing their grievances about an infrastructure project, including cultural obstacles, level of literacy, language problems, access to technology, lack of experience with formal (grievance) procedures, or security and safety issues (see also Chapter 3, Box 3.14).

Some solutions to put in place to enable equal access to grievance and redress mechanisms for female and male community members include:

- Involve women and men in the design of the mechanism from the beginning.
- Publicize all relevant steps of the grievance process and make sure there is broad reach throughout the community. This includes information on points of contact for access to the mechanism, how to register a complaint, stages and timelines of the mechanism, and availability of advisory or expert support resources.
- Keep up a steady stream of publicity about the mechanism and engage local community organizations, women's groups, or NGOs to help ensure the information reaches diverse members of the community.
- Do not charge a fee for use.
- Provide simple, user-friendly forms, with clear directions.
- Set up more than one method of submitting a complaint so individuals can choose the one that best meets their needs, ensures the confidentiality of their submission, and doesn't prevent them from freely submitting.
- Enable access to the process for people who may only speak the local language or who are illiterate.
- Ensure the safety and security of locations for both men and women. Access points should be well lit, easily accessible, not secluded, and not too public.
- Ensure the anonymity of complainants.
- Consider training for local community groups, women's associations, or women's dialogue platforms in situations where communities may have a preference for informal grievance structures so they know how to handle grievances relayed to them.
- Consider engaging a GBV service provider to run a separate sexual exploitation and abuse/sexual harassment (SEA/SH) grievance mechanism if the project has high GBV risk.

Adapted from Gender and Infrastructure Toolkit, Tool Suite 3, Women and Community Engagement, IFC and CommDev 2023.

PART B – Contract Management During the Construction Stage

4. Construction Stage – Delivering and Commissioning

Where are we in the PPP project cycle?

This part of Chapter 7 covers management of the contract during the Construction Stage of the Implementation Phase of the PPP Project Cycle, including the construction of the infrastructure asset up to and including the commissioning of the asset. Therefore, all the general issues discussed in Part A of this chapter will apply. However, certain activities that are only relevant to the Construction Stage are discussed in more detail below.

During the Procurement Phase of the PPP Project Cycle (that is, the phase immediately prior to the Implementation Phase), the tender was launched, bidders were qualified, proposals were received and evaluated, the contract was awarded, and financial close was achieved.

During the Contraction Stage of the Implementation Phase, the private sector Project Company delivers and commissions the infrastructure assets associated with the project. The Procuring Authority implements its contract management framework to ensure that both the private sector Project Company and the Government Procuring Authority perform their respective obligations and also manage stakeholder interfaces.

At the end of the Construction Stage, the project reaches the Operations-Stage, during which the infrastructure is operated and maintained to deliver services to users.

4.1. The importance of contract management during the construction stage

This is the stage during the Implementation Phase when the project finance is drawn down and the construction contractor and subcontractors engaged by the private partner Project Company begin construction, testing, and commissioning of the different components of the project according to an implementation schedule. The major responsibility related to the implementation tasks in this phase lies with the private partner. However, a contract management process by the Government Contracting Authority needs to be in place from the outset to ensure timely completion and satisfactory operation.

PPP contracts are complex and detailed. Depending on the asset needing to be constructed, such as transportation sector infrastructure (roads, rails, ports), health sector infrastructure (hospitals), and commercial buildings (office accommodations, schools), contract management must be appropriate for the specified construction or implied construction method. It is, therefore, important that the responsible Procuring Authority has some understanding of the technicalities involved when a private partner designs and constructs the specific asset. Even though the Procuring Authority does not have control over this particular stage, it is important that it understands and acknowledges the relationship of the main components of construction — which are time, quality, and cost of an asset.

It is also important to distinguish between the wants and needs of the Procuring Authority, as the "wants" might exceed the "needs" and not be essential to the achievement of VfM. Whatever the "wants" and "needs" are of the Procuring Authority, the private partner's obligations are set out in the PPP contract. If the Procuring Authority decides that its wants or needs differ from what is in the contract, change management processes and decision making come into play.

In order for the Construction Stage to commence and run smoothly through to delivery and commissioning, several points need to be considered and actioned by the Procuring Authority:

- Take steps to resolve differences in the interpretation of the output specifications.
- Monitor the progress of project delivery and the quality of work.
- Oversee the conduct of required tests, evaluate the test results, and take decisions as required.
- Consider variations to the output specifications.
- Inspect equipment to be installed.
- Certify and provide approvals as may be needed under the PPP contract.

4.2. Complexity of the construction stage

There is nothing that illustrates complexity better than the implementation of mega-projects. In this case, mega projects are PPP projects that are of high value, and are complex and lengthy by nature.[22] It can be demonstrated that a distinction among four different types of complexity helps to define mega projects best. One is the overall project complexity, the other three are task, social, and cultural complexity. Normally, the literature has only been concerned about task complexity.[23] If the other types of complexity are not addressed as well, a mega project is set for failure.

Table 7.3. represents the general complexities facing construction projects, including PPPs during their Construction Stage. Many of these tasks are the private partner's responsibility. However, for the Procuring Authority, contract management is extremely important to ensure the private partner performs these obligations and obeys local laws and by-laws, such as those pertaining to health and safety. The Procuring Authority must also carefully monitor the private partner's performance and its construction schedule so that delays are quickly identified and responsive actions can be implemented.

[22] Brockmann, D. I. C., and Girmscheid, G. (2007). Complexity of Megaprojects. *In Proc. CIB World Building Congress (pp. 219-230).*
[23] Gidado, K. I. (1996). Project Complexity: The Focal Point of Construction Production Planning. *Construction Management & Economics, 14*(3), 213-225.

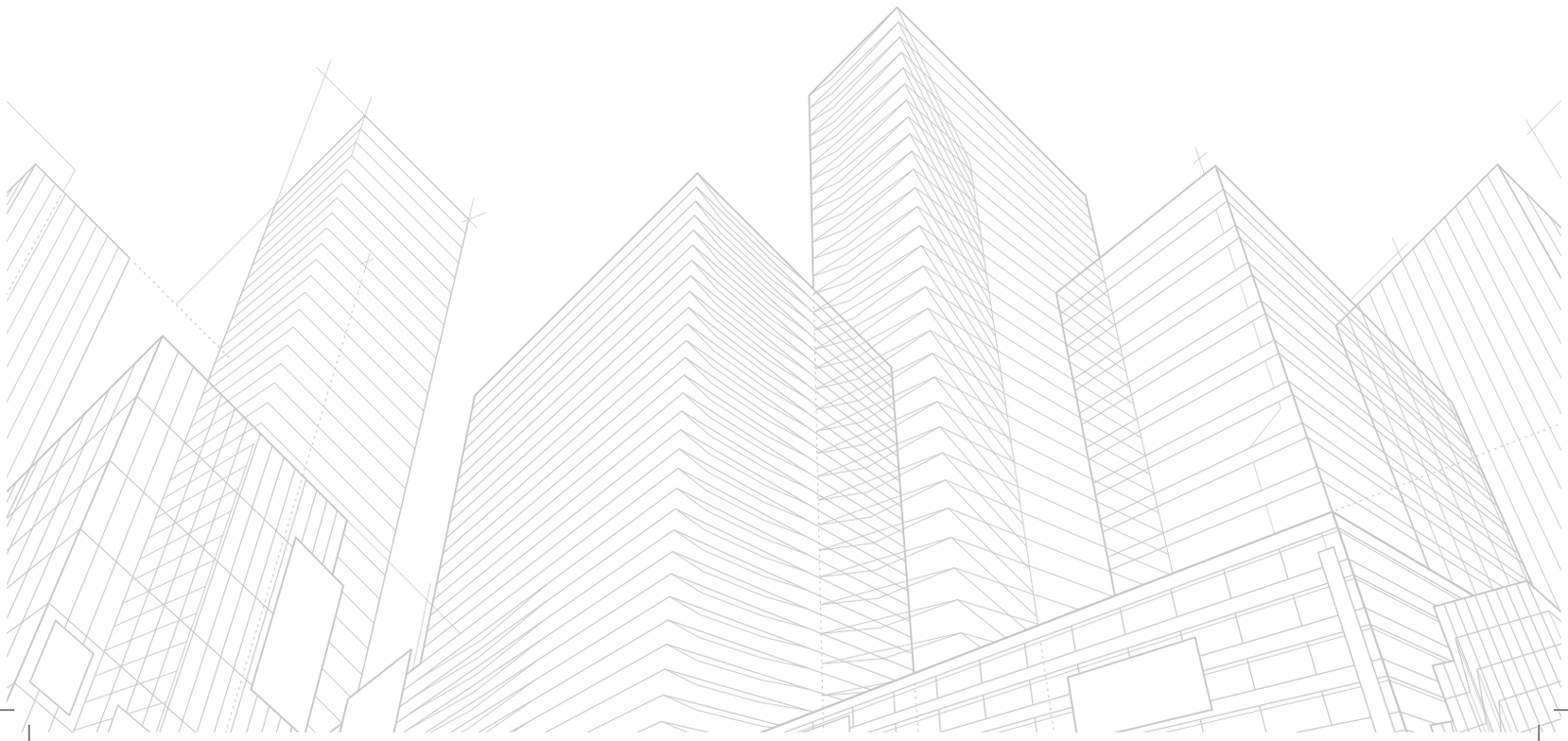
Table 7.3. Areas of complexities in a construction project

Area	Task
Organizational planning	• Organizational chart • Competency matrix • Job descriptions • Contract management • Quality management • Safety management • Personnel management • Purchasing • Financial accounting • Cost accounting • Communication • Correspondence and filing
Design planning	• Outsourcing of design • Coordination of design • Approval procedure • Design schedule • Documentation (as-built drawings)
Work preparation	• Work estimate • Controlling • Outsourcing • Construction methods • Scheduling • Deliveries • Planning of site installation • Logistics
Site setup	• Land acquisition • Various permits and studies • Purchase of plant and equipment • Utilities • Offices, labor camps, canteens, lavatories and so on • Waste management

Area	Task
Construction management	• Production processes • Quantity and quality control of materials • Quantity and quality control of subcontracts • Deployment of plant and equipment • Deployment of workforce • Deviations from contract • Hand over • Warranty

During the Construction Stage, schedule, cost, and quality play a significant role for both parties. Accordingly, the Procuring Authority — even though its primary function is not to build the asset — must understand the overall construction delivery. It must also ensure all of the relevant permits, procedures, and required documentation are in place by the Project Company in order for the correct reporting to happen. As is the case with many other projects, the government needs to play its part in the Construction Stage, otherwise, issues of delay, miscommunication, and potential claims can arise.

Effective contract management can mitigate complexity, through decision making, coordinating, communicating, and learning. A decision connects parts of the project in a specific way by allocating resources and choosing a solution. Coordination allows parties to address a variety of problems simultaneously to deliver a planned result, particularly where there are a range of specialized tasks that must be completed concurrently in order to meet timelines. Effective communication helps to reduce social and cultural complexity because barriers can be found, discussed, and brought to a resolution. Learning helps to standardize solutions and therefore shortens the search. The result is a reduction in the resources required to improve performance (that is, the learning curve).



4.3. Reasons for unsuccessful PPP projects during the construction stage

Several studies provide examples of PPPs being canceled during the Construction Stage due to the lack of or a poorly executed contract management function, as summarized below in Table 7.4.[24]

Table 7.4. Examples of projects canceled during the construction stage

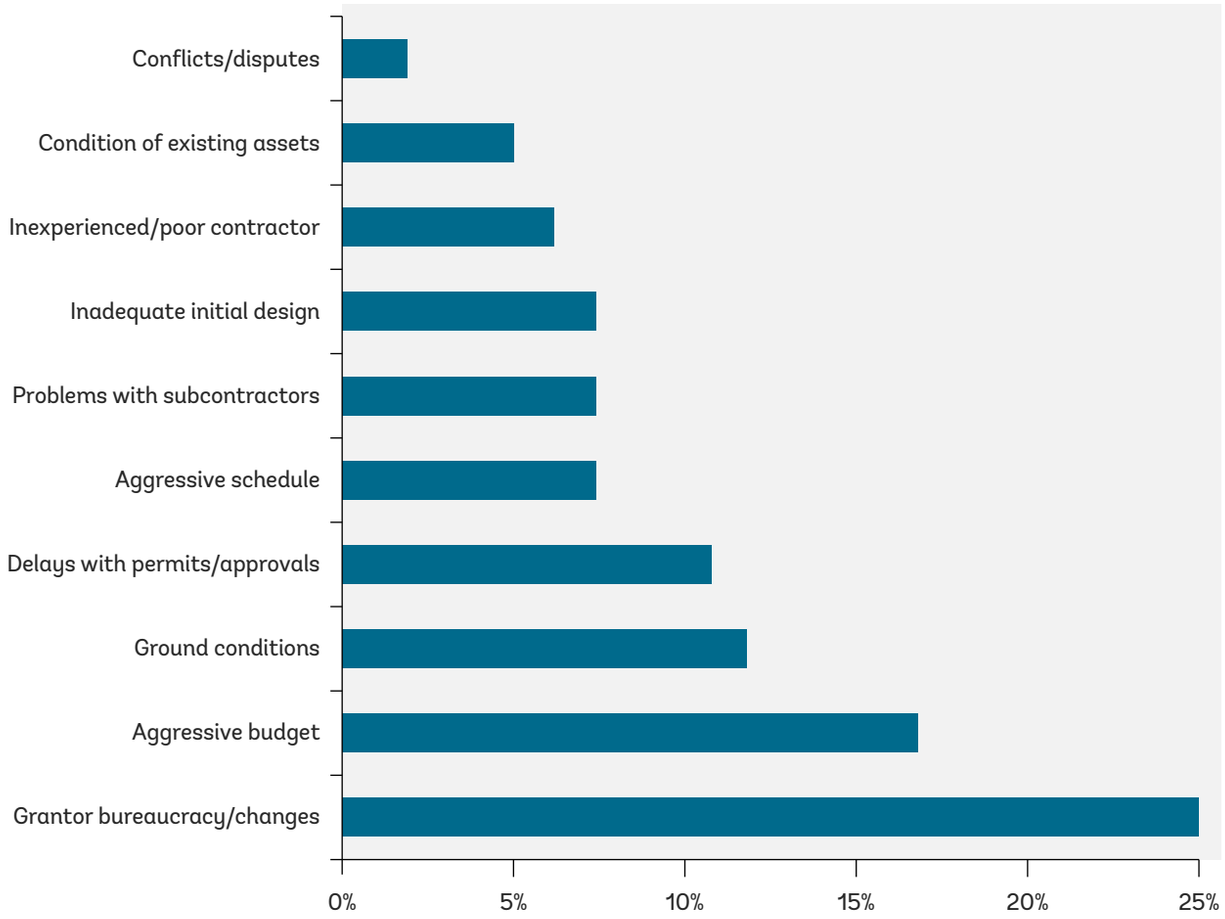
Project	Reason
Light Railway Transit (LRT) Project – the Metro Sul do Tejo (MST), Portugal	The project did not go beyond the first phase of construction. The reasons behind the cancellation were stated as an unclear risk-sharing mechanism, lack of supporting documents for contract management, no provision of contingency plans for emergencies, and a lack of expert personnel for complex contract management (Tavares 2014).
Domestic Terminal at Murtula Muhammed Airport, Nigeria	The project was initially awarded to Royal Sanderton Ventures Ltd. Due to a lack of significant progress after six months, the government decided to revoke Sanderton's mandate and it was awarded to the second bidder, Bi-Courtney Ltd. The company faced challenges in securing financing and had to start construction without a long-term finance model. On the operations side, airlines were reluctant to move to the new terminal owing to its small size. There were also disputes by parties and claims of breach of contractual rights (Nigeria 2012).
Panagarh-Palsit Highway Project, India	The contract for the design, construction, operation, and maintenance was signed between the National Highways Authority of India (NHAI) and Gamuda-WCT in November 2001. The Construction Stage was completed five months behind schedule. The delay was caused by land availability issues and a change of scope orders. The Auditor General of India, on inspection, found consistent and major cracks, repairs, and deflections values. Ineffective structuring of the PPP contract led to time overruns and insufficient quality (India 2012).
Lekki Toll Road Concession Project, Nigeria	The contract for the upgrading and maintenance of the Expressway was awarded to Lekki Concession Company Limited (LCC). However, the project faced problems, such as protests by local communities who were against paying tolls, which led to tolling suspension. A need for strong contract management and stakeholder communication within the government team was addressed. There was also a need to set performance standards backed by penalty regimes in the contract in order to ensure better quality of roads (Nigeria 2012).

Source: Adapted from case studies and reports referred to in the reference section.

[24] Sources: Tavares, S.A. (2014), The Contract Management in Public-Private Partnership, Infrastructure Concession Regulatory Commission, Federal Government of Nigeria (2012), PPP Project Case Studies.

The Robert Bain[25] study presents an interesting statistical representation of PPP construction risks. It highlights that the main reasons behind PPP construction budgeting and scheduling problems are those represented in Figure 7.5.

Figure 7.5. Construction risks relating to budget and schedule



Source: Bain, Rovert 2007, PPP Construction Risk: International Evidence from the Road Sector Institute for Transport Studies, University of Leeds.

Nearly 25 percent of all responses within the Bain study point to the cause for Construction Stage problems for PPP projects being the Procuring Authority, either directly or indirectly. The study emphasizes that these issues were not restricted to countries new to PPPs. This survey showcased how a number of PPP problems stem from the Procuring Authority's lack of "buy in" to the concept of PPPs.

Examples of ways in which the government aggravated the construction of PPP projects are summarized in Table 7.5, below.

[25] Bain, Robert (2007) PPP Construction Risk: International Evidence From The Roads Sector Institute for Transport Studies, University of Leeds.

Table 7.5. Issues relating to government involvement during construction

Capability	The government did not possess the experience, technical skills, or resources to manage its obligations associated with a long-term, active partnership with private sector providers.
Traditional thinking	The government tried to manage the PPP as it had previously managed conventional design and build contracts, including use of amended design and build contracts in an adversarial "them-versus-us" environment.
Preparation	The government failed to define a clear output specification to complete enabling works, securing land, and granting permits or approvals.
Expectations	The government's expectations of who is responsible for what, and as well as what has to be delivered (by when) failed to match the understanding by the private sector.
Process	The government failed to establish streamlined, transparent procedures for daily liaison with its private sector partners. The bureaucracy was slow and resistant, and projects were labored by extended negotiation periods and delays in achieving sign off.
Oversight	There were existing deficiencies in the government's project supervision and control procedures, which could not be cured simply by moving from traditional procurement to PPPs.
Change	The government pushed for scope or specification changes, or variations, with limited regard for cost or time implications or in the absence of contractual clarity about how such changes should be accommodated.

There are three main attributes of PPP project success or failure during construction, namely the completion of the project within budget, on schedule, and to the required specifications.

In general, many projects suffer from a degree of construction cost overrun. The more common reasons reported for construction cost overruns include over-aggressive bidding, excessive variations, particularly high specifications demanded from the government, and disputes surrounding the scope of work. In the context of disputes, two respondents pointed to the fact that complications can arise when the primary construction contractor is also a major shareholder of the PPP Project Company.

Generally, this is regarded as a useful project characteristic as it incentivizes the contractor to perform. However, in distressed cases, a key shareholder may be reluctant to claim against credit support instruments (such as performance or completion guarantees) which they, themselves, are providing. Independent adjudication would appear to have a place in cases in which ownership/control and contractual/business interests conflict.

Some projects experience overruns by months, or even years. This is usually due to the miscommunication of the parties with respect to the roles and responsibilities of the parties.

A key issue in the context of a budget overrun is indentifying who should pay for the construction budget overrun. In traditional procurement, this responsibility has fallen on the government. This is a procurement characteristic that PPPs (their risk allocation and use of fixed price contracts) are specifically designed to address. In terms of shifting this responsibility to the private sector, PPPs appear to have been particularly successful.

Many specification-related problems are reported to have stemmed from the use of unclear or ill-defined specifications or scopes of work from the outset. Yet other reported problems are linked to PPP projects that incorporated sophisticated technologies (such as those employed in water or waste treatment). Road projects have performed relatively well compared to other sectors, probably because road projects are at the lower end of the technology spectrum.

These examples emphasize that planning and good practice contract management are exceptionally important for project success, specifically when dealing with cost, schedule, and design specifications issues.

5. Overview of the Construction Stage

5.1. Main aspects of the construction stage

The following key activities typically occur during the Construction Stage of a PPP:

- The private partner Project Company must establish itself on site and obtain the necessary permits and clearances to enable it to carry out the construction works.
- The private partner must finalize the design for the construction works.
- The construction works must be carried out.
- The completed infrastructure must be commissioned and handed over to the Project Company's operational team.

5.1.1. Project site set up and permits clearance

In the majority of PPPs that involve construction of infrastructure, the Procuring Authority will make land (sometimes with existing buildings and infrastructure located thereon) available to the private partner Project Company. During the project term, the private partner will manage the operation and maintenance of the land and infrastructure.

In the Project Preparation Phase, the government should have commissioned a thorough investigation of the land (including improvements made to it) by appropriately qualified property rights experts. This is done to ensure the project will not be jeopardized due to a late discovery of a third-party claim to the land or a land-use restriction that could delay or prevent the construction of the project or interfere with the Project Company's possession of the land. If it has followed good practice, the Procuring Authority will have also undertaken the necessary land acquisition from legitimate residents and managed the relocation of any other occupants. Depending on the location of the site and the nature of the project, the Procuring Authority may also have had to construct an access road and ensure the availabilities of utilities at the site.

During the Procurement Phase, the Procuring Authority should then have required the bidders to conduct a thorough investigation of the proposed project site and the site conditions. The site condition investigation should include surveys of the climatic, hydrological, hydro-geological, ecological, environmental, geo-technical, archaeological, and paleontological conditions. The scope and extent of such an investigation will depend on the complexity of each bidder's design and engineering proposal for the works to be erected at the project site.

These actions of the Procuring Authority prior to contract award will have ensured that both parties are well aware of land-related issues and risks.

Problems with regard to the chosen sites and the conditions can and do emerge during the Construction Stage. One of the more common issues is the timely handover of the site to the Project Company and its construction subcontractor. For projects with a single site, it is recommended that the Procuring Authority ensure the site is available and handed over immediately after the PPP contract is signed. This will ensure that at least land handover-related disputes are avoided.

Site availability is more complex in projects with extensive land requirements over a large number of distinct properties. These include "linear" projects involving roads, rail, pipelines, and transmission lines. Although handover of a single continuous stretch of land is ideal, it is not always possible. In cases where it is not possible, the Procuring Authority must ensure it does not unnecessarily subject itself to disputes and claims from the Project Company.

A 2014 report by the United Kingdom's National Audit Office (NAO) discusses some of the challenges that can occur during the Construction Stage, using the example of a PPP waste project in the UK county of Surrey.[26] The Project Company in this case was not able to secure planning permission. First, an issue arose where a planning application failed because the Surrey County Council's Planning Committee rejected it and the second planning consent for a site at a different location was subsequently reversed following a judicial review.

Land handover processes must be detailed in the PPP contract. Importantly, the obligations of both parties to mitigate the effects of late land handover must be explicitly stated in the contract. There are examples of claims by a Project Company under a transport PPP contract because a single stretch of land was not available and, consequently, all construction work ceased until the land was handed over.

5.1.2. Project design

The design of the project will inevitably go through various stages, from the conceptual design right through to the final design, specified to carry out the construction works in accordance with the PPP contract.

The responsibility of obtaining any consents relating to the design, construction, engineering, technical, and installation specifications put forward by the Project Company (such as any building consent and any record of decision regarding environmental approvals) should be borne by the Project Company. Since the Project Company normally bears the design and construction risks in the project, it should also assume the responsibility for identifying and obtaining all design and construction-related consents. Otherwise, these risks will be transferred back to the Procuring Authority.

Design proposals submitted by bidders during the Procurement Phase are typically conceptual in nature. However, the Procuring Authority should have satisfied itself during its evaluation of the bids and the negotiations on the PPP contract (and in any event prior to the signature date) that the winning bidder's design proposals will achieve the required output specifications as set forth in the RFP.

[26] UK National Audit Office (NAO), (2014), Oversight of Three PFI Waste Projects.

The Project Company must be solely responsible for the design. The Procuring Authority should have a right to review the design and advise the Project Company of any areas of noncompliance with the contract. The contract may prohibit the Project Company from proceeding with construction until the Procuring Authority gives its approval to move forward following its review of the design.

However, the Procuring Authority should not have rights of approval in respect of the design that would amount to acceptance by it of any errors or inadequacies in the design. Accordingly, the Procuring Authority should reassure itself that the design and construction is in accordance with the output specification (and the construction prescriptions if any), but the Project Company remains responsible for the achievement of the output specifications and for any failure of the design. If the Procuring Authority approves the design, the Project Company could argue that the Procuring Authority has accepted the risk that the design might not, in the future, enable the Project Company to meet the output specifications.

5.1.3. Project construction

Construction, in general, can take many forms in delivering the final product. It is not uncommon for the construction contractor to split the work into smaller packages in order to achieve its milestones. In this case, the Project Company's construction contractor will often tender individual work packages out to subcontractors. However, the main contractor will retain responsibility for the quality of all work and for coordination of subcontractor activities.

During the construction works, there are many issues to consider, but the most important points are as follows:

- Have appropriate quality requirements and a duty of care been imposed on the contractor?
- Is there any assurance that defects identified in the inspected works will be remedied?
- Is there a defects liability period and, if so, for what period?
- Does the PPP contract draw any distinction between different aspects of the work, for example between engineering and civil works?
- Has the design been addressed appropriately?
- Is the project schedule optimistic or realistic?
- In the case of a dispute, what procedures should be followed?

The activities during the construction works are numerous, but the most work-intensive period is in the middle of the construction period where all of the work packages are ongoing with multiple subcontractors actively engaged. As a result, it is particularly important at this point to pay attention to sequencing, lead times for the material delivery, and any time-sensitive legislative compliance matters that can disrupt the work program.

5.1.4. Commissioning and handover to the operations team

Before the asset is formally handed over to the operations team, there are certain steps that need to be carried out by the independent certifier or engineer (or construction inspector or engineer,[27] see Section 6.1.3 below) on behalf of the Procuring Authority. These activities include the testing of an asset (see Section 6.3.3 below) and issuing the completion certificate.

When dealing with the testing of an asset, the PPP contract should set out the requirements for notification that an asset is ready for inspection by the independent certifier. It should require the Project Company to give the independent certifier access to the site in order to observe the tests and examine the asset and it must include any documentation that will aid as evidence to the results of the performance tests.

If the performance tests for the readiness of an asset fail, the Project Company must remedy such defects in order to obtain the completion certificate.

The completion certificate is issued by the independent certifier (or by the authority on the basis of the evidence reported by the Construction, Engineering, and Inspection Engineer in some countries) and is contractual evidence that the Construction Stage is complete. Once it is issued, there is typically a process whereby the independent certifier, the authority, or the Project Company (depending on the nature and needs of the project) issues a certificate or authorization for the availability of the infrastructure and commencement of services. This is known in many jurisdictions as the "service commencement date" or the "operating commencement date."

In some projects, the completion certificate and availability or service commencement authorization may be issued in accordance with a two-step approach, whereby a provisional acceptance of works (or provisional completion certificate) is issued that allows for entering into operations provided that:

- The project has been substantially completed.
- Operations can commence under appropriate safety standards.
- Only a list of minor defects or noncompliances of minor relevance have been detected (usually referred to as the "punch list"), which do not prevent service commencement.

The "punch list" items are allowed to be resolved within a certain time (which will entitle the Project Company to receive the full completion certificate).

As a general rule, the Procuring Authority should not seek to impose pre-service commencement milestones during the Construction Stage or otherwise accept the delivery of the works in stages prior to service commencement, as this may reverse the prescribed allocation of risk.

[27] "Independent Engineer" (IE) is the most common approach to these roles in common law countries. In some other countries (mostly in civil law countries), the engineer firm supporting the Government Contracting Authority in project oversight and monitoring is not an Independent Engineer, but is contracted by and reports directly to the Government Contracting Authority, who retains the sole responsibility of approvals. Under this approach, this position is often described as "Construction, Engineering and Inspection (CEI) Engineer" in some countries.

In projects that are partly funded by means of a capital contribution by the Procuring Authority, it may be necessary to provide for the achievement of construction milestones when capital contribution payments will be made to the private partner. This may affect the risk transfer as the Procuring Authority is inserting itself into the method of construction of the private partner. Where this is done on the basis of improved financial efficiency of the project, the terms of such milestone payments must be carefully crafted and show overall VfM.

In certain PPPs, it may be appropriate to have service commencement despite incomplete construction. In this case, the Procuring Authority must ensure the Project Company always remains incentivized (through the payment mechanism) to complete the outstanding works. In certain PPPs it may be feasible to have phased-in service commencement (that is, different buildings or sections or different pieces of plant and equipment being brought into service at different project milestones). In these situations, an appropriate phasing-in of the revenue stream or the use of penalties for late completion may be justified. In such cases, the Procuring Authority may either (i) stipulate that full-service commencement will only be achieved when all elements of the project reach the required output specification level, which would incentivize the Project Company to bring them all up to the required output specification levels as quickly as possible; or (ii) stipulate that partial service commencement will be achieved as each element reaches the output specification level for the services provided.

6. Monitoring Tasks During the Construction Stage

6.1. Understanding monitoring (performance and risk monitoring)

Performance monitoring may be defined as an assurance role played by the Procuring Authority (primarily through its contract management team, although other affected agencies and departments may also be involved) to ensure that the Project Company has:

- Adequate systems, policies, procedures, and resources in place to perform the specific performance-related obligations set out in the PPP contract (that is, the output specifications).
- A functional quality assurance system in place to do self-monitoring.
- Achieved the required outputs to meet the specifications.

Performance monitoring does not mean managing the task for the Project Company or approving the method by which the output is achieved. Neither does it mean leaving the performance management entirely to the Project Company. In this regard, the Procuring Authority should be aware that the Project Company will seek to achieve financial efficiency over the period of the PPP contract — but this might be shorter than the lifetime of the asset created. In some infrastructure projects, this can create a misalignment of incentives where the Project Company may seek to reduce construction costs and incur increased operational or maintenance costs over a concession period that is less than the life of the assets. Given a choice, the Procuring Authority would prefer a higher capital investment that meant a lower life-cycle cost.

The contract management team must undertake a range of regular monitoring tasks during the Construction Stage, including:

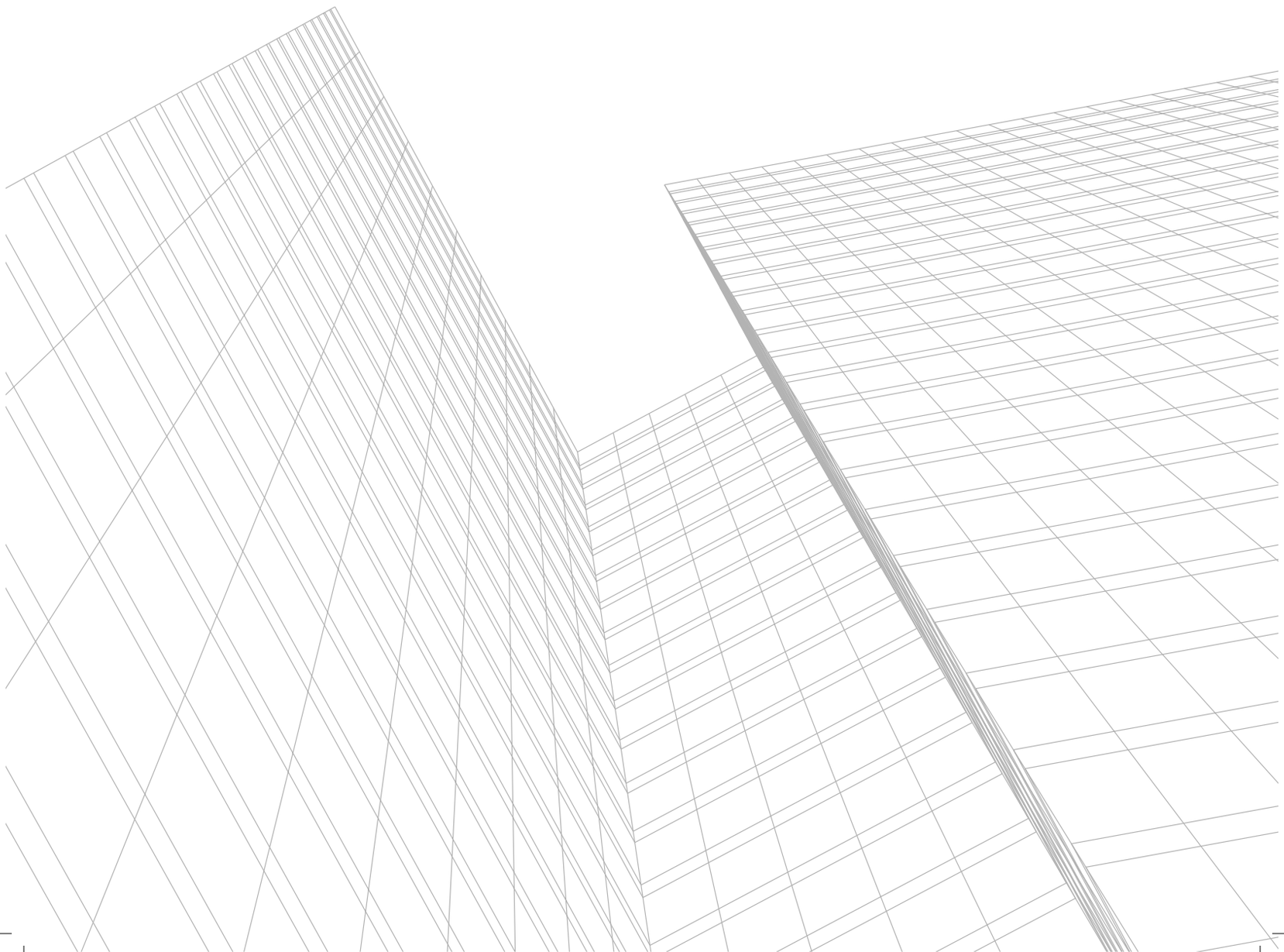
- Monitoring against the schedule.
- Monitoring against the scope (and any agreed variations).
- Monitoring performance and compliance with applicable laws and regulations.
- Quality control and materials monitoring.
- Daily relationship monitoring with the private partner.
- Stakeholder reporting and management.

But performance is not the only area or task to be monitored. During the Construction Stage, accountable risk management will be one of the most important functions of the contract management team. The team will need to monitor and, where appropriate, manage: the project risks contractually allocated between the parties; any inherent risks borne by the Procuring Authority; any project risks not contractually allocated; and the management of risks and threats associated with changes to the PPP contract.

The framework for performance monitoring will be set out in each PPP contract. It will establish the output specifications, the private partner's performance management reporting requirements, and the penalty regime that applies in cases of non performance. It will also set out rights for the Procuring Authority, such as audit rights.

6.1.1. Approach to performance monitoring

The approach of the Procuring Authority to performance monitoring differs in the Construction and Operations-Stages of the Implementation Phase. During the Construction Stage, the performance must be monitored mainly to ensure that the facilities provided reflect the PPP contract, that work progresses properly through commissioning according to the schedule, and other contract obligations are being met. Performance monitoring during the Operations-Stage will, however, be focused on the quality or level of achievement of the service performance requirements, especially on the service standards or target levels of services. In both cases, monitoring actions are needed so as to prepare (detect) and manage contract changes and risk events. See Box 7.5.



Box 7.5. The procuring authority's role in monitoring the construction stage

During the Construction Stage, the Procuring Authority will need to manage and monitor the progress of the project. Having some continuity between the project team that negotiated the contract to financial close and taking this knowledge base into the Construction Stage is beneficial to the government. Some examples of the Procuring Authority's roles and responsibilities during this stage are as follows:

- Providing management arrangements that create a clear and easily understood interface with the contractor.
- Reporting to public sector stakeholders on the progress of the project.
- Assessing design data submissions by the contractor, including the review of any potential impact on services delivery.
- Ensuring that design data submissions are completed within the contractually defined time period.
- Monitoring progress on site to ensure the facilities meet the contractual requirements, and attending monthly progress meetings to ensure the Procuring Authority's views are recorded and actioned.
- Monitoring the quality of the facilities during building operations and bringing matters of concern to the attention of the Project Company.
- Managing variations.
- Discussing and assessing the validity of any claims for relief events or works compensation events.
- Maintaining and updating the risk register to address issues of uncertainty to project delivery.
- Planning, communicating, and coordinating arrangements alongside the Project Company.
- Maintaining communication links with all relevant stakeholder groups.
- Preparing for the Operations-Stage.
- Managing public relations.

In the Operations-Stage, the focus is on the delivery and availability of the services in accordance with the output specifications. The two approaches require different resources. Typically, the Construction Stage has a range of independent parties who are required to report on the achievement of program milestones and compliance with the specification. These will include the independent engineer or certifier and the lender's agent.

The Operations-Stage primarily relies on the self-reporting of the Project Company and the oversight and assurance systems applied by the Procuring Authority. In the Operations-Stage, the performance monitoring is often linked to the penalty regime in the PPP contract (be it actual financial penalties or some form of accrual of points that could lead to a termination).

6.1.2. Roles and responsibilities of the government during the Construction Stage

The Procuring Authority should carefully consider the resources that it will require following contract signature, but prior to the asset becoming operational. In addition to the contract management resources, the team is likely to need the expertise outlined in Table 7.6.

Table 7.6. Resources and skills needed on the procuring authority contract management team during the construction stage

Role	Responsibilities	Time Input
Contract Manager	Manage and coordinate the contract management team and allocated responsibilities.	Full-time role depending upon the size and scale of the project.
Quantity surveyor/ commercial manager	Control cost and manage contractual interface issues with the Project Company.	On smaller projects, this position could be combined with the Contract Manager role.
Facilities Management (FM) specialists	Establish the effect of any changes on the future Operating Stage (including costs) and aid the transition to operations.	Part-time role, but the input will be more intensive over the last few months of construction.
Architect	Monitor the building progress/ quality of work and manage the fit-out process from the perspective of the Procuring Authority.	Full-time role, depending upon the size and scale of the project.
Specialist practitioner in the field of development (for example, a health/education advisor)	Liaise with stakeholder groups, manage the change, and, if applicable, ensure that the specialist aspects of the work are moving forward in line with the project and stakeholders' objectives.	Part-time role, depending upon the size and scale of the project.
Information and Communications Technology (ICT) resources	Manage the interface between the IT systems of the Procuring Authority and the Project Company, and assist during commissioning.	Part-time role, with the most intensive input required towards the end of the construction period.
Legal support	Monitor any developments that may impact on the PPP contract and assist in cases of dispute.	Occasional support, as required.
Administrative support	Provide support to the Contract Manager and wider team.	Full-time role, depending upon the size and scale of the project.

6.1.3. Roles and responsibilities of the independent certifier

In many jurisdictions (and most of the common law jurisdictions), the PPP contract provides for the hiring of an independent certifier (sometimes called the Independent Engineer) who has expertise in the type of project being constructed. This person will be responsible for certifying that, in his/her professional opinion, the Construction Stage and the commissioning have been satisfactorily completed in compliance with the PPP contract. A certifier is also responsible for issuing a certificate that starts the Operations-Stage and the right of the Project Company to collect or receive revenue from users or the Procuring Authority.

The decisions of the independent certifier are of great commercial importance to both the Project Company and the Procuring Authority. As such, the independent certifier must be beyond the influence of either party. This is normally achieved by appointing a corporate independent certifier with a reputation for fairness and impartiality.

The independent certifier owes a duty of care to both the Project Company and the Procuring Authority, and may even be jointly appointed. In many cases, the independent certifier is identified and agreed to by both parties, and paid for by the Project Company. The PPP contract should protect the independent certifier by clearly stipulating that the fact that the independent certifier is paid by the Project Company in no way derogates from its fiduciary duty to act impartially.

The primary function of the independent certifier is to inspect and monitor the work, attend any performance testing during commissioning, advise the Project Company of any items that in the independent certifier's opinion require rectification, and finally, when satisfied, to issue the certificate permitting operation.

In performing its functions, the independent certifier does not in any way accept any risk in relation to the design, construction, fitting, installation, or commissioning of the construction works.

In some jurisdictions (particularly common law jurisdictions), the independent certifier is given quasi-judicial powers to make decisions that are binding on the parties, or even to act as part of the dispute resolution processes. In other jurisdictions, the independent certifier acts in a purely advisory capacity on any matter outside of the direct duty of certifying completion. In this case, the decisions of the independent certifier are subject to review. It therefore makes sense, in the PPP contract, to explicitly limit the powers of the independent certifier to certification in the Construction Stage and during commissioning.

As noted in Section 5.1.4, in some other jurisdictions (mostly civil code countries), the certification role is performed by the Construction, Engineering, and Inspection Engineer who is contracted by the Procuring Authority, and formally reports to it.

6.2. Cost oversight

As the Construction Stage progresses, the Project Company (and the Procuring Authority in cases where the government is making a capital contribution to the project) must make payments that match the progress made by the construction contractor in completing the construction works. These payments are typically made against deliverable milestones that are pre-agreed and part of the PPP contract. Thus, at each milestone, it is necessary for evidence to be provided that the work has advanced to the required level and is of adequate quality to meet the output specifications.

The independent certifier often plays this role if the Procuring Authority is making milestone payments, otherwise the lender's technical agent will certify that the milestone has been achieved and permit the drawdown of more debt by the Project Company. The monitoring of costs at each milestone is also a factor in the provision of security by the construction contractors as well as in the calculation of termination payments in cases of early termination of the PPP contract.

6.2.1. Importance of cost oversight during the Construction Stage

If the Procuring Authority is making a capital contribution to the project during or at the end of the Construction Stage then it will have a strong interest in the costs incurred at each milestone achieved. The risk it must manage is that its grant portion is applied correctly and in the sequence determined in the PPP contract (or grant agreement). Government capital contributions during the Construction Stage are normally made after equity has been drawn down and at the same rate with debt draw downs. The interests of the Procuring Authority are thus closely aligned with those of the lenders.

6.2.2. The Role of the Procuring Authority in regard to cost oversight

The risk of cost overruns is typically passed on to the Project Company (and, through it, to the construction contractor).[28] Cost overruns must, accordingly, be funded by the Project Company or the construction contractor. The Procuring Authority should avoid being drawn into any disputes that may arise between these two parties about such overruns. Cost monitoring should therefore be only for informational purposes for the Procuring Authority.

6.2.3. Explanation on different cost structure mechanisms when constructing an asset

The most common cost structure that arises from project finance principles being applied is that the Project Company is responsible for, and bears the risk of, raising all the financing required for the project. It then uses the financing during the Construction Stage in order to make payments to the construction contractor and subcontractors.

[28] As a result of widespread construction cost increases and supply chain challenges following the COVID-19 pandemic, some Government Contracting Authorities began to offer PPP contracts with a degree of risk sharing in regard to construction cost overruns.

In this structure, the financing sources are applied in the sequence of:

- Equity.
- Quasi-equity or mezzanine debt.
- Senior debt.

Senior debt is subject to restrictions on its drawdown, including the requirement that the specified milestones have been met. This is to ensure that the risk—that the asset is not correctly constructed—is assigned primarily to the equity and quasi-equity providers.

Any Procuring Authority grants can be applied as a single payment at the end of commissioning or at milestones during the Construction Stage. For each such payment, the risk profile differs and care should be taken not to disturb the risk allocation or incentives that apply in the straightforward project finance structure.

6.3. Approval processes

The Project Company should be solely responsible for the design. Although the Procuring Authority should have a right to review the design (see Section 5.12, above), it should have no rights of approval in respect to the design. Accordingly, all changes in the design to ensure the output specifications are achieved should be at the risk of the Project Company. However, the Procuring Authority will want to be assured that the construction or development is capable of delivering the services on time and in a way that meets the output specifications in the PPP contract.

6.3.1. Design development process

Most of the preliminary design should have been done during the Procurement Phase, and the Procuring Authority will have done some design review as part of the process of selecting the winning bidder. The risk is that the bidder's design proposals will not achieve the required output specifications. Design proposals submitted at the bid stage are typically conceptual in nature and are frequently substantially modified in later stages.

Accordingly, the Procuring Authority should ensure

- The Project Company's design does not extend beyond the land provided. If it does, the cost and risk that may result from the acquisition of additional land is the responsibility of the Project Company.
- The winning bidder's design proposal that is current at contract award is incorporated into the PPP contract so that a record of what was designed remains in the formal agreements.
- The PPP contract is sufficiently flexible to allow for changes and improvements to the preliminary design in order to allow for any planning, environmental, or other requirements.
- The Project Company is required to submit for review all revised designs.

6.3.2. Certifying, inspecting, and obtaining approvals

A certification service is typically provided to both the Procuring Authority and the Project Company by the independent certifier who will inspect the completed construction works. If satisfied, the independent certifier will issue the required certificates for commencing operations (Section 5.1.3 above). While the Procuring Authority must be entitled to monitor the work during the Construction Stage, it should not have any approval rights in respect of the works. The responsibility for obtaining all consents and approvals from third parties should be that of the Project Company, with the reasonable assistance of the Procuring Authority.

6.3.3. Performance tests and verifying asset suitability

Before commencement of operations, the Project Company should be obliged to demonstrate that the assets will meet the required output specifications. The method of demonstration to be used by the Project Company will be project specific but may take the form of inspections, demonstrations, acceptance or commissioning trials, or other performance tests.

6.3.4. Project Company obligations when delivering an asset

The Project Company must give the Procuring Authority adequate prior notice of any performance test that requires it to provide access to the tests, as well as the documents required to evidence the results thereof. The independent certifier should be responsible for assessing the success or failure of the performance tests, and there must be a process for the Project Company to remedy any defects arising from such tests.

6.4. Schedule management in the construction stage

It is crucial that the Procuring Authority is aware, at all relevant times, of the development and progress of the project. The most efficient way to ensure this is done is by requiring the Project Company to liaise with the Procuring Authority on a regular basis and report on progress against the construction schedule. The reporting should include information on the progress of the works, notice of any anticipated delays, the program for managing any delays, and other issues of importance during construction.

6.4.1. Importance of schedule management

Schedule or time management is the responsibility of the Project Company and is the domain of professionals on PPP projects. It is of significant importance to the Procuring Authority. In some PPPs, the Procuring Authority will depend on the completion date for a scheduled move-in. For example, the schedule for an office accommodation may have been set to enable the government to move out of an existing building before the existing lease expires. If the schedule for the PPP is not well managed, and there is a delay without sufficient notice being provided to the Procuring Authority, the authority might find itself without a “home.”

Poor schedule management also creates political and reputational risks for the Procuring Authority. For example, an important national event may depend on the timely completion of infrastructure surrounding the event itself. The Procuring Authority must therefore recognize that schedule management is integral to commissioning and constructing an asset, as it might affect complete project delivery and even budgetary planning in cases where capital is partly funded by the authority.

6.4.2. Processes required to manage the timely completion of the project

Monitoring of the project is essential to ensure the project is completed within the prescribed target date.

An example of insufficient monitoring of the project schedule can be seen through Performance Audit Report No. 3 of 2014 of Union Government (Railways). Indian Railways executed eight PPP projects in collaboration with private partners. The audit examined four of these projects. The provisions contained in the concession agreements required the Project Companies to report annually to Indian Railways on their performance under the agreements. In addition, the concession agreements provided for the formation of Construction Progress Review Boards (CPRBs), consisting of representatives of the main stakeholders.

The CPRBs were expected to review progress on the projects on a monthly basis, producing monthly reports and issuing necessary instructions or taking corrective measures for timely completion of the projects. The audit observed that, though monthly progress reports were being prepared, there were no records confirming the fact that the progress of the projects was being monitored by the CPRBs. The role of Indian Railways in regard to monitoring the performance of projects was not laid down in any of the concession agreements.[29]

Table 7.7 outlines the activities that need to take place when dealing with the PPP project schedule. It is important for the Procuring Authority to understand these steps in order to monitor the progress and implement any further actions should it not be completed in time.

[29] Office Of The Comptroller and Auditor General Of India, 2014, CAG Performance Audit Report on Public Private Partnership Projects (PPP) in Indian Railways Presented, New Delhi, Press Release.

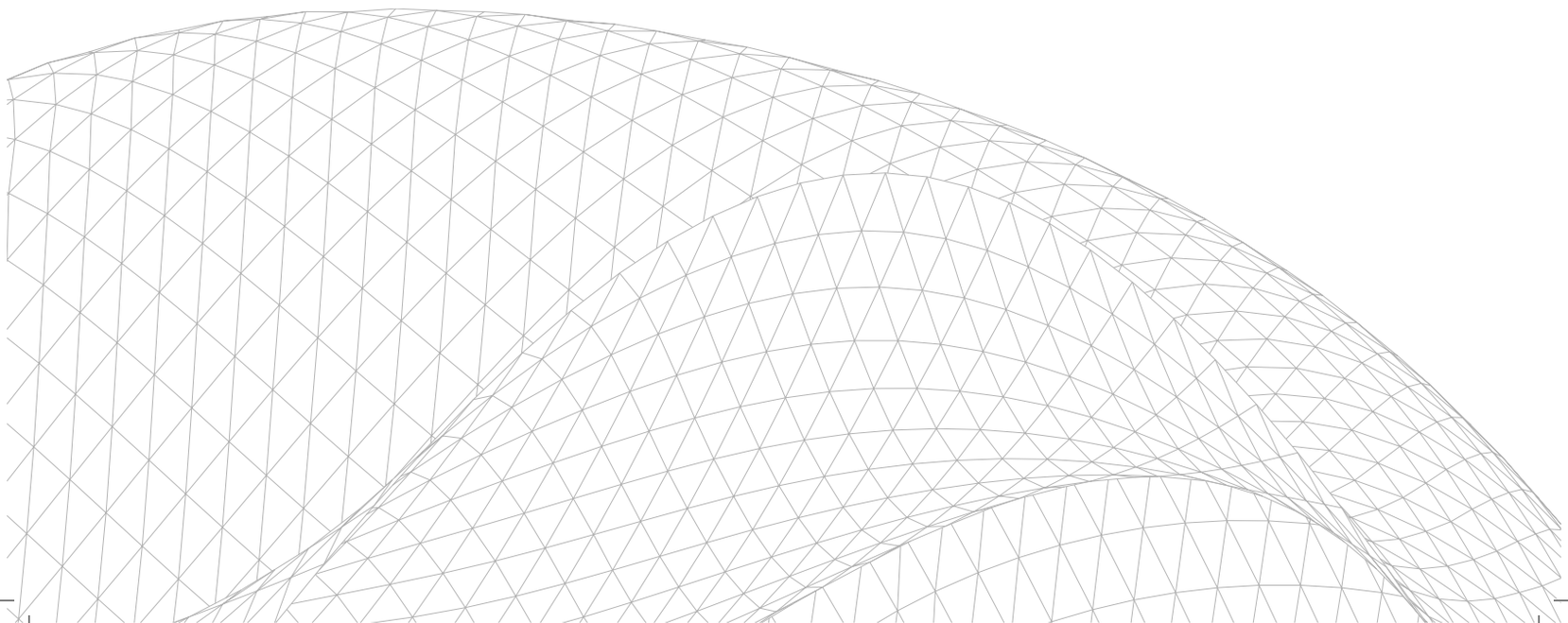


Table 7.7. Processes to follow when dealing with schedule management

Key Activity	Description
Baseline schedule	The baseline schedule is prepared by the Project Company (or its construction contractor) according to the requirements of the PPP contract. Typically, the Procuring Authority retains the right to review the baseline schedule for coordination and monitoring purposes. It is used to identify the project's critical path and near-critical paths that, if delayed, would result in overall delays to project completion. The baseline schedule is adjusted to incorporate schedule changes for approved change orders and time extensions. Should the Project Company propose any other changes to the baseline schedule, the contractor must obtain the approval of the Procuring Authority. For major changes in the sequences, durations, and relationships of critical or near-critical activities, or for the adjustment of delivery dates for major equipment items, the Project Company will prepare a schedule revision meeting for all contract requirements. The revised schedule is used for coordination and monitoring purposes in place of the baseline schedule.
Schedule management	Schedule management requires the active involvement of all project participants to remain informed about the status of the project and any delays that may impact schedule performance. The contractor is primarily responsible for organizing and managing the work of the project. As a result, the contractor's schedule management procedures must be shared with and communicated to all project participants. Should delays occur either to critical path activities or otherwise, the contractor needs to develop alternative work sequences with input from the affected subcontractors, suppliers, and equipment vendors. Schedule management is essential to ensure the contractor delivers the project within the approved time and budget. A Schedule Management Plan should contain all of the following major elements: • Baseline schedule development and approval. • Schedule analysis and coordination. • Schedule changes and revisions. • Schedule delay mitigation planning.

Key Activity	Description
Schedule management of scope changes	Schedule management of scope changes concerns the planning, scheduling, and approval of schedule-related changes, which result from the scope change control process. The primary objectives for schedule managing of scope changes are as follows: • Document the direct and indirect effects of scope changes to the project schedule. • Analyze the costs of schedule impacts. • Communicate schedule and cost impacts to project participants.

6.4.3. Ensuring the schedule accurately reflects progress

Ensuring the schedule accurately reflects progress made and is updated to reflect delays or changes is critical because tasks are mutually interdependent and delays can increase costs. Project planning can establish the overall schedule and should specify when particular tasks must be completed. A good technique is to establish milestones that are easily observed and verified. Although PPP contracts do not require that the Procuring Authority updates the schedule, the authority must be informed by the Project Company of any changes that might impact the milestones or the critical path for delivery of the project.

6.4.4. Approval of schedule milestones

Approval of the schedule milestones is usually done by the independent certifier (Section 6.1.3, above) who will issue works completion, practical completion, and final completion certificates.

6.5. Quality management

For the purposes of this PPP Guide, quality management is defined as a set of policies, processes, and procedures required for planning and execution (production/ development/service) in the core business area of an organization. A Quality Management System (QMS) needs to integrate the various internal processes within the organization as well as within a specific project. It should also provide a process approach for project execution. The QMS enables the organization to identify, measure, control, and improve the various core business processes that will ultimately lead to improved business performance and mitigation of construction risk.

6.5.1. Quality assessment implemented by the Project Company

The Project Company owes several obligations to the Procuring Authority when dealing with quality management. Table 7.8 describes the key activities required by the Project Company for compliance with good practice quality management.

Table 7.8. Criteria for sound quality management processes

Key Activity	Description
QMS Planning	The planning process for the development of an overall Quality Management System (QMS) identifies those processes, procedures, and other documents that ensure effective operations and control over the entire project execution program. This planning effort will result in a well-documented, integrated process.
QMS Development	This activity involves the development of the QMS processes, procedures, and other documents, as well as preparation for their implementation.
QMS Implementation	This activity involves the active incorporation of the Quality Management Project Plan (QMPP) elements into the workflow processes. The QMS should be able to address the following: • Sequence and interaction of these processes. • Criteria and methods to ensure effective operation and control of the processes. • Availability of information necessary to support the effective operation and monitoring of these processes. • Methods of measurement, monitoring, and analysis needed in order to implement those actions that will achieve planned results and continual improvement.
QMS Reporting	This activity involves reporting on how well a quality requirement is being met or how well a quality process is performing. It includes developing methods to measure, report, and improve on both the performance and effectiveness of processes. It also addresses the need to collect and use data on non-conformances to address improvement issues. It should also document what has happened in the past.
QMS Monitoring	Incorporates methods of control and oversight over the entire process. This process establishes, maintains, and implements a program to control and minimize non-conformance. This activity can be controlled by written procedures, instructions, or checklists as appropriate. Results should be recorded, authenticated, and documented.

6.5.2. Quality assessment reviewed by the procuring authority

Monitoring management quality is difficult and largely falls into the "soft" indicator category. Nevertheless, an experienced Contract Manager will regularly monitor the quality of the Project Company's management and operating personnel, looking for weaknesses or trends that may provide an early indication of trouble ahead.

7. Change Management During the Construction Stage

7.1. Importance of change management

One of the common questions asked about PPPs is why, despite the great development of standardized PPP contracts, so many PPP contracts are varied or amended during their term. With standardization in all areas of PPP project development and implementation, why would any form of change or amendment to the PPP contract be required?

The most obvious answer is that it is impossible to predict the range of possible risks and to allocate these with precision over 20 years or more in a complex and changing environment. As such, the key to achieving long-term value from a PPP does not only lie in the pre-implementation phases, but also in how the balance of risk and rewards is established in the PPP contract so as to be able to survive significant changes over a long period of time — and to manage such changes in a structured manner that preserves the public benefit or VfM in the PPP.

Renegotiations of PPP contracts, including significant adjustments to risk allocation arrangements, are quite common. There are many examples of PPP contracts that have been amended or renegotiated. Gausch (2004) cites a pervasive renegotiation of PPPs in Latin American countries, noting that it is likely that such renegotiation is also common in other jurisdictions, particularly ones where the PPP model is that of user-pays rather than government-pays PPPs.[30]

A renegotiation of a PPP contract involves a change to the original contract terms and conditions. This is distinct from an adjustment (such as a minor scope change), which is contemplated in the PPP contract.

The scale of the change determines whether a renegotiation of the contract will be required. Large changes with major cost implications and the potential to change the agreed risk profile often require a renegotiation. For example, a renegotiation may be required where major changes to the scope of the project are involved.

PPP contracts typically include several mechanisms, such as scope change provisions for minor scope changes and claims procedures, to manage circumstances that were not fully understood or envisaged at financial close, without the need for a renegotiation. Minor changes will generally fall under the scope change or variation provisions, rebalancing provisions or other similar provisions in the PPP contract.

Simple correction of errors or clarification of contract drafting can also typically be dealt with under existing provisions in the PPP contract and do not require renegotiation.[31]

Requests for a renegotiation often arise due to a perception by one of the parties to the PPP contract that the project is proceeding in an unexpectedly disadvantageous manner. However, there are also many examples of projects that have performed better than expected. In this context,

[30] Global Infrastructure Hub (GI Hub) (2018). *Managing PPP Contracts After Financial Close,* Chapter 4.
[31] Global Infrastructure Hub (GI Hub) (2018). *Managing PPP Contracts After Financial Close,* Chapter 4.

the equitable sharing in the so-called "upside" of PPP contracts is important in the context of the PPP projects being a form of publicly-owned social or economic infrastructure. Considerable effort has gone into the prescribed sharing of returns above a threshold limit, or even of refinancing to the benefit of the sponsors generating a refinancing gain share for the government (see Section 18.8, below).

Some critical lessons have been learned, for example, that the flexibility to amend contracts is very important, but so is the need to maintain public sector oversight over the change process to maintain the public benefit or VfM. Also, it is important to ensure that the risk allocation between the parties remains consistent (given the changes to the PPP contract) with that approved as part of the original PPP contract. Additionally, if the Procuring Authority seeks too much flexibility in the contract, the risk of change may be unacceptable to bidders. If the Procuring Authority needs a very high degree of flexibility for change in the project, this suggests the project was not suitable to be a PPP in the first place.

As a result, the legislative framework in many countries describes the process of change of PPP contracts and permits in terms and reallocations of risk. Good practice requires that the changes take place in a structured environment. It also requires that the government applies the same level of diligence to changes as it did to its original decision to proceed with the PPP, particularly in cases of significant changes.

The PPP contract will set out the events in which the changes are allowed under the contract. It may not, however, specify all the logistical or administrative steps that need to be taken in order to agree or implement permitted changes. The Procuring Authority's contract management procedures should set out the necessary logistical and administrative details, such as:

- The person to whom a request for a change must be sent.
- The person who will assess the impact of the proposed change.
- The persons authorized to agree to a change on behalf of the Procuring Authority and the Project Company.
- The person responsible for overseeing and verifying the implementation of the change.

One key lesson learned has been to permit PPP contracts to enter into a stage of liquidation without the Procuring Authority stepping into the contract and rescuing the shareholders. Two examples of this occurred in New South Wales, Australia, where lenders stepping in saw the shareholders replaced. The "let the market work" approach in the Cross City Tunnel[32] and the Lane Cove Tunnel[33] saw lenders step in and sell the concession through competitive bidding. An alternative approach would be for the Procuring Authority to renegotiate and rescue the shareholders, thereby creating a strong moral hazard. Nevertheless, if the PPP market is relatively undeveloped, there may not be other parties willing take over the project through such a process and it may be necessary for the Procuring Authority to take step in or default action to prevent a complete failure of the project.

[32] Danny Graham, *The Use of PPPs for Infrastructure Investments in Urban Areas: Case* Study: Sydney's Cross City Tunnel, New South Wales, Treasury.
[33] Motorway Projects Branch, 2010, Post-Implementation Review: M7 Motorway, Cross City Tunnel and Lane Cove Tunnel.

Any intervention or renegotiation must therefore be based on a public benefit. In Australia, the relevant Procuring Authorities in the Reliance Rail and Southern Cross Station projects (see Appendix A) were much more active in negotiating amended agreements to stave off termination and provide a public service or save dispute costs. However, they did so with a clear focus on the public benefit from the outcome.

7.2. Changes in ownership

It is common for the Project Company to seek to change its shareholding arrangements and thereby, its owners. Conditions for changes should be included in the contract. Provided that such a change does not increase the risk to the Procuring Authority or diminish the public benefit, it should not be prohibited by the PPP contract. The following circumstances are examples in which such a change may be appropriate:

- Following completion of construction, when the construction contractor wishes to exit the project — this enables that party to recycle its investment into a new project.

- When a financial investor wishes to exit if the financial investor does not bring any special skills to the project. Their replacement with another equivalent investor may not introduce any new risks or diminish the public benefit.

However, one possible risk that must be mitigated is the disposal of shares to an unsuitable new shareholder. This applies to circumstances where the Procuring Authority has taken comfort from a commitment by the original shareholders to keep their economic stake in the project. This is particularly true of a shareholder who has a specified active role in the project, such as a construction contractor or equipment supplier.

The Procuring Authority may reserve the right to approve a change in shareholding, especially where such a change in shareholding in the Project Company means that the beneficial ownership or control of the Project Company is altered. The meaning of change in control and of beneficial ownership will have to be defined in the PPP contract. The contract may specify that a period of time must lapse before any disposal is permitted (for example, disposals of shares may be forbidden until two years after construction is completed).

Lenders have legitimate interests in limiting permitted changes of control of the private partner and in requiring some commitments from the shareholders (and their holding companies) to maintain their shareholdings and economic stake in the project, at least for some minimum period (usually not ending before they have invested all of their equity and shareholder loans in the project). The Procuring Authority should not use its approval right in a way that will interfere with the ability of the lenders to protect their legitimate concerns.

7.3. Changes in the scope of work

Scope management is essential to ensure the project actually delivers that which the ultimate users of the project works require. This might require a certain level of flexibility in contracts vis-a-vis changes in scope of work caused by unforeseen events. The output specifications, which are set out in the PPP contract, should take into account the Procuring Authority's current, as well as future, requirements to the extent that these are identifiable and quantifiable. Variations to the output specifications may, however, be necessary to cater for changes in the Procuring Authority's requirements, which could not be anticipated or quantified at the commencement of the contract. Variations may also be necessary for changes imposed by external factors for which the Procuring Authority has retained responsibility (for example, a change of policy). The Procuring Authority must be notified of all variations prior to their implementation.

It is necessary to differentiate between changes to the scope of work by the source of the change (that is, the Project Company, the Procuring Authority, or some external event), the timing, and the size and impact of the change. In all cases, changes to the scope must be dealt with systematically and in terms of the PPP contract.

The likelihood of scope changes originating either from the Project Company or the Procuring Authority is greatest in the Construction Stage, as the best means of achieving the output specifications in the context of actual conditions becomes apparent. Regardless of the source of the change, there must be a formal process of scoping and reaching agreement on such changes. The most common means of doing so is a variation notice issued by one party to another, setting out the costs and risk implications and also the formal changes to the specification. The cost implications must be clearly identified and approvals should be sought from the appropriate decision makers, depending on the quantum of the change.

There is significant value to be derived through establishing dynamic and empowered committees with representatives from the Project Company and Procuring Authority to consider proposed changes, particularly to apply specifications in a manner that drives efficiency in public facilities such as hospitals. Where minor changes to the specifications have no cost implications, these committees are a valuable tool to manage the agreement processes. A reasonable amount of flexibility will prevent unnecessary pressure performance or delivery that could jeopardize the project.

Changes with minor cost implications may be approved by the Procuring Authority's contract management team. Larger changes should be approved by the Procuring Authority and Project Company executives, and significant changes (expressed as a percentage of the overall construction capital cost, or where there is a material change in the risk allocation or project scope) should be approved by the appropriate approval authority under the project's governance arrangements. These approving entities may be a central PPP unit or a committee of representative government departments.

On the Project Company's side, the shareholders and lenders have an interest in managing and approving changes. Approval processes, similar to those of the Procuring Authority, should be established where shareholders and lenders are notified of changes and their approval is required, and in some instances, where cost implications exceed a certain threshold.

7.3.1. Managing Procuring Authority-initiated changes

Where the Procuring Authority seeks to change the contract specification, it must issue a formal variation notice. It is generally good practice to set out the form of a variation notice in the PPP contract. The notice should have detailed information in relation to the impact of the proposed variation.

The Project Company must be permitted to identify the costs and risks of implementing the variation, notifying the Procuring Authority of such costs through a variation proposal. The costs should be compared to the original or base case capital costs. Where such costs exceed a specified amount, the Project Company should be required to tender out such variation in an open market. Where the costs are relatively minor, the Project Company should implement the variation using its existing subcontractors, as this will be the most cost and time efficient.

The Procuring Authority must decide to accept or decline the variation proposal. It is extremely useful for the PPP contract to have a method by which the various overhead costs and mark-ups of the Project Company are identified for variations, so that the decision to implement the variation depends on the base costs that the Project Company receives from its contractors rather than the mark-ups that the Project Company seeks to cover for its costs and risks.

The variation is then formally signed off between the parties and implemented as such.

The Project Company should be obliged to implement the variation unless any of the following conditions are met:

- The variation would, if implemented, give rise to a breach of any legal requirement or good industry practice. Alternatively, if the variation would adversely affect the ability of the Project Company to exercise its rights and powers to perform its obligations under the PPP contract.
- The Project Company does not have the legal capacity to implement the variation.
- The variation would, if implemented, make any of the Project Company's insurance policies ineffective or make it impossible for the Project Company to obtain insurance on reasonable commercial terms.
- The variation is not technically feasible on reasonable commercial terms.
- It would place the Project Company in breach of its loan agreements.

The costs for the variation must be funded by the Procuring Authority. There are a number of ways in which this can be achieved. The easiest to implement is a capital grant paid as a lump sum to the Project Company upon implementation of the variation. Since this change may also involve consistent operating and maintenance costs that were not included in the PPP contract and the financial model, there must be a mechanism by which these ongoing costs can be reimbursed by the Procuring Authority. In cases of a Procuring Authority-payment PPP, the payments can be increased to cover the costs (and risks) of the variation post-implementation. For user-pay PPPs, the cost recovery might be affected by way of an increase in user fees, although this is not common.

7.3.2. Managing Project Company-initiated changes

There are likely to be many Project Company-initiated changes. The majority of these should be changes to the means by which the output specifications areas achieved and should be at the cost and risk of the Project Company. Nevertheless, the Procuring Authority has a significant interest in reviewing and approving these changes so that the output specification continues to reflect the needs of the Procuring Authority. This is because the Procuring Authority remains the owner of the asset created in most cases and it has an interest that the asset performs over a period much longer than the term of the PPP contract.

In this case, the Project Company issues the variation notice and confirms the detail of the change to the specification and that there is no cost to the Procuring Authority. There may be some cases where the Procuring Authority is willing to make a cost contribution to a Project Company variation in the interest of increasing Value for Money, but these should be the exception.

The Procuring Authority then issues some form of "no objection" to the variation. It is then formalized and signed off on by the parties and then implemented.

The Procuring Authority must be sensitive to the concept of value engineering by the Project Company. Value engineering is where costs are reduced by the use of some innovative implementation method and is common in construction and system development. Cost reductions may well be shared between the parties in the variation agreement, but care must be taken to examine the risk that comes with such value engineering.

An example in a rail system could be reducing the amount of derailment containment to a level that is consistent with good industry practice, but below that set out in the original output specifications. An actual derailment in an area where the containment was omitted, as part of a value engineering that the Procuring Authority shared in, could lead to shared liability issues in the civil and even criminal legal proceedings that would be sure to follow.

7.4. Changes caused by external events

As noted, the general risk of implementing the PPP contract lies with the Project Company. Many lessons were learned during the pandemic that could be considered for legitimate mitigation. Exceptions to this general principle are limited to areas of specific relief, such as relief events, compensation events, and force majeure events. In such cases, the PPP contract must specify the manner in which such events are notified between the parties. It also needs to clearly indicate the extent that such an event will result in a variation to the PPP contract, a variation that must also be formalized between the parties — albeit without a requirement for approval by either party. Where a party objects to or disagrees with the outcome of such a process, the variation would be decided in accordance with the dispute resolution procedure set out in the PPP contract.

7.5. Amendments and renegotiation of PPP contracts

Managing changing environments and emerging risks through contract amendments is crucial to relieving stress on PPP projects. While some renegotiations can be efficient, many are opportunistic and can undermine value for money, as highlighted in the 2023 ADB paper, *A Governance Approach for Managing Public – Private Partnership Renegotiation.* Opportunistic renegotiations can distort competitive bidding, reduce the economic benefits of PPPs, eliminate competitive pressure, and potentially interfere with lender rights, which can complicate the project's financial stability and governance.

High-level principles to guide amendments and renegotiation of PPP contracts may be captured within the PPP legal framework. This can include enabling provisions within the primary PPP legislation or in the PPP regulations. There are very few, if any, absolute prohibitions on amendment of PPP contracts in any jurisdiction with significant PPP projects. The European Union (EU) has one of the most regulated procurement environments and may be taken as a reasonable representative of good practice on the subject of renegotiation of concession agreements.

Project renegotiations can undermine value for money.[34] This can be due to several reasons, detailed below:

- Competitive bidding may be distorted and the most likely winner is not the most efficient company, but the one most skilled in renegotiation.
- With renegotiations carried out bilaterally, the positive effects of competitive pressure are lost.
- Renegotiations often reduce the overall economic benefits of PPP arrangements and might have a negative impact.
- It may interfere in lender rights to intervene in or prevent changes to the contracts in order to protect their rights.

However, a closer look at EU procurement law and in particular the 2014 Directive on the Award of Concession Contracts is highly illuminating. Article 43 explicitly permits the modification of a concession contract in any of the circumstances where the value of the concession is not increased by more than 50 percent, as well as in the following cases:

- The modifications, irrespective of their monetary value, have been provided for in the initial concession documents in clear, precise, and unequivocal review clauses and do not alter the overall nature of the concession.
- Additional works or services by the original private partner are necessary and cannot be provided by a new private partner for valid economic and technical reasons, and procurement of a new private partner would impose "significant inconvenience or substantial duplication of costs" on the procuring authority.
- The modifications, irrespective of their value, are not substantial.

[34] Primoff, M.G. and Hampton, N., Kaye Scholer 2013, *In: Developing a Framework for Renegotiation of PPP Contracts. Ministry of Finance, Government of India:* Secrets of Successful Restructuring. LLP article, Infrastructure Investor.

In Chile, the Concessions Law of 2010 made some substantial changes to the manner in which Chilean concessions are amended. These are outlined in Box 7.6.

Box 7.6. Amendments to concessions under Chile's concession law of 2010

The Concession Law allows the parties to agree to change the works and services contracted in order to raise the service levels and technical standards by up to 15 percent (the figure is established in the bidding conditions) of the approved capital value. If there is no cost to the Procuring Authority, then no agreement is necessary.

Where conditions subsequent to the signing of the contract require additional investment by the Project Company, the Procuring Authority and the Project Company may increase the additional investment value by 20 percent in terms of an amendment agreement that is also approved by the Ministry of Finance. The Ministry of Public Works must be able to justify the changes for duly substantiated reasons of public interest in a public report.

To prevent monopolistic pricing, if the increase exceeds 5 percent of the approved capital works, it must be put out to open tender by the Project Company. The Project Company is then compensated by one or a combination of subsidies provided by the state — a voluntary payment made directly to the concession holder by third parties interested in the development of the works, a modification to the current amount of the concession total revenues, a change in the concession term period, modification to the rates, or any other factor of the concession's agreed upon economic regime.

In exceptional circumstances and only in the Construction Stage in which variation exceeds 25 percent of the capital budget, the amendment agreement must be approved by the Ministry of Public Works and the Ministry of Finance. Conditions for the amendment include that the facts and circumstances giving rise to the amendment occur after the awarding of the concession and could not have been foreseen upon its awarding and that — for reasons including expertise, behavior, performance, social and environmental impacts, management economies or economies of scale — awarding the new works to the original concession holder is more efficient than granting a new concession.

The technical panel established in the amended Concessions Law, and comprised of independent experts, must verify that these conditions are met by the amendment. The compensation to the Project Company is calculated and paid in such a way as to get the Net Present Value of the additional project to equal zero, taking into account the applicable discount rate and the economic effect the additional project may have on the original project, including the higher risk that may occur.

7.6. Financial restructuring

In troubled projects, financial restructuring may be considered. A method of dealing with a project in financial difficulty is for the PPP contract to be auctioned by the Procuring Authority, whereby a new bidder will pay the actual worth of the project and then continue to provide the service. This is consistent with the risk allocation to the Project Company and is the preferred method of dealing with such projects. However, in less mature PPP markets, there is a risk that there will be no buyers willing or able to take over the project.

Other tools employed for financial restructuring may include amendment to the finance documents or conversion of debt to equity. These are managed within the Project Company, and the Procuring Authority's involvement is limited to approvals of the changes made in the restructuring, especially where there may be change of control provisions in the PPP contract.

Finance document amendments may include extended maturity dates, revised interest rates, and amended financial covenants, among others. As an example, in the San Joaquin Hills toll road transaction in the United States, $2.06 billion in toll revenue bonds were restructured by increasing maturity dates, revising coverage ratios (debt service), and reducing annual debt service amounts.[35] Debt restructurings were also implemented for the Dulles Greenway (Virginia) and Southern Connector (South Carolina) projects.

7.7. Changes in law during the construction stage

The cost of complying with a law that is current or foreseen at the time of entering into the PPP contract is usually built into the price that the Project Company bids in order to provide the services. It may, however, not be possible for the Project Company to price specific costs that may arise from changes in a law that are not foreseen at the time it signed the PPP contract. The issue that arises from this is who should be responsible for the costs due to changes in a law and how such costs should be funded.

7.7.1. Allocation of risk of change-in-law

The Project Company's concern is that a change-in-law is a risk that it cannot control and one which it regards as being within the control of the Procuring Authority. In a non-PPP business, the business operator would usually be able to pass on the costs of a change-in-law to its customers. In contrast, PPP contracts often lack flexibility in pricing and the Project Company may believe that it should not have to bear the costs of any change-in-law. Furthermore, Procuring Authorities are of the view that changes in law, to the extent that they apply to all businesses in the country, should not be the cause for extraordinary protection for the Project Company. To balance these arguments, countries with relatively stable and limited changes in law make a distinction between "general changes of law" and "project-specific changes of law" in determining deciding who bears the cost and risk of a legislative changes.[36]

[35] Primoff, M.G. and Hampton, N., Kaye Scholer 2013, *In: Developing a Framework for Renegotiation of PPP Contracts, Ministry of Finance, Government of India:* Secrets of Successful Restructuring. LLP article, Infrastructure Investor.

[36] See the discussion on 'Change of Law' in Chapter 3 of the World Bank 2019 report *Guidance on PPP Contractual Provisions.*

7.7.2. General change-in-law

A general change-in-law is one that affects either all business in the country or all those involved in the sector in which the PPP contract is centered. In these cases, the risk and cost of compliance with the law remains with the Project Company. Examples of general changes in law are changes in tax legislation or environmental law.

No variation is required for general changes in law except where the output specification must be changed. In such circumstances, a Project Company variation will be appropriate. Where the Procuring Authority proposes a significant policy change that will affect a PPP project, it may be possible to implement that change through either the variation process or the change-in-law process. In these circumstances, the Procuring Authority should consider the relative merits of each process, including the impact upon VfM and the long-term PPP relationship.

7.7.3. Project-specific change-in-law

A project-specific change-in-law occurs when there is an element of discrimination in the effect of the change-in-law. This discrimination may be against the Project Company specifically or against businesses involved in PPP contracts, of which the Project Company is one.

In such cases, the Procuring Authority bears the cost associated with the change-in-law. However, the Project Company must be obliged to use all reasonable endeavors to mitigate any cost increases. The factual determination of whether a change-in-law is general or project specific, and whether or not the costs were reasonably mitigated, will be a source of dispute. Therefore, it is advisable for the parties to convene on any matter that may become a change-in-law. In some cases, the two parties may be able to avoid project-specific changes in law by jointly lobbying the institution driving such a change in the law.

Procedurally, the change management system used for Procuring Authority variations should be used in cases of project-specific changes in law.

The issues and approaches identified above are equally applicable in the operations stage.

8. Claims Management in the Construction Stage

8.1. Introduction to claims management

A claim in the context of PPP contract management is somewhat of a misnomer. High-level principles to guide claims management may be captured within the PPP legal framework. This can include enabling provisions within the primary legal instrument and further guidance within the secondary legal instrument. This will guide the treatment of these issues within PPP contracts. Well-structured PPP contracts allow for specific consequences for specific failures by one party to meet its obligations to the other party. These failures normally give rise to a compensation event or to a breach of the PPP contract, not to a general claim for damages. Therefore, it is possible for a party to implement a form of claim on the grounds that the other party has caused it such harm or loss that it would be impossible to obtain relief without instituting a claim for damages. It is beyond the scope of this PPP Guide to examine the legal merits of such an argument, and this section will focus on how to deal with the various forms of claims that may arise.

The first observation is that the likelihood of some form of claim increases with the degree of involvement of the government in the running and financing of the PPP. Such involvement, be it in the approval of designs, provision of ancillary infrastructure to the private partner, the obtaining of necessary consents (such as environmental approvals), the provision of land, or the provision of capital or operating grants, gives rise to risks of the government not meeting the required standards of compliance.

The role of the contract management team is thus critical in ensuring the compliance of the government and correctly documenting all events in meeting such obligations. If land is being provided then all land-related documents and agreements must be well recorded. Similarly, obligations related to obtaining approvals must be met and documented.

Even with contract management systems working well, it is possible that some claims or notices of relief or compensation events will be received. The Procuring Authority's contract management team should, accordingly, have the resources and processes to permit good claims management.

Claims management allows claims and potential claims to be identified and evaluated. By assessing their merit early on, claims or potential claims can be avoided or resolved quickly. Alternatively, the decision can be made to pursue other routes to resolution. Box 7.7 is a non-exhaustive list of claims that may be raised by a Project Company. This is not to say that all claims listed are legitimate claims in terms of the PPP contract. Claims that are not legitimate should be rejected by the contract management team.

Box 7.7. Potential claims that might arise

- General claims
- Missing scope
- Breach of contract
- Mismanagement
- Over billing
- Improper labor charges
- Improper material charges
- Design errors or omissions
- Architect/engineer error
- Architect/engineer omissions
- Improper specification by owner
- Delay claims
- Delay due to owner or contractor action or inaction
- Delay due to improper allocation of resources
- Improper acceleration charges
- Impact claim
- Disruption of owner facilities
- Interference by owner with contractor means and methods
- Disruption of contractor productivity (sequencing of work and trades)
- Differing site conditions
- Hidden conditions
- Differing site conditions than those shown on plans and specifications
- Abnormal weather conditions

Upon receipt of any claim or notice of breach, relief, or compensation event, the contract management team should follow the steps set out below in Table 7.9.

Table 7.9. Process of evaluating a claim

Process	Description
Identification	Determine the source of potential claim. For example, design error/ omission, scope gap, documentation conflict, hidden/differing site conditions, abnormal weather, and so on.
Legal compliance check	Determine whether or not the claim has any basis in the PPP contract or in law. Consult legal resources on the matter.
Evaluate merit	Determine potential success of claims based on established legal precedent and contract documentation.
Evaluate magnitude	Determine worst-case and best-case magnitude from each party's perspective.
Strategy development	This may range from a settlement agreement to following the dispute resolution process.

In general, Procuring Authority officials are seldom empowered to reach settlement agreements on claims, as these often have significant financial implications. As such, the Dispute Resolution Process (DRP) is the default in all claims. Both parties need to follow the prescribed DRP to ensure that all timelines are met and all procedures complied with. The worst possible outcome is a default judgment under the DRP without the merits of the matter being decided upon.

A common form of claim is that which arises between a Project Company and its subcontractors, or between subcontractor and supplier or sub-subcontractor. The reason for this is that these subcontracts often follow the form of more conventional construction or Engineering, Procurement and Construction (EPC) contracts where claims for specific performance and/or damages are far more common.

In such cases, it is appropriate for the Procuring Authority to refuse to join such claims and disputes. Rather, it will focus on ensuring the Project Company continues to deliver according to the conditions of the PPP contract.

Prevention of claims

The Project Company is best positioned to prevent claims arising through careful drafting of the PPP contract as well as project and quality management tools to identify and mitigate disputes and claims proactively. Table 7.10 sets out some such tools.

Table 7.10. Types of claims and possible preventative solutions

Type and cause of claim	Key control	Preventive solution
General claims		
Missing scope **Breach of contract**	Contract	Provide appropriate change order and change directive procedures in a contract and incorporate **flow down** of procedures to trade subcontracts.
Mismanagement	Project governance	Clear, well-defined policies and procedures. Proper compliance with change directive and change order procedures pursuant to contract documents.
Improper labor charges **Improper material charges**	Procurement	Well-defined RFPs.
Over billing	Financial	Transparent financial reporting.
Design errors or omissions		
Architect/Engineer error	Quality control	Proper review and acceptance procedures for design review and work sign off.
Architect/Engineer omission	Project management	Integrated design management and scope change processes. Proper compliance with change directive and change order procedures pursuant to contract documents.
Improper specification by procuring authority	Procurement	Well defined RFPs and thorough proposal review/clarification.

Type and cause of claim	Key control	Preventive solution
Delay claims		
Delay due to Procuring Authority or Project Company action or inaction	Scheduling	Thorough and integrated scheduling processes that utilize proper scheduling tools and techniques.
Delay due to Improper Allocation of Resources	Planning	Utilization of resource loading and manpower optimization tools for optimal staffing.
Impact claims		
Disruption of Procuring Authority facilities	Risk assessment	Perform analysis and contingency plans in relation to high-risk scenarios.
Interference by Procuring Authority with Project Company means and methods	Risk assessment	
Disruption of Project Company productivity (Sequencing of work and trades)		Develop and maintain an all-inclusive project execution plan for each phase of the project.
Differing site conditions		
Hidden conditions	Contract management	Provide proper contract language allocating risk of unforeseen conditions, differing conditions, weather, and schedule delays.
Differing site conditions than those shown on plans and specifications	**Planning**	During planning, conduct a thorough analysis of site conditions and engage adequate third-party verification.

A case study of claims management by a Procuring Authority is set out in Appendix A, namely the Southern Cross Station in Melbourne Australia as reported in the *Audits of 2 Major Partnerships Victoria Projects* by the Victorian Auditor-General in November 2007.

8.2. Dealing with extensions of time during the construction stage

PPP contracts typically include a listing of a limited set of events in respect of which a Project Company can make a claim to:

- Extend the completion date by which the asset must be created, commissioned, and operated.
- Extend the expiry of the PPP contract (effectively an extension to the period in which it can earn revenue from operating the asset).

These events should be clearly set out in the PPP contract and relate to matters outside the control of the Project Company. Allowing an extension of time in these circumstances enables the project to continue with the Project Company remaining incentivized to complete the project. This is a better VfM outcome than initiating a default process as a result of an event beyond the Project Company's control. See Chapter 5.5.5 for further information on the basis for this risk allocation.

In regard to such extensions, the role of the Procuring Authority's contract management team is to ensure that the claim for granting such an extension meets the criteria in the PPP contract in basis of fact and in terms of compliance with the procedure set out therein.

Although the sections below differentiate between relief events (which entitle the Project Company to an extension of time) and compensation events (which entitle the Project Company to an extension of time and/or payment of an amount of compensation), it should be remembered that time is money to the Project Company, and the process followed in both events should be the same.

8.2.1. Relief events (Time only)

Relief events are those events listed in the PPP contract that may arise at any stage during the term of the PPP contract, the consequences of which are best managed by the Project Company even though they may not be within its control. The best example of a relief event is unforeseeable adverse weather conditions. The Project Company bears the financial risk of relief events, but neither liquidated damages nor rights of termination should arise because the Project Company is granted an extension to the completion date.

The Project Company should give the Procuring Authority notice of the occurrence of any of the relief events specified in the PPP contract. This should be done as soon as reasonably practicable after becoming aware of the occurrence of the event and within a defined period (for example, three months). The notice from the Project Company should:

- Specify the event that has occurred and explain why it qualifies as a relief event.
- Identify the impact that the event has had or is likely to have upon the performance of the Project Company's obligations, its financial arrangements, and its operations.
- Provide details of the additional time required to remedy that impact.

The Procuring Authority must request further details and particulars if it is not satisfied that it has sufficient information to justify the extension of time.

If the Procuring Authority and the Project Company agree on the time for extension of the completion date, then the PPP contract will be amended with the new date for completion of the works and the start of operations. If the parties have not agreed, then the matter must be determined in accordance with the DRP.

The Procuring Authority should interrogate the Project Company about the information provided. The Project Company must minimize the adverse effects of any relief event by taking action to minimize the delays caused by the event.

8.2.2. Compensation events (Time and money)

Compensation events differ from relief events because the Project Company is entitled to monetary compensation and, in addition — possibly — a time extension to the term of the PPP contract. Examples of compensation events are a failure to provide land or a right of way by the Procuring Authority or a delay caused by another government agency.

In addition to the requirements for relief events the Project Company must:

- Specify the event that has occurred and explain why it qualifies as a compensation event.
- Identify an impact that the event has had or is likely to have upon the performance of the Project Company's obligations.
- Provide details of the additional time required to remedy that impact.
- Provide details of the additional liabilities, costs and expenses, and the loss of revenue that the Project Company has incurred or is likely to incur.

This must be summarized into a capital cost, for which the Project Company must be compensated, and an operating cost that must be covered by an increase in revenue (user fees or Procuring Authority payments) and/or an extension in the term of the PPP contract.

The Procuring Authority's contract management team must interrogate and audit these costs closely as they may be overstated. The mitigation costs of the Project Company must also be examined to see whether they were effective.

Any unresolved disagreements on the matter must be dealt with through the DRP.

8.3. Dealing with force majeure events

The issue of force majeure has increased in importance since the pandemic as well as increasing frequency and magnitude of adverse weather events tied to climate change. Force majeure events, as more comprehensively covered in Chapter 5, are a set of events which may arise during the term of the PPP contract through no fault of either party.[37]

The World Bank's force majeure checklist and sample wording for a contractual provisions document is a valuable reference document that should be consulted (see: https://ppp.worldbank.org/public-private-partnership/library/force-majeure-checklist-and-sample-wording). The risk of typical force majeure events such as natural disasters ("acts of God") are usually shared between the Procuring Authority and the Project Company (the risk of political force majeure events, such as civil disturbances and war, are usually managed by the Procuring Authority, as the government will have more control over the management of these risks). Force majeure events are more severe than relief events and will typically last longer and may result in termination of the PPP contract. They are, by definition, unusual and rare events, and the Procuring Authority's contract management team should deal with these as exceptions. The focus should be on mitigating the effects and taking steps to ensure the eventual continuation of the project.

[37] See the discussion on "Force Majeure" in Chapter 1 of the World Bank 2019 report *Guidance on PPP Contractual Provisions*.

8.4. Process of approvals of claims by project company

A very strict process of processing claims, as listed below, must be followed.

- The Procuring Authority must be notified of all claims within a limited period of time after the event. Claims submitted long after the event become impossible to evaluate and the Project Company will struggle to show how it dealt with the event and mitigated its consequences.

- The notices must contain complete information, otherwise the notice should be rejected.

- The Procuring Authority should request further information on the claim until satisfied they have enough information to evaluate it.

- The claim should be grounded on the base case financial model and the original project schedule in order for the effect of the event to be evaluated against the original base case in terms of time and money.

The parties should endeavor to reach agreement on the schedule and cost implications of the event. In some cases, the independent certifier can assist in this. The fallback position should be the DRP, as the independent certifier cannot play a role in providing a final and binding decision on matters that may include legal matters beyond their technical expertise.

Some jurisdictions (Chile in particular) have established technical panels charged with resolving disputes of this nature, staffing the panel with independent legal, financial, and technical experts.

The issues and approaches identified above are equally applicable in the operations stage.

9. Dealing with the Private Sector's Underperformance and noncompliance During the Construction Stage

Monitoring the performance of the Project Company is a primary function of the Procuring Authority's contract management team. In most PPPs, the performance monitoring and reporting is done by the Project Company, making the function largely one of assurance that the reporting is accurate and auditing performance measures when it is not. During the term of the PPP contract, there may well be occasions when the Project Company will not meet the required standards and not comply with the specification in the PPP contract. This is termed "non performance," even though some of the services may have been partly provided or partly met the specifications.

9.1. Mechanisms for dealing with underperformance and noncompliance

When dealing with underperformance and noncompliance in the Construction Stage, the issue is not the standard of services provided but, rather, the time taken to complete the asset and the quality of the asset on completion. In general terms, the Project Company is incentivized to bring the asset into revenue-earning operation, but the Procuring Authority may suffer some losses in cases of delay and may create a right to claim some form of liquidated damages.

9.1.1. Impact of noncompliance by the project company

Noncompliance by the Project Company decreases the public benefit or VfM in the PPP by decreasing the quantity or quality of services offered to the public. The relationship between the public and the Project Company will be negatively affected to the detriment of the project's sustainability. It also creates a bad precedent for PPPs as the public perception of private delivery of these services will be poor and could lead to strong opposition to PPPs and questioning of the VfM offered.

There are also more direct implications. The workload of the Procuring Authority's contract management team will increase, as the contractual remedies are time-consuming to apply and must be done correctly to be effective. The financial sustainability of the Project Company will come under pressure and defaults under the financing agreements may be triggered, thereby leading to lender step in.

9.1.2. Impact of acceptance of project company's noncompliance by the procuring authority (including waiver by the procuring authority)

It is inappropriate for the Procuring Authority to condone or accept material non performance by the Project Company. The most common manner in which this occurs is if the Procuring Authority's contract management team misses or fails to apply a penalty for non performance. This is not necessarily fatal to the Procuring Authority attempting to hold the Project Company accountable for future non performance, as an isolated failure or delay by any party in exercising any right or remedy may not operate as a waiver of such right or remedy. Any waiver of a breach of the terms of the PPP contract is not necessarily a waiver of any subsequent breach or default. However, depending upon the applicable legal system, repeated acceptance of noncompliance may result in the Procuring Authority losing the right to insist on compliance at a later date.

Where non performance is not material and instead constitutes a technical noncompliance with the contract that will not compromise the project outcomes or VfM, it may be appropriate for the Procuring Authority to waive compliance with that requirement, as it may be counterproductive to initiate the contractual penalty or default processes for a non material, non performance issue. However, before doing so, the contract management team should seek the following advice and approvals:

- Legal advice as to whether the non performance can be waived without comprising other obligations under the PPP contract, as well as legal advice regarding how to document the waiver to ensure it only applies to the specific non material obligation.

- Technical advice (for example, from the Procuring Authority's engineering advisers) to confirm that the non performance is not material and will not compromise the project outcomes or VfM.

- Approval of the waiver through the project governance arrangements, following consultations with relevant stakeholders.

9.2. Mechanisms for dealing with late delivery of works

In PPPs, liquidated damages are the preferred remedy for late service commencement. Liquidated damages are a payment representing a genuine pre-estimate of the actual losses or damages suffered if the Project Company fails to achieve service commencement on time. The events giving rise to liquidated damages, and the amounts, should be set out in the PPP contract. In some jurisdictions, liquidated damages are referred to using the term "penalties," while in other jurisdictions, the term "penalty" is a different concept referring to amounts that bear no relationship to the harm suffered by the other party and that are unenforceable.

An example would be the cost to the Procuring Authority of renting alternative accommodation or paying higher service fees in the absence of the services to be rendered by the Project Company under the PPP contract. In many PPPs, both the Procuring Authority and the lenders are entitled to liquidated damages. The liquidated damages payable to the lender are often significantly larger than those payable to the Procuring Authority and they provide a strong incentive for the Project Company to complete construction on time.

9.2.1. Impact of late delivery of works on the project company and procuring authority

The Project Company suffers a number of negative impacts from late completion of the Construction Stage that then impacts on operational commencement. The first is that revenue is lost and the lenders require their loans to be serviced even though there is no revenue to do so. The Project Company must raise this in the way of additional capital, decreasing shareholder returns. Where the fault lies with the construction contractors, the Project Company will levy liquidated damages on the contractors.

The Project Company may also be subject to liquidated damage claims by the Procuring Authority and may have performance bonds or other forms of security called in by the Procuring Authority. At the same time, the Procuring Authority suffers the loss of the services to the users. Both parties suffer reputational damage as a result of delays.

9.2.1.1. Financial impact

Financial impacts may include the imposition of liquidated damages on the Project Company and its subcontractors; the calling of bonds in the security package; a loss of revenue; and continued debt service obligations. Operations-Stage subcontractors often claim against the Project Company for costs incurred in delayed starts.

The loss of revenue is often severe, as the Project Company has a shorter period to earn revenue and, especially in Procuring Authority-payment PPP contracts, this loss is never regained. Simultaneously, shareholder returns are reduced. This may even extend to reduced refinancing gain opportunities.

9.2.1.2. Operational impact

The operational impacts of delayed service commencement relate largely to the delay in the provision of the services. Where these involve social infrastructure facilities such as hospitals and schools, patients may receive inadequate treatment at alternative facilities and learners may miss the start of a school year. In economic infrastructure, the main operational impact is the loss of revenue to be earned as the asset stands idle.

9.2.2. Processes in cases of late delivery of works

The Procuring Authority's contract management team must closely monitor the progress of the works and the quality thereof as certified by the independent certifier. Poor quality will result in delayed completion as the Project Company struggles to commission the work and obtain the certification needed to begin the Operations-Stage.

9.2.2.1. Liquidated damages

PPP contracts typically have a specific regime for the claiming of liquidated damages and the procedures must be closely followed. An example of a trigger is that the service commencement date is missed. However, it is normal for there to be some requirement for a notification to the Project Company followed by a remedy period. If the contract management team is lax, procedural irregularities could undermine the process for claiming liquidated damages.

9.2.2.2. Construction bonds

A construction bond will usually take the form of an on-demand bank guarantee, which can be called by the recipient when, for example, the service commencement date is not met. The Project Company may well require a construction bond from the construction contractor who will pass through the costs and time of providing such a bond to the Project Company. This increases the cost

of the project but provides security in the case of a default. This default risk is highest in the early part of the Construction Stage because the Procuring Authority may not be able to find another party to take over the project and, therefore, may incur significant costs in reinstating it.

The calling of a performance bond requires that contractual triggers are met. As with liquidated damages, these include missed dates for completion; a failure to remedy; and, above all, the correct following of procedures by the Procuring Authority's contract management team.

9.2.2.3. Sponsor support

It is quite common for PPP contracts to require some form of support from shareholders or key subcontractors to the Project Company because the Project Company is a Special Purpose Vehicle and has no inherent ability to provide technology support or experienced human resources (as could a large existing enterprise).

Sponsor support usually takes the form of undertakings from one or more of the sponsors of the Project Company in favor of the lenders and/or the Project Company to support the Project Company's obligations. One of the undertakings may be to provide technical support and/or general undertakings to ensure the Project Company reaches service commencement on time.

As with liquidated damages and construction bonds, sponsor support needs to be triggered by the failure to reach service commencement by the scheduled date.

9.2.2.4. Long stop date

Many PPP contracts contain a "long stop date" by which services must commence regardless of what events or claims occur during the Construction Stage. If, notwithstanding all of the remedies described above, the services have not commenced by the long stop date, the Procuring Authority should commence the process to terminate the PPP contract. This is described in more detail below.

10. Issue Management and Dispute Resolution During the Construction Stage

10.1. Issue management procedures

Issue management usually comes into effect when significant risks arise or materialize. The PPP Contract Management Manual should include issue management procedures that deal with irregularities and mitigate the issues that lead to risk materialization.

A key aspect of a partnering relationship is the resolution of problems quickly, efficiently, and without resorting to formal dispute resolution procedures. This can be achieved through the following mechanisms:

- Documented discussion and formal note of agreement.
- Harnessing the contractual change mechanism so that the issue does not affect the overall affordability of the project.
- Agreed arrangements for change to the Procuring Authority's performance requirements and the Project Company's method statements.
- Regular scheduled meetings, with attendance by key stakeholders from both parties.

Issue management procedures are normally left to individual PPP contracts to arrange the most suitable way for the parties to avoid disputes and the development of a blame culture. However, the basic tenets of a collaborative problem resolution methodology are to develop a systematic approach, incorporate an agreement to seek win-win solutions rather than parties to blame, create a culture of open discussions and equality of rights, and a mutual acknowledgement that adversarial attitudes waste time and money.

In the Docklands Light Rail project in London, the Procuring Authority and the Project Company ensured close coordination and open communication by maintaining offices adjacent to one another. This provides an example of the practical steps that parties can take to encourage the early detection and resolution of issues.

10.2. Dispute resolution procedures

Disputes are intrinsic in any PPP construction project and could influence the success and failure of projects, thereby generating additional costs for all parties.[38,39] PPP construction project issues, concerns, and disputes occur as a result of numerous factors, such as technical, climatic, and logistical events, while resolution of PPP construction project disputes is influenced by people's ideas, manners, activities, and cultural implications.[40]

[38] Thompson, R. M., Vorster, M. C., Groton, J. P. (2000). Innovations to Manage Disputes: DRB and NEC, Journal of Management in Engineering ASCE 16(5): 51–59.doi:10.1061/ (ASCE) 0742-597X (2000)16:5(51).

[39] Marzouk, M., El-Mesteckawi, L., and El-Said, M. (2011)., Dispute Resolution Aided Tool for Construction Projects in Egypt. Journal of Civil Engineering and Management, 17(1), 63-71.

[40] McInnis, A. (2003). New Forms of Non-Adversarial Contracting Focusing upon the New Engineering Contract: Keynote Lecture 1. Second International Conference on Construction in the 21st Century. "Sustainability and Innovation in Management and Technology."

Some issues arising throughout the lifetime of the PPP contract, especially during the Construction Stage, cannot be solved through issue management processes and will end up in dispute. Therefore, a proper mechanism to secure resolution is needed and should be included in the contract. In such cases, the Project Company often argues that a usual litigation procedure through courts can be slow, expensive, and sometimes even misjudged or misguided, as there are not too many experts familiar with the complexities of PPP agreements. This party will also often argue that the arbitration process is favored as the process is faster, even though the required resources can often be expensive and the same legal procedure needs to be followed.

Therefore, the Procuring Authorities may legitimately argue that a proper court procedure is better as the need to build up a precedent base and the compelling case is far greater than in arbitrations. In this context, the courts can be provided with the opportunity to grow the expertise required to deal with the complexities of PPP agreements and to promote a measure of transparency regarding the interpretation and enforcement of PPP agreements. Ultimately, the choice will be country-specific, taking into account factors such as the judicial environment and the state of the arbitration processes in that jurisdiction. Pursuance of court actions should be a last resource action.

Chapter 5 of the Global Infrastructure Hub 2019 report on Managing PPP Contracts After Financial Close offers extensive guidance for Procuring Authority contract management teams on the best practices for handling PPP project disputes. Within that chapter, the following comments pertain to the initial steps to be taken:

- *Which dispute resolution mechanism offers the greatest VfM, including considering which avoids interruption to the services?*
- *What are the full cost implications for the potential dispute resolution mechanisms?*
- *How can a win-win solution be reached amicably?*
- *How does the dispute resolution mechanism best preserve the terms of the PPP contract so that the project can continue as agreed at financial close?*
- *What are the time and cost implications and the impacts on the long-term operational and maintenance obligations?*
- *Will the decisions made through the selected dispute resolution mechanism be binding and enforceable?*
- *Does the dispute have an impact on the government's contingent liabilities?*[41]

10.2.1. Binding and non-binding determinations

Binding and non-binding determinations will be implemented differently in different countries as well as in different types of PPPs. As noted, some countries will prefer the litigation measures taken through the courts or arbitration and some will have a preference to use Dispute Boards.

[41] Global Infrastructure Hub (GI Hub) (2018). *Managing PPP Contracts After Financial Close,* Chapter 5, Section G.

Some countries have Dispute Avoidance Boards (DAB) in place, which can be helpful in resolving disputes throughout the lifespan of the project. The function of the DAB is dispute avoidance. DABs meet with the parties regularly during the delivery of a project to discuss emerging issues and help the parties to resolve them on a consensual basis. This method has been very successful in quickly resolving any issues, with minimal cost to the parties and the most productive outcome for the project. DABs also serve a decision making function. Either party to a dispute can refer it to the DAB for a written determination.

One more option when dealing with disputes is a "fast-track dispute resolution." This method is often final and binding on all parties in common law countries (but not in civil law countries), with an option to be appealed. Fast-track dispute resolution usually refers to the usage of an Independent Expert to establish facts, the determination of which is within the capability of a suitably qualified class of person. Examples include:

- Calculation of any refinancing gains.
- Application of any inflation-indexation mechanism.
- Application of the economic test to determine whether the proceeds of the material damage insurances should be applied to reinstate the project.

In these cases, an independent financial expert would be appointed through agreement by both parties.

10.2.2. Dealing with step in situations

A step in occurs when another party temporarily assumes some or all of the obligations of the Project Company. It may be implemented by either Procuring Authority step in or lender(s) step in.[42]

10.2.2.1. Step in by the procuring authority

The South African *National Treasury Guidance on PPPs* (2004)[43] states that the Procuring Authority may want the right to take urgent action in respect of the services to avert a serious threat to an essential public concern (such as public health, safety of persons and/or property, national security, or the environment) or to discharge a statutory duty. The need for this right may be due to matters outside the project or due to a breach by the Project Company of its obligations under the PPP contract.

The step in by the Procuring Authority usually constitutes short-term involvement where an urgent and necessary solution is needed. It also usually happens only in projects where core services are provided by the Procuring Authority such as the case of hospitals, schools, and so on.

[42] A helpful discussion of the two types of step in rights is found, respectively, in Chapters 4 and 7 of the World Bank 2019 report *Guidance on PPP Contractual Provisions*.

[43] South African National Treasury, *First Issue. (March 2004)*, National Treasury PPP Practice Note Number 01 of 2004: Standardized PPP Provisions.

In cases where there is no Project Company breach, the Project Company is relieved from the obligations that the Procuring Authority has taken on by stepping-in. This also relieves the Project Company of any monetary penalties and/or deductions in respect of its non performance of those obligations. Furthermore, if the step in does not involve the Project Company but affects its duties and obligations to perform its work, then the Procuring Authority must continue to make any required payments to the Project Company when due — irrespective of whether the services under the agreement have been delivered or not.

If the step in by the Procuring Authority arises due to the Project Company's breach, then the Project Company should remedy any such breach at its own expense and should meet the Procuring Authority's costs of stepping-in. If the breach by the Project Company persists after the Procuring Authority has stepped-out, then the lenders have the right to step in.

10.2.2.2. Step in by lenders

The lenders' step in occurs primarily when a termination of the PPP contract becomes likely. The lenders step in to ensure the continuity of the project if the Project Company defaults under the PPP contract or the financing agreements. In some countries, the Procuring Authority will sign a "Direct Agreement" with the lenders and the Project Company, which creates a mechanism for the continuation of the project (in some cases, for only a limited period of time). This allows the lenders to remedy defaults following a threatened termination of the PPP contract and the financing agreements.

The following arrangements typically apply to a lender step in:

- Lenders must voluntarily step in to resolve the issue in question.
- The Procuring Authority must not suffer due to the step in process and the PPP contract must carry on according to the original set up, including any penalty deductions.
- The Project Company must inform the lenders of all Project Company's defaults, nonpayment of penalties, and any other issues that my affect the project.
- The lenders may only exercise their step in rights upon payment of all such liabilities to the Procuring Authority.
- Agreed remedial work within the time frame attached to it must be supplied by the lenders in order to assist in rectifying the issues the Project Company needs to achieve.

The Jarvis Case Study from the UK (Appendix A) provides an illustration of the use by lenders of their step in rights.

The issues and approaches identified above are equally applicable in the operations stage.

11. Knowledge Management and Succession Planning

11.1. Importance of knowledge management

The importance of knowledge management is two-fold, first to ensure the continuity of knowledge throughout the life of the project, and second to assist the Procuring Authority's contract management team in meeting legislative and contractual requirements.[44]

11.1.1. Developing a knowledge management strategy

Several items need to be considered when developing a knowledge management strategy. These include receiving, collecting, and recording the meaningful information, storing and sharing the information, information security, and maintaining and disposing of information. The collection and reviews of the information would effectively culminate in lessons learned.

A process for such activities must be put in place well ahead of time and the Contract Management Manual must address questions such as who collects and stores the information, how is it managed, who has access to it, which phase the information is applicable to, how information will be shared, who will keep the versions and revisions of the documentation (for example, drawings), and what information is necessary for which activity.

11.1.2. Implementing knowledge management

Implementing and managing knowledge and information requires dedicated personnel who will actively manage documentation using an appropriate system. This will enable all parties involved to be proactive and record documentation accordingly. The Contract Management Manual, covering policies, procedures, and documented processes, can assist in knowledge management implementation and management in the absence of sophisticated and expensive software. However, the most important factor when implementing knowledge management is the dedication of the team leading this task.

11.1.3. Measuring knowledge management

The Procuring Authority can effectively measure the success of knowledge management by checking whether the relevant documentation is easily retrievable and identifiable.[45] It is important to ascertain whether the information and data collected is recent and accurate, if the process of obtaining, storing, sharing, and disposing of the data been successfully implemented, and if the information and data is submitted and transferred between stakeholders in the appropriate form and at the appropriate time.

[44] Partnerships Victoria. (2003), Partnerships Victoria Guidance Material: Contract Management Guide.
[45] Partnerships Victoria. (2003), Partnerships Victoria Guidance Material: Contract Management Guide.

11.2. Importance of succession management

The lifespan of PPP projects is extensive and it is rare the same staff and personnel will see the project through to the conclusion. Therefore, it is likely the personnel involved in the management of the contract is going to change several times throughout the lifecycle of the project, and the new staff will need some time to familiarize themselves with the details and the history of the project in order to successfully manage the PPP.

11.2.1. Planning for succession

Planning for succession must be done at the time of writing the Contract Management Manual. All the processes for transferring knowledge from staff exiting the project to new staff must be recorded. The Procuring Authority and Project Company must ensure that, at any given time, the transfer of knowledge takes place and that lessons learned are logged, which will assist new staff in becoming familiar and gaining experience with the project.

Partnerships Victoria (2003) states that the need for a comprehensive succession plan is related to broader Procuring Authority objectives — supporting contract management as a recognized career path, and the career advancement of contract management personnel.

11.2.2. Implementing succession plans

There are several procedures that need to happen while implementing succession plans. The exit of old personnel needs to be accompanied by the transfer of a clear and documented history of the project as well as a factual trail of all current issues and details to inform new personnel. Training for all new personnel with regard to the contract administration and the Contract Management Manual is imperative to ensure all the policies and procedures are clear and implemented in the same manner by the new personnel. In addition, a log of lessons learned needs to be kept and updated in order for new personnel to familiarize themselves with these potential hurdles.

The issues and approaches identified above are equally applicable in the operations stage.

PART C – Contract Management During the Operations-Stage

12. Introduction

The focus of this part of the guide will be on contract management during the Operations-Stage. Although the Operations-Stage contains different aspects in comparison with the Construction Stage, the basic mechanisms for applying good practice contract management do not differ significantly from the Construction Stage. Therefore, the material in Part C should be read in conjunction with the guidance provided in Part A of this chapter.

This chapter will describe the contract management mechanisms that need to be put in place to monitor the Project Company's performance, legal, and financial changes that might happen over the Operations-Stage. The Operations-Stage in this context is taken to be the contract duration from the time the asset has been constructed and commissioned up to the handback of the asset to the Procuring Authority.

12.1. Transition from the construction to operations stages

Between the end of an asset's construction and the beginning of its operation, there is a substantial transition period where most, if not all, of the professionals who designed, installed, and verified the initial condition of the asset cease to be involved. A new team of people begins to operate the asset. This change in personnel presents one of the greatest risks to the parties' ability to bridge the gap from construction to efficient and effective operations.

Additionally, assets naturally trend toward "performance decay," a phenomenon responsible for as much as a 30 percent loss in efficiency in the first four years of operation in buildings such as offices, schools, and hospitals.

Today, many new assets follow a decade-old approach to the design and construction process, particularly with regard to the relationship between the Project Company's construction team and its operations team.

In this model, during the earliest and most critical phases of planning and design, not all members of the ideal team are present. Of particular note, the facility manager is rarely present during design discussions. Yet the person expected to manage operations and maintenance staff and effectively uphold the performance of a facility should clearly have input during the design phase. In addition, the facility manager should play an important role in ensuring the trade-offs between construction costs and operating and maintenance costs are fully considered (it may be beneficial to spend more up front on higher-quality construction, as this may reduce operating and maintenance costs over the long term, or vice versa). However, this person is only consulted much later in the process.

A further weakness in this model is that it is common for design roles to remain segregated and communication kept to a minimum with all parties — with work being pushed to be "done" in order to preserve profit. Everyone involved up until the completion of construction essentially leaves, turning

over the facility to an entirely new group of professionals. Even assuming the facility is in top shape upon delivery, the new staff lack the history of why systems and settings were designed the way they were.

Without this knowledge, the operations and facility management staff cannot be expected to achieve the performance set forth in the design. Therefore, the Procuring Authority should ensure its project plan includes the work to be undertaken to prepare for the transition period after the post-preferred bidder stage. The plan, referred to as the Transition Plan, should include dependencies, time scales, and resources. The plan should also be updated regularly. See Box 7.8.

Box 7.8. Transition plan

The Transition Plan should cover the following (to the extent relevant to the project):

- Details of the government resources (internal and external — who, what, and when they will be in place).
- Plans for the move to appropriate accommodation (including making sure services/equipment/software is in place).
- Establishment of the help desk (the help desk is the contact point for users and other stakeholders to notify the private partner of issues associated with the operation and maintenance of the infrastructure).
- A list of contact details for the key personnel within the Procuring Authority, the Project Company and the contractors, and subcontractors, as appropriate.
- An agreement on methods and lines of communication among the parties.
- A familiarization program for users so they understand the services they can expect.
- Identification of any key milestones.
- Assembling a library (Data Room) of project information.
- Timing for the trial running of the payment mechanism/performance monitoring system.
- Confirmation from the Facility Management (FM) contractor that they are capable of delivering either the interim or full operational services.

The Transition Plan should link to the communications plan to ensure the timing is appropriate and that stakeholders have been prepared for the changes. It is essential the contractor is not delayed by any action, or lack of action, on the part of the Procuring Authority. The PPP contract will likely set out processes and time scales for actions by the Procuring Authority. The Procuring Authority needs to have the appropriate staff in place as well as the systems up and running to comply with its obligations. In addition, it is essential to have a full-time, competent, knowledgeable and respected senior staff member on site leading up to and through the Transition Plan period. This helps ensure a smooth transition.

13. Contract Management and Monitoring During the Operations Stage

13.1. Importance of contract management and monitoring

Part A of this chapter (Sections 2 and 3) explained the importance of the contract management and monitoring, providing for the governance, structure and function of contract management, and the contract management team. The principles of the governance, structure, and function remain the same throughout the Operations-Stage. However, during the Operations-Stage, key actions for the contract monitoring team change, covering areas such as managing payment regimes, including insurance and utilities, acting on the results of customer surveys, looking for continuous improvement in the service, and performance monitoring.

Sound contract management throughout the Operations-Stage will have the following traits listed in Box 7.9.

Box 7.9. Operations stage

- Maximize the chances of contractual performance in accordance with contractual requirements by providing continuous and robust contract management which supports both parties.
- Optimize the performance of the project.
- Support continuous development, quality improvement, and innovation throughout the life of the contract.
- Ensure delivery of VfM.
- Provide effective management of commercial risks.
- Provide a contract management approach that is auditable.
- Support the development of effective working relationships between both parties.
- Encourage effective and regular communications underpinned by clear communication mechanisms.
- Allow flexibility to respond to changing requirements.
- Demonstrate clear roles, responsibilities, and lines of accountability.
- Ensure that all works and services are in compliance with legislation, relevant health and safety requirements, and applicable procedures.

13.2. Reasons for unsuccessful PPP projects during the operations stage

Failure to implement an adequate contract management system could result in the following outcomes.

13.2.1. The procuring authority paying for services that are not being received or are not being performed satisfactorily

Any lack of Procuring Authority involvement and monitoring of Project Company delivery could lead to a sense of complacency by the Project Company. This can lead to the delivery of substandard services while Procuring Authority payments or user fees continue to be paid. This can occur in those accommodation projects in which facilities management plays a big role in the Operations-Stage and the Procuring Authority is not closely linked to the users of the facilities.

13.2.2. The project not performing as anticipated, thus jeopardizing project benefits

In many cases, particularly in transport sector projects where user payments are crucial for realizing project benefits, possible failure points exist where high user charges and/or poor service or asset standards deter users and diminish project returns. This is the highest risk where the Procuring Authority has assumed some demand risk through, for example, minimum revenue guarantees.

13.2.3. Changes to the balance of risk negotiated in the contract

The Procuring Authority, through inappropriate involvement in various stages of the PPP lifecycle, can sometimes reverse the risk transfer and assume risks allocated to the Project Company. Usually, this happens due to lack of knowledge by the public officials. For example, if the Procuring Authority implements its own minor modifications during the Operations-Stage phase outside of the contractual modification process, it may take back risk associated with the lifecycle costs and the condition of relevant parts of the facility.

13.2.4. The procuring authority is unable to foresee operations and management (O&M) contractor failure or put in place contingency measures

At the time of the signing of the PPP contract, the future cannot be told with certainty. The procuring authority should be vigilant in monitoring the financial and performance aspects of the O&M contractor over the whole Operations-Stage. Events such as solvency of the O&M contractor, or changes in the ownership or business direction of the contractor, could hamper the success of the PPP and cause major failure.

13.2.5. A breakdown in relationship with the O&M contractor

As in any relationship, collaboration and understanding are fundamental to a successful PPP. Simple issues such as contract misunderstandings, failures to gain stakeholder buy-in, and abusing certain situations can lead to a breakdown of the relationship and failure of the PPP.

Table 7.11. analyzes a selection of projects that were canceled during the Operations-Stage.

Table 7.11. Projects canceled during the Operations-Stage

Project	Reason	Reference
London Underground PPP (UK)	The responsibility of infrastructure maintenance and rehabilitation of the London Underground system was given to the private sector and it received annual grants from the Procuring Authority. The PPP arrangement was for a period of 20 years, beginning in 2004. Yet by early 2010, the control of infrastructure was returned to the Procuring Authority. This research highlights the reason the project was canceled as problems in consortium management, a lack of Procuring Authority control, incompleteness of control, and a lack of appropriate risk transfer.	http://academiceventplanner.com/EPOC2010/Papers/EPOC_2010_Williams.pdf
Victoria Trams and Trains (Australia)	The Procuring Authority awarded a series of franchises for Victoria's trams and trains to the private sector for Operation and Maintenance, in which demand risks were primarily borne by the private parties. Demand turned out to be lower than expected, resulting in financial difficulties for the companies. However, the Procuring Authority's risk monitor was unable to identify the deteriorating financial performance. The private parties had to walk away from the contract, leading to renegotiations of the PPP contracts.	**Avoiding customer and taxpayer bailouts in PPP projects** - https://openknowledge.worldbank.org/bitstream/handle/10986/14300/wps3274bailouts.pdf?sequence=1
Water Services for Metro Manila (Philippines)	The Manila Water Supply System was privatized in 1995 and Maynilad Water Services (MWSI) won a 25-year concession to operate the services for the west area, while the Manila Water Company (MWCI) was successful for the east area. However, due to the Southeast Asian economic crisis, the cumulative debts in the Philippine peso swelled by 60 percent. The MWSI was obliged to raise the tariffs. Later, the Procuring Authority declared a freeze on water tariff hikes. In response, MWSI revoked its operation rights on grounds of breach of the contractual terms for tariff revisions.	http://jica-ri.jica.go.jp/IFIC_and_JBICI-Studies/english/publications/reports/study/topical/progress/pdf/01.pdf

Project	Reason	Reference
Dar es Salaam Water Distribution Project – DAWASA (Tanzania)	The project was awarded to City Water for billing, collecting revenues from customers, making new connections, and performing routine maintenance. However, the contract was terminated within two years of operation, followed by complex arbitrations between the Procuring Authority of Tanzania and City Water. City Water was found to be highly inconsistent in its operations. The project had suffered from weak risk mitigation measures, inefficient contract monitoring, and improper bidding procedures.	http://ppptoolkit.icrc.gov.ng/ppp-project-case-studies/

14. Contract Management and Administrative Process

14.1. Introduction to contract management during the operations stage

During the Operations-Stage, key activities that must be included in managing the PPP contract include monitoring and managing project delivery and performance against service outputs, monitoring and managing changes, managing disputes, and managing handover processes at the end of the PPP contract.

During the Operations-Stage, a change in the level and nature of stakeholder involvement will become evident. On the Project Company's side, the role of the construction companies will shift from construction management and cost control to one of maintenance and risk mitigation. Overall, their level of involvement will decrease (or cease), especially if they sell down their levels of equity and ownership.

Conversely, the role of the operator will increase as the assets are commissioned into service. Performance management is the key activity, followed closely by asset management with a view to maximizing revenue and reducing performance-related penalties. On the side of the Procuring Authority, the role changes from oversight of construction and commissioning of the asset to performance oversight. In some cases, the Procuring Authority may change from an implementation department to an agency with long-term statutory duties related to the services provided under the PPP (for example, a transit authority).

Most importantly, in terms of introducing a new stakeholder, is the involvement of the users — typically, members of the public who rely on the performance of the assets to derive the benefits promised to them. In cases where the user fees provide all or part of the revenue earned by the Project Company, the number of users can also impact on the asset usage and wear, with an impact on lifecycle, renewal, and refurbishment costs.

Another major change is the end of the involvement of the Independent Engineer or independent certifier, leaving the Procuring Authority and the Project Company to engage directly with each other without the intermediation of that objective and neutral third party.

14.1.1. Monitor and manage project delivery and service outputs

Performance monitoring procedures can include self-reporting procedures, independent audits, regular meetings and reports, and the use of intelligent systems that automate data collection and reporting processes. The monitoring system implemented must be sound and constantly used in order to deliver VfM. The monitoring system's attributes are in most instances proscribed in the project contract during negotiations.

The monitoring performance system is primarily focused on the service performance (the level of achievement of the service levels or outputs specified in the contract), but it will also track and monitor other breaches of contract.

If the level of service performance is under the required standard, penalties and/or deductions or abatements might be implemented. Direct penalties are used in some user-pays projects. In Procuring Authority-pays contracts, the financial penalization due to poor service performance (failure to meet the service levels or output required) is commonly by means of payment reductions or adjustments, in addition to the accrual of performance points (see Chapter 5.9.3).

Performance points are mainly used to track and record breaches. Once noncompliance or performance points reach a specified level, they can result in increased oversight, work by the Procuring Authority at the Project Company's expense, suspension of work, or termination of the contract under the persistent breach provisions of the contract. However, many other methods for determining penalties, deductions and abatements, and for tracking breaches, are possible. The Procuring Authority's contract management team should ensure they understand the particular method used in their contract. For further analysis of the performance and reporting please, refer to Section 13 of this chapter.

14.1.2. Manage changes permitted in the contract

Well-developed PPP frameworks provide flexibility within the contract in order to accommodate changes that might occur during the Operations-Stage. Foster Infrastructure (2012)[46] states that the need for flexibility to implement variations in a PPP typically arises due to one of the following causes:

- The Procuring Authority wishes to implement a new policy initiative.
- The Procuring Authority has redefined the need for the project.

As a norm, the PPP frameworks will provide for the common features of variation clauses, such as the following:

- The PPP contract gives the Procuring Authority a right to request variations to the works and services provided under the contract.
- The PPP contract includes limits on the size or nature of variations that the Procuring Authority can request or require the Project Company to implement.
- The PPP contract includes a process for the Project Company to consider and respond to variation requests.
- The variation process includes mechanisms by which the Procuring Authority can determine whether variation costs represent VfM.
- The PPP contract specifies how costs and savings arising from variations will be allocated between the parties.
- The PPP contract may allow streamlined processes provided for small variations.
- The PPP contract may contain other clauses that provide flexibility, for example, a "change-in-law" clause and Procuring Authority unilateral termination clauses.

[46] Foster Infrastructure 2012, Comparative Study of Contractual Clauses for the Smooth Adjustment of Physical Infrastructure and Services through the Lifecycle of a PPP Project, Foster Infrastructure Pty Ltd.

Such variation clauses can provide efficiency for the Procuring Authority in implementing changes. However, the Procuring Authority should ensure that any changes are subject to the same degree of scrutiny and control as would apply to any similar Procuring Authority investment or action that was implemented outside of a PPP contract. The change process in the PPP contract should not be regarded as a way of circumventing ordinary Procuring Authority processes and care should be taken to ensure that any changes offer VfM.[47]

In certain countries, there is a perception that PPP contracts do not provide long-term flexibility and can impose significant costs on the Procuring Authority (if there is a need to modify the asset or vary the services provided by the Project Company at some point during the lifecycle of the project). Some case studies[48] highlight the need for enhanced contractual flexibility, primarily dealing with possible changes in user needs, which, in the presence of rigid contracts, have sometimes triggered very costly contract renegotiation processes.

Enhanced flexibility, in particular directed to accommodate changes in user needs, is important for the long-term projects typical of a PPP. It may be achievable through well-designed change-management contractual clauses to limit potential abuses. However, enhanced flexibility will inevitably come at the cost of lower predictability, a higher risk for the investing private sector party, and reduced effectiveness of the competitive selection process. If the Procuring Authority seeks too much flexibility in the contract, the risk of change may be unacceptable to bidders. Indeed, as has been previously noted, if the Procuring Authority needs a very high degree of flexibility for change in the project, this suggests the project was not suitable to be a PPP in the first place.

The detail of change management and dealing with variations in PPP contracts is further explained in Section 18.

14.1.3. Managing changes not provided for in the PPP contract

As previously mentioned in Sections 7.1 and 7.5 of this chapter, in cases where renegotiations of the PPP contract occur, the process and procedures should follow its governing legislation. Ideally, the Contract Management Manual should also provide guidance as to how such renegotiations are initiated, managed, and concluded. Again, useful guidance is provided in Chapter 4 of the Global Infrastructure Hub report on *Managing PPP Contracts After Financial Close*.

14.1.4. Dispute resolution

As previously mentioned in Section 10 of this chapter, disputes frequently arise in PPP projects. As also indicated in the same section, useful guidance in regard to managing PPP contract disputes can be found in Chapter 5 of the Global Infrastructure Hub report on *Managing PPP Contracts After Financial Close.*

[47] For a discussion of approaches to ensure that changes offer Value for Money, see Foster Infrastructure 2012, Comparative Study of Contractual Clauses for the Smooth Adjustment of Physical Infrastructure and Services through the Lifecycle of a PPP Project, Foster Infrastructure Pty Ltd. Physical Infrastructure and Services through the Lifecycle of a PPP Project, Foster Infrastructure Pty Ltd.

[48] Iossa, Spagnolo and Velež, *Contract Design in Public-Private Partnerships – Report prepared for the World Bank* (2007), page 57.

15. Managing Project Company Underperformance and Noncompliance

As in the Construction Stage, during the Operations-Stage, the immediate mechanism to deal with noncompliance and contract breaches is typically a mechanism that has financial consequences for the Project Company. However, the system and instruments for managing underperformance (by providing incentives for performance as required by the contract) have greater complexity in this phase than during construction, as a wide and complex set of service requirements must now be monitored.

A contract breach is a failure to observe a provision of the contract. For the purpose of Part C of this chapter, a distinction may be made between breaches of the service performance requirements (that is, not meeting the service targets or standards) and the breach of other contractual provisions.

The distinction is useful, as the financial consequence imposed by the contract for a service performance failure or underperformance situation may take the form of payment deductions (or abatements) in Procuring Authority-pays contracts. However, in user-pay contracts, the financial consequence due to the lack of performance (as well as other noncompliances or contract breaches) will most often result in a direct penalty or a liquidated damage amount through the penalty system.[49]

The regime for financial penalizations is a simple principle of imposing a financial consequence in specific areas of non performance and noncompliance (that is, contract breaches).

Simply put, the worse the performance, the larger the financial penalties — and the longer the non performance persists, the penalties increase. An additional variation is to identify core performance areas and to have larger penalties for non performance in these areas. An example of the principle, as applied in a Procuring Authority-pays PPP contract for a hospital, would be that non performance leading to the non-availability of an operating theatre would attract a much larger financial consequence than the failure to meet the food quality standards required for wards.

The concept is relatively simple for Procuring Authority-pays PPP contracts, but it can also be applied to user-pay PPP contracts. The Procuring Authority may also apply the financial penalization by means of deductions from a payment that is due to the Project Company (an example would be of a minimum revenue guarantee or operating subsidy payment). Where there is no payment stream to the Project Company from the Procuring Authority, more artificial structures of performance reserve accounts — funded by the Project Company but controlled by the Procuring Authority — may be used.

In addition to the financial penalizations, another mechanism has to be in place to control and monitor non performance and noncompliance: it is necessary to track the breaches, which is usually done under a "performance points regime." This mechanism will serve to trigger other remedy actions against non performance as it becomes more serious.

[49] As described in Chapter 4.9.3, the scheme that defines categories of breaches and levels of penalties described in the contract is called a penalty system.

The non performance may be recurrent and result in a specific financial consequence (by means of increasing audits at the cost of the Project Company or by increasing the penalties or deductions through a ratchet mechanism), or may become so persistent that it is not sustainable to continue with the PPP contract. To effectively control the occurrence of severe and persistent breach, the contract may allow the Procuring Authority to levy performance points on the Project Company for any single breach. When a certain threshold of such points is reached, the Procuring Authority partner is typically entitled to impose further or incremental financial penalizations as discussed above, exercise its right to step in or even terminate the PPP contract.

Since termination is the last resort, the specific thresholds for the right to terminate are set high enough that termination will not happen without a chance for the Project Company to remedy its deficiencies and start to perform in accordance with the specification again. In fact, it is common for a remedy period to precede termination even when the threshold has been reached.

15.1. Performance monitoring methodology

The performance monitoring methodology in a PPP contract typically contains a performance management model, comprised of three key elements:

- **The level of performance required to achieve the output specifications:** The levels should be set such that the standards are reasonable and objectively measurable.

- **The means that the institution will use to monitor Project Company performance:** The monitoring methodology included in the PPP contract should occur at three levels, such as a systematic self-monitoring by the Project Company through a Quality Management System (QMS), a review of the Project Company's QMS by the procuring authority or an independent third party, and end-user feedback on the quality and effectiveness of service delivery. The PPP contract must also specify the way in which performance is reported for monitoring purposes.

- **The consequences for the Project Company of a failure to meet the required level:** The consequences of poor performance on the part of the Project Company must be handled in accordance with the PPP contract, which should contain provisions for a number of responses to performance failure, ranging from formal warnings, penalties, and/or payment deductions to eventual termination for Project Company default.

As described in Section 8 in the context of relief and compensation events, to the extent that the Project Company is prevented from achieving the required performance levels by specific events outside of its control (as described and defined in the PPP contract), or even by the Procuring Authority itself, the penalty regime and payment mechanism (in Procuring Authority-pays) should provide adequate and appropriate relief to the Project Company.

Performance monitoring systems should be established to enable the PPP contract management team to do the following tasks:

- Check that all performance conditions and clauses in the PPP contract are acted upon.
- Develop effective mechanisms for obtaining feedback from end users and other key stakeholders.
- Review third-party monitoring reports.
- Inspect deliverables to ensure inferior goods or services are not accepted.
- Maintain comprehensive documentation on performance monitoring.

The PPP contract should specify the date by which the performance levels are to be achieved. In some projects, such as information technology projects, it is recognized that problems are inevitable in the settling-in period, and thus the Project Company may be afforded a degree of flexibility in achieving the agreed performance levels. In other projects such as roads and prisons (where the safety element is crucial), it is essential that the Project Company ensures there are no settling-in problems and that the full performance level that the parties agreed upon are delivered from the outset, even if the road or prison is opened in phases. In the case of such phased service commencement, the amount of any Procuring Authority payments should be ramped up proportionately to reflect the phased service commencement.

Effective monitoring should provide the basis for reviewing actual Project Company performance against the output specifications and other obligations contained in the PPP contract. As in the case of monitoring, reviews can be carried out by the Procuring Authority and/or independent third parties.

The action taken by the Procuring Authority to correct Project Company performance must be in line with the provisions in the PPP contract and commensurate with the severity of the transgression. The application of formal warnings, penalties, and payment deductions or abatements, step in and other responses should be undertaken in a manner that is likely to achieve the best result from the institutional point of view. An overly rigid approach may jeopardize continued service delivery to end users, while too much lenience could encourage the Project Company to commit further breaches.

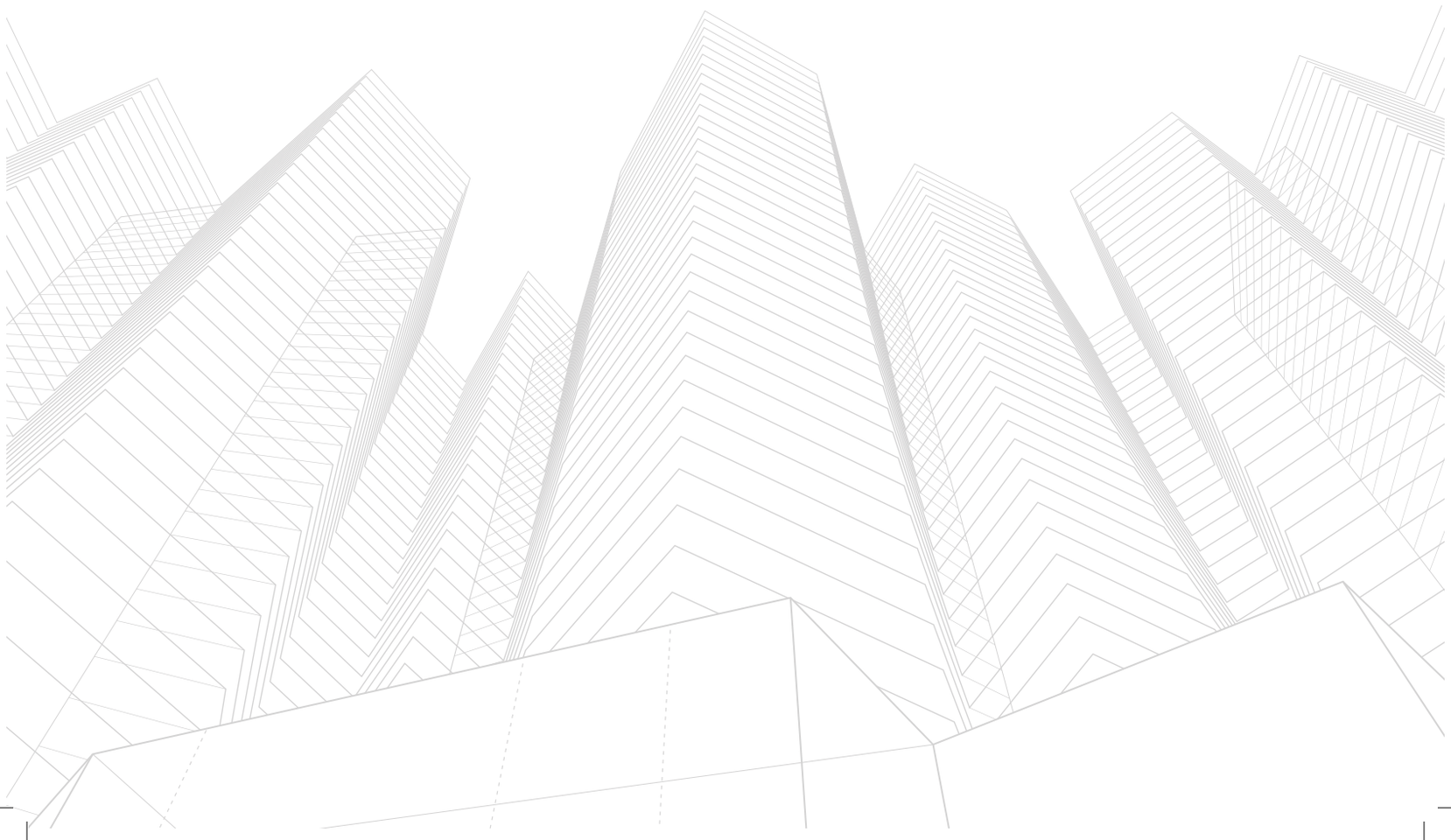
15.2. Quality control and Quality assurance procedures

In order to encourage innovation and optimize risk transfer, the PPP contract should specify the required performance level through output specifications and not required inputs, that is, the manner of the services delivery. Suitable performance levels need to be worked out carefully by both the Procuring Authority and bidders during the competitive stages of procurement. The negotiated performance levels will form a key element of the risk transfer mechanism.[50]

The monitoring requirements should be set out in a Request for Proposal and a full methodology must be included in the bid. The methodology will normally include a substantial element of self-monitoring by the Project Company, subject to periodic review by the Procuring Authority. Additional monitoring by the Procuring Authority may also take place depending on the nature of the project — for example, clinical staff in a hospital may be required to identify and report performance failures.

The periodic reports to be provided by the Project Company are key to the management of the PPP contract and to the payment mechanisms and should be specifically tailored to meet these monitoring requirements. A distinction must be made between the monitoring mechanism formulated and implemented by the Project Company and any actual monitoring undertaken by the Procuring Authority, as and when it deems it necessary in accordance with the PPP contract. The Project Company should have the primary responsibility for the former, and the PPP contract should clearly provide how it will conduct this self-monitoring which will constitute the basis for the calculation of performance penalties or deductions.

[50] South Africa. National Treasury Standardized PPP Provisions: First Issue, 11 March 2004.



Objective performance criteria should always be used as much as possible, but other methods of measuring performance may be appropriate in certain projects. For example, there may be qualitative aspects of performance to which it may be difficult to apply penalties or deductions objectively, but which are nevertheless important to the users of the services such as the helpfulness of staff or the quality of catering. Three possible approaches for measuring these aspects of performance are the use of end-user satisfaction surveys, the use of "mystery shoppers," and sampling, as discussed in Table 7.12.

Table 7.12. Benchmarking of services during the Operations-Stage

End-user satisfaction surveys	It is difficult to base financial compensation on end-user satisfaction surveys because they are based on individuals' perceptions rather than on objective, measurable facts. The results of such surveys may therefore vary. However, over time, they can be a useful way of monitoring performance. The questions should be carefully drafted in order to achieve a meaningful response. The Project Company could be obliged under the PPP contract to improve end-user satisfaction and, where a survey reveals that a particular aspect of the services falls below the agreed level, a rectification plan should be required and agreed with the procuring authority. The advantage of such a system is that if end users clearly understand the quality of services contracted for, the feedback obtained can be very useful.
Mystery shoppers	A similar approach could be adopted with "mystery shopper" surveys, which is the use of qualified individuals to test aspects of the services. This removes the perception aspect of testing since the relevant individuals will apply the same objective standards to all aspects of the services tested.
Sampling	Where monitoring is to be done on a sampled basis, the methodology for sampling, including sample size and frequency, should be agreed prior to the signature date.

However, certain projects do not lend themselves to any of these approaches. Regardless of which method is used, the quality of services must be considered in detail by both parties and included in the PPP contract.

15.3. Penalizations and incentive schemes provided for monitoring purposes

The PPP contract must clearly stipulate the consequences of any failure by the Project Company to perform to the minimum standards of the required output specifications. The principle should be that penalizations (either penalties or deductions) are applied in a manner that is appropriate and proportional to the non performance of the Project Company. The ultimate threat of termination is reserved for very severe cases of non performance by the Project Company.

The value of the penalizations should be set based on commercial considerations, rather than the cost of providing the services. The PPP contract should include a schedule detailing the level of penalties imposed for each failure to meet a required output specification. Alternatively, the payment mechanism must be clear as to how to calculate the deductions or abatements.

There should be a clear link between the seriousness of the failure, the value of penalties or deductions accrued, and the potential financial impact on the Project Company. For example, a failure to clean the exterior of the windows in a hospital should not accrue as high a penalization as a failure to maintain the operating theatre in the specified condition. Similarly, different failures in respect of the same part of the services may also incur different financial penalizations depending upon the context in which they arise. For example, a failure to deliver food in a suitable condition is a more serious failure than a failure to serve food wearing a waiter's uniform.

In Procuring Authority-pays contracts, where the penalization is applied in the form of deductions or abatements, depending on the specific payment mechanism used, a failure may or may not have an immediate financial impact on the payments payable by the procuring authority. It is possible for payment deductions to only start once performance deteriorates below a particular level or alternatively for them to accrue on the first failure.

In some projects, it will be appropriate to have a ratchet mechanism to deal with a recurrent failure to render a particular aspect of the services. A simple ratchet mechanism could involve increasing the level of penalties or deductions awarded for a particular failure in the services that recurs too often within a specified period. For example, if deductions equal to x are made for a failure to achieve a particular output specification, then deductions equal to (x+3) may be made for each failure over and above a specified maximum number of failure repetition within a pre-defined period.

The ratchet mechanism can be useful where the financial cost of penalizations, which accrue in respect of each such failure, is insufficient to provide an appropriate incentive for the Project Company to rectify the failures. A key advantage of the ratchet mechanism is that poor performance that continues for a significant period will be more difficult for other project participants (for example, subcontractors and the funders) to ignore, thereby encouraging early action by the Project Company.

It must be noted that seeking improvements is not about extracting more from the Project Company against its will, but about working together to improve quality, performance, and VfM, in a way that benefits both parties.

Given the length of time over which a typical PPP project will run and the difficulties of predicting technological and other productivity improvements that may occur, it is important to ensure that adequate attention is devoted to the issue of performance improvement. Ideally, the requirement for improvement should be embodied in the terms of the PPP contract or in the role of a sector regulator.

The payment mechanism contained in the PPP contract provides some incentive for the Project Company to seek improvements in performance. If prices are fixed, they can increase their profit by improving efficiency. If profits are shared, they are motivated to improve economy. The procuring authority can also provide incentives to the Project Company for early commencement of services if this is affordable and provides VfM.

It is important that the Procuring Authority does not take all the benefit of performance improvements for itself, as this will deter the Project Company from identifying such improvements. The PPP contract (or sector regulatory regime) should provide incentives for performance improvement, which could be both financial and non-financial. In this context, they should also be affordable for the procuring authority.

The improvements should be introduced through the variation procedures. The incentives should also be linked to circumstances in which the Project Company can provide added value. Added value means bringing something to the partnership that is genuinely worthwhile to the procuring authority and beyond what was originally envisaged in the PPP contract. Some examples of adding value are:

- Eliminating aspects of the service that are no longer required.
- The use of new technologies that would provide a cheaper and more effective service.
- Changes in procedures or working practices that provide more efficient ways of delivering the service.
- Opportunities for innovation where the Project Company is given the chance to implement or devise new solutions that will improve the performance of the service.

16. Managing Finances

16.1. Payment mechanisms

The payment mechanisms by which the Project Company receives revenue to covers its costs, services its debt obligations, and generate a profit must be linked to the performance of its obligations under the PPP contract. The very heart of risk transfer and, therefore, VfM lies in the degree to which the Project Company is incentivized to deliver the required services so as to receive the maximum amount of revenue.

The payment mechanisms should incentivize the Project Company to deliver the right level of performance without unnecessary and costly over-performance, and penalize it if it fails to do so.

In its broadest terms, the payment mechanisms could either incentivize the Project Company by increasing the revenue it receives when the services are delivered optimally (usually up to the maximum payment defined in the contract as a ceiling, but sometimes with a certain bonus that may go above the ceiling), or by disincentivizing the Project Company from poor performance by means of reducing the revenue by applying penalties or abatements.

In considering a penalty mechanism to disincentivize poor performance, a distinction must be drawn between Procuring Authority-pays PPPs and user-pay PPPs because the source of revenue, and thus the payment mechanism, differs between the two.

In Procuring Authority-pays PPPs, the revenue stream almost exclusively comprises regular payments from the Procuring Authority (there may be some minor exceptions in the form of limited rights for the Project Company to generate other income through commercial activities such as retail or advertising opportunities). The Procuring Authority also has the contractual rights to apply deductions that reduce the amount of the unitary payment (see Chapter 5.10 and, specifically, 5.10.3).

In user-pay PPPs, the source of revenue is predominately the users of the infrastructure, such as a port, toll road, or airport. These users do not have the contractual right to make any deduction to the toll or tariff they pay in the event that performance is below that specified in the PPP contract. The contractual right to impose a financial penalization (a penalty or a liquidated damages amount) must, therefore, reside with an entity that represents the user's interests in performance of the Project Company. This entity might be the Procuring Authority itself or an independent regulator. The most common sectors that have independent regulators are telecommunications, ports, electricity generation, transmission and distribution,[51] and water.

This PPP Guide focuses on the role of the Procuring Authority in imposing financial penalizations on a Project Company in either type of PPP where the Procuring Authority has the explicit contractual right to impose a financial penalty for poor or non performance by the Project Company.

[51] See Reference literature on Economic Regulation of PPPs at the end of this chapter.

16.1.1. Features of revenue regimes and payment mechanisms

There are two primary types of revenue regimes. The first is one in which the Procuring Authority pays the fee on a regular basis for the provision of the facilities and services stipulated in the contract, with or without deductions being made for performance (Procuring Authority-pays PPPs),[52] and its structure and process of calculation is "referred to as the payment mechanism." The second is that used when the revenue for the Project Company is primarily from user fees (user-pay PPPs).

For Procuring Authority-pays systems, when designing the payment mechanism (besides taking into account risk transfer, VfM, and affordability), three other factors need to be taken into consideration, namely performance indicators and the initial performance targets for those indicators, regular measurement during the Operations-Stage and the link between those indicators, and the appropriate payment deductions.

The payment mechanism should be built on clear performance measures linked to the service performance and key performance indicators. They should be simple and objective as well as linked to penalty deductions that are equal to the Project Company's underperformance. They should not be linked to profitability nor unduly affect the viability of the project.

If the Project Company in a user-pay PPP underperforms, it faces reduced demand and will be penalized by a corresponding loss of revenue. However, a Procuring Authority may contractually define some penalties, and such penalties may still be applied if the Project Company fails to comply with a contractual obligation. Examples include not providing information on time or if the Project Company underperforms on specific obligations such as road maintenance.

For a Procuring Authority-pays PPP, there are certain essential elements of a payment mechanism, which are:

- There should be no payments made until service commencement, and no payment should be made in advance of a service being delivered.

- The unitary payment should not be split into categories based on how it will be used by the Project Company. This means that the unitary payment is not divided into amounts that would be applied, for example, to service debt or to fund maintenance by the Project Company. This is the concept of a single and indivisible payment for full availability and performance of the services by the Procuring Authority.

- There should be an appropriate indexation of the unitary payment on an annual or semi-annual basis. The term "appropriate" is used here to reflect the underlying cost inputs of the Project Company for a particular type of PPP. The default should be the relevant Consumer Price Index (CPI), as this reflects the overall indexation normally applied to the Procuring Authority's budget. There may be valid reasons as to why this would not provide VfM in the context where the Project Company is exposed to significant cost components that historically deviate from

[52] These may generally also be classified into two types: availability (or quality) payments and volume-linked payments. This chapter will assume an availability payment under a unitary approach as a default scenario. Most of the intelligence and knowledge provided here is also applicable to other payment mechanisms. See Chapter 4.4 for more information on revenue regimes and payment mechanisms.

the CPI. These could include fuel or labor costs where the Project Company would "price in" the risk of above-CPI increases into its base unitary payment. As payments to lenders are generally unaffected by the CPI, the proportion of the unitary payment related to debt service should generally not be indexed.

- There should be a mechanism for penalizing partial or complete failure of the availability and performance of the service by means of payment deductions. This requires a scale of deductions that reflects the severity of the performance failure. Too harsh a penalty for relatively minor failures may lead to adverse outcomes and disputes. Too lenient a penalty may leave the Procuring Authority with continuing failures that the Project Company is not incentivized to remedy. Sector specialists and experts should be used to determine this proportionality for each project.

- Generally, there should be no limit to deductions for non-availability.[53] Notwithstanding the fact that the Project Company has fixed costs that include the servicing of its debt. The Procuring Authority should not be in a position to pay for services that are not available. The negative political and public perception of a project in which the Procuring Authority pays for services not provided in cases of fault by the Project Company would be a significant challenge to overcome.

- There should be a mechanism for dealing with changes to service requirements. As stated above, a variation or change mechanism must be built into the payment mechanism.

- There may be a need for a mechanism to deal with pass-through costs for items, services, or consumables where the Procuring Authority has control over usage levels (or where usage is dependent upon demand for service and outside the control of the Project Company) and where it is inappropriate to place risk for usage and cost of supply with the Project Company.

- In many PPPs, there are costs that do not relate to the provision and maintenance of the assets but rather to the services, such as cleaning or catering, where there can be variations of costs over time (so called "soft services"). The United Kingdom's HM Treasury Standardization of PF2 Contracts[54] described two ways of implementing a value-testing procedure to apply at regular intervals (for example, every five years) allowing for the soft services to be recompeted or repriced. The Procuring Authority will take comfort there is some means of ensuring that the price it has agreed to pay in future years will not be in excess of future market prices for such soft services. The two methods are: (i) market testing or retendering by the Project Company of a soft service to ascertain the market price of that service, and (ii) benchmarking by which the Project Company compares either its own costs or the cost of its subcontractors for providing certain services against the market price of such services. Any increase or decrease in the cost of such services, following market testing, will be reflected in a revision to the unitary charge. This is known as market testing or benchmarking.

[53] An exception may be some structures/projects in emerging and developing economies (EMDE) countries with immature PPP programs where there may be limits to deductions in order to ensure commercial feasibility and especially bank ability (see Box 11 in Chapter 4).

[54] United Kingdom (UK), HM Treasury, Standardisation of PF2 Contracts, December 2012, https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/207383/infrastructure_standardisation_of_contracts_051212.PDF.

For user-pay PPPs, many of the characteristics of a Procuring Authority-pays PPP penalization approach for poor performance may be included when the Procuring Authority has an obligation to make payments of, for example, a minimum revenue guarantee. Alternatively, in some user-pays projects, a mechanism can be created whereby penalties are payable to the Procuring Authority, refunded to users, or (with the Procuring Authority's consent) reinvested in the asset to provide additional services or amenities.

One additional consideration for user-pay PPPs is a sharing of returns between the public and private parties above a benchmark or base case return on equity. The reasoning is that it is appropriate to incentivize the Project Company to benefit from its efficiencies while permitting the Procuring Authority to benefit from financial efficiencies that arise from economic factors that are outside the control of the Project Company but have resulted in a financial benefit (for example, revenue may be higher than expected because general growth in the economy has been higher than expected). A common argument raised is that this is one-sided in that the Procuring Authority does not share in the down-side risk. However, such arguments ignore the strong role and implicit support provided to PPPs by Procuring Authorities.

16.2. Managing the budget during the operations stage

When considering the budget and its management during the Operations-Stage of a PPP contract, one of the most important tools needing to be taken into consideration, as well as managed and updated throughout the stage, is the financial model. The financial model is used by both parties in order to manage budgets as well as to quantify the effects of variations and external events on the parties.

The financial model forms a critical component of a PPP project throughout its lifecycle. Initially, a model is developed by the Procuring Authority or its appointed advisor in order to predict the Project Company's costs, financing structure, and other outputs in order to assess the acceptability of the cost to the Procuring Authority. During the Procurement Phase, the preferred bidder will have developed its own financial model and reflected the specific cash flows required to deliver its proposal. The preferred bidder's financial model ultimately becomes the base case financial model and part of the PPP contract (the preferred bidder's model is used rather than Procuring Authority's model, as the preferred bidder's model reflects the actual base case for the project, whereas the Procuring Authority's model was a model of a hypothetical bid for the project that does not reflect the solution which will be delivered by the Project Company).

The financial model continues to be used throughout the period of construction and operation by the Project Company and the Procuring Authority to review long-term prospects and risk exposure. It is also used to consider price variations and compensation payments in terms of the PPP contract to calculate any potential refinancing gain (if the contract requires the Project Company to share this with Procuring Authority) as well as the amounts payable in the event of variations.

In Procuring Authority-pays PPPs, the unitary payment will need to be adjusted on a regular basis to take into account inflation- and performance-related deductions and penalties. Occasionally, the payments will need to be adjusted in specific circumstances, such as delay or additional cost risks not borne by the Project Company, force majeure events, and so on. In all such cases, the adjustments, budgets, and even long-term sustainability assessments are based on the financial model.
All changes to the financial model need to be recorded accurately and agreed between the parties.

16.2.1. Managing contractual payments

Effective financial administration involves the development of systems and procedures to make and receive financial payments and to keep records of financial transactions.

In preparing the PPP contract, the Procuring Authority should include procedures for making unitary payments and additional payments to the Project Company, administering penalties and/or deductions, calculating inflation, dealing with late payments, and receiving reports linked to unitary payments and additional payments.

The contract should also require the Project Company to prepare financial statements and enable the Procuring Authority to monitor key financial indicators, such as gearing, debt cover ratios and internal rate of return, as well as calculation of the compensation sums due by the Procuring Authority in the event of an early contract termination (for example, following a serious default or a mutual desire to terminate the partnership early).

The Procuring Authority should also ensure that, during the Operations-Stage, the management of contractual payments takes into consideration forecasting values with the actual values, resetting the assumptions used to update forecasts based on actual data, restoring key historic data (both financial- and performance-related), and performing financial control analyses.

16.3. Contingency planning

Contingency planning is one of the most important steps within the contract management and financial allocation for PPPs. Both the Procuring Authority and the Project Company should undertake contingency planning, albeit for different reasons.

The Project Company will, within its cost baseline, set aside contingency reserves as a budget allocated for identified risks that it has accepted and for which contingent or mitigating responses are developed. Contingency reserves are often viewed as the part of the budget intended to address the "known-unknowns" that can affect a project. For example, the rework of some project deliverables could be anticipated, but the amount of this rework may be unknown. Contingency reserves may be estimated to account for this unknown amount of rework.

Such reserves can provide for a specific activity, for the whole project, or both. The contingency reserve may be a percentage of the estimated cost, a fixed number, or may be developed by using quantitative analysis methods. As more precise information about the project becomes available, the contingency reserve may be used, reduced, or eliminated. Contingencies should be clearly identified in cost documentation and part of the cost baseline together with the overall funding requirements for the project.

For the Procuring Authority, contingency planning is related to the risks it retains, such as land acquisition or for funding of variations it requires. It is unusual for the Procuring Authority to maintain explicit reserves as this is generally discouraged under public budgeting rules. Instead, budget adjustments are made on an annual or semi-annual basis for contingencies that have been realized.

A contingency plan should be developed as part of the Contract Management Manual. This plan covers what happens if the Project Company fails in its duty to deliver the services, whether as a result of an external emergency or due to issues within the Project Company and its subcontractor group. It should include emergency planning measures that should be implemented in the event of a major incident that affects the unavailability of all or a large part of a facility. The plan should not be over complicated or extensive because if it needs to be implemented it is likely to be during a period of high pressure. As a result, it needs to be accessible and easy to implement effectively.

Box 7.10 describes a typical contingency plan that should be developed by the Procuring Authority contract management team during a PPP.

Box 7.10. Contingency plan

The contingency plan should identify the following information:

- Events that will lead to service failure and/or default.
- The impact on the services, both short- and long-term.
- Remedies and time scales in the contract.
- Emergency planning measures in the event of a major incident.
- Communications strategy (internal and external).
- Staff and resources, and how these will be mobilized at short notice.
- The steps needed to return the project to normal monitoring post-crisis.
- Any consents that may be required and from whom they are needed.
- A list of key personnel, including their contact information and each person's role and responsibility.

16.3.1. Force majeure

Although it is highly unlikely, some form of contingency planning for force majeure events needs to be put in place because such events are significant in terms of their impact — and because the associated risk is shared between the Project Company and the Procuring Authority.[55]

Estimates for the number of contingency reserves that a party should set aside for force majeure events must be based on the probability of the risk occurring and on the amount of likely shortfall that would arise from insurance proceeds (or the time taken before any such proceeds are received).

[55] See the discussion on 'Force Majeure' in Chapter 1 of the World Bank 2019 report *Guidance on PPP Contractual Provisions*.

The focus should be on continuing the services as much as possible after such an event with the contingency reserve covering the costs of acquiring additional resources to do so.

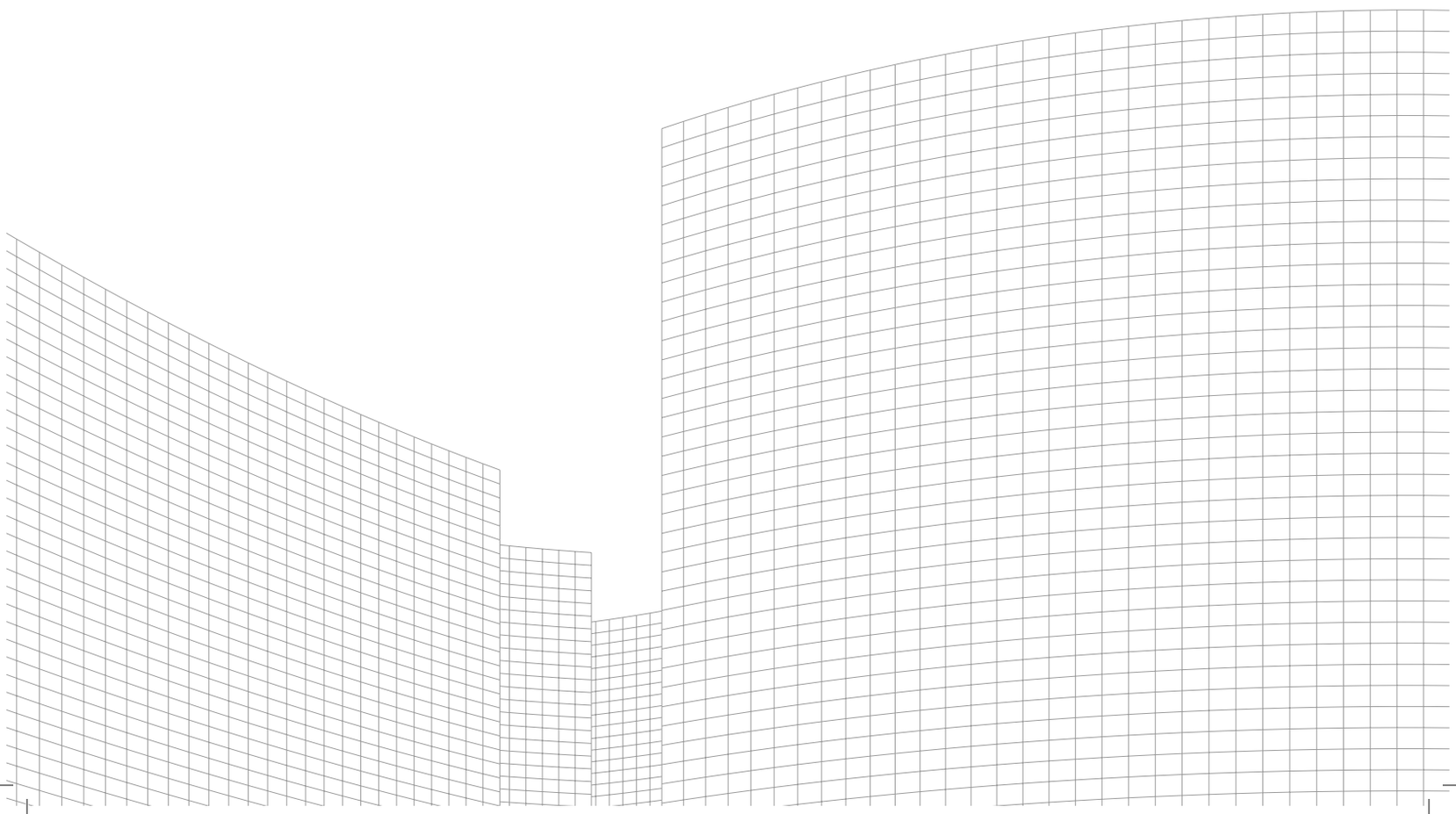
For the Procuring Authority, it is likely that any contingency reserve to meet the Procuring Authority's costs associated with force majeure events would be part of a larger Procuring Authority-wide contingency reserve managed by the finance department/ministry. As such, the Procuring Authority should keep the finance ministry/department informed of any increased force majeure risks.

The Project Company would more typically maintain some sort of access to additional (stand-by) equity or debt facilities and pay some availability fee to maintain such access. It generally does not make sense to maintain a large contingency reserve in the form of cash, as this is an expensive use of funds.

16.3.2. Termination

Although compensation payable upon termination is a significant amount in most PPPs and almost always requires disbursement by the Procuring Authority (see Section 20, below), it is not the norm for the Procuring Authority to maintain any contingency reserve for termination payments. This is partly because the probability of termination is generally very low and partly because the causes of termination are often under the control of the Procuring Authority. Therefore, maintaining a contingency reserve would be unnecessary.

Instead, the risk of termination following a breach by the Project Company should be regularly monitored and reported to the relevant ministry/department.



16.4. Managing renewal funds

The revenue collected by the Project Company — by way of a unitary charge payment, user fees, or a combination of user fees and Procuring Authority payments — will include amounts to cover the Project Company's anticipated future expenditures on maintenance and renewal of assets over the lifecycle of the PPP. The obligation to do such maintenance, overhauls, and renewals remains with the Project Company. The Procuring Authority, as well as the lenders, will require that money needed for such maintenance, overhauls, and renewals not be paid out as distributions to shareholders. The financial model will have provided for the anticipated costs in accordance with a schedule prepared by the Project Company and monitored by the lenders and the Procuring Authority. The risk of adequate lifecycle arrangements for the assets remains with the Project Company.

The funding of renewals is enabled through building up a lifecycle renewal fund over a period of years. This should be done in anticipation of the significant capital expenditure that such renewals require in future periods. A renewal fund is drawn down at times of such renewals (and overhauls of existing plant and equipment) and then refunded (topped up) on an ongoing basis.

The need for a lifecycle renewal fund is related to the concept of depreciation. Depreciation is recognition from an accounting perspective that the value of an asset declines over time, while the lifecycle renewal fund is recognition from a practical perspective of the need to build up cash to meet the costs of periodically renewing the asset to restore its value and functionality.

In this regard, the Project Company is rewarded for efficiency in managing such a fund, in that at the end of the PPP contract period any remaining cash balance usually belongs to the Project Company.

The Procuring Authority needs to ensure that the assets are maintained and renewed. It should therefore have the ability to conduct a final survey toward the end of the contractual period. At that time, it needs to either withhold payment of the unitary charge or require that the Project Company put a performance bond in place if the assets are not restored to the required standard (normally of remaining residual life at the end of the contract period). The Project Company should also prepare a maintenance and renewals report that shows the costs incurred and payments made to and from the renewals fund, any deferrals of maintenance and renewals, and a revised and updated renewals plan for the remainder of the contract period. (see Part D, below).

17. Regulatory Requirements

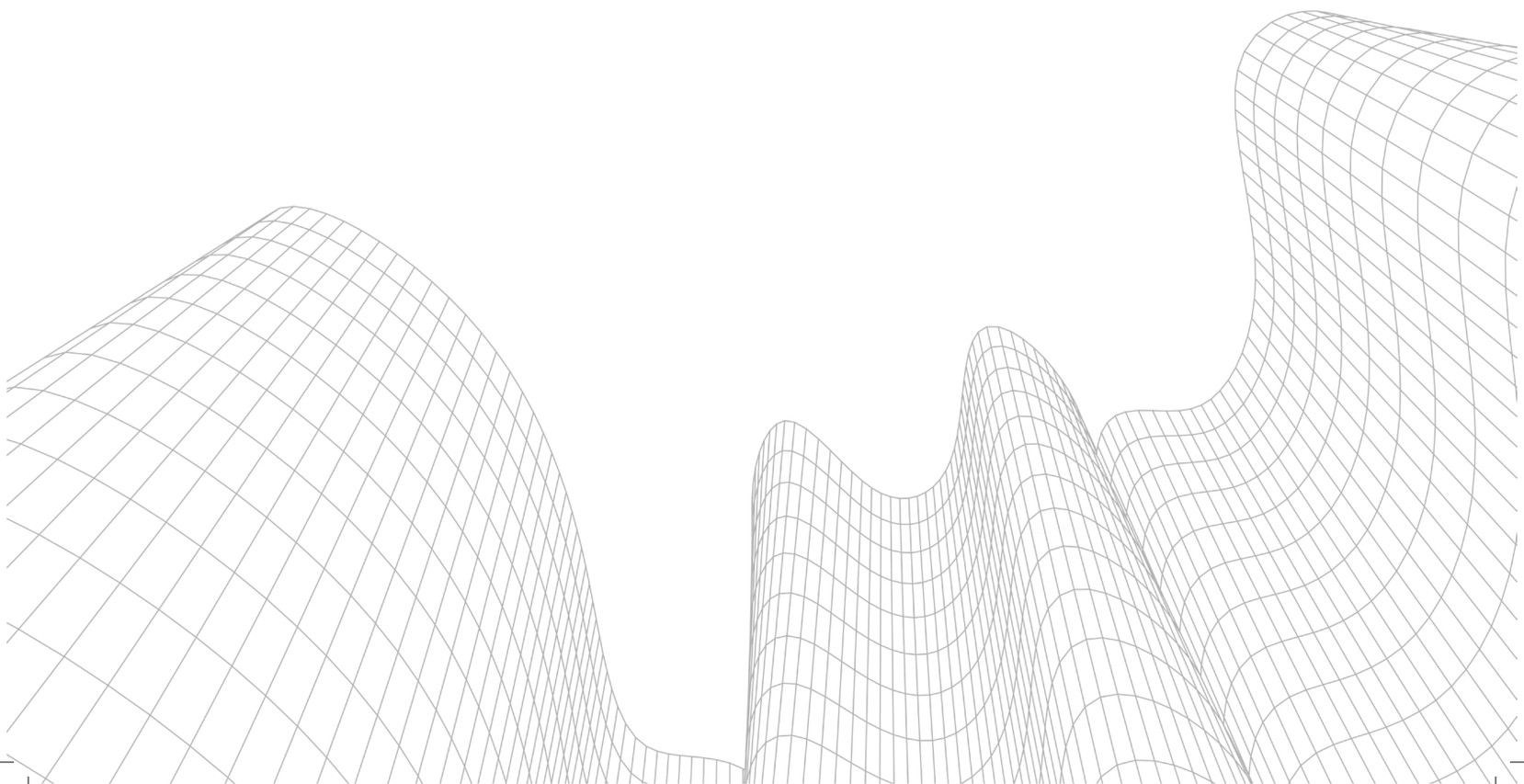
17.1. Standard frameworks when dealing with PPPs

As discussed in Chapter 2 of the PPP Guide, most jurisdictions have a legal/regulatory framework that is applicable to PPPs in general as well as PPP contracts for specific projects. The legal/regulatory framework has a number of objectives, one of which is to permit the Procuring Authority to consider and make rational choices as to which projects to implement as PPPs.

As a rule, various tests or standards are set, mainly to ensure the PPP is affordable to the country and the users. The second test would be to ensure that the execution of the works under the PPP provides greater Value for Money then if done under traditional procurement method. This standard will also ensure that risk transfer to the Project Company is both substantial and appropriate.

During the Operations-Stage of a project, the decisions to implement have already been made and the focus of the legal/regulatory framework must shift to the following areas:

- Making sure the project meets the objectives of a net public benefit and VfM.
- Ensuring that risks are identified and managed.
- Ensuring that changes in the form of amendments and variations are implemented on the same basis as the original project — in other words, that they too offer VfM and risk transfer.
- Ensuring that reporting is transparent, timely and accurate.



Chile

In 2010, Chile established a new normative framework for PPPs by sanctioning the Law on Concessions of Public Works *(Ley de Concesiones de Obras Públicas)*, which modified the original legislation on concessions dating from 1996 *(Ley de Concesiones, Decreto Ministerio de Obras Públicas* no. 900). The Ministry of Public Works is the responsible authority and contracts must be awarded through competitive procurement channels that are open to any firm, either national or foreign.

Institutionally, while the Ministry of Public Works leads, awards, and administers PPPs, the Ministry of Finance has an important counterbalancing role in providing key approvals and monitoring of the PPP process, including bidding conditions, amendments to the concession contracts, dispute resolution settlements, and others. To provide reassurance that the PPP program fits within the government's fiscal program, an officer from the Ministry of Finance sits within the Ministry of Public Works and has the authority to stop any project.

The Chilean PPP unit is located within the Ministry of Public Works and consists of approximately 300 staff with specialized knowledge. In addition, the 2010 modified Concession Law allows several changes:

- The Technical Panel established by the 2010 Concession Law creates a quasi-independent regulator capable of making recommendations on matters arising between the parties during the execution of the PPP contract.
- Bidding rules, pre-project documents, background studies, and other technical project documents, as well as side letters, changes to the tariff system, and changes to the contract must be made public by law.
- Technical monitoring reports produced monthly by contract managers on performance assessment and containing information on services, accidents, user feedback, among other things, are disclosed regularly for all projects. The private operators provide financial information periodically to the public authority.

The Ministry of Public Works supervises the construction and operation of the project and is allowed to fine, suspend, or even terminate the concession should the franchise holder fail to meet obligations. The law also establishes a dispute resolution mechanism to review conflicts between the Procuring Authority and Project Company.

South Africa

South Africa has an elaborate and robust PPP legislative and regulatory framework. The legislative and policy framework for PPPs is described in the following documents:

- The Republic of South Africa Constitution Act, 1996.
- The Public Finance Management Act (PFMA) 1 of 1999 and Regulations issued in terms of the Act.
- Treasury Regulation 16.
- National Treasury Regulation Practice Notes on PPP.
- The PPP Standardized Terms of PPP Contract.

At the national and provincial levels, legislation governing PPPs is contained in the PFMA and Treasury Regulation 16. These sections require the Accounting Authority to have an appropriate procurement and provisioning system in line with the constitutional principles that is fair, equitable, transparent, competitive, and cost-effective. Treasury Regulation 16 prescribes that all PPPs conform to the requirements of affordability, VfM, and adequate risk transfer from Procuring Authority to the Project Company.

Treasury Regulation 16 also prescribes the procedures and approvals required throughout the procurement phase. In particular, Clause 16.8 deals with amendments and variations to PPP contracts. Any material amendment due to renegotiations must meet the scrutiny and obtain the approval of the relevant treasury in terms of:

- Value for Money (VfM).
- Affordability.
- Substantial technical, operational, and financial risk transfer to the Project Company.

The mechanisms to seek this approval are prescribed in Treasury Regulation 16. There is no specific regulatory framework for disclosure in South Africa. The Treasury requires reporting in the Estimates of National Expenditure every year for every PPP. These are then audited and presented to the National Parliament annually.

17.2. Refinancing

One of the major variations that frequently occur during the Operations-Stage is a refinancing of the project by the Project Company. The 2021 EPEC PPP Guide defines refinancing as follows:

Refinancing is commonly understood as the replacement or renegotiation of the original capital structure, debt and/or equity of the project company on more favorable terms. Refinancing is attractive to the project company when interest rates fall (if the project company can benefit from such a fall under its hedging policy) or when the risk profile of the project company has improved. Refinancing might involve:

- *A reduction in the debt pricing.*
- *An extension of the debt maturity.*
- *An increase in the "gearing" (the amount of debt relative to equity), which becomes possible when lenders are prepared to relinquish some of the contractual restrictions on gearing levels contained in the financing agreements, as the perceived project risks are reduced.*
- *Lighter "reserve account" requirements imposed in the financing agreements.*
- *The release of guarantees to lenders provided by the project company's shareholders or by other parties.*[56]

[56] European PPP Expertise Centre (EPEC) (2021). *EPEC Guide to Public-Private Partnerships*, page 174.

The underlying commercial rationale is that, by restructuring its financing arrangements a Project Company is able to raise more debt for the same debt service amount. This typically reflects the fact that once a project has successfully reached its Operations-Stage, the risks for lenders are lower, and banks will accept a lower interest rate. The financial benefits derived from this additional debt and/or cheaper debt then becomes a refinancing gain that, under some PPP contracts, is shared between the Project Company and the Procuring Authority. Where taken by the Project Company, the refinancing gain is in the form of increased or accelerated distributions to the equity investors, for example. In this case, they are paid out as an extraordinary dividend or an early prepayment of shareholder loans at the time of refinancing.

Where the Procuring Authority receives a share of the refinancing gain, this is typically as a once-off capital amount paid by the Project Company or, in the case of a Procuring Authority-pays PPP, possibly as a decreased unitary charge payment over time. In a few rare cases, the benefit is taken "in kind" as a pre-funded variation financed with the Procuring Authority's refinancing gain share. This is rare because of the difficulty in estimating the value of the variation at the time of entering into the PPP contract.[57]

17.2.1. Benefits of refinancing

Refinancing gains can be significant for large infrastructure PPPs. The benefits of refinancing contract clauses are as follows:

- The Project Company is incentivized to perform well under the PPP contract so as to increase the confidence of refinancing investors and to maximize the refinancing gain.
- The Procuring Authority is also incentivized by the prospect of a refinancing gain share to cooperate with the Project Company and to deal with potential risks to the PPP that are in its control, as well as potential increased risks not under its control.
- A refinancing can make the financing much more efficient and transfer value that would otherwise have gone to lenders, project sponsors, users, and taxpayers.

17.2.2. Risks of refinancing

While refinancing gains can be large, they are often forgotten about in developing PPP markets because the emphasis is on reaching the implementation stages of the project. As experienced in more developed PPP markets, refinancing does come with some risks:

- A refinancing that incurs additional debt may also increase the contingent liability of the Procuring Authority in an event of Project Company default if a percentage of the outstanding debt has been guaranteed by the Procuring Authority.
- Refinancings that involves regearing of the debt equity ratio may change the risk profile for the project. This may reduce the equity sponsors' incentive to stay in the project and see it through difficult times after the refinancing.

[57] See the discussion on refinancing in Chapter 5 of the World Bank 2019 report *Guidance on PPP Contractual Provisions*,

- Refinancing gain shares that inappropriately understate the risk taken by the Procuring Authority or overstate the efficiency of the Project Company lead to negative public perceptions about PPPs, and therefore a gain sharing that cannot be justified as being in the public interest.

- In some countries, refinancing has become a highly regulated activity with regulatory approvals and prescribed methods of calculating the refinancing gain share.

There are three fundamental issues that have to be determined in a refinancing.

- What approval rights should the Procuring Authority have in a refinancing?

- How is the refinancing gain calculated?

- How is the refinancing gain shared?

There is, unfortunately, no simple answer to each of these questions. Each PPP jurisdiction will have different economic and market conditions from the other and each project will have different risk profiles. The risks assumed by the Project Company must be the foremost consideration of the Procuring Authority in establishing the refinancing gain share mechanism for the PPP contract in the bidding stage.

For user-pay PPPs where the Project Company takes full demand and revenue risk (and in some jurisdictions there is no compensation on termination for Project Company default), there will be a strong argument for a refinancing gain share to be heavily slanted in favor of the Project Company. However, the economic factors that may increase the financing gain are seldom in the control of the Project Company (for example, low interest rates as a result of a national or regional central bank policy), and yet these factors are material to the success of the refinancing.

In the United Kingdom for example, a refinancing market has matured since the beginning of PFI. It went from 70 percent of the refinancing gain to the private partner before the standardization of PFI contracts in 2002 to a 50 percent gain share with prescribed methods of calculation in Standardization of PFI Contracts (SoPC) post-2002. More recently, the amendments to SoPC4 in April 2012 state that the Procuring Authority is entitled (in the event of a reduction in the margin of the debt to be refinanced) to a 90 percent share of the portion of the refinancing gain arising from the decreased margin.

Similarly, in South Africa, the refinancing gain share of the Procuring Authority was set at 50/50 after 2004 when the National Treasury introduced the Standardized PPP Provisions. Prior to this, there was no refinancing gain share prescribed for South African PPPs. See Box 7.11 for lessons learned from refinancing.

Box 7.11. Lessons learned in refinancing

- Refinancing should be contemplated and planned for at the time of the Bidding Phase by the government.
- The refinancing gain calculation and gain share must be prescribed in the PPP contract, as post-implementation negotiation is likely to result in disputes or excessive gains by the private partner.
- The Procuring Authority should have a right to refuse consent in the event of any risk increase to the Procuring Authority.

17.2.3. Calculating refinancing gains

Refinancing gains are generally calculated by comparing the distributions that are payable with refinancing to those without refinancing. Distributions generally take the form of dividends paid to shareholders or repayments of shareholder loans. As such, the gain is not simply the amount of additional finance raised, but rather the calculation is an artificial construct calculated from the perspective of the equity provider and based on the extent to which the refinancing provides a return above the base case return.

The refinancing gain is normally calculated as a net present value of the projected equity cash flows using a discount rate that reflects the nominal, post-tax internal rate of return (IRR) of shareholder equity used in the base case financial model.

As the South African Standardized PPP Provisions points out in Paragraph 80.2.1, changes in the distributions forecast to take place after the refinancing can be negative or positive. For example, if the Project Company raises additional amounts of debt paid out as an immediate distribution, this will be an increase compared to the pre-refinancing position, while the debt service payments after the raising of the additional debt will be greater and future distributions lower than the pre-refinancing position.

It is a complex set of assumptions and scenarios and the Procuring Authority is advised to prepare well with financial and legal advisors prior to any refinancing.

Many details (such as for example, the discount and interest rates to be used in the calculations and the treatment of the possible impact of a refinancing on the termination payment that the Procuring Authority might have to make in the future) need to be addressed in the PPP contract to avoid subsequent negotiation and possible disputes. As with many other aspects of PPPs, it is important to anticipate the issues as much as possible and set out detailed provisions in the PPP contract.

17.2.4. Payment of refinancing (approvals required)

It is a recommended practice that the Procuring Authority and the Ministry of Finance provide separate approvals before the refinancing occurs. The obtaining of such approvals as early as possible in the process also assists the Project Company in its engagement with potential refinancers because the support of the Procuring Authority will be considered as a strong positive by the market.

The Procuring Authority should ask itself the following questions when considering such approval requests:

- What financial benefit will the Procuring Authority receive from the refinancing?
- How much additional debt will be incurred by the Project Company?
- What is the change in risks for the project and the Procuring Authority?
- What is the risk of termination of the project and what is the net increase in any contingent liability?
- What is the impact on the Project Company's ability or capacity to manage and mitigate the risks under the PPP contract?
- What are the incentives for the Project Company to maintain service standards after the refinancing?
- Will the refinancing undermine the financial stability of the Project Company?

After obtaining quantified answers to these questions from expert advisors, the Procuring Authority should objectively assess the Project Company's proposal. If the proposal is not justified, the Procuring Authority may, for good reasons, refuse to approve a refinancing despite the opportunity to share in the refinancing gains.

This right to approve a refinancing does not extend to cases where the refinancing takes place in the regular execution of the PPP contract or the loan contracts. These include cases where the refinancing:

- Is a sale or cession of the whole or any part of equity or the shareholder loans.
- Was taken account of fully in the base case financial model and approved as such.
- Arises solely from a change in taxation or accounting treatment.
- Occurs in the ordinary day-to-day administration of the loan contracts.
- Affects any syndication, sell-down, cession or grant of any rights of participation or security held by the lenders.

18. Managing Expiry, Default, and Early Termination Processes

Early termination of a PPP contract is truly a last resort and must follow a whole range of processes, commencing with an act of default by one of the parties or a continuing event of force majeure. High-level principles to guide default, force majeure, early termination, and compensation mechanisms may be captured within the PPP legal/regulatory framework. This can include enabling provisions within the primary PPP legislation and further guidance within the PPP regulations. This will guide the treatment of these issues within PPP contracts.

From a contract management perspective, the focus should be on avoiding termination by managing performance adequately, identifying and mitigating risks that might lead to a default, dealing with defaults in good time and in accordance with the PPP contract, and managing disputes in accordance with the Dispute Resolution Process (DRP) — again, as discussed above in Part B of this chapter.

18.1. Processes for different ways of ending a PPP contract

18.1.1. Expiry of the PPP contract

The expiry of a PPP contract is inevitable and yet the lack of preparedness by many Procuring Authorities in managing this expiry leads to difficult and costly transition periods at the end of the PPP contract. At least three years prior to the expiry of the PPP contract, the Procuring Authority should start to examine its options. Should it retender the PPP? If so, on what terms? What services will be required and what capital investment is required to enable those services? All of these questions need to be answered in a rational manner in the same way as the original feasibility study was done prior to the Procurement Phase.

At the same time, the Procuring Authority's contract management team should begin to assess the asset's condition, comparing it to the residual life required in the PPP contract for assets that continue to be part of the PPP. If the condition of the asset is below that required, a remedial plan including the calling of asset condition security must begin (see the discussion of handback, in Part D of this chapter, below).

The operational standards of the Project Company must also be assessed so that a new operator can step in at the expiry date. A Transition Program must be devised to ensure continuity of services.

The performance management regime will also require close attention as the Project Company will not be focused on the long-term sustainability of services. At this late stage in the life of the PPP contract, termination is not a useful remedy for breach of obligations and the lender oversight will have disappeared once the debt is paid off by the Project Company.

Transfer of all intellectual property rights that belong to the Procuring Authority on expiry will also be necessary, particularly in cases of PPPs with high-technology requirements or unique technology solutions.

Transfer of employees may also be required, be it from the Project Company to a new operator or to the Procuring Authority. As such, legislation governing such transfers must be followed as well as requirements pertaining to labor laws. This can be time consuming and should be initiated in a timely manner so as to provide adequate time for staff consultation before the expiry date.

18.2. Reasons for early termination

18.2.1. Procuring authority default

Termination for Procuring Authority default indicates a severe failure of the contract management system. It triggers substantial compensation payments from the public purse and leaves the Procuring Authority with an asset for which it may have no operator.

The events that are considered as Procuring Authority default are those events so severe that they completely frustrate the Project Company's ability to perform its obligations under the PPP contract. These include nonpayment of monies owed to the Project Company, expropriation of the right of use of the assets, and actions that prevent the Project Company from performing its obligations.

Procuring Authority default is triggered by a breach notice from the Project Company and there would normally be a remedy period. Such a notice must trigger alarm at the highest levels in the Procuring Authority, together with immediate action to avert termination.

18.2.2. Project company default

It is essential that the Procuring Authority is highly aware of and monitors all potential events of Project Company default. There are a large number of potential defaults, which range from performance defaults to insolvency[58] of the Project Company and even cross-defaults under the loan agreements. The Procuring Authority need not be caught unaware provided it monitors the performance and financial indicators of the Project Company.

Project Company default will lead to termination if the Procuring Authority finds the steps taken to remedy the default inadequate. This may be avoided by the Procuring Authority being explicit about its requirements for remedial plans in such events, and then the close monitoring of such plans.

Lenders should be given every opportunity to step in and even to exercise preemptive rights to dispose of the Project Company rights and retender these to a new Project Company.

The Procuring Authority should accordingly carry out continual assessments of the likelihood of termination and, if termination becomes a real possibility, communicate with lenders and government stakeholders, including all relevant ministries. Decisions to terminate the PPP contract should only be taken after full consideration of the financial and non-financial consequences of doing so.

18.2.3. Force majeure

Termination for force majeure would arise from events beyond the control of either party. Upon occurrence of the force majeure event, both parties must mitigate the losses and attempt to keep the PPP contract intact.[59]

[58] See the discussion of Insolvency in the Global Infrastructure Hub 2018 report on. *Managing PPP Contracts After Financial Close*, Chapter 6.
[59] See the discussion on force majeure in Chapter 1 of the World Bank 2019 report *Guidance on PPP Contractual Provisions*.

If the force majeure event continues for a period of time specified in the contract (typically 6 or 12 months), then either party may terminate the agreement.

The amount of insurance proceeds is also an important consideration and care must be taken in lodging the insurance claims and receiving the maximum proceeds from such a claim.

18.2.4. Unilateral termination

Unilateral termination or "termination for convenience" has the same effect and financial consequences as Procuring Authority default because the Procuring Authority causes it. The process is, however, different because it involves the Procuring Authority making a conscious decision to terminate the PPP contract early, to pay the significant compensation, and to assume the operational responsibility for providing the services.

Unilateral termination should be very carefully planned in the same way as in the case of expiry of the PPP contract, with consideration of assets, operations, intellectual property, and continuity of services. In addition, it would require the budgeting for the compensation payments that would become due on termination.

18.3. Effects of termination

The effect of termination is that the contractual relationship between the parties comes to an end, as does the provision of the services. Assets are divided between the two parties, and there is a settling of all outstanding obligations and a calculation of the compensation payable on termination.

In such a case, the following should be Procuring Authority priorities:

- Continuity of service by (if appropriate in the circumstances) securing continued obligations of the Project Company and its operating subcontractors and the continued payment of these contractors.
- Securing all assets that belong to the Procuring Authority partner against loss.
- Ensuring continued supply of spares and consumables to maintain operations.
- Securing all intellectual property required to operate the assets.
- Transferring all employees necessary for continued operations to a suitable entity.
- Calculating all liabilities for settlement of claims.
- Preparing claims for any amounts owed.
- Appointing qualified persons to calculate compensation amounts.
- Liaising and communicating with all stakeholders continuously.

18.4. Compensation on termination

The compensation that is payable depends on the type of termination and the requirements of the PPP contract. Broadly speaking, these are described in Table 7.13.[60]

Table 7.13. Types of termination and compensation

Reason for Termination	Description of Payment
Expiry	Nil
Procuring Authority party default	Debt plus equity (including shareholder loans), plus return on equity, plus breakage costs on hedges.
Unilateral termination	Debt plus equity (including shareholder loans), plus return on equity, plus breakage costs on hedges.
Project Company default	Depends on the regime, but typically the market value of the remaining period of the PPP contract, or a percentage of the outstanding debt at the time of termination.
Force majeure	An amount equal to the debt and all breakage costs, shareholder loans less any interest on the shareholder loans already paid to the shareholders plus equity, less dividends and other distributions already paid to the shareholders.

Of these, the most complex from a contract management perspective is the termination for Project Company default. In cases where the amount payable is a percentage of outstanding debt, this is easily calculated. The more difficult calculation is the market value of the remaining period of the PPP contract. To obtain the true value, the remaining period should be retendered in an open and competitive market. This is often difficult, especially in the case of small PPP program jurisdictions with illiquid markets.

An acceptable alternative (although not without high risks of a dispute between the parties) is the appointment of an expert to calculate the market value based on the financial outcomes and the asset conditions.

[60] See the discussion on termination in Chapters 6 and 8 of the World Bank 2019 report *Guidance on PPP Contractual Provisions*, and in Chapter 7 of the Global Infrastructure Hub 2018 report on *Managing PPP Contracts After Financial Close*.

19. Managing Fiscal Risks

19.1. Fiscal risks in the context of PPPs

The overall objective of fiscal risk management for PPPs is as follows:

- Ensure that government decision makers (especially decision makers in the Ministry of Finance) are aware of net long-term fiscal costs through good information and advice on benefits and costs of Procuring Authority commitments.
- Create systems for monitoring outstanding obligations and ensuring obligations can be met.
- Disclose obligations to the public in accounts or budget documents in an accurate and transparent manner.

In order to meet these objectives, the Procuring Authority and the government ministry responsible for fiscal liability management (usually the Ministry of Finance) should ensure the following basic processes (as set out in Table 7.14) are applied throughout the PPP project lifecycle.

Table 7.14. Fiscal risks management process

Phase	Fiscal risk management process
Project identification and selection	Ensure that projects have an explicit risk assessment to identify likely fiscal risks, for example, demand for the services, land availability risk, comparison of likely revenue, and likely costs leading to a funding gap.
Feasibility study	Ensure there is an explicit quantification of all fiscal obligations with an assessment of their affordability.
Procurement	Ensure the procurement documents reflect the feasibility study assessment of fiscal obligations and that bidders are required to explicitly assume the risks allocated to them.
Contract award	Ensure that all fiscal risks are identified and generate a risk register for monitoring.
Construction Stage	Monitor and report against the fiscal risk register.
Operations-Stage	Monitor and report against the fiscal risk register.

Defining fiscal risks

A contingent liability is "a possible obligation depending on whether some uncertain future event occurs, or a present obligation but payment is not probable or the amount cannot be measured reliably"[61] (International Accounting Standards – IAS 37.10). It states that an entity must recognize a provision if, and only if:

- A present obligation (legal or constructive) has arisen as a result of a past event (the obligating event).
- Payment is probable ("more likely than not").
- The amount can be estimated reliably.[62]

In PPPs, there are a range of financial obligations the Procuring Authority will incur that fall outside of this definition. In addition to contingent liabilities, PPPs should include the following fiscal obligations, further detailed in Box 7.12:

- Obligations to pay fixed and certain amounts under the PPP contract (for example, capital grants, unitary charge payments, shadow tolls, and availability payments).
- Obligations that are dependent on a future event where the obligation to pay exists but the amount and timing may or may not be known.

[61] Definition provided by the International Accounting Standards (IAS). IAS 37.10.
[62] International Audit Standards Clause 37.14.

Box 7.12. Examples of fiscal obligations

Fiscal obligations in PPPs include minimum revenue guarantees for which the amount cannot be estimated reliably, payments upon termination for force majeure, credit guarantees, and financial instruments such as obligations denominated in a foreign currency.

Explicit fiscal obligations include availability payments, unitary charge payments, government grants, shadow tolls, and even works completed "in kind" by the government.

19.2. Dealing with contingent liabilities, fiscal obligations, and risks

These principles should be applied by the Procuring Authority.[63]

- Cost-Benefit Analysis (CBA) should be used to select projects, and VfM analysis should be used to choose between PPPs and public finance.
- PPPs should be approved by the cabinet, the Minister of Finance, or some other body with an interest in future spending. The relevant ministry/department should review proposed PPPs.
- Procuring Authorities should bear only those risks they can best manage, which are generally those that they can control or, at least, influence.
- Modern accrual accounting standards for financial reporting should be adopted to reduce the temptation to use PPPs and associated contingent liabilities to disguise fiscal obligations.
- PPP contracts, or summaries thereof, should be published along with other information on the costs and risks of the financial obligations they impose on the Procuring Authority.
- Budgetary systems should be modified so they capture the costs of more contingent liabilities.
- A guarantee fund should be used to encourage recognition of the cost of guarantees when they are given or to help with payments when guarantees are called.
- Procuring Authorities should charge fees for guarantees.

Procuring Authorities must also determine when and how PPP projects should be recognized as creating direct or contingent liabilities, and thereby contributing to public debt. See Chapter 4.12 of this PPP Guide for further information on the circumstances in which PPP liabilities should be treated as public debt.

A close working relationship with the team in the Ministry of Finance team responsible for managing fiscal risks will be important. Note that this subject is covered in depth in Chapter 2, Section 1.8.

[63] Irwin, Timothy (2009), Government guarantees: An analysis of the allocation and valuation of risk.

PART D – Contract Management Regarding Exit and Handback

20. Exit Strategy

The exit strategy should be based on the provisions contained in the PPP contract in relation to termination and expiry. It should also demonstrate the Project Authority's capacity to bring the project to an end efficiently and ensure ongoing service delivery. This may be achieved either by continuing the functions in-house or by setting up a process to outsource these functions.

The exit strategy should include the following:

- An analysis of options, within the parameters of the PPP contract, for continuing the service after termination or expiry, and an initial recommendation on the preferred option.
- Plans for organizing a post-implementation review of the project, which should assess key deliverables, VfM, quality, and project innovation, and which should be carried out within six months of the expiry or termination date.
- The steps that will be taken to integrate the lessons of the project into the day-to-day work of the Procuring Authority.
- An implementation plan based on the handback procedures set out in the PPP contract.
- Plans to deal with the implications of any employee transfers from the Project Company to either the institution or a successor body.
- An estimate of the resources and personnel that the institution will allocate to managing the exit strategy.
- Plans for a closure event to celebrate the achievements of the project and prepare PPP contract management staff for their new role.

Some PPP contracts include options for the Procuring Authority to extend the contract. In these cases, exercise of that extension right should be one of the options considered in the exit strategy analysis. The Procuring Authority should not adopt a default position of exercising the extension right without first considering whether it offers better value than other options.

The exit strategy should be reviewed at appropriate points throughout the term of the contract. It should be revised as necessary to ensure that robust plans are in place three years in advance of the expiry of the project term.

21. Handback Issues

21.1. Preparing for handback

The 2021 EPEC Guide to Public-Private Partnerships emphasizes the importance of early preparation for the handback of PPP projects, with mature market experience suggesting that planning should begin five to seven years before the contract's expiry. Key actions for the Procuring Authority's contract management team include enforcing ongoing maintenance obligations, ensuring final payments are made, and reviewing the scope of the project to align with current strategic objectives. Additionally, a strategy should be developed for a smooth transition of asset management, minimizing service disruptions, and gathering all necessary information for a final project evaluation.

21.2. Ensure compliance with required asset handover

The expected condition of the project assets on expiry of the PPP contract must be agreed with the Project Company and provided for in the agreement. Insofar as the Procuring Authority requires the use of the project assets (in order to continue the performance of the services either by itself or by engaging another Project Company after the expiry date), provision should be made for the transfer of possession of (and unencumbered title over) the assets to the Procuring Authority on the expiry date of the PPP contract. At the signature date, the parties must agree which assets will be required by the Procuring Authority at the end of the contract term.

The Project Company has an incentive to reduce its maintenance effort in the later years of the contract, as the money saved will boost investment returns. To prevent this from occurring, the PPP contract must provide for a procedure to be followed prior to the expiry date, the procedure will determine the condition of the project assets and whether the Project Company has complied with the obligations in relation to the condition of the assets.

The procedure should include a survey that is conducted to:

- Examine the assets.
- Prepare a schedule that details all items that require remediation.
- Develop a program for remediation.
- Ascertain the costs of such remediation.
- Undertake inspections to ensure the remediation work is properly completed.

As a means of ensuring the Project Company complies with its obligations in relation to the condition of the assets at the expiry date, it is not uncommon to require that the Project Company provides the Procuring Authority with acceptable security. The requirement to provide this security should have been included in the PPP contract. As explained in Chapter 5.9.10, one approach is to require the Project Company to retain funds equal to a percentage of the yearly revenues (or the payments); this is used to fund a reserve for any necessary investment to meet the obligations in relation to the condition of the assets at the expiry date.

21.3. Prepare for continuity of operations after asset handover

If the assets are to be transferred to the Procuring Authority on the expiry date, they must be in a condition in which they have some remaining useful life in order to enable the Procuring Authority to provide the services.

The intention is not for the Project Company to ensure that the Procuring Authority may use the assets indefinitely, but merely to ensure that the Procuring Authority is not in the position, at the expiry of the project term, where all of the assets required for the services have to be replaced simultaneously. The assets must therefore have some residual life at the expiry date.

Toll road projects have, for example, required that, at the expiry date, the road be in a condition in which it could be used for at least three years, while a hospital project might require that categories of equipment have a remaining average useful life of at least one-third of the original useful life.

Appendix A to Chapter 7: Case Studies

Case study – Southern Cross Station, Australia

In July 2002, the Southern Cross Station Authority (SCSA) entered into a Services and Development Agreement (SDA) with a private consortium (Civic Nexus Pty Ltd) under a Public-Private Partnership (PPP) for the redevelopment of the station. Under the SDA, Civic Nexus Pty Ltd (the concessionaire) was to redevelop the station and, upon completion, manage the operations of the station for 30 years.

Construction of the station was contracted to be completed by April 27, 2005. By late 2004, the developer had publicly announced a forecast loss on the project of $122.6 million and was beginning to make some significant compensation claims, primarily against the state and to a lesser extent against the concessionaire.

The SCSA undertook a lengthy negotiation process with the concessionaire and the developer to settle the claims. On July 31, 2006, a global settlement agreement was finalized and the principal construction works were completed. On August 1, 2006, the concessionaire took over the management of the station precinct operations.

Under the original SDA signed in 2002, the state was not required to make any payment to the concessionaire until completion of construction and handover of operations. At this point, the 30-year concession period would begin and the SCSA would commence quarterly core service payments (CSPs) to the concessionaire. The concessionaire subcontracted the design and construction of the station to a developer (Leightons Contractors). Delays were encountered by the developer and the agreed construction milestones were not met. This resulted in a global settlement agreement worth $32.25 million between the state, the concessionaire, and the developer.

The trigger was the lodging of a dispute under the concession agreement dispute resolution procedures. This permitted "that senior representatives of the parties must meet and use their reasonable endeavors, acting in good faith, to resolve the dispute by joint discussions."

The global settlement agreement was negotiated to minimize adverse impacts on the state's original cost expectations for the redevelopment. This was achieved by:

- A rigorous and structured negotiation process overseen by an interdepartmental committee.
- Using independent experts to assist in legal, commercial, and financial risk assessments to determine the state's actual liability and potential risk exposure, persuading the concessionaire to contribute a fair and significant cash payment to the settlement.

Case study – Southern Cross Station, Australia (cont.)

- Avoiding lengthy litigation and legal costs estimated by the SCSA's legal advisers to potentially exceed $200 million.

- Appointing a high-level negotiating team to conduct negotiations.

The government was kept informed on the progress of negotiations and ensured that negotiations were conducted within the set parameters. Prior to finalizing the agreement, the SCSA appointed an independent commercial mediator to assess the proposed settlement and certify whether:

- The process to negotiate a settlement was properly informed and rigorous.

- The analysis of the proposed settlement and the amount to be contributed by the state was consistent with the SCSA's assessment of the state's potential commercial and legal risk, and adequately addressed that risk.

The SCSA engaged a Queen's Counsel (QC) experienced in the construction industry and dispute resolution to provide certification on the settlement. The QC concluded that "the settlement agreement was the best possible commercial settlement that was able to be negotiated following a lengthy and vigorous process of commercial negotiations."

There was an agreement to extend the practical completion date for principal works by 15 months from April 2005 to the end of July 2006 and to relieve the concessionaire and developer of their obligation to pay liquidated damages for not meeting the original scheduled completion dates. Under the terms of the global settlement, the concession period (originally scheduled to be the 30-year period commencing 27 April 2005) was effectively split into two concession periods:

- The 30-year operating concession period that commenced upon handover of operations to the concessionaire on August 1, 2006 was 15 months later than agreed in the original SDA.

- The 30-year capital concession period remained the original 30-year planned period commencing April 27, 2005.

As a result of this decision, the SCSA then owed (and paid) the concessionaire the capital payments owed from April 27, 2005 in a $30 million lump sum upon settlement.

The settlement was audited by the auditor general.

Source: Victorian Auditor-General: Audits of 2 Major Partnerships Victoria Projects. Victorian Government Printer November 2007.

Case study – The Reliance Rail Rolling Stock Project, Australia

Reliance Rail was Australia's largest PPP project when it was put to market in 2005-06 at 3.6 billion Australian dollars (AUD), with a capital requirement of AUD 2.35 billion. The contract required the design, construction, and maintenance of 78 urban train sets (626 carriages with 8 per train) for 30 years with options for further rolling stock purchases beyond that term. The contract was the first PPP for rail rolling stock procurement in Australia involving a long seven-year manufacturing and construction period, complex risk allocation, and international procurement arrangements.

The new trains featured high levels of innovation and the contract extended to driver and crew training and construction of a new maintenance facility to service rolling stock over the life of the contract. The trains were operated by the state-owned RailCorp organization as part of the NSW rail transport service, and the PPP paid by way of an availability payment involving availability, reliability, and disruption performance criteria.

The winning bidder for the project was a consortium of the engineering company Downer EDI (49 percent), ABN Amro and Babcock and Brown Public Partnerships (12.75 percent each), and AMP Capital Investors (25.5 percent). ABN Amro provided an underwriting of the AUD 1.95 billion bond debt component and the bank debt was provided by Westpac, Mizuho, National Australia Bank, and Sumitomo Mitsui.

The Reliance Rail project was highly leveraged with equity accounting for around 6 percent of project capitalization. The debt finance and interest rate swaps required for the fixed (pre-operational stage) and floating (operational stage) debt feature a monoline guarantee from FGIC and Syncora. The bonds were swapped into the Consumer Price Index (CPI) for inflation protection at a lower cost than otherwise available in the Australian market (Project Finance 2006-07).

A credit wrap was purchased in 2007 from two monoline insurers, Syncora Guarantee Inc. and FGIC UK Limited for the bond and bank finance to reduce the cost of capital to that available for AAA grade debt. Following the financial crises of 2007-08, both insurers incurred credit rating downgrades, and in 2010 Moody's rated the guarantee of both companies at Ca (Standard and Poor's CC) (Moody's Investor Services 2010).

In 2012, Reliance Rail encountered credit reappraisal ahead of a drawing on its bank facility. The concern involved the consortium's weak financial position, delivery delays, and an 18-month slippage in the delivery schedule. The project's AUD 2.060 million senior debt was given a credit rating by Standard and Poor's CCC+ in May 2013, and the AUD 100 million junior debt was rated CCC- reflecting a weakened credit position and operational problems and delays.

Source: Project Finance: Transactional Evidence from Australia (2014). http://epublications.bond.edu.au/cgi/viewcontent.cgi?article=1064&context=pib.

Case study – Chapman's Peak Drive, South Africa

South Africa's Western Cape Provincial Government (the province) entered into a Concession Agreement with a consortium of private sector companies named Entilini (Pty) Ltd (the concessionaire) in May 2003 for the design, build, and operation of Chapman's Peak Drive. This contract was the culmination of work undertaken over the previous three years by the provincial Department of Transport and Public Works in terms of Treasury Regulation 16 governing such PPPs. A Viability Gap Funding (VGF) capital grant of approximately 50 percent was approved as part of the concession. The road was successfully completed on time and to a high quality in very difficult mountain-side conditions.

Chapman's Peak is a very high-risk road perched on the side of a mountain in Cape Town. It is an important economic and tourist route linking the north and south of the city on the west side of Table Mountain. A key contractual provision was that the concessionaire takes the first risk in relation to traffic. Once a debt-service coverage ratio of 1.00 is reached, the public sector agency provides support up to a maximum of 50 percent of the debt service in that period.

The support is in the form of a temporary, interest-bearing advance to the concessionaire, which is repayable once cash flows improve above a debt-service cover ratio (DSCR) of 1.0 over a period of time to be agreed with lenders. The support can continue for a maximum period of 18 months, after which the support terminates and, failing additional shareholder or sponsor support for the project, the concessionaire will be in default under the loan agreements. A concessionaire-default termination will then occur with the support amount advanced deducted from the termination payment made.

Because of a single outstanding environmental approval for the toll plazas, the concessionaire was unable to complete the toll plazas. For five years, the concessionaire claimed payment to the extent that revenue was below forecast because such circumstances were classified as a "designated event" under the Concession Agreement. Between 2005 and 2008, the situation was exacerbated by a road closure due to what the concessionaire cited as dangerous road conditions. Given the lack of revenue incentive to keep the road open, this was contested by the province and a public outcry raised political tempers.

The Minister of Transport in the province appointed a joint task team of treasury and transport department officials assisted by financial, legal, and technical advisors to investigate the matter. The task team's terms of reference may be summarized as the following:

- Establishing what happened to give rise to the current circumstances.
- Establishing whether there was any financial impropriety in any of the events.
- Establishing why things went wrong.
- Providing options and recommendations as to what the province should do in response to the circumstances.

Case study – Chapman's Peak Drive, South Africa (cont.)

The task team carried out a detailed financial and non-financial systems analysis to identify any fraudulent or financially inappropriate behavior by the concessionaire and the adequacy of the systems. Compliance with technical and operational specifications was also analyzed.

The task team analyzed the following:

- The key, high impact causes of project distress.
- The cost of termination of the concession under any of its provisions.
- The cost-benefit analysis of the project.
- The likely future financial outcomes for the project.
- Future scenarios regarding traffic volumes and revenues.

The task team concluded that based on affordability (cost), risk transfer, and VfM it would be best to do the following:

- Amend the Concession Agreement to provide more comprehensive definitions of the closure event and damage events, and prevent the concessionaire from unilaterally closing the road.
- Provide revenue support to restore the concessionaire to its base case return on equity. This would be done on the basis of an interest-bearing loan with repayments commencing when the base case Return on Equity (RoE) was exceeded.

This was then put into effect by means of an amendment of the Concession Agreement.

Source: Nazir Alli and William Dachs (2015), "Consideration of Risk Transfer and the Impact of External Events in Road Concessions in South Africa" – Chapman' s Peak Drive Case Study, ICPPP2015 at the University of Texas.

Jarvis case study, U.K. (Step-in)

Until the beginning of 2004, Jarvis was a successful group of companies in the United Kingdom (UK), winning PPP contracts across a range of sectors (for example, rail, emergency service centers, and schools) with a strategy of aggressive bidding. Jarvis was involved in 27 educational Private Finance Initiative (PFI) projects with a whole life value of £3 million. Typically, Jarvis undertook the role of a contractor and operator in these contracts and invested equity alongside a financial investor.

As the result of a rail crash in 2002, in which Jarvis was later found to be negligent, authorities across the UK began to disregard Jarvis as a private partner for their projects, even when the group was offering the best price. From 2003, concerns were being raised about the quality of work done by Jarvis in the PFI business. In 2004, the Brighton and Hove Council branded Jarvis's work on four schools as "unacceptable." This resulted in a deteriorating financial position, which in turn led Jarvis to breach its main banking covenants in 2004.

Despite some major restructuring, Jarvis' partners (for example, subcontractors) stopped work or demanded payment in advance for their work. This led to substantial delays in some of the PPP projects under construction in which Jarvis was involved. As authorities were eager to see the construction of their projects completed, notably school projects as the start of the school year was approaching, they encouraged lenders to utilize their step in rights to rescue the projects.

Overall, 14 projects under construction were successfully restructured through a range of measures. From the banks' point of view, the projects were refinanced through a rescheduling and increase in senior debt within the projects. Although authorities had to suffer delays to the delivery of the assets, they incurred no financial loss and the projects are now operating normally. Jarvis was eventually declared insolvent in 2010.

Source: Public Centre Research Centre, PriceWaterhouseCoopers LLP, http://www.infrastructureaustralia.gov.au/publications/files/The_Value_of_PFI.pdf.

European PPP Expertise Centre Allen and Overy LLP (2012) http://www.allenovery.com/SiteCollectionDocuments/Termination_Report.pdf.

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General guidance on contract management			
Managing PPP Contracts After Financial Close	Global Infrastructure Hub (GI Hub), a G20 initiative.	The leading knowledge product on PPP contract management, specifically designed to provide guidance to Procuring Authority contract management teams.	https://www.gihub.org/resources/publications/managing-ppp-contracts-after-financial-close/
EPEC Guide to Public-Private Partnerships	The European PPP Expertise Centre (EPEC), a division of the European Investment Bank (2021).	The *EPEC PPP Guide* provides a high-level comprehensive framework to guide public sector officials dealing with PPP projects. It identifies other authoritative PPP guidance materials, available either online or in print publications, from a wide variety of sources. The *EPEC PPP Guide* consists of three chapters. Chapter 1 provides a general introduction to PPPs. Chapter 2 presents an overview of the PPP lifecycle. Chapter 3 provide detailed discussions of significant issues which typically arise during PPP projects.	https://www.eib.org/en/publications/epec-guide-to-public-private-partnerships

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The PPP Reference Guide, Third Edition	The *PPP Reference Guide* is published by the World Bank, but it is a joint product of the: Asian Development Bank (ADB), the European Bank of Reconstruction and Development (EBRD), the Global Infrastructure Hub (GI Hub), the Inter-American Development Bank (IDB), the Islamic Development Bank (IsDB), the Organization for Economic Co-operation and Development (OECD), the United Nations Economic and Social Commission for Asia and the Pacific (UNESCAP), and the World Bank Group (2017).	The *PPP Reference Guide* provides the most relevant examples and resources on key PPP topics and helps readers navigate the substantial body of knowledge that has been generated across the world by practitioners from governments, international development institutions, academia, and the private sector.	https://ppp.worldbank.org/public-private-partnership/library/ppp-reference-guide-3-0-full-version
Managing PPPs during their Contract Life – Guidance for Sound Management	European PPP Expertise Centre (EPEC) (2014).	Provides detailed guidance on PPP contract management.	https://www.eib.org/attachments/epec/epec_managing_ppps_en.pdf
South Africa National Treasury PPP Manual Module 6: Managing the PPP contract	South African National Treasury (2004).	Provides detailed guidance on contract management in PPPs.	https://www.gtac.gov.za/wp-content/uploads/2022/03/GTACs-Public-Private-Partnership-Manual-Module-6-Managing-the-PPP-Agreement.pdf
Contract Management Guide	Partnerships Victoria (2018).	Provides detailed guidance on PPP contract management, including good practices in planning and knowledge management.	https://www.dtf.vic.gov.au/partnerships-victoria/procurement-requirements
A guide to Contract Management for PFI and PPP Projects	4ps, in collaboration with Mott MacDonald, Public Project Partnerships Program (2007).	Provides general guidance on PPP contract management.	https://ppp.worldbank.org/public-private-partnership/library/4ps-guide-contract-management-pfi-and-ppp-projects
Other references referred to in this chapter or related to specific PPP contract management issues			
ADB Governance Brief: A Governance Approach for Managing Public – Private Partnership Renegotiations	Asian Development Bank (ADB) (2022).	A guidance note on the governance issues associated with the renegotiation of PPP contracts.	https://www.adb.org/sites/default/files/publication/837646/governance-brief-046-managing-ppp-renegotiation.pdf
Guidance on PPP Contractual Provisions	World Bank (2019).	An authoritative guide to clauses typically found in PPP contracts.	https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2021-03/Guidance%20on%20PPP%20Contractual%20Provisions_2019%20edition.pdf

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"Consideration of Risk Transfer and the Impact of External Events in Road Concessions in South Africa" - Chapman' s Peak Drive Case Study	Nazir Alli and William Dachs (2015).	Includes information on the Chapman's Peak Drive case study.	Presented at ICPPP2015 at the University of Texas in May 2015.
AA1000 Stakeholder Engagement Standard	Accountability, 2011.	Provides guidance on stakeholder management.	https://www.accountability.org/standards/
Comparative Study of Variation Clauses in Public Project Partnership Contracts	Foster, R. Working Paper (2013).	Provides general information on variations and changes in PPP projects, including changes in law.	https://www.semanticscholar.org/paper/Comparative-Study-of-Variation-Clauses-in-Public-Foster/cde8a6235b933bfd8006ab1772014035ee7e48c8
Complexity of Mega-projects	Brockmann, D. I. C., and Girmscheid, G. (2007). In Proc. CIB World Building Congress (pp. 219-230).	Explains the complexity of the Construction Stage in projects.	https://www.research-collection.ethz.ch/bitstream/handle/20.500.11850/4495/eth-845-01.pdf
Concessions Law of 2010	Republic of Chile.	Provides an example of the regulation of amendments and renegotiation of PPP contracts.	Ley Chile - Ley 20410 - Biblioteca del Congreso Nacional (bcn.cl)
Dispute Resolution-Aided Tool for Construction Projects in Egypt	Marzouk, M., El-Mesteckawi, L., and El-Said, M. (2011). Journal of Civil Engineering and Management, 17(1), 63-71.	Provides an example of dispute resolution procedures.	http://www.tandfonline.com/doi/abs/10.3846/13923730.2011.554165#.VSTOAPm4Wd8
National Treasury PPP Practice Note Number 01 of 2004: Standardised PPP Provisions	South African National Treasury, *First Issue (March 2004).*	Describes the key issues that are likely to arise in PPPs, and specifies how these key issues (including Procuring Authority step in) can be dealt with in a PPP contract.	http://www.ppp.gov.za/Legal%20Aspects/Standardised%20PPP%20Provinsions/National%20Treasury%20PPP%20Practice%20Note%20No%201%20of%202004;%20Standardised%20PPP%20Provisions;%20First%20Issue;%2011%20March%202004_1.pdf

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New Forms of Non-Adversarial Contracting Focusing upon the New Engineering Contract	McInnis, A. (2003). Keynote Lecture 1. Second International Conference on Construction in the 21st Century. "Sustainability and Innovation in Management and Technology."	Contains information on dispute resolution procedures.	http://www.citcglobal.com/files/95119523.pdf#page=7
Post-Implementation Review: M7 Motorway, Cross City Tunnel and Lane Cove Tunnel	Motorway Projects Branch, Road Transport Authority (RTA), NSW, Australia (2010).	Illustrates the importance of change management.	http://www.rms.nsw.gov.au/documents/projects/sydney-north/lane-cove-tunnel/m7-motorway-cct-lct-post-implementation-review-report.pdf
PPP Project Case Studies	PPP Case Studies. (2012) Infrastructure Concession Regulatory Commission, Federal Procuring Authority of Nigeria.	Provides examples of PPP projects during the Construction Stage and shows the reasons for their cancellation.	http://ppptoolkit.icrc.gov.ng/ppp-project-case-studies/
Project Complexity: The Focal Point of Construction Production Planning	Gidado, K. I. (1996). Construction Management and Economics, 14(3), 213-225.	Examines the complexity of the Construction Stage of projects.	http://core.ac.uk/download/pdf/9552740.pdf
Project Finance: Transactional Evidence from Australia	Regan, M. (2014). Public Infrastructure Bulletin. Vol. 1 (9). Article 9.	Provides a case study of contract management in the Reliance Rail Rolling Stock Project.	http://epublications.bond.edu.au/cgi/viewcontent.cgi?article=1064&context=pib
Project Governance: A Guidance Note for Public Sector Projects	HM Treasury and Infrastructure UK, November 2007. (Last updated in Oct. 2013) pp. 15-16.	Provides guidance on project governance, PFI/PPP procurement, and contract management.	https://www.gov.uk/ProcuringAuthority/uploads/system/uploads/attachment_data/file/225314/01_ppp_projectgovernanceguidance231107.pdf
Secrets of Successful Restructuring	Primoff, M.G. and Hampton, N., Kaye Scholer LLP article, Infrastructure Investor, 2013. In: Developing a Framework for Renegotiation of PPP Contracts, Ministry of Finance, Procuring Authority of India.	Examines issues associated with renegotiation and provides case studies of the financial restructuring of the San Joaquin Hills toll road transaction (United States), Dulles Greenway (Virginia) and Southern Connector (South California).	http://pppinindia.com/NPBCP_images/PDFs/DEVELOPING%20A%20FRAMEWORK%20FOR%20RENEGOTIATION%20OF%20PPP%20CONTRACTS.pdf

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PPP Construction Risk: International Evidence From The Roads Sector	Bain, Robert (2007) Institute for Transport Studies, University of Leeds.	Reports research into the reasons PPP projects are canceled during the Construction Stage.	http://abstracts.aetransport.org/paper/download/id/2578
The Value of PFI: Hanging in the Balance (Sheet)?	Public Sector Research Centre. (2008) *PriceWaterhouse Coopers LLP.*	Examines the long-term benefits of PPPs in the UK and includes a case study of the collapse of Jarvis, a PPP contractor and operator.	http://www.infrastructureaustralia.gov.au/publications/files/The_Value_of_PFI.pdf
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Innovations to Manage Disputes: DRB and NEC	Thompson, R. M., Vorster, M. C., Groton, J. P. (2000). Journal of Management in Engineering ASCE 16(5): 51–59.doi:10.1061/(ASCE) 0742-597X (2000)16:5(51).	Explores approaches to dispute resolution procedures.	
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A Guide to the Project Management Body of Knowledge	Project Management Institute, Inc. (PMBOK® Guide) – Fifth Edition, 2013.	Includes information on quality management.	Book
Types of Claims	PDF file Section 3 Types of Claims 2011/12 [no other data].	Explains the types of claims seen in construction projects and provides guidance on their management.	https://www.cordellblog.com/files/2011/12/Types-of-Claims1.pdf
PPP Project Case Studies: Panagarh-Palsit Highway Project	Infrastructure Concession Regulatory Commission, Nigeria Public Project Partnerships Manual.	The case study shows how the construction and Operations-Stage can cause an initially viable project to lose its value through mismanagement and delays.	http://ppptoolkit.icrc.gov.ng/ppp-project-case-studies/
Contract Design in Public-Private Partnerships – Report prepared for the World Bank	Iossa, Spagnolo and Velez (2007).	Paper on PPP contract design.	https://ppp.worldbank.org/public-private-partnership/sites/ppp.worldbank.org/files/2022-05/Best_Practices_on_Contract_Design_in_PPPs.pdf
Avoiding Customer and Taxpayer Bailouts in Private Infrastructure Projects: Policy toward Leverage, Risk Allocation and Bankruptcy	Ehrhardt, D., and Irwin, T. (2004). World Bank Policy Research Working Paper, (3274).	Examines what happens when PPP projects face financial difficulties during the Operations Phase. Includes case studies.	https://openknowledge.worldbank.org/bitstream/handle/10986/14300/wps3274bailouts.pdf?sequence=1
Analysis of the London Underground PPP Failure	Williams, T. (2010). Engineering Project Organisations Conference, South Lake Tahoe, California. Working Paper Proceedings Editors.	Analyzes the London Underground PPP failure, a case study of a PPP project canceled during the Operations Phase.	http://academiceventplanner.com/EPOC2010/Papers/EPOC_2010_Williams.pdf

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South Africa, The National Treasury Regulation Practice Notes on PPP	National Treasury's PPP Manual Module 1: South African Regulations for PPPs National Treasury PPP Practice Note Number 03 of 2004.	Institutions and private parties will find Module 1 useful when they first consider a PPP and want an understanding of the legal foundation for PPPs. The module is also useful as a quick reference throughout the PPP project cycle.	https://www.gtac.gov.za/wp-content/uploads/2022/03/GTACs-Public-Private-Partnership-Manual-Module-1-South-African-Regulations-for-PPPs.pdf

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