PROCUREMENT GUIDANCE

Contract Management

Practice

THE WORLD BANK
IBRD • IDA

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Common abbreviations and defined terms

This section explains the common abbreviations and defined terms that are used in this User's Guide. Defined terms are written using capital letters.

Abbreviation / term	Full terminology / definition
Bank	The World Bank. IBRD and/or IDA (whether acting on its own account or in its capacity as administrator of trust funds provided by other donors).
Bid	An offer, by a firm or joint venture, in response to a Request for Bids to provide the required Goods, Works or Non-consulting Services.
Bidder	A firm or joint venture that submits a Bid for Goods, Works, or Non-consulting Services in response to a Request for Bids. To improve readability, the terms "Bid" and "Bidder" are throughout this guidance written as "bid" and "bidder" respectively.
Borrower	A Borrower or recipient of Investment Project Financing (IPF) and any other entity involved in the implementation of a project financed by IPF. In the context of this guidance, this may include relevant entities such as a Purchaser, an Employer and Client. In some contexts of the guidance, such as for Goods (incoterms, letter of credit etc.) or information systems contracts, for better clarity, the term "Purchaser" is itself used.
CMP	Contract Management Plan.
Consultant	A variety of private and public entities, joint ventures, or individuals that provide services of an advisory or professional nature. To improve readability, the term "Consultant" is throughout this guidance written as "consultant".
Consulting Services	Covers a range of services that are of an advisory or professional nature and are provided by Consultants. These Services typically involve providing expert or strategic advice e.g. management consultants, policy consultants or communications consultants. Advisory and project related Consulting Services include, for example: feasibility studies, project management, engineering services, finance and accounting services, training and development.
Contract	Except when used with defined terms such as Contract Manager and Contract Management Plan, the term "Contract" is throughout this guidance written as "contract." Given the

Abbreviation / term	Full terminology / definition
	multiplicity of times that this term appears in this guidance, this approach improves readability.
Contract Manager	For the purpose of this guidance, "Contract Manager" is a generic term used to refer to a legal entity, a natural person/team assigned to/ authority vested on/ delegated to manage the execution of a contract. Depending on the applicable contract form, "Contract Manager" may refer to: • a range of contract management arrangements such as the: o "Engineer" in FIDIC: *Conditions of Contract for Construction or Conditions of Contract for Plant &Design build*; o "Employer's Representative" in FIDIC: *Conditions of Contract for EPC/Turnkey*; o "Project Manager", for example, in Bank's SPDs for Small Works; or • the Borrower's internal team when assigned to manage a contract. In generic contexts, and in contexts which require reference to the Borrower such as in managing the Contract Manager (Engineer, Project Manager etc.), the term "Borrower" is used.
Contractor	The entity named in the respective contracts to execute a contract for Goods, Works or Non-Consulting Services. To improve readability, the term "Contractor" and "Sub-contractor" are throughout this guidance written as "contractor" and "sub-contractor" respectively. In some contexts, such as related to Goods contracts, the term "supplier" is also used in place of "contractor."
CPM	Critical Path Method.
D&B	Design and Build.
DBB	Design, Bid, Build.
DBO	Design, Build, Operate.
Employer	The entity named as such in the respective contract e.g. procurement of Works or Plant based on Bank's SPDs.
Environmental and Social Commitment Plan	As described in the Bank's Environmental and Social Framework.
EPC	Engineering, Procurement and Construction.

Abbreviation / term	Full terminology / definition
ESHS	Environmental, Social, Health and Safety.
FIDIC	Fédération Internationale des Ingénieurs-Conseils-the international federation of consulting engineers.
Fraud and Corruption	The sanctionable practices of corruption, fraud, collusion, coercion and obstruction defined in the Anti-Corruption Guidelines and reflected in paragraph 2.2a of Annex IV of the Procurement Regulations.
GBV	Gender Based Violence.
GCC	General Conditions of Contract.
Goods	A category of Procurement that includes: commodities, raw material, machinery, equipment, vehicles, Plant, and related services such as transportation, insurance, installation, commissioning, training, and initial maintenance.
Investment Project Financing (IPF)	The Bank's financing of investment projects that aims to promote poverty reduction and sustainable development. IPF supports projects with defined development objectives, activities, and results, and disburses the proceeds of Bank financing against specific eligible expenditures.
Non-consulting Services	Services which are not Consulting Services. Non-consulting Services are normally bid and contracted on the basis of performance of measurable outputs, and for which performance standards can be clearly identified and consistently applied. Examples include: drilling, aerial photography, satellite imagery, mapping, and similar operations.
Plant	The provision of equipped facilities, such as those executed on the basis of design, supply, installation and commissioning.
Procurement	The function of planning for, and sourcing Goods, Works, Non-consulting Services, and/or Consulting Services to meet required objectives.
Procurement Documents	A generic term used in the Procurement Regulations to cover all Procurement Documents issued by the Borrower. It includes: GPN, SPN, EOI, REOI, Prequalification document, Initial Selection document, RFB and RFP, including any addenda.
Procurement Process	The process that starts with the identification of a need and continues through planning, preparation of specifications/ requirements, budget considerations, selection, contract award,

Abbreviation / term	Full terminology / definition
	and contract management. It ends on the last day of the warranty period.
Project Procurement Strategy for Development (PPSD)	A project-level strategy document, prepared by the Borrower, that describes how Procurement in IPF operations will support the development objectives of the project and deliver VfM.
Proposal	An offer, in response to a request for proposals, which may or may not include price, by one party to provide Goods, Works, Non-consulting Services or Consulting Services to another party. To improve readability, the term "Proposal" is throughout this guidance written as "proposal".
Proposer	An individual entity or joint venture that submits a Proposal for Goods, Works, and Non-consulting Services in response to a request for proposals. To improve readability, the term "Proposer" is throughout this guidance written as "proposer".
Purchaser	The entity named as such in the respective contract e.g. procurement of Goods or information systems based on Bank's SPDs.
SEA	Sexual Exploitation and Abuse.
Standard Procurement Documents (SPDs)	Procurement Documents issued by the Bank to be used by Borrowers for IPF financed projects. These include, GPN, SPN, EOI, REOI, Prequalification document, Initial Selection documents, RFB and RFP documents.
Subconsultant	An entity to whom/which the Consultant subcontracts part of the Consulting Services while remaining solely liable for the execution of the Contract. "Subconsultant" is written as "subconsultant" in this guidance.
Sub-contractor	An entity to whom/which the Contractor subcontracts part of the Works while remaining solely liable for the execution of the Contract. "Sub-contractor" is written as "sub-contractor" in this guidance.
TOR	Terms of Reference (usually referencing a Consulting Services contract).
VE	Value Engineering.
VfM	Value for Money.
Works	A category of Procurement that refers to construction, repair, rehabilitation, demolition, restoration, maintenance of civil work

Abbreviation / term	Full terminology / definition
	structures, and related services such as transportation, insurance, installation, commissioning, and training.

Contents

Introduction

Preamble

Project implementation under Investment Project financing (IPF) normally includes procurement activities needed to attain the project development objectives. The Borrower should be mindful that the pre-contract award processes (such as comprehensiveness of project documents, proper planning, choice of contract, appropriateness and quality of Procurement Documents, evaluation of bids/proposals etc.) all contribute to the success of a contract. The Bank has other guidance in place to support Borrowers in the pre-contract award processes.

Procurement, including contract management, is a critical component of budget implementation/execution – as defined within the public financial management cycle. Financial controls should be in place to ensure that funds are available in a timely manner and are used only for the intended purposes. If there are issues in the budget planning and approval process, such issues should be identified well in advance (e.g. during Project preparation) and appropriate arrangements put in place. Undue delays in making contractual payments puts the Borrower at contractual default, potentially also affecting contractor cash flow, resulting in contract implementation delays and other complications.

Effective contract management is essential to the delivery of the intended outcomes. This guidance assists Borrowers in managing contracts (post- contract award) under IPF operations.

Purpose

The purpose of this guidance on Contract Management: Practice (guidance) is to support Borrowers' contract management practice by illustrating some of the key aspects and issues. It should be kept in mind that contracts shall be managed in accordance with the contract.

Scope

Contract management is part of the Procurement Process. The processes preceding contract award (such as procurement planning, selection of contractors etc.) are described in detail in the various procurement guidance.

This guidance focuses on the contract management activities undertaken during the period from the award of contract to contract completion. Where applicable, this period includes the defects liability period and/or warranty period.

Structure of the guidance

This guidance starts from the general and relevant aspects of contract management (such as Contract Management Plan (CMP), relationship management etc.). It then presents the contract management aspects of selected categories (such as Works, Goods etc.) to try to support teams involved in managing one or more of those categories. There is also a section on managing ESHS risks in Works contracts. Teams

managing one or more of these categories may prefer to refer to the general provisions followed by the category/ies of interest.

This guidance comprises of practical short case studies to illustrate relevant contract management aspects. The guidance also comprises of some templates such as for CMP, which may be modified to suit the needs of a contract.

There is also a separate excel based Contract Price Adjustment Computation Workbook to support Borrowers in applying contractual price adjustments.

Contract management in Procurement Regulations

The contract management requirements detailed in the Bank's Procurement Regulations for IPF Borrowers (Procurement Regulations) set out the framework for contract management, as summarized in the following table.

Section	Para	Topic	Provision
Section V. General Procurement Provisions	5.97	Aim of contract management	The aim of contract management is to ensure that all parties meet their obligations. In addition, contracts shall be actively managed by the Borrower throughout their life to ensure that contractor performance is satisfactory, appropriate stakeholders are informed and all contract requirements are met.
Annex I. **Value for Money**	2.1	Value for money	Value for Money (VfM) is to be considered at all stages of the Procurement Process, including during contract management.
	2.3 h.	Effective contract management	VfM is achieved through the application of effective contract management to ensure successful execution of the contract and ensure that the deliverables are met as agreed in the contract
	3.6	Contract management activities	As part of the contract management activities, the Borrower determines the appropriate contract type and contract terms, taking into account the nature, risk, and complexity of the activity, fit-for-purpose considerations, optimal allocation of risk and liabilities, and the roles and responsibilities of the contracting parties.
	3.7	Requirement to develop a CMP	To effectively manage a contract, for contracts identified in the PPSD, the Borrower shall develop a Contract Management Plan with key performance indicators and milestone events. The Borrower shall monitor the performance and progress of contracts, in accordance with the Contract Management Plan, and provide timely

Section	Para	Topic	Provision
			reports to the Bank. The Bank may use the information gathered to benchmark performance.
Annex II. **Procurement Oversight**	7.1 j.	Bank's prior review	States that for contracts subject to prior review, if requested by the Bank, the Contract Management plan including the KPIs will be subject to Bank's prior review.
Annex V. **Project Procurement Strategy for Development**	3.1	PPSD	The Project Procurement Strategy for Development (PPSD) provides the basis for the Borrower to prepare the Procurement Plan and the Contract Management Plan.
	3.4	resources	The factors to be considered for assessing the Borrowers resources needs to implement a procurement include contract management capacity.
	3.8	Risk mitigation plan	The likelihood and impact of each risk shall be assessed, and a prioritized Risk Mitigation Plan developed and maintained throughout the life of the project, including during the contract management phase.
	3.11	PPSD specifies requirement for CMP	The PPSD will identify those contracts requiring a Contract Management Plan.
Annex XI. **Contract Management**	whole Annex	Content of CMP	This Annex outlines the requirements for Contract Management and for monitoring through the Contract Management Plan (CMP).
Annex XIV. **Public-Private Partnership (PPP)**	2.1	CMP and PPP	Contract management is one of the phases in PPP arrangements.
	2.2	Resources	The Borrower needs to demonstrate that there is adequate institutional capacity to prepare, structure, procure and manage the PPP project
	4.1	Roles	The Borrower shall ensure that the output specifications include how performance will be monitored, including roles for the government's contract management team.

Table I – Contract management provisions in the Bank's Procurement Regulations

The fundamentals

Upstream and downstream phases of a contract

Contract management is the process of actively managing contract implementation to ensure the efficient and effective delivery of the contracted outputs and/or outcomes.

Effective contract management enables Borrowers to maximize value for money (VfM) in delivering development outcomes. The focus of contract management is on the activities that are undertaken during the contract execution/implementation phase, following the award of contract (downstream activities). However, the success of contract management is strongly influenced by upstream activities such as those undertaken during the procurement planning, choice of contract, and contractor selection phase.

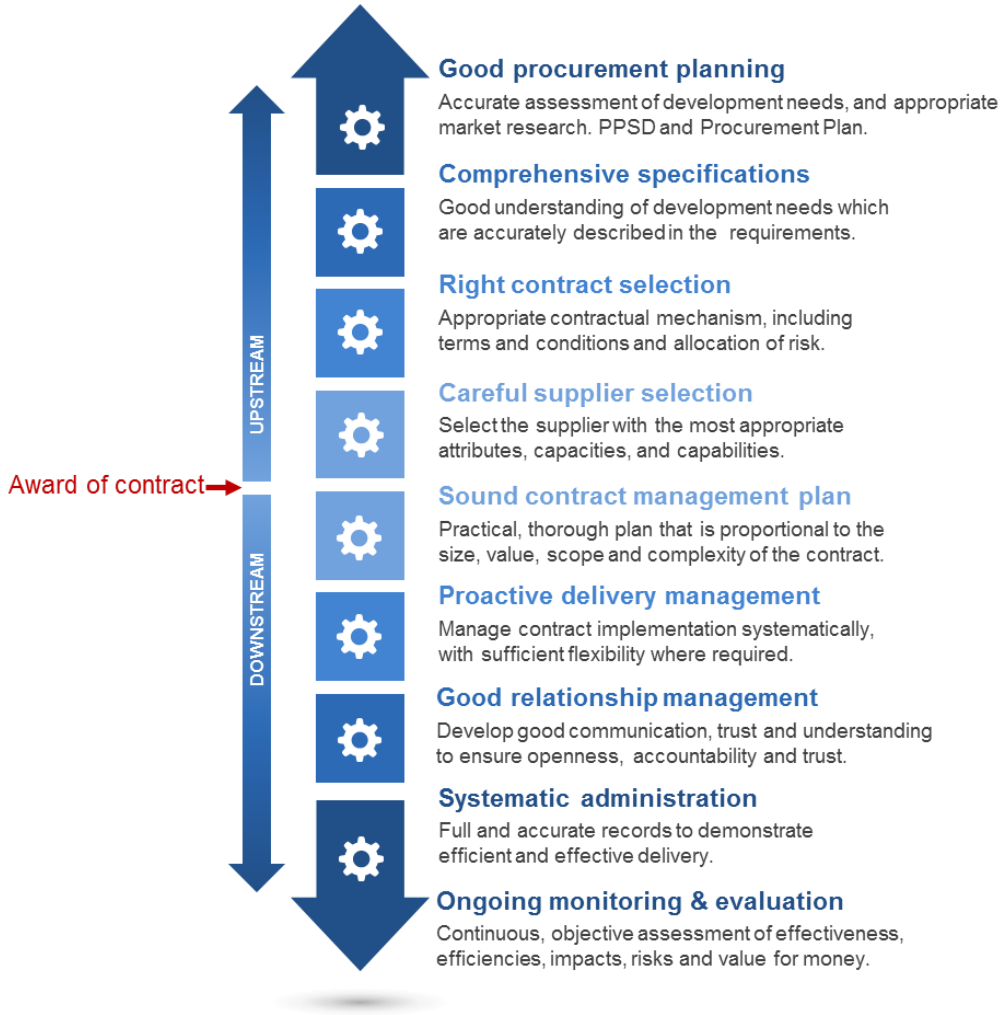

Figure I- Upstream and downstream phases of contract

Contract management objectives

The key objectives of contract management are to ensure that the contract is:

1. delivered on time, at the right place and in the right quantity;
2. completed to the required specifications, standards and/or quality;
3. completed within the agreed price.

Contract management continues throughout the life of the contract. This means that the Borrower needs to plan for, and undertake:

1. effective and efficient management of performance, delivery and payment;
2. methodical and measured change control;
3. active risk mitigation and management;
4. agile resolution of issues and disputes.

Plan, do, check

Good project management involves planning how to manage the project, implementing the plan and then checking the results. Applying to contract management, these key steps are illustrated in Figure II.

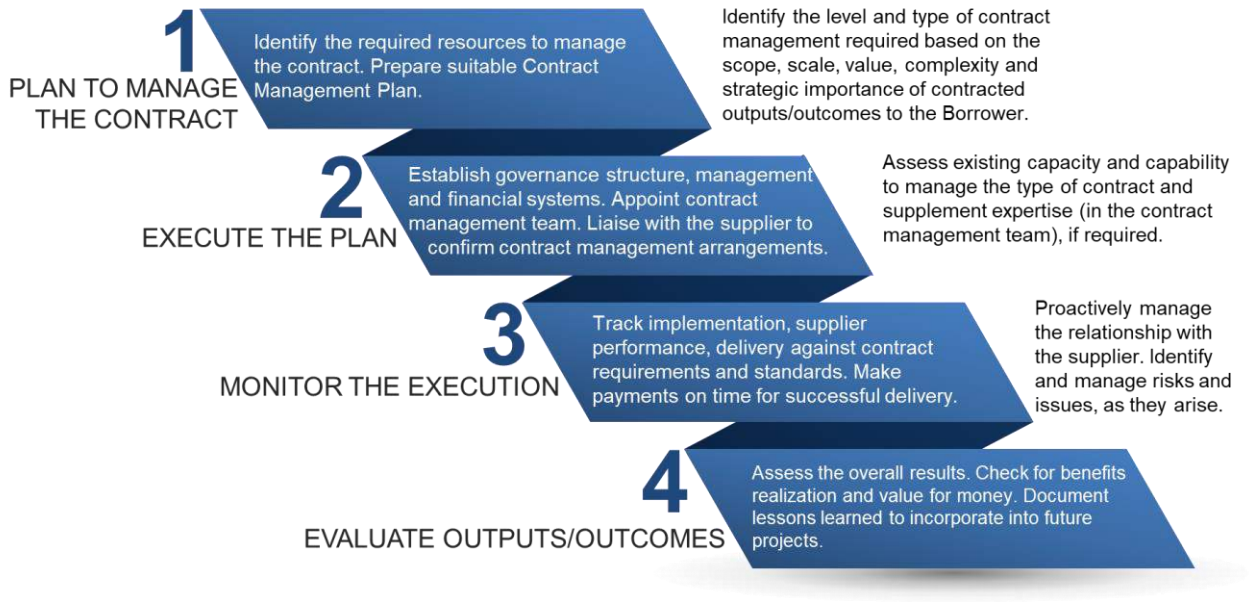

Figure II – contract management basics: plan, execute, check, evaluate

To achieve good contract performance, Borrowers should ensure that the terms of the contract are adhered to and that both parties to the contract understand their respective obligations. Contract management also involves a level of flexibility by both parties and a willingness to adapt the contract terms to reflect any changing circumstances, as appropriate. Good contract management is strengthened by systematic and efficient planning, execution, monitoring, and evaluation.

Role of Contract Manager

Good practice requires that a Contract Manager is appointed for every contract. For small, routine contracts, this may be one person, who has a portfolio of contracts to manage. For large, complex, high-value contracts this is normally an entity (Engineer, Project Manager etc.) The Contract Manager needs to have the appropriate range of qualifications, skill mix and experience.

A Contract Manager needs to multi-task, as for example, shown in Figure III.

Figure III – Contract Manager responsibilities

Hard and soft skills

A Contract Manager requires an appropriate mix of hard or technical skills (e.g. financial management) and soft skills (e.g. interpersonal and relationship management). The relevant mix of skills depends on the nature and complexity of the contract, the levels of risk and the delivery/operating environment.

Hard skills - technical skills

Typical technical skills, knowledge and experience required include:

1. procurement;
2. project management;
3. legal knowledge (at the very least an ability to understand the legal aspects of the contract, including remedies);
4. financial management;
5. analytics and reporting;
6. administrative, record keeping.

Additional skills may be required because of the subject matter or complexity of the contract. It is essential to have access to sufficient skills and experience as and when required. For example:

1. civil engineering, water engineering;

2. environmental and/or social knowledge and skills;
3. safety expertise;
4. systems or IT skills for a software development project;
5. medical expertise when purchasing medical diagnostic equipment.

Soft skills – interpersonal skills

In addition to technical ("hard skills"), a range of "soft skills" are required to build a successful relationship with relevant stakeholders, and to build successful contract management teams. Examples of relevant soft skills include:

1. leadership, motivation and team building;
2. decision making;
3. interpersonal, communication and relationship management;
4. mentoring and knowledge transfer;
5. negotiation and conflict resolution;
6. time management;
7. goal orientated, outcome focused.

Some of the key skills that a Contract Manager may normally possess are listed in Table II.

Feature	Relevance
Technical competence: Thorough knowledge and understanding of the subject matter and all aspects of the contract (e.g. technical specifications, terms of reference, conditions of contract, remedies etc.) and full understanding of their interdependencies (e.g. how to read the bills of quantities in conjunction with the technical specifications, the method of measurement and the drawings etc.)	Critical
Leadership skills: Self-motivated, focused, confident, thrives under pressure, calm, decision making, cooperative, politically savvy, personal integrity, diligent, honest, team management.	Critical
Implementation skills: Organized, efficient, pro-active, can think outside the box, devoted to the success of the project/contract, resourceful, results focused, risk management, problem solving, conflict resolution.	Important
Interpersonal skills:	Important

Feature	Relevance
Articulate, approachable, persuasive, good verbal and non-verbal communication, listening skills; emotional intelligence, courteous.	

Table II – Contract Manager key skills

Teamwork

Where a contract management team is formed, a team leader needs to be appointed with authority to manage the team and clear lines of reporting. The team leader must ensure that the team members are included and consulted as appropriate. Depending on the size and complexity of the contract, there may be a core contract management team. Others, often additional experts required for the contract, may then be called on as required.

Team members need to demonstrate the skills, experience or knowledge for their respective roles. It is essential that they contribute to the team, are accountable for their areas of responsibility and are able to communicate effectively to manage risk, coordinate activities and keep the contract to schedule.

Governance and management

Governance is a critical element of contract management. The governance structure is expected to reflect the Borrower's circumstances and the needs of the contract. It should be based on an assessment (as part of the project preparation) of the Borrower's contract management capacity, with measures to bridge any identified gaps. A governance structure allows the delegations, accountabilities, responsibilities, decision making, lines of reporting, stakeholder engagement etc. to be mapped and agreed in advance. It ensures accountability and probity.

Principles of good contract governance

1. clearly defined roles and responsibilities at all levels;
2. each role has sufficient representation and authority to fulfil its responsibilities;
3. disciplined governance arrangements supported by appropriate systems and controls (especially tracking progress, monitoring against service levels/quality standards, financial controls (budget, invoicing, forecasts etc.) and reporting);
4. a multi-tiered decision-making framework which provides for escalation from operational to management to governance;
5. decisions made at appropriate authorization points are recorded and communicated;
6. independent scrutiny of contract progress, outputs and outcomes undertaken on a regular basis;
7. a comprehensive contract management plan which is agreed and communicated to all parties;
8. strict control of change management decisions;
9. comprehensive communications strategy;

10. stakeholders are engaged at a level that is commensurate with their relevance to the contract and in a manner that fosters trust;
11. culture of candid feedback and improvement.

In-house vs. outsourcing

A decision to be addressed at the procurement planning stage, is whether a contract is to be managed in-house, outsourced or a combination of in-house with additional externally sourced support (limited outsourced).

1. **In-house**: contract management undertaken entirely by the Borrower's staff, due to availability of adequately qualified and experienced staff.
2. **Outsourced**: a specialist contract management entity is contracted by the Borrower to manage contract implementation. The specialist entity may be: project management firm, engineering firm, procurement agent.
3. **Limited outsourced**: the contract is primarily managed by the Borrower's staff, with additional resources from external experts, contracted as required. e.g. environmental, safety, IT systems/solutions.

Outsourcing arrangements should provide sufficient oversight, checks and balances for the Borrower.

In deciding an appropriate outsourcing option, the Borrower would need to assess its capacity, against the risk/complexity of the contract, in aspects such as:

1. technical expertise (such as engineering, financial, contractual literacy (legal), ESHS, administrative skills, fluency in the language of the contract etc.);
2. adequacy of soft skills;
3. relevant experience;
4. workload (would the current or future workload allow the in-house staff to manage the contract effectively?);
5. risk appetite based on assessment of risk: e.g. to what extent can the engineering function be delegated?

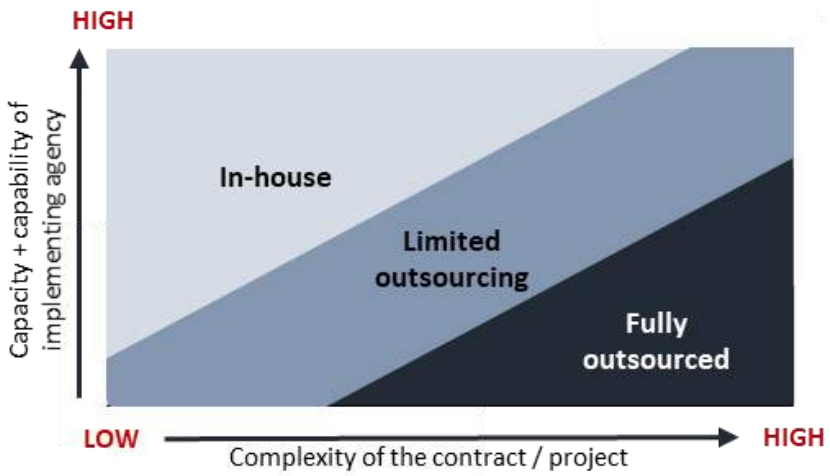

Figure IV– In-house vs. outsourcing: based on risk, complexity, capacity and capability

Potential pitfalls

Although there are a broad range of reasons for failures in contract management, not having the fundamentals in place is often a major factor for poor performance. Common causes of poor performance associated with inadequate fundamentals include:

1. insufficient planning prior to the transition from award of contract to the contract execution phase;
2. poor communication;
3. insufficient resources (capacity and/or capability);
4. inadequate governance and/or confusion of responsibilities;
5. poor decision making;
6. vulnerability to fraud and/or corruption;
7. ineffective risk identification and mitigation;

Good contract management practice demands timely identification and management of issues. Examples of causes of poor practice, and their consequences are illustrated in Table III.

Cause	Consequence
Failure to plan The Borrower and contractor fail to adequately plan for the transition to contract implementation.	• A chaotic start where adequate arrangements are not in place to support implementation.
Poor specifications The Borrower's requirements are poorly specified and the contractor's assumptions aren't checked.	• The contractor doesn't understand the nature and quality of the Goods, Works or Non-consulting Services required. • The contractor's delivery is inconsistent with the Borrower's requirements, and the intended benefits, outputs or outcomes aren't realized. • Difficult to manage the contract
Inappropriate choice of contract The contract terms and conditions are inappropriate for the type of procurement.	• The terms and conditions fail to provide a suitable contractual framework, allocation of risk, or appropriate remedies to best resolve issues that arise. • The respective obligations and responsibilities of the Borrower, Contract Manager if any, and contractor may be inadequate.
Inadequate resourcing and poor decision making • Inexperienced contract management team (unfamiliar with the technical specifications, terms of reference and/or conditions of contract, as well as with standard contract monitoring methods, systems and/or tools). • The delegations and responsibilities for making decisions aren't clear.	• Understandings between the Borrower and/or Contract Manager and the contractor differ on how to best deliver, implement and monitor the contract. • Progress is slow – even stalled. • Contract management is poor, issues aren't resolved and can build up until they become bottlenecks, and the contractor isn't held to account. • Misunderstandings and disagreements arise. Too many issues are escalated inappropriately. • The relationship deteriorates and becomes unworkable. • The contractor fails to deliver and the Borrower fails to notice.

Cause	Consequence
	• Decisions aren't made at the right time, if at all. Staff who have no authority make decisions. Decision-making is inconsistent. • Where the Borrower/Contract Manager fail to adequately perform their part of contract management, the contractor may take control, resulting in unbalanced decisions that are not always in the Borrower's interests.
Lack of readiness for implementation • Lengthy approval process of contracts. • Outstanding land acquisition issues. • Delays in making advance payments.	• Delays in contract effectiveness and contractor mobilization.
Poor contract supervision and monitoring • The contract's context, complexities and dependencies aren't well understood. • The Borrower/Contract Manager fails to monitor and measure the contractor's delivery and performance. • The Borrower/Contract Manager fails to monitor and manage related risks (e.g. operational, financial, commercial, political, environmental, social). • Failure to enforce the contractual requirements and contractual remedies	• The Borrower can't assess whether it's getting full delivery and value for money, including quality results, that it requires and expects. • Failure to achieve contractor performance in accordance with the contract.
Parties focus on delivery arrangements rather than the potential for improvement and/or innovation.	• Opportunities are missed to improve efficiencies, value for money and performance (value engineering and innovation).

Table III – Examples of causes of poor contract management practice

Case Study: Costs of remedying a defect

Situation: A bidding document for Works was issued with an error in the technical requirements for the materials to be used. It wrongly specified a lower quality material than what was required.

Case study: The following table IV shows the time and cost it will take to remedy this error, at the various stages of procurement. Generally, the further into contract implementation, the higher the cost and/or the longer the time to rectify.

Box I* - Case Study: *Costs of remedying a defect

Procurement process status	Remedial action	Cost	Time
During bidding process	Amend the bidding documents.	**Negligible**	**Negligible** Possibly, an extension of time for the submission of bids, if necessary.
During mobilization	Amend the contract. Borrower and contractor may easily agree the price of the change.	**Moderate** The new unit rate for the higher quality of material will be higher than the unit rate offered in the bid.	**Moderate** Additional time needed to agree the new rate and execute the contract amendment.
During contract execution	Amend the contract. PLUS Remove the material that has already been laid. PLUS Replace using the correct material.	**High** Securing any additional budget for the amendment could be an issue. In terms of cost: Cost of removing the low-quality material. PLUS Potentially higher price for the new/correct material. PLUS Cost of installing/putting	**High** Any time needed to secure additional budget; Additional time for completion to allow for the removal of the low-quality material and laying the new material. Contract time extension may be required.

Procurement process status	Remedial action	Cost	Time
		in place the new material	
After expiry of the Defects Liability Period **(could have significant implications on budget; time needed to secure it)**	Select a contractor to remove Works affected by the low-quality material and complete the Works as per the correct specifications	**Very high** (new contract with potentially higher prices, plus the cost of removing all Works previously done; potential loss of use, loss of production etc.)	**Very high** (the time needed to select a new contractor and the time needed to execute the new contract- could potentially be lengthy)

Table IV – Case study: Costs of remedying a defect

Fit-for-purpose contract management

Proportional

The time and other resources applied to manage a contract should be proportional to the size, scope, complexity, duration, risk, and strategic importance of the contract. One size does not fit all.

For example, low-value, routine purchase for off-the shelf Goods normally require minimal contract management efforts. On the other hand, a high-value, complex IT system that is strategically important to the beneficiary agency will need a dedicated contract management team (including specialists), greater monitoring, evaluation, risk management, sound decision making and relationship management.

Too many checks and balances can result in an overly bureaucratic culture that can delay decision making, impede contractor payments and stifle value engineering and innovation. Too little control can result in an undisciplined, crisis management culture. Getting the balance just right is the success to "fit-for-purpose" contract management.

Supply positioning

A significant factor in designing a fit-for-purpose contract management strategy is identifying how critical or important the Goods, Works, Non-consulting or Consulting Services are to the Borrower. This in turn, indicates the approach to be taken to building the relationship with the contractor. For example, the provision of hospital facilities and services in an at-risk district will be more critical to secure than the procurement of office consumables (paper and pens) for a public-sector agency.

A useful tool to help this analysis is the "supply positioning matrix". This is a model that helps Borrowers to rank, in order of importance, their procurements, based on the value of the contract (including life-cycle costs, if applicable), and the level of vulnerability (impact and consequences) to the agency if the supplier (contractor) fails to deliver. If the Goods, Works, Non-consulting or Consulting Services are not delivered on time, to quality (including environmental and safety standards) and at cost, how will this affect the delivery of the development needs, and what will be the impact on the beneficiary stakeholders?

The supply positioning matrix can be used at various phases in the procurement, from the planning and market research phase through to contract management.

Figure V – Supply positioning matrix

Figure VI – Supply positioning matrix explained

The impact of the supply positioning in relation to the approach to contract management is described in Table V. This is to be read in conjunction with the next section "Managing relationships", as the two concepts are closely linked.

Quadrant	Contract management (CM) approach	Contract arrangements
Tactical acquisition	• Brief CM plan • Minimum attention • Fixed price or formula • Look to rationalize	• One-off contract or purchase order • Framework Agreements • E-purchasing • Procurement Cards
Tactical profit	• Short CM plan • Drive VfM • Use leverage through bulk purchasing/volume	• Short-term contract • Ongoing active sourcing for competitive price
Strategic security	• Detailed CM plan • Ensure supply • Long term contracts • Contingency planning	• Build reserve of stocks (where appropriate) • Consider alternative products to minimize risk
Strategic critical	• Detailed CM plan • Closely manage supply • balancing the control of costs with managing risk	• Med/long-term contract • Contingency planning in event of failure

Table V – Explanation of the supply positioning matrix

Managing relationships

Successful relationship management

As mentioned earlier, managing relationships is one of the essential skills required of Contract Managers. It involves understanding the nature of different types of relationships (e.g. between the Borrower and contractor, or Borrower and end-user) and identifying how much time and resources need to be committed to communicating and handling each relationship. Each contract is different, so careful considerations of the parties/groups involved, the nature of the contract, and its value, scope and complexity need to be taken into account when developing a relationship management strategy, as part of the Contract Management Plan.

The hallmarks of good relationships include:

1. commitment to the relationship;
2. honesty;
3. trust;
4. goodwill;
5. effective two-way communications;
6. common understanding;
7. mutual respect;
8. openness and accountability.

In a contract setting certain factors promote successful relationships and others inhibit successful relationships. Table VI describes such factors.

POSITIVE FACTORS for successful relationships	**NEGATIVE FACTORS that inhibit successful relationships**
• securing senior level support for the contract • ensuring that the governance arrangements are robust and fair • open sharing of information • collaborative relationship (problem solving) • ensuring that relationships between the parties are peer-to-peer as far as possible • ensuring that roles and responsibilities are clearly understood by all parties	• failure to prioritize managing the relationship • discourteous or offensive styles of communicating • blame culture • failure to communicate information that is important to the other party • failure by either party to fulfill its contractual obligations

POSITIVE FACTORS for successful relationships	NEGATIVE FACTORS that inhibit successful relationships
• ensuring that the necessary authority levels have been delegated • ensuring that escalation routes (for issues and disputes) are clear and understood • issues and disputes are addressed/resolved in a timely and effective manner • separating strategic matters from the day-to-day service delivery issues • ensuring that appropriate attitudes and behavior are practiced and displayed to assist the promotion of a positive and constructive interactions • communicating clear expectation of outcomes and sharing information at the appropriate levels, e.g. strategic, business and operational levels • timely and effective change management in accordance with the contract • fair and consistent application of remedies as per the contract • timely payment for successful delivery • formal and methodical change management of the contract	• recourse to remedies in a manner not consistent with the contract .

Table VI – Positive and negative factors affecting relationship management

Plan and act early

Relationship-building takes time. One should not wait until there is a problem to start engaging. For example, engagement with the contractor/consultant starts at the beginning of the procurement process, through contractor selection, negotiation and contract award. The way that bidders/proposers are treated or their understanding of the Borrower's level of professionalism during these stages can have an impact on the quality of the relationship by the time it gets to contract implementation. The initial period of contract implementation could set the tone for the contractor's performance for the rest of the contract, and therefore the relationship is expected to be proactively firm and fair.

Engagement strategies for relationship management with relevant stakeholders would need to be developed early. These can be included in the Contract Management Plan. The type of strategy and the amount of resources applied to relationship management need to be in line with the needs of the

individual procurement/project i.e. fit-for-purpose. A good start is to map the parties and their respective relationships.

Relationship mapping

The typical contract management relationships are between the Borrower (project implementing agency, Purchaser, Employer, Client etc.) and contractors, and the Borrower and consultants. Consultants may in turn serve as Contract Managers thereby having contract management relationships with both the Borrower and contractors. In addition, there is often a beneficiary group or stakeholders whose needs are to be considered. For IPF funded operations, there is also the World Bank. Figure VII provides an example mapping of these inter-relationships.

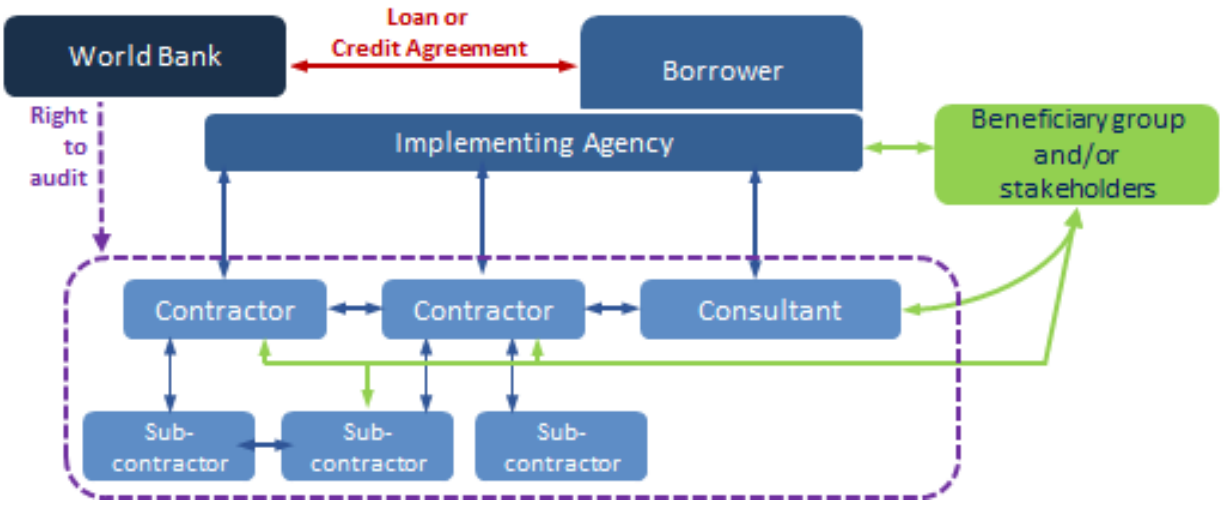

Figure VII – Key relationships mapping in Bank financed contracts

Bank and Borrower

The legal relationship between the Bank and Borrower is established through the loan or credit agreement. Each party's obligations and responsibilities are clearly described in these documents. The Bank supervises Projects financed by it, which may normally comprise of numerous contracts. In addition, for contracts subject to prior review, types of contract modifications (as specified in the Procurement Regulations) or contract terminations require the Bank's no objection.

Borrower and contractor

The contract governs the relationship between the Borrower and contractor. Depending on the nature of the contract, the Borrower may wish to develop a close partnership or invest less time and resources in managing this relationship.

Borrower and Contract Manager

The relationship between the Borrower and the Contract Manager depends on the duties assigned to/ authority vested on/ delegation to manage the execution of a contract. This could range from assigning

contract management duties to internal staff to employing consultants to serve as “Engineer”, “Project Manager”, “Employer’s Representative” etc.

Contract Manager and contractor

The relationship between the Contract Manager and contractor is governed by the applicable contractual arrangements. The role of the Contract Manager is specified in the contractor’s contract.

Bank and contractor/consultant (Contract Manager)

There is no contractual relationship between the Bank and contractors/consultants. Specific provisions in the contract between the Borrower and the contractor/consultant state that the Bank has inspection and audit rights.

Contractor to contractor

In small scale, less complex contracts, there is often no relationship between contractors. However, in large scale, complex projects, with many dependencies and multiple contractors and sub-contractors, the need to coordinate activities and manage these relationships i.e. interface management becomes essential.

A systematic approach is required to streamline communications, effect good communications and apply robust reporting systems. This involves identifying critical interactions and monitoring the progress of the work. The interaction of the contractors could be related to:

1. physical interactions;
2. harmonizing functional requirements;
3. competing contractual obligations;
4. information exchange;
5. utilization of resources;
6. coordinating implementation schedules.

Not having an effective interface management system could negatively impact the cost and schedule of the contract. Factors to consider when establishing an interface management system include:

1. assign a manager or consultant to be responsible for the interface between contractors and create an interface team;
2. each contractor identifies a contact person with sufficient authority to work with the interface manager for each party affected by the interface;
3. clearly define the roles and responsibilities of each interface team member;
4. share regular reports on performance and critical issues;
5. arrangements for effective resolution of differences or conflicts;
6. risk is assigned to the party best able to manage it. Emerging risks are shared and a common management plan is agreed.

Borrower and beneficiary/stakeholder group/s

This refers to relationships between the Borrower and the beneficiary (end user) and/or stakeholder groups (e.g. affected communities). Just as consulting with end users and affected communities in early procurement planning and design stages has significant benefits to the development of specifications/requirements, it is essential to continue these relationships throughout contract implementation.

The needs of the beneficiary/stakeholder groups should be understood, their requirements and concerns should be communicated to the contractor/consultant, and the risks and issues formally addressed. This requires a degree of ongoing coordination and channels of communication, so that end-users/community groups have a voice. The Borrower should develop a stakeholder engagement plan to keep end-users and communities engaged during contract execution. This is particularly important in large infrastructure contracts which have a significant impact on end users/communities. Environmental and Social specialists would need to actively support these relationships.

Actively involving the community has several benefits including:

1. better control of the contract's implementation and operational risks, leading to improved contract outcomes;
2. reduced incidence of fraud and corruption (communities can often act as active watchdogs);
3. better awareness of ESHS issues (including Gender Based Violence (GBV) and Sexual Exploitation and Abuse (SEA));
4. opportunity to identify and address grievances in a timely manner;
5. increased ownership and sustainability.

Preparing a Contract Management Plan

Why plan

Planning how, when, where and by whom a contract will be implemented, monitored, managed and administered is an important step to ensure that what is procured will be delivered. A Contract Management Plan (CMP) provides a structured and systematic approach. An example CMP is provided in Annex 3.

When to plan

The Borrower begins development of the CMP as early as possible in the procurement process. Preferably, the plan is expected to be completed when signing the contract. In practice, it may be promptly thereafter.

How to plan

The CMP should be fit-for-purpose. This means that the level of detail and length of the document should be proportionate to the scope, value, risk, complexity and duration of the contract. Typically, a CMP will cover some, if not all of the following:

1. contract management roles and responsibilities (ensure that each party has established the necessary authorizations and delegations for its personnel at the beginning of the contract as this is an important prerequisite to ensuring that all contracting decisions are valid and enforceable);
2. list of key contacts (e.g. the names and contact details of the key contacts for the Borrower and the contractor);
3. contract management system;
4. governance structure;
5. contract documents (including key contractual terms and conditions);
6. key milestones (including the critical path);
7. Key Performance Indicators (KPIs) and a description of the standards or measurement process, if relevant;
8. key contract deliverables (identified and properly described, and updated to account for change orders during the execution of the contract);
9. reporting requirements (types of reports, times, contents etc.) and lines of reporting;
10. payment procedures consistent with contractual provisions;
11. record keeping requirements and procedures;
12. audit or independent assurance requirements;
13. change management or contract variation procedures;

14. issues management and escalation;
15. key contractual remedies;
16. risk management plan (see risk register below);
17. stakeholder engagement plan;
18. communication plan;
19. insurance coverage, if required;
20. guarantees and/or securities, if applicable;
21. price adjustment formula and circumstances, if applicable;
22. interface management (between contractors), if applicable;
23. contract closure procedures.

If requested by the Bank, the CMP, including the KPIs, should be submitted for prior review.

The CMP should be shared with the contractor and all parties involved in contract implementation, management, administration and governance. The Borrower is advised to discuss the plan with the contractor (face-to-face) to ensure that it is fully understood, especially the allocation of risks and responsibilities.

Risk register

A risk register may be initiated in the initial stages of Project preparation (such as the environmental and social risks identified in the Environmental and Social Commitment Plan) and developed further at key milestones such as design finalization and preparation of Procurement Documents. The risk register should be reviewed and updated (with contractor's input) during contract award/signing of contracts and included within the CMP as a practical tool to support effective contract management.

Contract start-up

Transition

Transition is the initial period between contract award and the start of contract implementation. In some circumstances, this transition period may involve a changeover from a previous contractor to a new contractor. Depending on the nature and circumstances of the contract, the transition may require planning.

Facilitating contract start-up

It is incumbent upon the Borrower to support, and where possible facilitate, the contract start- up. This includes:

1. preparing a CMP and discussing it with the contractor;
2. ensuring that the contract management team is in place and fully resourced to undertake its responsibilities;
3. ensuring that the contract management team is familiar with the CMP, the contract management systems and processes, and all of the actions necessary for contract start-up;
4. assisting the contractor in obtaining the necessary documentation such as: visas, residency, work permits etc. for expatriate staff.

In some contracts there are contract effectiveness/commencement conditions that need to be met e.g. in Works contracts. These conditions are detailed in the contract documents.

Where such effectiveness/commencement conditions exist, the Borrower should ensure that it meets its obligations in a timely manner. If this does not happen, it could lead to delays in start-up, cost compensation requests by the contractor, and even termination of the contract.

Generally, the Borrower/ Contract Manager needs to take the following actions:

1. properly analyze and understand contract's needs, including functional/ performance/technical requirements;
2. establish Key Performance Indicators (KPIs) with contractor's input, as appropriate;
3. ensure that the contractor submits an acceptable performance security/ESHS performance security, if required, in due time. Check that the amount, validity and text are in accordance with the contract document;
4. if there is reason to suspect the performance security and/or advance payment security, verify the authenticity of the performance security and advance payment security with the issuing financing institution before making the advance payment;
5. subject to submission of an acceptable advance payment guarantee ensure that the advance payment is made in a timely manner;

6. verify adequacy of any insurance policy taken out by the contractor (*see below on insurance*);
7. if the contract applies a letter of credit as an instrument for payment, ensure that an error free letter of credit is issued in a timely manner;
8. for Works- related contract, ensure that the contractor has submitted required ESHS documentation as required by the contract.

Insurance

Insurance provisions are valuable risk management tools. The Borrower has to ensure that:

1. the insurance policies are in place in accordance with the contract;
2. the coverages are adequate and within the thresholds specified in the contract;
3. the insurance policies contain the essential information such as coverage, duration, applicability etc.;
4. due diligence is applied to checking the authenticity of the insurance document and payment of insurance premiums.

Insurance Verification Checklist

Issuing company:	Is the issuer of the policies a properly established and reputable insurer in the Borrower's country or abroad? Information on foreign insurance companies may be available through the insurance market regulators in the home country.
Payment of insurance premiums:	
Amount:	Does the insured amount properly cover the requirements of the contract?
Coverage:	Does the policy fully cover all general and specific risks that may occur on the site?
Continuity:	The Borrower should check proof of payment of insurance premiums and periodically request confirmation from the insurance company (say twice a year) that the respective policies are still valid.
Validity:	Is the policy valid for the entire period required by the contract? Did the contractor submit the proof of paying the premiums to the insurance company? If payments are to be made by the contractor periodically, the Borrower would need to periodically request evidence of payments.
Insured parties:	**D**oes the policy expressly name both the Borrower and the contractor as jointly insured? Policies where only the contractor is insured are not acceptable as they transfer the entire risk on the Borrower.

Exclusions:	Are there any exclusions? The Borrower should check the exclusions of the policies and should request that the insurance company confirm the exact list of exclusions and their applicability.
Deductibles:	These represent the amounts that the insured party must cover from its own funds when an insured event occurs. Higher deductibles translate into cheaper insurance premiums, but also in higher risks, because the contractor and/or the Borrower will need to cover more of the damage. The Borrower should check the adequacy of the deductibles.
Terms and conditions:	Check any terms and conditions that may render the policy invalid and under what circumstances or events. The Borrower should check any conditions attached to the insurance policies such as prior notification requirements and any other clauses that may affect its rights under the terms of the policy.

Box II – Insurance verification checklist

Some bottlenecks affecting contract start-up

Some examples of bottlenecks that often affect contract effectiveness/commencement are indicated below.

Permits

If the Borrower must acquire planning, zoning, building permits or similar permissions for the Works, these should be obtained early in the process to allow effectiveness/commencement. If the processes for obtaining such permits is cumbersome or lengthy, the Borrower should plan to initiate the process well in advance and take adequate measures to mitigate the risk of delays. Such measures may include:

1. acquiring the permits before entering into the contract;
2. if the final design must be completed before the permits can be obtained, then completing the design before inviting bids/proposals (rather than applying a Design and Build approach, for example); and
3. providing reasonable assistance to the contractor to obtain permits as required in the contract.

Access to site

A common cause of complications in infrastructure contracts is delay in giving the contractor access to, and possession of, the site within the time stated in the contract. If no time is stated in the contract, the Borrower should give the contractor access and possession within such time that enables the contractor to proceed in accordance with the agreed program.

If the start of the program is delayed, this may result in time extensions for the Works, and increased costs to the Borrower. Given the consequences, it is good practice that Borrowers prepare themselves well before award of contract to enable them to readily give the rights of access and possession in accordance with the contract.

Letter of credit

Where the Borrower has to arrange a letter of credit, it is important that this is done in a timely manner (to allow the Goods to be shipped) and that the letter of credit is in the correct form. Errors in the letter of credit, require formal amendments, and this process results in delays. Further, as a copy of the issued letter of credit is a key document for the Bank to disburse funds using the "Special Commitment" disbursement method, it is important that the letter of credit is operational (e.g. with valid expiry date).

Customs clearance

Even if not normally an effectiveness condition, any expected custom clearance bottleneck should be addressed by the Borrower as early as possible. Customs clearance can in some places involve complex and lengthy processes. Delays can be caused by:

1. delayed payment of custom/import duties by the Borrower or the contractor (whoever is responsible);
2. incomplete documentation or documents that don't comply with customs requirements;
3. inherent bureaucratic hurdles in clearance procedures.

The time and effort needed to handle the formalities may be identified in the early planning stages and factored in to the contract management plan. Appropriate mitigation measures should be put in place.

Contract Implementation: Managing time, cost, quality and risk

Three-dimensional approach

Time, cost and quality can be seen as three constraints within which the contract needs to be delivered. Changes in one constraint may necessitate changes in another to compensate.

The Contract Manager should be mindful of how any change in one constraint could impact the others and affects the contract risks.

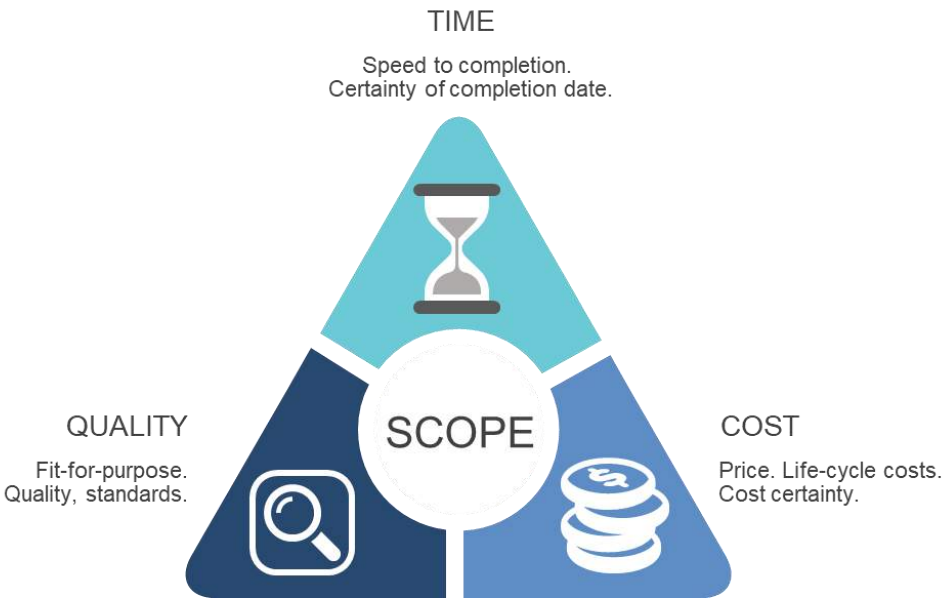

Figure VIII – Time, cost, quality (TCQ) interdependencies

Time control

An essential part of contract management is identifying the critical path. The critical path is the sequence of activities, which add up to the shortest time possible to complete the contract. Identifying the activities, the sequencing and other dependencies, and estimating times for completion, are the first steps in developing a robust and realistic schedule for contract implementation.

Key factors in time control include:

1. developing a comprehensive, practical and realistic schedule of key activities (this may include key deliverables and milestones and projected contract completion date);
2. undertaking a quality assurance check of the schedule including identifying any flaws in logic or faulty assumptions;
3. ensuring that the Borrower/Contract Manager and the contractor are working to the same schedule;

4. implementing an effective tool or system to track and monitor progress against the schedule;
5. ensuring early intervention when a potential or actual delay is identified;
6. implementing appropriate action to mitigate or manage a delay and recording the decision/s.

Time extensions

The Contract Manager will often be required to decide when it is appropriate to allow a time extension. How the Contract Manager resolves delays will depend on the facts and circumstances of the delay, and always based on the contract. These could be, for example, a delay that:

1. is due to the Borrower being in default (e.g. failing to carry out its contractual responsibility which impacts on the contractor's ability to progress the work);
2. is due to new or extra work/services not included in the original scope.

Cost control

Managing costs is essential to ensure that the contract is delivered within the contract price. The approach to managing costs will depend to some extent on the nature of the contract. The Contract Manager should put in place appropriate financial systems and reporting mechanisms that record the budgeted costs, track actuals and provide alerts where there are cost overruns. Ideally, the contract management system should be integrated with the financial management system of the government or the project as the case maybe. The key elements of a contract inventory report embedded within such a system, are indicated in Annex 5. It would be helpful to have an assigned person for tracking costs against actual and reporting to the Borrower.

Causes of cost overrun	Action
1. The Borrower's design has flaws. 2. The Borrower's design is not capable of being implemented or constructed.	• On discovering the flaws, the contractor notifies the Contract Manager in accordance with the contract. • This may trigger a variation order and likely result in a cost increase.
3. Increased price of raw materials or products due to inflation, fluctuations in exchange rates, or changes in taxes, or duties.	• to be managed in accordance with the contract.
4. Unforeseen conditions emerge, e.g. a significant difference in sub-surface ground conditions from what was expected.	• If contractually justified, the Borrower/Contract Manager may approve the increase in cost/time extension.
5. Higher level of change orders/variations than expected (especially if they relate to high unit rates or prices).	• The Borrower/Contract Manager needs to scrutinize all change order/variation requests and when granted, to track and control cost increases.

Causes of cost overrun	Action

	• The contractor must provide proper contractual justification, analysis, method statements, evidence of the origin of additional costs and the reasonableness of the cost increase. Circumstances that may justify approval include:
	  • necessary design modifications;
	  • unforeseen change in conditions that materially affects costs;
	  • additional/reduced scope of works;
	  • Borrower/Contract manager-directed acceleration or slowdown of contract progress;
	  • delayed, denied or restricted access to the site.

6. Fraudulent practices by suppliers, contractors and consultants such as overbilling, double billing, timesheets for no show amongst other practices	The Borrower/Contract Manager needs to establish proper verification procedures, such as periodical internal audits to assist the double checking of supporting payment documents for contracts paid in multiple instalments, including consultant time-based contracts.

Table VII – Examples of causes of cost overruns

Price adjustment

Some contracts allow the price to be adjusted where, for example, local or foreign inflation is expected to be high. If applicable, the process for adjusting the price is detailed in the contract, including the appropriate formula to be applied. Contract cost control mechanisms include monitoring the correct application of price adjustment provisions, where included in the contract.

A separate excel based Contract Price Adjustment Computation Workbook is available to support Borrowers in applying contractual price adjustments.

The following case studies illustrate the application of price adjustment provisions.

Case study: the application of a price adjustment formula

The scenario in this example is where the currency of input is different from the currency of payment.

If a foreign currency component (say US$) of the contract price (or a portion of the contract price, such as pavement work) is made of the costs of fuel, bitumen, equipment and spares for 20%, 30% and 40% respectively with a fixed portion of 10%, the formula for adjustment of this US$ portion of the Contract Price would be:

Adjusted Price = Base Price*[0.1 + 0.20*Fc/F0 + 0. 30*Bc/B0 + 0.40*Eqc/Eq0]

Where F, B and Eq are respectively indices for fuel, bitumen and Equipment respectively, c refers to the current value of an index and 0 refers to the base value - at the Base Date of the contract which is normally specified as the date 28 days prior to the bid submission deadline. It is reasonable to expect that the bidder was aware of the various costs at this Base Date when preparing and submitting the bid/proposal.

If an index Ix for a given input (input X) from a country (country B) that is different from the country of the currency of payment (Country A), corrections must be applied. Let us see the variation of the price of Input X from country A, using its cost converted to the currency of Country A:

(i) at the Base date the measurement of index value for Input X would provide the following data:

[Ix0*value of one unit of currency of country B in currency of country A on the Base Date]

whereas

(ii) at a certain current date, the measurement would provide the following data:

[Ixc*value of one unit of currency of country B in currency of country A on current Date]

Hence the variation of cost of input X measured from country A, using its cost converted to the currency of Country A would be:

[(Ixc*value of one unit of currency of country B in currency of country A on current Date)/ (Ix0*value of one unit of currency of country B in currency of country A on the Base Date)].

Box III – Case study: application of price adjustment

Case study: adequate and inadequate application of price adjustments

Country A (country of currency of payment) experiences no inflation during the period considered (i.e. from Base Date to the current date). Whereas Country B (country of origin of indices) experiences 100% inflation for the cost of a given input. Consequently, the value of the corresponding price adjustment factor Ic/I0 equals 2.0, reflecting 100% inflation or doubling of price for the input in the currency of country B.

During the same time, the Country B currency has considerably weakened against Country A currency and the following is observed:

Ix_0 = Value of one unit of currency of country B in currency of country A on Base Date = 0.4

Ixc= Value of one unit of currency of country B in currency of country A on current Date = 0.2

Scenario 1: If no correction were applied, the payment would be adjusted by a factor of Ic/I0 (or 2.0), unduly because the cost of the given input did not fluctuate in the currency of payment, which is the currency of Country A.

Scenario 2: If the correction were applied incorrectly for instance, by using the following formula in which the sequence of "country A" and "country B" has been inverted:

(Ixc*value of one unit of currency of country A in currency of country B on current Date)/ (Ix0*value of one unit of currency of country A in currency of country B on Base Date)

The adjustment factor would turn out to be or 2.0 x 0.4/0.2 which equals 4.0! Obviously, the given payment would be unduly adjusted by a large factor on account of the given input, when actually no adjustment was justified.

Scenario3: If the correction to the currency of payment is correctly applied the actual adjustment to the contract price in the currency of Country A (currency of Payment) would be:

= Ic/I0 x Ixc / Ix0 = 2.0 x 0.2/0.4

The value of which is 1.0, reflecting that no adjustment will be made on account of the given input. Note that in the real world, the value of this factor may be different from 1.0, but normally not very substantially.

Box IV – Case study: adequate and inadequate application of price adjustments

Case study: inadequate application of price adjustments

A Borrower chose Alternative A in the bidding documents i.e. the contract price is entirely in local currency with percentages of foreign currencies. The rates of exchange to be used as specified by the bidder to determine the amounts of foreign currencies based on the percentages was included in the contract and shall apply for all payments under the contract so that exchange risk will not be borne by the contractor.

In determining contractual price adjustments, the Borrower/Contract Manager applied the formulae to the amount of payment due expressed in the local currency, e.g. before converting the amount to the currency(ies) of payment, and then wrongly added up all the amounts obtained expressed in the local currency prior to breaking down the resulting sum according to the currency split which is the method of the said Alternative A.

Such errors defeat the purpose of having a different price adjustment formula for each payment currency, and may result in excessive payment to the contractor for price adjustment in one or more of the stronger currency(ies) as the related payment may unduly "benefit" from a higher inflation in another currency, in particular if the inflation rate in the country of the Borrower is, for example, a two-digit figure.

Box V – Case study: inadequate application of price adjustments

Case study: inadequate application of price adjustments

A Borrower issued a contract for road rehabilitation. This is a 24 months' contract with price adjustment clause. The Borrower and the contractor did not apply the price adjustment clause till the first 18 months. They then started to apply the price adjustment provisions. The price adjustments were applied with wrong indices and coefficients. For example, the fixed coefficient in the applied formula was 0.02, instead of 0.2 in the contract.

Box VI – Case study: inadequate application of price adjustments

Use of proxy indices

A specific price index may not be available from existing official publications or is available but cannot be used in practice because its value is not regularly published. This may occur for local indices in some countries, i.e. indices to be used in the formula for local currency adjustment. A proxy index may have been agreed to be used, and/or computed, for instance, by surveying the cost of the corresponding input from the local market. The average monthly cost observed for the item may be used as the value of the proxy index. In any case, the Borrower should not rely solely on data provided by the contractor to establish proxy indices as such data may be biased or manipulated.

Replacement of indices

During the term of a contract, the publication of a given price index may have discontinued, or the index value may have been reset to 100. In such cases, the Borrower needs to proceed with a new index or the reset index, with some adjustment. If the source of publication of the discontinued index (say Iold) recommends the use of another applicable index (Inew) from a date i, then after the date i the factor [Ioldc/Iold0] should simply be replaced with [Ioldi/Iold0*Inewc/Inewi]. The new index takes over from the old one after "date i".

There may also be cases when a (technical) amendment to a contract may require modifying the selection of a specific index or the weightings in the price adjustment provision, e.g. lime was to be used in the original contract but is deleted early in the contract and cement used instead for soil stabilization. In such cases, the formula(e) should be amended by contract amendment, to reflect the changes in both the indices to be used and perhaps the weight of the corresponding inputs (the old and the new ones) in contract price whenever a renegotiation of unit rate is also necessary.

Formula redesign

Normally, a price adjustment formula established at the time of award of the contract will be used throughout contract implementation. However, there may be exceptional circumstances which require that the price adjustment formula be redefined at some point in time during the term of the contract. This may happen for relatively long execution period contracts, or when the cost of a given input (input reflected by an Index "I") is subject to an exceptionally high variation. In such case, the continued use of the same linear price adjustment formula using same Index "I" may distort the price adjustment.

Box VII – Case study: redesign price adjustment formula during contract term

Case study: redesign price adjustment formula during contract term

Initial formula:

Adjusted Price = Base Price*[0.10+ 0.20*Ic/I0+0.30*Bc/B0+0.40*Cc/C0]

Assuming Ic is as high as two times the value of I_0 at the Time 1, whereas the other indices are supposed not to have varied at all, the adjustment produced by the formula at Time 1 would be:

Adjusted Price$_1$ = Base Price*[0.10+ 0.20*2+0.30*1+0.40*1] or Base Price*1.2

Redefined formula: (example)

Takes account of revised weightings of the corresponding inputs, as follows:

Adjusted Price = Base Price* [0.10+ (0.40*0.9/1.10) * Ic/I$_1$ + (0.30 * 0.9/1.10) * Bc/B$_1$ + (0.40 * 0.9/1.10) * Cc/C$_1$]

Quality control

It is good practice to monitor and assess quality as the contract is being implemented. This ensures that quality is controlled and consistently delivered. There are many different types of quality management and control systems. It is important to select an appropriate system or methodology based on the nature of the contract. The system should be agreed with the contractor and put in place before the contract commences.

Causes of poor quality	Action
1. Flaws in the Borrower's design.	• On discovering the flaws, the Borrower/contractor immediately notifies the other in accordance with the contract. This may trigger a variation order and likely result in a cost increase.
2. The deliverables do not meet the required specifications.	• investigate to determine the cause/s. • apply the appropriate contractual remedies.
3. Poor quality assurance tests or inspections do not identify issues with the quality being delivered.	• Redesign the quality assurance tests or inspections to ensure that quality issues are found and dealt with.
4. Fraud and corruption result in inferior materials being used and poor-quality outputs.	• Report suspected fraud and corruption to the Bank. • Apply appropriate contractual remedies.

Table VIII – Examples of causes of poor quality outputs

Tests and inspections

For some contracts, the Borrower or its representatives may need to attend tests and/or inspections in the premises of the supplier (contractor). The applicable Bank's standard contract provisions require the supplier to provide all reasonable facilities and assistance related to the inspection/tests at no charge to the Borrower. However, the Borrower is required to bear its own travel and accommodation costs and expenses in relation to attending the inspection/test. Any practice of demanding that the supplier meets these costs, including per diems, could create ethical issues, and is therefore highly discouraged.

Managing Contract risks

The Contract Manager should regularly review the risk register (with inputs, as appropriate, from the contracting parties) during contract implementation to ensure that the risks are being managed proactively by those that the mitigation measures have been allocated to and to identify emerging risks. For example:

1. Has the contractor provided an update of the work program and has the Borrower reviewed this against the schedule for the release of land (to enable the contractor to proceed without delay)?

2. Has the Borrower provided the necessary permits that it is responsible for?
3. Has the Borrower provided the designs and drawings to contractors (when required by the contract);
4. Have any risks related to the process for making contractual payments been mitigated?
5. Is the process for responding to contractor's notices operating as envisaged?

Any new risk that is identified should be analyzed, and mitigation measures allocated prior to the risk materializes and becomes a bottleneck to contract implementation.

Managing contract change

The need for change

To some extent, the need to change or vary a contract depends on the nature and complexity of the Goods, Works, Non-consulting or Consulting Services being procured. A one-off straightforward purchase of Goods, for example, is unlikely to require changes to the contract (unless there has been an error) compared to a complex infrastructure contract which may require a number of changes as works progress. Despite best efforts of contracting parties, changes in a contract may be necessary for a range of reasons such as errors, unforeseen conditions, emerging risks and changes in the Borrower's needs. Changes in a contract may also be due to application of value engineering. The latter is treated in the next section: "Managing value engineering."

Change management procedures

The key to managing change is to establish robust change management procedures and to ensure that these procedures are followed. Some tips to good practice change management include:

1. as early as possible during the contract execution phase, establish a formal and documented change management process consistent with the scope of the contract and contractual change management procedures;
2. have appropriate forms and clear procedures for requesting a change proposal (or change order), estimating the change (e.g. scope, costs, implications and risks), and approving the change proposal *(the SPD- Plant, for example, includes relevant change order procedure and forms)*;
3. clarify who is responsible for what during change management, and ensure that individuals have clear delegated authority to act, or to escalate change requests where there are issues;
4. familiarize those involved in contract change management (e.g. contract managers, consultants, contractors) with the procedures, documents, decision making process and record keeping requirements;
5. identify areas susceptible to change, evaluate risk, and proactively manage those areas;
6. ensure timely communication of change information to the relevant people;
7. make sure all relevant factors are considered when assessing change proposal (e.g. in terms of technical, quality, impact and risks (including on ESHS, if applicable), time and cost);
8. monitor the change management process to ensure that proper procedures are being followed;
9. ensure that changes are captured as Addenda to the contract, and approved at the appropriate level specified in the contract;
10. unless contractually justified and/or due to emergency situation, do not order or execute changes to a contract without the appropriate change documentation;

11. comply with the Bank's requirements for prior review to changes to a contract;
12. adhere to the Bank's requirements where the changes relate to a contract with a firm that has been sanctioned by the Bank (see below);
13. keep records of all change orders, including the reasons;
14. at contract close-out, evaluate the changes and their impact/s on the contract cost, schedule and performance for future use as lessons learned.

Bank sanctioned firms or individuals

According to the Bank's Procurement Guidelines, Consultants Guidelines and Procurement Regulations, the Bank does not finance any new contract, or any amendment introducing a material modification to an existing contract, where the contract is with a firm or individual that has been suspended or debarred by the Bank. This applies on or after the effective date of suspension or debarment.

The key phrase for such contract amendments is "material modification." What constitutes a material modification needs careful assessment on a case-by-case basis.

Managing value engineering

Definition

The term 'value engineering' (VE) refers to a technique for improving the value in a contract. Value can be increased by either improving the function or reducing the cost. It is sometimes described as "providing the necessary function/s at the optimal cost".

VE involves a systematic method of analysis. It requires the examination of the function of the contract, system, product, item of equipment, building, facility, or service, with the objective of improving performance, reliability, quality, safety, and/or costs (including life-cycle costs). VE could result in the reduction of time or the substitution of better materials, more efficient methods, or less expensive inputs, all without sacrificing the needed functionality, longevity, or reliability. The fundamental premise is that the basic function/s is preserved and not reduced because of a VE improvement.

Benefits

VE analysis could help the Borrower to realize benefits such as:

1. design improvements;
2. cost savings;
3. improved constructability;
4. accelerated incorporation of new materials and construction techniques;
5. elimination of unnecessary functions and establishment of combinations of functions that are more responsive to the needs of the Borrower;
6. reduced environmental impacts;
7. reduced schedule;
8. reduced risk;
9. improved operations;
10. greater opportunity for stakeholders' participation in the process;
11. improvement of standards and/or policies.

VE may be undertaken at various stages during the procurement, including:

1. concept design;
2. preliminary design;
3. submitted proposals and before the decision to award the contract;
4. final design stage;

5. contract execution e.g. during construction.

Where a contract allows for VE, the process for undertaking VE would need to be stipulated in the contract. Normally, the contract will state:

1. how the benefits arising from the VE will be shared between the parties;
2. the process for the contractor to prepare and submit a VE proposal;
3. that the VE proposal is prepared at the contractor's cost, and the decision of whether to adopt the VE proposal rests solely with the Borrower/Contract Manager;
4. the acceptable reasons for initiating a VE proposal, such as: reduction of costs to the Borrower, enhanced performance, shortened completion time, or the creation of some other benefit/s to the Borrower.

VE at the design stage

VE may be used when the design is in the schematic stage. VE provides an opportunity to review the proposed design solution/s, the cost estimate, and the proposed implementation schedule and approach, with the objective of refining the solution to find the best value for the money option.

Undertaking a VE workshop at the initial design stage may result in enhanced benefits for the contract. Workshop activities may include:

1. determining and evaluating the essential functions of the present design;
2. realistic assessment of costs;
3. examining costs and determining the present design constraints;
4. obtaining relevant and up-to-date information from the best possible sources;
5. brainstorming to challenge the initial conceptual design and thinking and creating alternative design/s that meet the basic function required;
6. using sound, practical judgement;
7. assessing the technical and financial feasibility of the new design/s;
8. consulting experts to test the new design/s;
9. making a VE recommendation describing and justifying the new design.

VE during contract implementation

The purpose of including the VE provisions in the contract is to encourage contractors to investigate, for example, improved construction methods and materials, submit VE proposals and, upon acceptance, receive fair and reasonable compensation.

During contract implementation, VE improvements may be applied if provided for in the contract. A contractor working on site every day is in a good position to identify VE opportunities and can provide a fresh approach to the construction methods or materials that could reduce the cost and/or time.

Submitting a VE proposal

When the contractor makes the decision to submit a VE change proposal, the contractor would need to realize that the chance of the proposal being approved depends on the completeness of its preparation and the demonstrated benefits (value) to the Borrower. Sufficient information must be provided so that the Borrower/Contract Manager can conduct a thorough evaluation within a reasonable period. Failure to provide adequate data may result in a request for additional data (which could delay the process) or may even result in the rejection of the VE proposal.

The following is generally good practice information (for exact required information, refer to the subject contract), for a contractor's VE proposal:

1. the proposed change/s, and a description of the difference to the existing contract requirements;
2. sufficient ESHS information to enable an evaluation of ESHS risks and impacts (for Works related contracts, for example);
3. a full cost/benefit analysis of the proposed change/s including a description and estimate of costs (including life-cycle costs) the Borrower may incur in implementing the VE proposal;
4. a description of any effect(s), implications or risks of the change on performance/functionality;
5. a description of the comparative advantages and disadvantages of existing contract requirements and the VE requirements;
6. a justification when an item's function or characteristic is being changed and any effect of the change on the end item's performance;
7. any pertinent objective test data;
8. any contract requirements that must be changed if the VE proposal is accepted, including any suggested specification revisions.

Managing contractual disputes

Contract disputes

Contractual disputes could be time-consuming, expensive and difficult. They can damage Borrower/contractor relationships, cause delays and negatively impact contract execution. They could also substantially increase the contract price. It is therefore in the interest of contracting parties to work at avoiding disputes in the first place. This can be achieved, among other things, through developing good communications and working relationship management with the contractor.

To minimize contractual disputes and complication, all parties would need to effectively carry out their duties in accordance with the contract. For Works contracts, for example, as mentioned in the section *Special Considerations: Works and Plant Contracts*, the Contract Manager (Engineer, Employer's Representative etc.) has a key role in effectively handling matters for its determination and claims.

Despite best of efforts, matters may elevate to the level of disputes. When they do, every attempt should be made to find an efficient and cost-effective resolution including through amicable settlement. The dispute should be managed actively and positively and at the right level/s. A quick resolution saves time, money and effort at later stages, if the dispute remains unresolved. On the other hand, delays in resolution can lead to rapid escalation of costs and further damage to relationships and ultimately termination of the contract.

Dispute resolution, in its widest sense, is any process which can bring about the conclusion of a dispute. Techniques range from the most informal discussions, through to formal negotiations, mediation and arbitration. Arbitration and litigation should be considered as resolution methods of the last resort.

Dispute management

Contracts should set out the procedures to be used when a dispute arises. Often these will focus on formal processes such as arbitration. For major contracts (such as Works, Plant), the contract documents specify the role of the Contract Manager (Engineer, Project Manager etc.) in making determinations on claims. All parties are expected to act in accordance with the contractual provisions in this regard.

Depending on the contract, alternative dispute resolution mechanisms include:

1. adjudicator,
2. dispute review expert, or
3. dispute review board.

If the contract provides for the appointment of such a dispute resolution mechanism, contracting parties should ensure that the mechanism/s is put in place in a timely manner. Trying to establish this mechanism after a dispute arises is a recipe for failure. Contracting parties should do their part to ensure the effective operation of the chosen mechanism.

If a party is not satisfied with the outcome of the mechanism in place to settle disputes, it is in the benefit of the parties to try to settle a dispute amicably before the commencement of arbitration. Amicable

settlement if carried out professionally and in good faith could save contracting parties time and cost while preserving their working relationships.

Arbitration

Contracts with international firms should apply international commercial arbitration in a neutral venue unless the national regulations and arbitration procedures are acceptable to the Bank. International commercial arbitration has many advantages compared to national courts. As contracting parties (contracts with foreign contractors) come from different jurisdictions around the world with different legal, cultural, political and ethical contexts, international commercial arbitration provides a neutral venue to settle disputes effectively. Borrowers should utilize this facility if the need arises.

Some of the aspects that may help in preparing for an arbitration include:

1. check the pre-arbitration procedures in the contract and assess whether you have complied with them;
2. conduct an early case assessment with legal advisors at the outset of the dispute, and review periodically as the arbitration progresses. This helps to get an early sense of potential outcomes and costs of the arbitration and make necessary preparation accordingly;
3. brief relevant management/authorities on: what the arbitration will be about, why the parties have been unable to resolve the dispute, how long the arbitration may take, expected costs and outcomes;
4. advise concerned staff and managers that an arbitration is about to be initiated so that they will be readily available (if needed) at the arbitration hearing (if possible, it may be a good idea to book possible hearing dates in their diaries to ensure their availability);
5. manage the risk of internal and external communications on the issues in dispute: relevant Borrower staff would need to be advised to avoid any internal or external communications outside of the established contract management protocol with legal counsel advice;
6. document retention notice: advise all involved to preserve/retain relevant documents by explaining the nature of the documents and how to retain them. In international arbitration documentary evidence is very important. Where the contract had a systematic recording mechanism, this may not be an issue.

Contractual remedies

Contractual remedies

Contractual remedies are available for both the Borrower and the contractor. The main purpose of such remedies is:

1. to ensure each party to the contract does its part;
2. to provide financial protection against damage, delay, defect and other situations calling for remedial actions.

Contracting parties are expected to be familiar with the contractual remedies available. The remedies available will depend on the nature of the contract.

Example: Borrower's remedies, based on contract for Works.

Remedy	Situations which may trigger this remedy
1. withholding of payments	• failing to perform work or obligation in accordance with the contract. • not meeting ESHS obligations.
2. calling performance security	• contractor breaches its obligations under the contract.
3. calling ESHS performance security	• contractor breaches its ESHS obligations under the contract.
4. applying liquidated damages (delay damages)	• when the contract/sections of contract are not completed within time stipulated.
5. termination	• upon the occurrence of a termination event specified in in the contract.

Table IX – Example: Borrower's remedies

Example: Contractor's remedies

Remedy	Situations which may trigger this remedy
1. extension of time for completion, 2. cost compensation	• Borrower is in default of the contract: e.g. delayed drawings or instructions, failed to provide access to and possession of the site.
3. financing charges	• late payment by the Borrower.

Remedy	Situations which may trigger this remedy
4. suspension	• delays in payment, unavailability of funds.
5. termination	• upon the occurrence of a termination event specified in the contract.

Table X – Contractor's remedies

Performance security

The performance security is an important contractual remedy tool. Despite having this provision in the contract, Borrowers/Contract Managers may not apply/enforce it adequately.

Liquidated damages

Another important remedy instrument that the Borrower/Contract Manager can use is liquidated damages (or liquidated damages for delay i.e. delay damages).

Contracts normally provide a percentage or an amount to be deducted from the payments due to the contractor if it fails to deliver the contract within the stipulated time. There is usually a limit on the aggregate amount (say, 10% of the contract price), and sometimes there is also a contract termination consideration once the aggregate amount of liquidated damages amount has reached this limit.

It is important to have a payment schedule that allows for the deduction of liquidated damages. For example, if the payment schedule was front-loaded and the contractor has already received 95% or 100% of the contract price, the Borrower would need to invoice and pursue the contractor to receive the damages due through other means.

Termination

Termination of a contract is the ultimate remedy for default. The table below summarizes some of the key issues observed when Borrowers try to terminate a contract.

Issue about the termination	Recommended action
1. There is a lack of evidence supporting the Borrower's claim that the contractor has defaulted e.g. insufficient records	• Keep records of performance, delivery, communications, notices, dates and the people involved. • Ensure adequate contract management system is in place to be able to recover appropriate records.

Issue about the termination	Recommended action
2. No contractual justification for the termination.	• Before initiating the termination, check that the breach is described in the contract as a cause for termination.
3. Not complying with termination procedures as set out in the contract. This may lead to the following issues: a. manner the contractor leaves the site and the Borrower entering to have the works completed; b. valuation at date of termination; c. determination of payment including amounts for any loss or damage.	• Before initiating the termination, check the procedures and follow them.
4. Following termination, lack of timely action by the Borrower in completing the remaining Works leading to deterioration of the components of the contract already delivered (e.g. an incomplete road is left to deteriorate for months).	• Quickly assess the status of the Works and decide the most feasible option to complete the remaining Works e.g. force account, open bidding, limited bidding, direct contracting etc.

Table XI – Contract termination issues

Case study: no record of notices

Situation:

A Borrower issued three 18-months Works contracts to a contractor to rehabilitate rural roads. Six months after contract signature, the Borrower found that the contractor was performing only in one contract and there was no progress in the other two. The Borrower informed the contractor several times to rectify this. After twelve months, the Borrower decided to terminate the two contracts that were showing no progress.

Issue:

When the Borrower decided to issue the letter of termination, it found out that all previous notices to the contractor were verbal and there was no written documentation to substantiate them.

Result:

The termination process was delayed for several months with all the consequences.

Box VIII – Case study: no record of notices

Case study: Borrower causes the problem

Situation:

In a Works contract, the Borrower tried to terminate by using one of the contractor's defaults that could lead to termination i.e. the contractor abandons the Works. The contractor contested stating that it had given the required notice on its suspension of Works due to delay in contractual payments by the Borrower. The contractor provided evidence of how the Borrower had been delaying payments which resulted in serious impact on the construction cash flow to the extent that the contractor was not able to sustain the site operations.

Issue:

Termination due to the alleged contractor's default was indefensible.

Lessons to be learnt:

1. Understand the provisions of the contract and how they apply;
2. Apply the contract provisions;
3. make payments on time when Work has been delivered in accordance with the contract;
4. be mindful of the consequences of undue delay in payments to a contractor, which in this case, resulted in stopping site operations because of cash flow problems;
5. "crying foul" after creating a problem does not help.

Box IX – Case study: Borrower causes the problem

Fraud and corruption

The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as specified in the World Bank Group Sanctions Framework, as set forth in the F&C provisions of the contract.

Any suspicious F&C related activities should be promptly reported to the Bank's on the online Integrity Complaint form:
https://intlbankforreconanddev.ethicspointvp.com/custom/ibrd/_crf/english/form_data.asp

In summary:

1. contracting parties and all those that are involved in the delivery of the contract, are required to observe the highest standards of ethics and refrain from F&C during the procurement process and contract execution of Bank-financed contracts. All parties involved in the execution and management of contracts should therefore hold themselves and their staff to the highest levels of integrity and professional conduct;
2. contracting parties should take F&C seriously and take appropriate remedial actions (such as removal of personnel from site and contract termination);
3. the Bank has the right to inspect the Site and/or the accounts and records relating to the procurement process, selection and/or contract execution, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank;

4. any obstruction to impede the exercise of the Bank's inspection and audit rights constitutes a F&C with all the consequences.

F&C practices could manifest themselves in different forms. Not all poor contract execution may necessarily be attributed to F&C. Some examples of F&C red flags include the following:

1. poor quality of materials and/or workmanship;
2. change orders that are not contractually justified;
3. unjustified changes in specification and/or contract conditions;
4. payments not in accordance with the contract;
5. false or duplicate invoices.

For treatment of fraudulent contract implementation, refer to the Bank's Fraud and Corruption Awareness Handbook.

Special considerations: Works and Plant contracts

Managing infrastructure contracts such Works and Plant demand additional considerations in addition to the generic aspects described earlier.

Project management software

Complex contracts, such as civil Works and design, supply and installation contracts, normally require the use of proper project management software. The chosen software should enable the contract management team to monitor the physical progress of the Works/Plant against the planned schedule, and actual payments made against budget. The Borrower should ensure that the contract management team is properly trained in the chosen software, and that the software is deployed and operational from the start of the contract.

Infrastructure contracts (such as the *FIDIC Conditions of Contract for Construction, 2017 (Red Book*)) require that the work program is prepared and revised using the programming software named in the specification (if not stated, the programming software acceptable to the Engineer). There are many types of software that are based, for example, on tracking the critical path (Critical Path Methodology (CPM)). The Borrower may choose software which has been reviewed and pre-approved. If the Borrower wishes to name a software in the specification, it is recommended that at least three choices of software is given, with the words "or substantially equivalent" added. If not included in the specification, the Borrower should ensure that the contract management software to be used by the contractor is fit for the purpose of the contract.

The software chosen to support contract implementation should serve at a minimum to:

1. provide additional assurance by the contractor of adequate, planning, scheduling, progress, financial management, risk management and reporting so that the activities under the contract are carried out in an orderly and expeditious manner within the contract end date and the milestones specified in the contract;
2. provide additional assurance by the contractor of the coordination of the work of the contractor and its sub-contractors;
3. enable the Borrower/Contract Manager to monitor the progress of the Works/Plant and evaluate the contractor's progress payments;
4. assist the Borrower/Contract Manager to evaluate the potential impact of proposed changes to the contract;
5. assist both the Borrower/Contract Manager and the contractor in detecting problems, risks and issues to enable taking timely corrective action and provide a mechanism for determining and monitoring such corrective actions.

The Borrower/Contract Manager should use the software to determine if the contract is starting to fall behind. It may also give an early warning that the contractor is having difficulties that may result in a claim against the Borrower. This could be done, among other things, by:

1. requiring that major revisions to the contractor's work program should be preceded by a full documentation of the status of the contract. Minor revisions (such addition of changes and unanticipated events to the last update to determine their impact) may be done on a contemporaneous basis;
2. requiring a full and complete update of the status of the contract prior to modifying the approved baseline plan;
3. checking that the actual start and finish dates and remaining durations for work in progress matches the actual situation on the ground;
4. carefully reviewing to determine if the contractor is deviating from its plan and the reasons why;
5. reviewing the near-term critical and near-critical paths so that the risk is mitigated in a timely manner;
6. checking signs of understaffing or lack of progress on non-critical but soon to be critical activities.

Delays due to the Borrower

Lack of timely readiness and planning (prior to entering a contract) by Borrowers is known to be a major cause of delays in execution of infrastructure contracts.

Case study: infrastructure upgrade

Situation:

A Borrower issued a Works contract for upgrading infrastructure. There were significant land related issues.

The Borrower tried to advance the land related issues in parallel with the procurement process. The Borrower awarded the contracts while some land issues were still not resolved.

Two years after contract award, the Borrower was not able to fully resolve the land related issues. The contract was revised with reduced scope and contract execution was delayed by about 18 months.

Lesson learned:

1. Borrowers would need to apply a project management approach and an appropriate software tool covering: site acquisition, resettlement, environmental permits, coordination with other relevant government departments, consistency of design review and contract selection and implementation plan.
2. Borrowers should take prompt action on activities identified/could fall on the critical path.

Box X – Case study: infrastructure upgrade

Case study: new water treatment system

Situation:

A Borrower issued a Works contract to rehabilitate drinking and waste water system. This was a design and build contract and there were several design changes.
Initially it was a lump-sum contract and then it was converted to an admeasurement contract. The contract was amended seven times and had three variation order price increases. There were many non-tendered items in the revised bill of quantities.

Lesson learned:

Plan properly. Choose the right contracting strategy from the outset based on a number of considerations (see Annex 1) instead of trying to change when the contract is in progress.

Box XI– Case study: new water treatment system

Variations

Considerations to managing variations in Works admeasurement contracts. These may include:

1. verifying supporting documents (specifically to check how appropriate or necessary are the proposed variations);
2. checking how the variation was valued (i.e. were the existing contract rates correctly applied; if new rates were used, were they correctly constructed based on fair market prices etc.);
3. checking if a change in unit rates would be appropriate or required according to the contract;
4. checking if the time impact (extension of time for completion) has been correctly assessed and is duly justified;
5. checking if the variation has taken due consideration of ESHS aspects, as applicable;
6. checking the level of approval required for the variation (e.g. approval by the Contract Manager or Borrower).

Site visits

One of the key responsibilities of the Borrower throughout the execution of an infrastructure contract is to maintain a good understanding as to what is happening on site. This cannot effectively be done without inspecting the site. Borrower's technical experts should be actively involved in the site visits and it is recommended that the Borrower undertakes joint site visits with the Contract Manager. This will ensure that any issues identified during the site visits can be discussed with the Contract Manager, and appropriate action agreed.

The Contract Manager should undertake regular site inspections to ensure activities are progressing in accordance with the contract requirements. The Contract Manager should ensure that it has the right skills available to inspect the activities being undertaken and that inspections are regularly carried out jointly with the contractor.

The types of aspects that are expected to be checked during a site visit inspection include:

1. follow-up of previously agreed action;
2. actual progress of Works against planned/scheduled;
3. quality of Works (do the Works comply with the quality requirements in the technical specifications?);
4. deployment of staff and labor in accordance with the contract;
5. contractor's materials and equipment (does the contractor have all necessary equipment and construction materials to complete the Works per the specifications and on time?);
6. health and safety with regard not only to the contractor's personnel, but also to public safety (have all necessary health and safety measures been implemented?);
7. environmental issues (is the contractor's Environmental Management Plan being enforced appropriately?);
8. adequacy of measures in place to manage risks of gender-based violence and sexual exploitation and abuse;
9. is the contractor's code of conduct being implemented effectively?
10. are permits in place and is documentation up-to-date.

Contract Manager's documents

The Contract Manager would need to have a set of desk control documents available for inspection. At a minimum, these may include:

1. measurement logs: for admeasurement contracts;
2. activity reports: daily, weekly, monthly showing in tabular format quantities of work done, number of staff and equipment involved, consumption of materials, testing and samples, ESHS reporting etc. The reports are expected to mention any specific events, incidents, weather conditions etc.;
3. issues log: which records all issues that have occurred during the execution of Works, with appropriate descriptions and the date, cause, remedial measures taken, responsible party, status of remediation etc.;
4. variation orders: all variation orders showing the justification for the changes in quantities, prices and times of completion;
5. communications: records of all relevant communications with the contractor and any third party;
6. inspection and control logbook: records of technical inspections, lab tests, etc. which are either conducted by or witnessed by the Engineer; inspections, audits and controls performed by any other relevant party (e.g. Employer, environmental agency, financial control, local authorities etc.).

Design and build contracts

While Borrowers are used to the traditional design-bid-build-(DBB) contracts (e.g. contracts based on the FIDIC red book), managing integrated contract delivery approaches such as design and build (D&B) can pose some challenges. This sub-section is devoted to managing D&B type of contracts.

Success factors

Borrowers would need to be mindful of the following factors, which may demand a cultural shift away from the DBB approach, when managing D&B type contracts:

1. D&B requires a higher level of trust and partnering comparing to the DBB approach;
2. D&B requires the Borrower to develop definitive, functional driven performance criteria as opposed to detailed design and drawings;
3. D&B is a scope driven effort;
4. the contractor owns the design;
5. establish the contract management team early and keep it together;
6. designers have been doing design for Borrowers and constructors have been doing construction of the designed Works in the traditional approach (DBB) whereas this approach demands a construction team integrated with design professionals;

Performance/functional criteria

It is helpful to realize that in DBB, requirements are communicated to the contractor through complete drawings and specifications. In contrast, the Borrower communicates its requirements for a D&B contract through the description of the performance/functional criteria. The contractor develops the design based on the latter.

Design review

In D&B approach, because the contractor owns the design, the Borrower's/Contract Manager's design review, unless otherwise specified, is normally to verify that the design solution/s comply with the performance criteria. The main reason for this shift is the need to ensure that the design liability remains with the contractor.

Initial design meeting

It may not be possible in the request for proposals for the Borrower to elaborate every potential preference or expectation that it may have in a complex D&B contract. Therefore, after the contract is awarded, it is good practice to have an initial design meeting with the contractor. An outline for the agenda for such a meeting may include:

1. breakdown of the design scope into specific features of tasks (that can be designed, reviewed, approved and constructed in that order) and identify features where the contractor may have design flexibility;

2. identify the features that have limited or no option for variance during the design process so that there is clear understanding from the outset;
3. identify any design criteria that may have been incorporated by reference in the contract;
4. identify any features whose design is contractually open to interpretation;
5. discuss the list of preliminary design solutions for all features of Works in scope;
6. discuss the Borrower's/Contract Manager's review process of design submittals and establish a communication system;
7. develop a system whereby a difference of professional judgment that is not clearly covered by contract language can be expeditiously resolved.

Contract administration

DBB contract administration is based on the administration of the design consultants, and their deliverables, and administration of the construction contractor. In a D&B contract, both the design and construction are the responsibility of the contractor.

The cultural shift from a DBB to a D&B contract administration demands that both the Borrower and the contractor create a contract administration system that supports the development of design and is responsive to the D&B contract. The Borrower/Contract Manager needs to be aware of the time element in D&B administration and the fact that the contractor expects the Borrower/Contract Manager to collaborate by expediting design reviews. Given the significance of close coordination during the design phase, it is recommended to require that the contractor has an experienced design professional to manage the internal and external coordination during the design phase.

If the Borrower has separate design and construction administration systems, they both need to be integrated and operating throughout the delivery of a D&B contract.

Payments

The scope of a D&B contract is defined by a set of performance criteria to be completed within a specified period. This normally requires the contractor to offer a lump sum price (broken down into activities to facilitate payments). As cost and time are already set-out in the contract, quality is constrained by both cost and schedule. As a result, at the outset of the contract, it is important to both the contractor and the Borrower to have a clear understanding and agreement on the requirements for quality.

Constructability

One of the stated benefits of a D&B approach is improved constructability due to significant contractor's input during the design phase. Unlike DBB, a D&B contract design can be thought to be under continuous constructability review. To maximize the benefits of a continuous constructability review, the D&B contract administration system must play an enabling role to facilitate this critical process.

Progress payments

Borrowers are normally used to unit price contracts where measured quantities of unit price items are used to compute progress payments and where the risk for quantity overrun is absorbed by the Borrower.

The transition to a lump sum D&B contract should be carefully managed to ensure that the contracting parties understand the financial implications.

Prior to the first progress payment, in order to facilitate payment, the two sides may agree on a schedule of values i.e. breakdown of each lump-sum item in the contract into component parts of design deliverables or construction Works for which progress payments may be requested. This essentially requires the D&B contractor to assign a value for each activity in its program. Such a schedule of values should include enough details to facilitate continued evaluation of payment application and progress reports. Upon review and approval by the Borrower/Contract Manager, this allows the development of a periodic payment estimate to be made for those activities that were underway during the pay period. This helps the Borrower/Contract Manager to ensure that the contractor's financial progress reasonably reflects the physical progress. It also ensures that the contractor continues to get progress payments that closely follow the physical activities.

Contractor's claims in construction contracts

The FIDIC conditions of contract define a claim to be a request or assertion by one contracting party to the other party for an entitlement or relief under any clause of the conditions of contract or otherwise in connection with, or arising out of, the contract or the execution of the Works.

Through good contract management practices, the Borrower and Contract Manager are expected to take measures to avoid situations that lead to contractor's claims. Some of these measures include:

1. having a thorough understanding of the contract document and how the contract is to be implemented;
2. ensuring timely payment for successful delivery;
3. ensure that there is a proper definition of scope of works, appropriate specifications and timely provision of design and drawings (if it is the responsibility of the Borrower);
4. provide timely possession of site;
5. ensure timely responses to contractor's notices.

Role of Contract Manager

The Contract Manager (Engineer, Employer's Representative etc.) has a key role in making a fair determination of the matter or claim, in accordance with the contract, taking due regard of all relevant circumstances. *Agreement or Determination* is regulated by, for example, *sub-clause 3.7 of FIDIC: Conditions of Contract for Construction, 2017*, which requires the Engineer, when carrying out its duties under the sub-clause to act neutrally between the contracting parties and shall not be deemed to act for the Employer. Similarly, this matter is treated in, for example, *sub-clause 3.5 - Agreement or Determination* of *FIDIC: Conditions of Contract for EPC/Turnkey, 2017*, which states to the effect that when carrying out its duties under that sub-clause, the Employer's Representative shall not be deemed to act for the Employer.

Requirements for contractor's claims

In general, the contract documents define the primary relationship between the parties and form the basis of claims. Claims should include statements of the contractual and/or other legal basis.

Timely notice and submission

Timely notice and timely submission by the contractor is essential as otherwise delayed notice and submission could have consequences based on the contract.

Proof of entitlement and damages

The Contract Manager is expected, as much as possible, to ensure that the contractor's claim is substantiated by an analysis of costs and supporting documentary evidence such as invoices, reports and records etc.

Assessment of claim

The Contract Manager assesses the claim to ensure that the contractor has demonstrated:

1. that it is entitled under the contract (contractually justified) to claim for the cost/time;
2. that it has indeed incurred the additional cost/time, and the extent of the claimed cost/time is reasonable;
3. that there is a cause and effect between the Borrower's default and the damages incurred by the contractor.

Claims due to delays in execution

Determination of time extension

Granting a time extension to a contractor has implications both for the implementation schedule and contract price. The Contract Manager should ensure that the contractor provides sufficient details including an updated contract schedule and impact schedule (of delay events) clearly justifying the requested time extension.

Determination of costs

The Contract Manager should carefully check the determination of any costs associated with the claimed delay. Some examples include:

1. **Additional labor or equipment costs:** When a contract is delayed due to a matter which is the Borrower's responsibility, the contractor may have claimed for additional labor or equipment. When claiming for labor or idle equipment, the contractor needs to normally show that the labor or equipment could not have been discharged or used in other activities without risking unavailability for the contract when needed.
2. **Site and home office overhead costs:** While direct cost of the contract may reduce during the delay period, the site and home office overhead costs (normally fixed) continue to accrue during the delay period. A certain portion of the overhead cost may therefore not be absorbed or may

be extended because of the delay. The Contract Manager should ensure that the contractor's claim for unabsorbed overhead costs is reasonably demonstrated.

3. **Profit:** In addition to recovering overhead, the contractor may claim for profit on the additional costs. The Contract Manager should verify the contract to check whether the relevant contractual provision allows cost compensation only or cost + profit. Unless the profit % is already specified in the contract, the Contract Manager should ensure that the claimed profit rate is reasonable.

Assessment of contractor's claimed amounts

Reasonable cost

The Contract Manager is expected to check that, whenever applicable, the contractor's claims are based on contractual unit rates for equivalent or similar items. When no equivalent contractual unit prices are applicable (example a new item of work), the quantification would need to be based on actual historical costs recorded and maintained as the costs incurred on the contractor's books. When this is not applicable, market rates may be used as a proxy.

Analysis of contractor's billing

In a change order situation, the first determination that the Contract Manager needs to make is to check whether the claimed extra work is not an item which is contractually in-scope and that has been improperly characterized as an extra by the contractor. In such a situation, it is important to understand the nature of the work claimed by the contractor as extra work. Once this is established, the claimed costs should be checked to be related to the extra work and reasonable as mentioned above.

Analysis of labor, material and equipment costs

A contractor normally breaks its claimed amount in terms of labor, material and equipment.

There are different methods and approaches in the industry to determine ownership and operating costs i.e. capital recovery by a contractor. The Contract Manager may refer to the most common methods of calculating ownership and operating costs.

The Contract Manager should assess that the method applied is reasonable and appropriate. For relatively complex claims, it would be helpful to seek the support of an experienced claims expert, as there is often a disagreement between the contractor and the Contract Manager as to which costs are to be covered and how they are calculated.

Overhead costs

Construction claims by their nature may include, as a component, a demand for overhead costs. Both field overhead, and home office overhead may be elements of a claim incurred because of a delay

1. **Field overhead:** are direct contract costs such as power, water, communications which may easily be identifiable.
2. **Home office costs:** The concept of unabsorbed overhead is based on the assumption that during a delay period the cash flow that would have been generated by the delayed contract is no longer available. Thus, home office overhead costs, which in general are fixed, are absorbed by the contractor's other activities. The allocable portion of home office overhead costs attributable to

delays is however not so straight forward. One method applied by contractors to determine unabsorbed home office over head is the Eichleay formula (see below). Generally, before the formula is applied, the contractor is expected to show that it was imprudent or impractical for a reasonable contractor to take other work during the delay period given the facts and circumstances.

Eichleay formula

The Eichleay formula is one approach for estimating the amount of unabsorbed home office overhead resulting from construction delays. Some of the aspects that the Contract Manager may request additional information from the contractor to support it are:

1. have the delays decreased the stream of direct costs?
2. are the contractor's home office overhead costs pertinent to make sure that questionable costs are not included?
3. was there a possibility for the contractor to shift the overhead costs to other contracts concurrent with the contract being challenged? The contractor must, for example, show that it was unable to take other concurrent work.

The following case is for illustration purposes only, and not a recommendation to use the formula.

Case study: Eichleay formula

This example is a calculation to determine the portion of the home office overhead to be allocated to the contract. The contract is expected to pay its fair share of home office overhead and this is a way of calculating that amount.

Basic Eichleay formula:

1. Allocable overhead. This is a calculation to determine the portion of the home office overhead allocated to this contract. This contract is expected to pay its fair share of home office overhead and this is a way of calculating that amount.

$$\text{Contract's allocable overhead} = \frac{\text{(contract price x total home office overhead)}}{\text{total firm billings}}$$

2. Daily allocable overhead. Next, we want to determine a daily rate for the allocation of home office overhead.

$$\text{Daily allocable overhead} = \frac{\text{contract allocable overhead}}{\text{contract period in days}}$$

3. Home office overhead damages. This is simply a matter of multiplying the number of compensable delay days by the daily allocable overhead rate.

$$\text{Home office overhead damages} = \text{daily allocable overhead} \times \text{compensable delay days}$$

Worked example:

The contract price is $10 million. The contractor has suffered compensable delays of 20 days. During this period, the contractor has 10 contracts whose aggregate value is $80 million. The contractor's

home office overhead during this period totaled $2 million. The duration of this project, including excusable delays is 400 days. The sample calculation of home office overhead damages follows:

Contract's allocable overhead = 10 x 2/80 = $0.25 m = $250,000

Daily allocable overhead =250,000/400 = $625 per day

Home office overhead damages (unabsorbed overhead) = $625 x 20= $12,500

The contractor may therefore claim $12,500 in compensation for home office overhead that should have been allocated to this contract because of the increased duration of the contract.

Box XII – Case study: Eichleay formula

Construction contracts Taking-over

Once the Works or Plant are substantially completed in accordance with the contract except for any minor outstanding work and defects (as listed in the Taking-Over Certificate) which will not substantially affect the safe use of the Works or Plant, the taking-Over Certificate/completion certificate is issued and the Borrower takes over the Works (or part of, as applicable). For Plant, for example, this is followed by commissioning (including functional guarantee tests) and operational acceptance certificate.

At completion, depending on the contract, the responsibility for care and custody and the risk of loss normally passes to the Borrower and the defects liability period commences. Prior to taking-over by the Borrower, the Contract Manager is expected to ensure substantial performance by the contractor including the following:

1. required tests successfully completed and the Works or Plant are substantially completed as specified;
2. any ESHS design considerations have been delivered,
3. contractual requirements have been met by the contracting parties;
4. contractually required documentation (such as operation and maintenance manuals, as-built records etc.) have been handed over by the contractor and are acceptable;
5. equipment warranties, and documentation for any installed equipment are provided;
6. all surfaces are reinstated (unless for parts considered minor and included in the list included in the Taking-Over Certificate to be carried out by the contractor);
7. ancillary features such as borrow pits, quarries, disposal sites are restored to according to permits, consents or the Contract Manager's instructions
8. the site is clean of debris and any required reinstatement
9. any change orders are reviewed to ensure that these have been completed;
10. Borrower notes are reviewed to ensure that any requests have been attended to and that the site is ready to be handed over;
11. demobilization (equipment, personnel etc.) from the work site is done in an orderly manner.

Defect Liability Period

Any outstanding work at the time of completion and defects due to design, workmanship etc. as specified in the contract is remedied by the contractor at its cost and risk. The defect liability period is important as it is the opportunity to have any outstanding Works (that did not affect substantial completion) completed and to have the contractor repair, replace or make good any defects concealed in the Works and may become apparent during the defect liability period.

The Borrower should ensure that appropriately trained staff operate/maintain the Works/facilities, as, depending on the contract, improper operation or maintenance of the Works/facilities (not attributable to matters for which the contractor is responsible) by the Borrower or operation of the Works/facilities outside the specifications provided in the contract may not be covered under the defect liability period.

Special considerations: Managing ESHS Risks in Works Contracts

Background

Ensuring that ESHS requirements are implemented in Works contracts, requires professionals with appropriate skills to be part of the teams managing and executing the contract. Such professionals may be required on part time or full-time basis, depending on the nature of the ESHS risks and impacts and the role they are performing.

Along with the ESHS requirements for the Works, the need for specialist environmental, social or health and safety skills or experience is established during the preparation of the Procurement Documents. Guidance and information on how to integrate ESHS requirements into the Procurement Documents (including for specification of Works and TORs for Contract Managers) is provided in the Procurement Guidance- Environmental, Social, Health and Safety in Procurement, July 2018.

This section describes the responsibilities of the ESHS specialists (as part of Contract Manager, contractor, Borrower) during contract start-up/mobilization, contract implementation and contract close-out (taking-over). It describes not only the responsibilities according to the role/organization, but also, where appropriate, the interface that these roles may have with each other, and with other bodies such as regulatory authorities (with the right to inspect and monitor construction activities regarding ESHS performance).

Relationships and responsibilities

To understand fully their responsibilities, environmental, social or health and safety specialists need to appreciate the broader responsibilities of the role that they are performing (e.g. Contract Manager, contractor or Borrower), and the soft and hard skills that these roles require. A description of the relationships between these roles, their areas of responsibility and the skills required to perform the role are provided in The Fundamentals, and Managing Relationships sections earlier in this guidance.

In addition, earlier sections of this guidance set out where ESHS interacts with broader contract management actions (for example in the Contract Management Plan preparation,) and it is recommended that this section is not read in isolation of the whole guidance note.

Overview of the Roles

Borrower's ESHS Specialists

The Borrower should monitor the Contract Managers' performance in ensuring that the contractor (including their sub-contractors) delivers to the ESHS contractual requirements through mobilization, construction and demobilization.

The Borrower should assess the Contract Manager's performance through: review of the regular reports (usually monthly) on the contractor's ESHS performance provided by the Contract Manager; how the contractor is performing on site (Borrower site visits); and on how effective the project meetings are in dealing with ESHS issues.

In addition to the regular reporting there should be a requirement for the Borrower to be immediately notified of any serious ESHS event (e.g. death on the site): how the Contract Manager responds is an indicator of the Contract Manager's performance. Timely reporting (as set out in the applicable contracts)

of ESHS performance and outcomes enables the Borrower to identify opportunities for improvement, address poor performance issues, and take contractual remedial actions as appropriate.

In addition to reviewing the written reports, it is essential to have regular meetings with the Contract Manager to review ESHS performance as against the contractual requirements and identify any emerging risks or issues.

Contract Manager's ESHS Specialists

The Contract Manager is responsible for supervising/monitoring that the contractor delivers the ESHS requirements of the contract.

The Contract Manager's ESHS specialists would need to be aware of the duties, roles, delegation and authority assigned to them and be fully conversant with the relevant provisions of the contract including the applicable ESHS requirements and specifications. As an example, the Contract Manager's ESHS specialists should review any contract change proposals to ensure that the proposal has given adequate attention to ESHS aspects.

In carrying out their function, the Contract Manager's ESHS specialists should also be mindful of the roles of other key Contract Manager's staff (such as the resident engineer), and respect the relevant communications protocol of the contract which describes who is authorized to issue communications and other requirements.

Contractor's ESHS Specialists

The contractor's ESHS specialists should advise the contractor on the measures necessary to ensure compliance with the Works/Employer's ESHS requirements during execution of the Works.

The contractor's ESHS specialists should serve as the "eyes and ears" on the site to support and ensure that the contractor's personnel (including sub-contractors) are all complying with the contractual ESHS obligations. They therefore need to maintain professional relationship with all the contractor's personnel.

The contractor's ESHS specialists should ensure that the necessary equipment, material and other resources are provided, to fulfill the requirements such as spill kits, drip trays, segregated waste facilities, bunded storage, covered storage, vehicle washing, concrete washout pits, etc. to deliver the specified environmental outcomes. They should also ensure that the necessary equipment, material and other resources are provided to ensure the health and safety at site, such as flashback protectors for welding, welding masks, hats, gloves, overalls, boots, ear defenders, eye protection, speed guns, noise meters, traffic control, barricade tape, signage and fencing.

Independent ESHS Specialists

Independent ESHS specialists may be employed as third- party monitors in order to advise the Bank and/or the Borrower on whether the environmental and social requirements agreed for the Project are being implemented as required. Although there is no direct contractual relationship between them, the contractor's and Contract Manager's ESHS specialists should provide support to the third- party monitor as necessary for the third-party monitor to undertake their duties. Further information is provided in the Good Practice Note: Environmental and Social Framework for IPF Operations- Third-party monitoring.

Regulatory Authority

Contracting parties would need to recognize that in many jurisdictions there are regulatory authorities whose function is dictated by law. These authorities may undertake periodic inspections to determine whether activities are being carried out in compliance with applicable laws and regulations and/or permit conditions. The purpose is normally to uphold the law and not to monitor whether contractual requirements and obligations are being met. These authorities may have the power to investigate breaches of the law and take appropriate measures such as invoking judicial proceedings, issuing instructions to stop the work, issuing fines or to require certain actions to be taken. It is important that the contracting parties cooperate with them.

Contractor mobilization/contract initiation

Following contract award and prior to commencement of the Works, there are conditions to be met as discussed in the contract start-up section of this guidance. The commencement of Works normally begins with a mobilization or preconstruction phase during which the site is prepared for construction.

The mobilization period should be carefully managed by the contracting parties and given its significance to the successful execution of a contract, the contract mobilization may itself require a plan. See example template in Annex 4 of this guidance.

The mobilization or pre-construction phase can include major activities such as land clearance, excavation, building access roads to the site, work site establishment and construction of contractor's personnel accommodations. This is often an overlooked period of ESHS impacts, and therefore it is critical that the correct documents, training, procedures, and systems are in place to ensure that all ESHS impacts are identified and managed appropriately.

Borrowers should not require contractors to begin work until the Contract Manager is satisfied that appropriate measures are in place to address ESHS risks and impacts. The appropriate measures should be agreed during a pre- mobilization meeting; at a minimum, the contractor shall apply the Management Strategies and Implementation Plans and ESHS Code of Conduct, submitted as part of the bid/proposal and agreed as part of the contract.

During the contractor mobilization/contract initiation phase the following should be undertaken.

Hold Pre-mobilization meeting

The Borrower should ensure that ESHS requirements are discussed during a pre-mobilization meeting so that all parties have a common understanding and are aware of their obligations. During the meeting the Contract Manager should agree with the contractor the documents and information that are needed prior to any activity, to demonstrate effective management of the ESHS risks and impacts, such as method statements/ safe systems of work. The meeting should involve not only ESHS specialists but also the responsible managers of the Borrower, contractor, Contract Manager and any other relevant party.

Review and Develop Management Strategies and Implementation Plans (MSIPs)

The contractor should be required by the Contract Manager to develop any additional MSIPs to those agreed at contract award to ensure that all ESHS risks and impacts likely to arise during mobilization will be effectively managed. These should be subject to the prior approval of the Contract Manager. If the

Health and safety management plan is not ready at mobilization, an MSIP describing how the mobilization activities would be undertaken safely should be prepared.

The contractor should be required to submit, on a continuing basis through mobilization and into implementation, for the Contract Manager's prior approval, further MSIPs as needed to supplement those already agreed to manage the ESHS risks and impacts of ongoing Works.

Monitor Contractor's and Contract Manager's Code of Conduct

The Borrower should monitor to ensure that the contractor's and Contract Manager's codes of conduct, agreed in the respective contracts, are in place and are being implemented. The contractor and the Contract Manager should keep in mind that compliance with the codes of conduct starts from the day the contract is signed.

Confirm ESHS Induction Proposals

The Borrower shall ensure that the contractor and the Contract Manager provide ESHS awareness and induction to all individuals authorized to be on site.

The content of the induction should describe the contract's ESHS impacts and the activities to be undertaken to manage risks; describe the various duties and responsibilities of the personnel; and ensure understanding of the ESHS code of conduct, stakeholder relationships, security arrangements as a minimum. Furthermore, relevant personnel of all parties involved in the execution and management of the contract shall be made aware of the worker and public grievance mechanisms and how to access them, and contractors should develop and implement appropriate (to the contract) SEA and GBV awareness training for staff at all levels.

Some further considerations in developing an ESHS induction program are:

1. coverage: to include Borrower's personnel, Contract Manager's personnel, contractor's personnel, visitors and other individuals authorized to be on site;
2. system: what system will be used to ensure that the contractor can identify the personnel on site that have been inducted (card site access system, displayed ID card, helmet sticker etc.);
3. frequency: how often will the induction be repeated (recommended to be conducted at least once a year) and how it will be tracked (what records will be kept)?

Review ESHS Training Plans

During mobilization phase, the contractor should identify the technical training required during the Works and prepare an appropriate plan for the timely delivery of that training. The contractor should ensure that personnel receive technical training in ESHS matters adequate to perform their duties. This may take the form of, for example, specialized training courses in remedial actions such as hazardous materials management and controls, or toolbox talks on safe systems of work. The contractor should keep records of the training provided.

The Contract Manager should review the training plans and provide comments as necessary to ensure the training is adequate and appropriate for the activities being undertaken.

Contract implementation

During contract implementation, the ESHS specialists' primary focus is to ensure that the contractual ESHS provisions are continuously adhered to. This will involve the timely preparation and/or review of documentation such as contractor's plans and procedures, undertaking of inspection, supervision, and/or audit, attending progress meetings, reporting and resolving issues that may occur.

Review and Develop MSIPs - Contractor's Environmental and Social Management Plan (C-ESMP)

The MSIPs agreed as part of the contract and during mobilization should continue to be reviewed, updated and supplemented during implementation to ensure adequate control of ESHS risks ad impacts. Collectively the MSIPs comprise the Contractor's Environmental and Social Management Plan (C-ESMP). As stated in the Conditions of Contract, the C-ESMP should be approved by the Contract Manager prior to the commencement of construction activities (e.g. excavation, earth works, bridge and structure works, stream and road diversions, quarrying or extraction of materials, concrete batching and asphalt manufacture).

The approved C-ESMP (which may comprise a series of MSIPs) should be reviewed periodically and updated in a timely manner by the contractor to ensure that it contains measures appropriate to the Works activities being undertaken throughout contract implementation. The updates should be subject to prior approval by the Contract Manager.

Review and Approve Health and Safety Management Plan

The Contractor's Health and Safety Management Plan (HSMP) should be reviewed/ approved by the Contract Manager prior to the start of Works. The HSMP should be updated by the contractor as necessary to reflect the needs of the Works to be undertaken.

The HSMP should describe the activities to be undertaken and, using Job Hazard analysis (JHA), identify the impacts and risks associated with those activities. The plan should describe any protective measures that would be required to manage the potential hazards and establish safe systems of work.

For each activity, the contractor should prepare and submit for approval of the Contract Manager a method statement describing the safe system of work that will be applied. In preparing the method statement, the contractor should draw from the information contained in the HSMP. For example, the HSMP should identify the risk of collapse when excavating on site, and the safe system of work described in the method statement should set out the controls of access to the excavation, the use of fencing at an appropriate distance from the top, shoring up the sides of the excavation etc.

Monitoring the Contractor's and Contract Manager's Code of Conduct during Implementation

The Borrower should ensure that the Contract Manager implements and monitors compliance with its code of conduct effectively.

In monitoring implementation, the Borrower may try to seek evidence of the following:

1. Is the code disseminated as envisaged in the contract? Is it easily accessible to the community and project affected people?
2. Is the code a condition of employment of the Contract Manager's staff?
3. What evidence is there of the Contract Manager's senior team leading by example?

4. Does the Contract Manager provide training and ongoing support to its staff? Or provide information and advice to clarify any aspects of the code?
5. Are training records maintained?
6. Do the Contract Manager's staff show confidence to challenge others when a breach of the code is suspected.
7. How are internal and external complaints handled? Are they taken seriously?
8. How is the Contract Manager perceived by the local communities?

The Contract Manager should, in turn, ensure that contractor implements and monitors the contractor's codes of conduct effectively. In doing so, the Contract Manager should seek answers to the questions as above as applied to the contractor.

Evidence on the implementation of the code of conduct could be found in progress reports, behaviors exhibited in progress meetings, discussions with representative personnel on site, through consultations with the local communities and the worker and community grievance redress mechanisms. In addition, the timeliness of the enforcement by the contractor or Contract Manager of disciplinary actions for violations of the code will indicate how effectively the code is implemented.

The Borrower would need to be mindful of the Contract Manager's and contractor's code of conduct and not take any action or behavior that may undermine it. They should lead by example.

Monitoring Accordance with the ESHS Policy

During progress review meetings, the Borrower should ask adequate questions and seek evidence on how the Works are being implemented in accordance with the policy. For example, the Borrower may ask the contractor for examples of that Good International Industry Practice that they are applying and may ask the Contract Manager whether the workers' terms of relevant ILO conventions. In addition, during site visits, the Borrower should consider whether site activities are in accordance with the policy. This may require, for example: interviewing site health and safety officials, site security officials and representatives of the local communities to get their perspective on the operation of site activities.

Contract Manager's Inspection and Supervision

The inspection of ESHS aspects should be integrated into the broader site visit process as described in the section "Special Considerations: Works and Plant contracts." The Contract Manager's ESHS specialists should follow a phased approach to inspections as described below:

1. Preparation: in preparing for the inspection, the ESHS requirements as set out in the contract, any permits and the regulatory framework should be reviewed: it is good practice to develop a list of the issues to be checked during the site visit. An understanding of the activities being carried out by the contractor should be obtained, for example, through reference to the work program, to assist in the selection of areas subject to site visit.
2. Document review: An important part of the inspection is to confirm that the contractor's documentation is in place and up to date. This should be done during a meeting with relevant contractor's personnel prior to undertaking the site visit, as the contractor's documentation may identify issues to be validated during site visit. As a minimum the status of the following contractor's documentation should be ascertained:

a. MSIP/ C-ESMP;
b. Code of Conduct;
c. HSMP/method statements;
d. Accident records;
e. Worker labor records;
f. Progress reports;
g. Induction and Training records;
h. Worker and community grievance.

3. Site visit: For large/complex contracts, a representative sample of the Works may be visited during the inspection. Selection of the areas to be visited should be informed by the activities being undertaken, their potential ESHS impacts, locations of sensitive/important environmental and/or social features, and the need to validate any aspects of the contractor's documentation. The issues to be considered during the site visits may include:
    a. presence of safety features and equipment such as traffic signs and signals, protective fencing, machine guards, etc.;
    b. labor facilities such as provision of drinking water and wash room facilities;
    c. evidence of Good International Industry Practice in relation to, for example:
        - Storage and handling of hazardous materials;
        - Concrete wash-out facilities;
        - Spill kits and water pollution prevention measures.
    d. site security arrangements;
    e. worker behavior.
4. Corrective actions: At the end of the site visit, an action plan should be agreed with the contractor to take any needed corrective actions. The action plan should clearly set out what the contractor should do and by when, and progress in resolving the actions should be checked by the Contract Manager on a timely basis. If necessary, further remedies to rectify non-compliances may be applied as discussed below.

Inspections should be documented, and records retained in contract files (minimum information to be recorded include: date and time, location, activity inspected, inspection observations and relevant data, corrective actions, if any, inspection team's name, signature and date).

Rectifying Contractor Non-compliance

The Contract Manager should bring to the attention of the contractor, in accordance with relevant provisions of the contract, non-compliances identified during contract execution. The instruction should refer to the relevant contract provision that has been breached, clearly stating what is needed to rectify it, by when it needs to be rectified and the contractual consequences if the contractor does not comply.

The contractual provisions set out how remedies are to be applied by the Contract Manager in the event of non-compliance, including with respect to the following:

1. removal of personnel from site (for example, for breach of Code of Conduct, or for repeated dangerous working practices);
2. withholding payments (for example for not rectifying a non-compliance in the specified time scale);
3. getting others to rectify the works at the contractor's expense (for example following repeated discussions and warnings regarding pollution from asphalt plant);
4. suspension of works (for example at a quarry or borrow pit until the operation can be made safe);
5. performance security (for repeated non-compliances and a lack of willingness to expediently and effectively address the deficiencies); and
6. termination.

For further detail see the section on Contractual Remedies.

Contract Taking-over ESHS aspects

As mentioned in "Special Considerations: Works and Plant Contracts", prior to taking-over by the Borrower, the Contract Manager should ensure that substantial performance has been achieved by the contractor. Once the Contract Manager is satisfied, it issues the taking-over certificate and the Borrower takes-over the Works. After taking-over the Works, the Borrower becomes responsible for the care and custody of the Works. The consequences of taking-over Works that are deficient or prove unsafe has significant ramifications for the Borrower, including with respect to reputational and financial risks.

In terms of ESHS, the Contract Manager's ESHS team therefore need to ensure that prior to issuing the taking-over certificate that, for example:

1. the ESHS design has been fully delivered;
2. there are no potential legacy issues, for example, that may substantially affect the safety and stability of the site;
3. the site is clean of debris and all surfaces are reinstated (unless for parts considered minor and included in the list included in the Taking-Over Certificate to be carried out by the contractor);
4. ancillary features such as borrow pits, quarries, disposal sites are restored according to permits, consents or the Contract Manager's instructions;
5. the contractor does not negatively impact the environment and the communities while demobilizing (equipment, personnel etc.) from the work site.

Defect liability Period-ESHS aspects

As mentioned under "Special Considerations: Works and Plant Contracts", the defect liability period is also critical from the ESHS point of view.

The Contract Manager's and Borrower's ESHS specialists:

1. should inspect the site to identify any negative impacts to the ESHS aspects that may arise during this period attributable to the contractor;
2. monitor that any dismantling or repair work carried out by the contractor on site does not have a negative ESHS impact; and
3. monitor that the contractor's staff involved in any dismantling, repair, reinstallation, retesting etc. observe the code of conduct.

Upon the end of the defects liability period and issuance of performance certificate, the Borrower's and Contract Manager's ESHS team should ensure that the contractor:

1. removes any remaining contractor's equipment, surplus material, wreckage, rubbish and temporary Works from the site;
2. reinstates all parts of the site which were affected by the contractor's activities during the execution of the Works and are not occupied by the permanent Works; and
3. leaves the site and the works in the condition stated in the Specification (if not stated, in a clean and safe condition).

Special considerations: Goods contracts

Supply chain management

A key consideration for supply of Goods is management of the whole supply chain from purchase, delivery to named place of destination or final destination, until end users. This may include the following activities:

1. applicable quality assurance system put in place (such as factory test witnessing, pre-shipment inspection, acceptance tests);
2. formal acceptance of the Goods;
3. information provided to concerned Borrower/Contract Manager's staff on the warranty provisions (duration, coverage, service level agreement, contact information of any service provider etc.) so that they know what to do in case of defects or malfunction;
4. logistics (transport, insurance, incidental services) to deliver the Goods to the end users;
5. warehousing facilities at the various points of the supply chain including arrangements for e.g. space, climate control, electricity;
6. inventory control;
7. measures to avoid the risk of obsolescence and pilferage;
8. training of end users on the use of the Goods, if applicable;
9. end users' satisfaction survey.

For Goods that have a limited shelf life (such as medicines and pharmaceuticals), the Borrower must take measures to maximize the products' shelf life. This may include an action plan which details the measures to be taken. Such an action plan can be included in the CMP. Factors to be addressed in the action plan may include:

1. arrangements for recording dates of receipt of Goods and dates of expiry;
2. arrangements to ensure "last-in first-out" distribution of Goods;
3. developing a system to manage the Goods by consulting the product specifications and relevant guidelines on storage requirements e.g.: storage space, cleanliness, cold storage, climate control (temperature, humidity), pest, water and dirt damage protection;
4. implementing safe handling measure and ensure appropriate safety equipment is used;
5. planning regular quality checks to ensure that the Goods are not deteriorating;
6. providing a means for the Goods to be readily available for distribution to the end users.

Case study: poor supply chain management

Situation A:

A Borrower procured transformers for indoor installation which were delivered to its warehouse. The Borrower accepted the transformers in accordance with the contract. According to the manufacturer instructions, the transformers are to be stored in a closed space.

The Borrower had planned to use its own installation team to install the transformers. However, the Borrower's installation team was still occupied with some earlier work and was not able to start this work before 12 months. The Borrower's indoor storage area was full of other items and the Borrower was obliged to leave the transformers outdoors for almost a year. The location was in the tropics with excessive humidity and rainfall. The outdoor area did not have a good drainage system. The Borrower did not take the necessary steps to prevent water condensation forming in the transformer accessories and parts that were delivered separately. There was no protection against corrosion. As a result, a good number of the transformers were damaged and not usable.

Situation B:

A Borrower awarded contract for the procurement of vehicles at a price of US$ 450,000 based on CIP (Incoterms). The Borrower received the shipping documents from the supplier before arrival of the Goods, so the supplier was not responsible for any consequent expenses. A delay in the clearance of the above vehicles from the port, led to demurrage charges amounting to US$130,000. Such charges were determined to be ineligible for Bank's financing.

Lesson learned:

1. delivery of Goods to the warehouse is not an end by itself, plan for the whole of the supply chain to ensure the Goods continue to be in working order at the time of delivery to the end user;
2. prepare appropriate storage area and facilities prior to delivery of Goods;
3. assess capacity and logistics in advance to inform the procurement and contracting strategy; e.g. if there is no appropriate facility available to store the Goods, purchase them using supply and installation by the supplier;
4. Ensure that the appropriate arrangements are in place for timely clearances.

Box XIII – Case study: poor supply chain management

Incoterms

Incoterms (known as international commercial terms) are sets of commercial terms published by the International Chamber of Commerce (ICC). The terms interpret commonly used foreign trade and deal with the transfer of title and risk in various contracting scenarios. For complete information on Incoterms refer to the International Chamber of Commerce website.

For relevant procurements (such as Goods), the Bank's SPDs specify the appropriate Incoterms that apply. The Incoterms that are commonly used in Bank financed contracts are CIP and EXW. The Borrower/ Contract Manager should be familiar with the applicable Incoterms. See Box below.

Case Study: misconception- Incoterm CIP

Situation:

The contract for supply of Goods specified CIP (*named place of destination*). The delivery period was stated as 180 days following the date of effectiveness of the contract. The contract became effective and the Borrower instructed the supplier that it expects the Goods to arrive in the named place of destination within the 180 days following the date of effectiveness. The supplier responded that as per as per the applicable Incoterm (CIP, in this case), its obligation is to deliver to the carrier within the 180 days and not to provide the Goods at the named place of destination within that period; the named place of destination is not for the purpose of specifying the delivery period.

Lesson learned:

Delivery, risks and costs are governed by the applicable incoterm used. If the Borrower's intention were to have the Goods in the named place of destination within the specified 180 days, the delivery period should have been specified to be less than that (if feasible) considering the additional time that will be needed for international or national transit to the named place of destination.

Box XIV-Case study: misconception on applicable Incoterm

Export restrictions

Export restrictions may arise due to trade regulations from the country supplying the Goods. Under such situations, the supplier is released from the obligation to provide deliveries or services. However, the supplier should have met all of its other contractual obligations including permits, formalities, licenses etc., in order to be released from its obligations (e.g. see contract provision: SPD, Goods, 1 envelope, GCC 37).

Delay in L/C processing

As mentioned in the Section "Contract start-up", issuance of an operational letter of credit is a critical activity for the timely delivery of Goods. Suppliers of Goods from abroad may not normally ship Goods unless they have confirmation that an operational L/C is in place. Care would need to be exercised to ensure that the L/C is free of errors, as defective L/C results in delays and complications.

Any risks related to timely processing of an L/C should be identified early (e.g. at the PPSD stage), and appropriate mitigation measures put in place.

Special considerations: Information Systems contracts

This section presents some issues and lessons learned to support Borrowers in some of the issues that may be encountered in managing information system contracts.

Software license agreements

Issue: There are cases where a supplier provided no license, pirated license, or fewer number of licenses than required. Sometimes the licenses are not in the name of the Purchaser and some licenses are based on multiple-use. When this happens, the software does not run properly and will not be regularly updated with latest patches and upgrades.

Relevant contract condition: The relevant condition of contract is GCC 16 ("Software License Agreement") in the Bank's SPD: Request for Proposal - Information System. This clause provides that the supplier shall grant to the Purchaser the original license to access and use the software, including all inventions, designs, and marks embodied in the software.

Case study: pirate licenses

Situation:

A Borrower purchased 45,000 laptops and desktops, including licensed software, for schools. The successful bidder supplied a renowned brand of laptops and desktops. It was later found that the supplier did not provide genuine licenses.

Lessons learned:

1. the terms of payment should be linked to the provision of the required licenses;
2. the Borrower (using an IT specialists) should verify that the licenses are genuine and granted in the name of the Purchaser. Most of the renowned firms in the industry publish specific license information on their websites;
3. when in doubt, the Borrower may confirm with the software company if the licenses are genuine and in the name of the Purchaser.

Box XV – Case study: pirate licenses

Source code

Issue: In custom/bespoke software development contracts the Purchaser does not secure the base source code from the supplier/developer. This can result in significant problems for the Purchaser including performance issues, difficulty making modifications and upgrades, delays in the provision of an operating system and additional costs.

Background: Normally, there are two types of software systems, namely:

1. custom/bespoke software built by a developer (supplier) for the Purchaser's specific needs;
2. "commercial of-the-shelf" (COTS) software which is a standard system that has already been developed for generic needs, tested and launched commercially for use by multiple clients.

Having possession of the software source code is critical for custom or bespoke software systems. The source code allows the Purchaser to make subsequent modifications, bug-fixing, and updates. For COTS (commercial off the shelf) software and software-as-a-service, the risk is much less, as the developer is responsible for future modification and regular upgrades of the system

In custom and bespoke software development contracts, the supplier (developer) is often reluctant to provide the source code to the software that it is developing. This may allow them to charge high prices for future modifications and upgrades. Even when the Purchaser requests and receives the source code, it may not have the specialist knowledge to check it on receipt. If the source code that has been provided is not correct this can result in serious problems when the Purchaser attempts to modify the system at a later date.

Relevant contract condition: in the Bank's SPD, GCC 15.4 "Source Code" is specified as:

> *"the database structures, dictionaries, definitions, program source files, and any other symbolic representations necessary for the compilation, execution, and subsequent maintenance of the Software (typically, but not exclusively, required for Custom Software)."*

Case study: base source code

Situation:

A Purchaser developed a nationwide MIS system with key performance indicators. The Purchaser did not review the contract carefully and did not challenge the developer's provision that it would provide only "upper-level source code" and that the base source code will be the developer's property and will not be shared with the Purchaser.

The developer completed the contract successfully and handed over the MIS system with a one-year free service. During implementation of the system, several issues were identified and there was a need for modification and upgrade. The Purchaser realized that the "upper-level source code" provided by the developer was not sufficient to allow it to make these changes. As the required base source code belonged to the developer, the Purchaser had no option but to grant a sole source contract to this developer at a relatively high price for the ongoing required modifications and upgrades.

Lessons learned:

1. do a market analysis of the product especially for custom made / bespoke software and check whether discloser of source code is allowed by the key developers;
2. include the appropriate source code disclosure / ownership requirement in the contract;
3. appoint a qualified project manager in the field to manage the contract implementation and takeover "Source Code" from the Developer (if mentioned in the contract). The project manager should verify that all source code is duly received and in future the Borrower can do modifications by its own staff or any other developer.

Box XVI– Case study: base source code

Specialist project manager

Issue: Generally, the Purchaser does not appoint a qualified project manager and tries to fulfill this function using its own staff, who may not be knowledgeable in such a specialized field. This can affect quality control and contract implementation.

Relevant contract condition: The relevant condition of contract (Bank's SPD- information systems)- GCC 18.1. "Project Manager" states that the project manager shall have the authority to represent the Purchaser on all day-to-day matters relating to the system or arising from the contract. It is the project manager that normally gives and receives notices on behalf of the Purchaser.

Case study: project manager not competent

Situation:

A Borrower contracted the development of a bespoke MIS system. The Borrower had one systems analyst who was the Borrower's staff. The Borrower appointed this person as the Project Manager. He was not trained, had insufficient experience to manage such a complex contract and had little expertise on this type of system. In addition, he had other routine work and day-to-day responsibilities. The developer took advantage of this. There were inordinate delays, several variation orders, and the base source code was not handed over at the end of the systems development.

Lessons learned:

1. a qualified ICT expert should review the bidding documents and advise on the level of expertise, training and experience that will be required for the project manager.
2. a suitably qualified and experienced project manager should be identified and, if possible, involved in the procurement at an early stage (involved in bid/proposal evaluation, supplier selection, contract development and the development of the CMP;
3. the project manager should dedicate sufficient time to properly manage the contract;

Box XVII – Case study: project manager not competent

Systems requirements

Issue: As part of the detailed design, the supplier was to prepare a System Requirement Specification (SRS). This is the most important document for the development of a successful system.

During preparation of the SRS, the supplier normally needs to have significant consultations and information gathering with the Borrower, relevant stakeholders and end users. In most cases, stakeholders and end users provide limited time and information. This could result in the supplier not getting the information that it needs to design a system that is fit-for-purpose. It could also result in delays as the supplier makes efforts to try to reach the stakeholders and end users to get answers.

The Borrower should review the final SRS and satisfy itself that there has been a sufficient level of stakeholder and end user engagement. If not, the Borrower should take the initiative to source the appropriate information so that it can provide constructive comments on the SRS. Generally, this does not happen. As a result, there are significant design and engineering changes during contract execution. This translates into cost and time overruns and risks developing a system that is not fit-for-purpose.

Relevant contract condition: The relevant condition of contract is GCC 21. "Design & Engineering". It states that the supplier shall execute the basic and detailed design and the implementation activities necessary for successful installation of the system in compliance with the provisions of the contract.

Case study: insufficient consultation

Situation:

A Borrower was developing a comprehensive MIS system following bespoke software development. After some consultation with the stakeholders and end users, the developer submitted the SRS for Borrower's approval. The Borrower did not have enough expertise in its team and approved the SRS with minimal comments. During final stage of implementation, it was found many of the required features were not working as expected, but that the design was consistent with the approved SRS. The Borrower had to approve change orders and time extensions, resulting in delays and increased costs.

Lessons learned:

1. identify the relevant stakeholders and end users and fully inform them of the proposed systems development and set expectations in terms of developer consultation;
2. select representatives from the stakeholders and end users to actively engage with the developer during the development of the SRS, provide constructive feedback on the draft SRS and act as a sounding board during systems development;
3. facilitate the consultation and ensure adequate dissemination of information;
4. establish a qualified subject manager team to review the feedback from stakeholders and end users and check that all design factors have been included and are properly stated;
5. involve the stakeholders and end users in reviewing and testing the final proposed product.

Box XVIII – Case study: insufficient stakeholder and end user consultation

Quality of product

Independent testing

Issue: Some IT products provide warranties for long periods (5 or more years). It is sometimes difficult to judge, on inspection, if these products will last till the expiry of the warranty.

Relevant contract condition: The relevant condition of contract GCC 25. "Inspection and Testing".

Case study: durability of national ID cards

Situation:

A Borrower wanted to procure "smart" national ID cards citizens. As per the strategy, the Borrower wanted 10 years' durability of the cards. Through conventional pre-shipment inspection or ISO certification, it was not possible to ensure 10 years' durability. This was a major investment and the Borrower wanted to make sure that it received a quality product with appropriate durability. After detailed market analysis, it was found that a certain specific test arranged by an independent firm could ensure the durability of the card. It took almost 10 months to get to this point. The Purchaser incorporated the test for each batch of cards supplied. The condition agreed was, if the test result was "negative" then the supplier will replace the whole batch. An extended performance guarantee was agreed to cover an additional 10 months after delivery.

Lessons learned:

1. incorporate, as appropriate, independent testing to ensure that the technical specifications and performance are consistent with the contract requirements;
2. Payments may be linked with the results of the independent tests.

Box XIX – Case study: durability of national ID cards

Delivery acceptance testing

Issue: The testing mechanism needs to be appropriate to the nature of the Goods.

Relevant contract condition: The relevant condition of contract GCC 25. "Inspection and Testing"

Case study: brand and performance requirements not met

Situation:

A Borrower awarded a contract for the supply of desktop computers. The supplier offered the latest model of a known brand and delivered the desktop computers. The Borrower distributed the desktops and all were working in different work stations. As part of procurement post review exercise, the Bank's team reviewed the contract and found that the computers were not the claimed brand and the processer speed was much less than stated in the contract specification. The computer body had apparently specifications consistent with the contract.

Lessons learned:

1. incorporate testing, as appropriate, on delivery to ensure that the technical specifications and performance are consistent with the contract requirements;
2. payments may be linked, as appropriate, to satisfactory quality assurance testing;
3. clearly mention in the contract that the product will be in the name of the Borrower's relevant agency and the manufacturer must issue certificates in this name mentioning the model and serial number of each product;
4. the Borrower should verify with the manufacturer the authenticity of the products.

Box XX– Case study: brand and performance requirements not met

Upgrades and discontinued products

Issue: IT procurement is subject to relatively rapid technological advances. The offered model may have become obsolete or close to obsolete. By purchasing such a product, the Borrower loses value for money with the added difficulty of getting repairs and spare parts.

Relevant contract condition: The relevant standard condition of contract (GCC 23 "Product Upgrades" in Bank's SPDs). This clause states that at any point during performance of the contract, should technological advances be introduced by the supplier for Information Technologies originally offered by the supplier in its bid, and still to be delivered, the supplier shall be obligated to offer to the Purchaser the latest versions of the available Information Technologies having equal or better performance or functionality at the same or lesser unit prices.

Similarly, the mentioned condition of contract adds that at any point during performance of the contract, for Information Technologies still to be delivered, the supplier will pass on to the Purchaser any cost

reductions and additional and/or improved support and facilities that it offers to other clients of the supplier in the Purchaser's country.

Case study: upgrades and discontinued products

Situation:

A Borrower initiated a process to procure 4,000 desktops for its whole organization as part of a full atomization process. The bid evaluation and contract award process took nearly 7 months due to a complaint and other evaluation issues. When the Borrower issued the purchase order, it was found that the cost of the specific model was 30% cheaper in the market. In addition, the new series of this model has been launched by the manufacturer. After 1.5 years of service the Borrower had difficulties in getting spare parts as the supplier had discontinued production of this model. This is a classic example of significant monitory and efficiency loss in IT procurement.

Lessons learned:

1. Borrowers should be aware of relevant contract clauses (such as GCC 23.1 and 23.2) and take benefit from these provisions;
2. It would be helpful to highlight for bidders' attention (for example in the Bid Data Sheet) the contractual provision on product upgrade;
3. during contract execution, the Borrower should enforce this requirement, by for example asking the supplier to provide updated information on monthly basis;
4. the Borrower should check the product price and new release/upgrade information monthly. Generally, this information is available on the manufacturer's website.

Box XXI – Case study: upgrades and discontinued products

Transfer of knowledge

Issue: The proper transfer of knowledge to run the IT system after hand- over can be an issue. This creates difficulties for the Purchaser in running the system. There are three ways to operate an ICT system:

1. by the Purchaser's own staff;
2. by the developer through a service agreement with the Purchaser;
3. by a third-party service agreement (where the third-party is selected competitively or by sole source).

As part of the CMP, the Borrower should have a method of ensuring knowledge transfer to ensure the sustainability of the system. As part of this, the Borrower should consider the costs of keeping the system up-to-date.

Relevant contract condition: The relevant condition of contract GCC 19 "Project Plan". This clause states to the effect that the transfer of knowledge is key in IT systems development contracts. A detailed approach to the transfer of knowledge should be part of Project Plan and which needs to be approved by the project engineer.

Case study: knowledge transfer and ongoing funding

Situation:

The Borrower developed a contract management MIS for all contracts being managed by the Roads and Highway Department (RHD). The system was running well and the RHD discontinued the old manual entry process. The new system increased efficiency and transparency significantly. The system continued to run through donor funding support with an agreement with the developer. Three years later the donor pulled out of the transport sector. RHD had shortage of funds to continue to run the system with the developer. As a result, RHD tried to run the system on its own (using staff in the IT department) but their capacity was insufficient and there had been no knowledge transfer or training by the developer. Gradually the MIS system failed and the RHD abandoned it.

Lessons learned:

1. the Borrower should prepare a strategy to run the IT system taking into account: HR resources, costs, technological resources etc.;
2. based on its strategy a transfer of knowledge program should be agreed with the developer and included in the contract. The transfer of knowledge must target the appropriate staff, and there should be a plan in place to continue to transfer knowledge with that team to support greater sustainability;
3. consider including the national IT department in developing the strategy and transfer of knowledge plan;
4. the developer's transfer of knowledge to the Borrower's staff should be linked to contractual payments.

Box XXII – Case study knowledge transfer and ongoing funding

Value engineering

Issue: ICT technology is generally subject to rapid changes. During the bidding stage or contract implementation stage new technology may come on the market, often at a reduced cost. In ICT contracts the use of value engineering (VE) can be beneficial where solutions exist, or alternate technological may be developed.

Relevant contract condition: The relevant condition of contract GCC 39.4. "Value Engineering". The supplier/developer can give a VE proposal to the Purchaser at any time during the performance of the contract. The Purchaser may accept the VE proposal if the proposal demonstrates benefits that:

1. accelerate the delivery period;
2. reduces the contract price or the life cycle costs; or
3. improves the quality, efficiency, safety or sustainability of the system.

Case study: data center VE

Situation:

For a nationwide IT system, a Borrower designed a data center and backup data center with full redundancy. Both data centers had the same capacity servers and storage, so that if the main data

center failed then the backup data center will take over. The design was based on an active–passive mode (meaning that the main data center worked continuously whilst the back-up data center remained idle). The backup center only worked when the main data center failed. During the contract implementation stage, the supplier identified that the main data center and backup data center were within 3 km distance of each other and it was possible to work in an active-active mode (meaning both the data centers could work simultaneously). In such a scenario, the server and storage size can be reduced by 30% and the system still capable of working on one data center if other one fails. By implementing this change the total contract savings was 25% of the contract price.

Lessons learned:

1. the Borrower should encourage VE with a suitable $% supplier incentive included;
2. suitably qualified experts should review the VE proposal to make sure the proposed alternate solution demonstrates the stated benefits.

Box XXIII – Case study: data center VE

Special considerations: Consulting Services contracts

Supervision

The Borrower is responsible for supervising Bank financed consulting assignments. The Borrower should monitor the progress of work, the timely completion of deliverables, the staff months and funds expended (for time-based contracts), and determine where, within the contract, changes in the scope of work might be appropriate. The contract normally requires that the consultants submit regular progress reports and that the Borrower provides comments in a timely manner.

The Borrower should designate a contract manager with adequate technical qualifications, managerial experience, and authority. In certain instances, involving large and complex projects, a steering committee composed of high-level representatives of the Borrower and the consultant may be formed to exercise arm's length supervision over the assignment through the counterpart project manager and the consultant's team leader. The steering committee can be particularly useful when the Borrower's executing agency and the consultant have to coordinate their work with other agencies of the Borrower. The opportunity to report on a regular basis to such a committee can facilitate collaboration and understanding between the Borrower and the consultant and avoid disputes over technical or other issues.

Contract management

The Borrower must ensure that there is sufficient time spent planning the implementation of the contract. Some of the internal arrangements that the Borrower may need to make include:

1. assign specific and detailed contract management tasks to the individuals or the team responsible for contract implementation. The tasks assigned would need to be precise and realistic (considering the specific experience, expertise and workload of each individual);
2. ensure that counterpart staff are made available, in timely manner, in accordance with the contract;
3. ensure that facilities to be provided by the Borrower are made available, in a timely manner, in accordance with the contract;
4. establish sufficient internal procedures (hierarchy, communication, levels of authority, flow of documents, reporting, verification and acceptance procedures, payment procedures, internal audit etc.);
5. monitor and evaluate contract implementation risks and ensure effective management and mitigation measures are taken, including assigning responsibility for their enforcement;
6. coordinate arrangements with third parties (other agencies, end users, beneficiaries etc.), especially when the Consulting Services are contracted on behalf of end users (e.g. training).

Kick-off meeting

A kick-off meeting with the consultant is critical at the start of the consulting assignment. The Borrower's Contract Manager and other staff involved in supervision of the consulting assignment would need to be present. It is also good practice to involve end users of the assignment, if any, at this stage.

The kick-off meeting may at least cover the following:

1. introducing the parties, their roles and responsibilities;
2. establishing the communication and reporting procedures;
3. review of contract documents to ensure everyone understands the key provisions, the priority and inter-correlation of contract documents; conditions of contract; Terms of Reference; payment schedules and covenants; implementation milestones (deliverables, reports etc.);
4. review the consultant's quality plan, if required;
5. review applicable legislation and any obligations deriving in connection to the execution of the contract in the client's country (e.g. applicable tax regime, reporting obligations, if any, to other agencies etc.);
6. define escalation procedures to resolve critical situations or bottlenecks (delays in performance or in obtaining permits and approvals, abuses of power from the Borrower's Coordinator, non-performance of consultants etc.);
7. establish clear reporting procedures (level, frequency, templates, minimum information etc.);
8. for supervision of Works contracts, ensure that the consultant has a clear understanding of its responsibilities to manage ESHS risks, ESHS reporting requirements and implementation of the ESHS Code of Conduct;
9. ensure that all parties involved in the contract implementation share the same understanding of their obligations, roles and responsibilities derived from the contract, as well as each other's expectations of the timeframe and any particular constraints in the implementation.

Non-compliant deliverables

One of the features of consulting contracts is that the consultant does not provide a performance security. Given the intellectual nature of the deliverables, it is a challenge to associate consulting services with a performance security.

In the absence of performance security, the main remedy (short of suspending payments and termination) available to the Borrower is the non-acceptance of the deliverables and/or reports submitted by the consultant, the latter when the deliverables fail to meet the requirements of the contract.

Unsatisfactory performance

Poor performance may involve one or more staff of the consultants' team, or the whole team. Based on the provisions of the contract, the Borrower would need to advise the consultants to take the necessary measures to rectify the poor performance.

Poor performance should not be tolerated, and the consultants are expected to act quickly to comply with a reasonable request to improve the performance of the team or to replace any staff member who is not performing adequately. If the consultant fails to take adequate corrective actions, the Borrower may take appropriate further remedial actions in accordance with the contract.

Approving payments

Lump sum contracts are paid on the basis of acceptance of deliverables, with no actual verification of the inputs used by the consultants. Conversely, payments under time-based contracts are made after due verification of all supporting documents (reports, timesheets, invoices, receipts etc.).

The following aspects are important in the process of verification of payment applications:

1. establish internal control mechanisms for the verification and approval of payment applications, such as internal audits, double checking etc.;
2. verify professional rates, actual time spent (for remuneration and per diems), unit prices and quantities (for reimbursable expenditures);
3. verify supporting documents in time-based contracts (timesheets, reports, invoices, receipts etc.);
4. ensure that the appropriate recovery of the advance payment has been deducted from the payment (in time-based contracts);
5. check that the requested amounts have not been already paid;
6. verify invoices;
7. check if the payment request fits the payment schedule/milestones in the contract.

Time control

The Borrower should monitor implementation against the agreed schedule of work. The following time control checks should be made:

1. check compliance with the contract milestone dates (submission of deliverables, reports etc.);
2. consider actions to speed up progress and ensure compliance with contractual time for completion of the assignment.

Key risks

There are some specific risks associated with consulting contracts.

General

In general, the following aspects should be looked for:

1. consultants usually work on multiple assignments for different clients, so they might end up with more work than they can handle;
2. frequent requests for replacement of staff;

3. some consultants may take excessive time to fully understand the needs of the Borrower, the scope of assignment and the constraints;
4. the consultants may not actually transfer knowledge and capacity building as required by the contract.

Time based contracts

In general, the following aspects should be looked for:

1. because of the flexible nature of the contract, consultants may have the tendency to slow down the progress of the assignment and seek additional time;
2. the consultant may be over-charging, especially the “home/office” time;
3. the consultant tries to reallocate time from field to home/office activities;
4. payments are not related to actual deliverables;
5. tendency of front-loading: claiming more days at the start of the assignment and delay completion once most of the money has been paid;
6. use of less senior consultants in the home office that originally agreed in the contract;
7. same consultant charging the same professional time (same days) in two or more consulting assignments.

Lump sum contracts

In general, the following aspects should be looked for:

1. due to the inflexible nature of the contract, the scope of assignment cannot be easily modified or adapted to fit the changing needs of the Borrower;
2. when negotiating additional tasks:
    a. be aware that the consultant may overestimate the actual input;
    b. ensure that the rates used to calculate any additional services are the unit rates included in the contract;
    c. be aware that the consultants may attempt to create a need for more expensive extra expertise or additional expenses to use higher rates than those provided in the contract.

Annex 1: World Bank contracting modalities

Contracting modalities

The contracting modality selected for a contract defines the allocation of risks, responsibilities and relationship between the contracting parties.

Good practice is that there is a fair and balanced allocation of risks between the Borrower and the contractor. The following factors help determine what is fair and balanced. Which party:

1. can best foresee/identify the risk?
2. can best control the risk and its consequences?
3. can best bear the risk?
4. suffers the most if the risk materializes?

The Procurement Regulations outline types of contracts that are normally used in Bank financed projects. The following table summarizes the different types of contracts.

Type of Contract	Type of Procurement							
	Goods	Works	Plant	Info. Systems	Non-Consulting Services	Text Books	Consultants	Management Services
Design and Build Contract		✓	✓	✓				
Engineering, Procurement and Construction		✓	✓	✓				
Performance Based Contracts		✓	✓	✓	✓			✓
Contract based on Unit Prices	✓	✓		✓	✓	✓		
Time-based Contracts					✓		✓	
Reimbursable-cost Contracts					✓		✓	✓
Lump-Sum Contracts							✓	

Table XII: Types of contracts

Design and Build

Design and Build (D&B) is a method of contracting where the contractor is responsible for both the design and building/construction/installation under a single contract. D&B contracts are normally used for Works, Plants and information systems. Payments are made on a lump sum basis except for specific work items

(e.g. foundation). Where the facilities are to be operated by the contractor for a specified time, the contracting arrangement becomes a Design, Build and Operate (DBO).

The pros and cons of D&B contracts with respect to contract management are summarized in the table below:

Pros	Cons
Single point of responsibility.	Risk of reduced quality of material and workmanship.
Potential for better design and construction coordination.	Borrower has less control over the design work.
Borrower is not responsible for any dispute between design and construction teams.	Borrower does not benefit from independent advice and input from design consultant. The design consultant works for the contractor.
Less risk to Borrower for errors and omissions.	There is a need to define the functional, esthetical and performance requirements upfront.
Could be less administrative burden to Borrower.	More risk to contractor's design and build team.
Potential for cost saving.	
Potential for faster implementation.	

Table XIII: Pros and Cons of D&B contracts

Special contract management considerations for D&B contracts:

1. **Scope of Work:** both the Borrower and the contractor are expected to have a clear understanding of their respective roles and responsibilities taking into consideration the contractor's responsibility for the design work;
2. **Insurance:** Borrowers would need to confirm that the contractor's insurance includes design professional liabilities;
3. **Expertise:** the need for professional expertise by the contractor to be able to design the Works in accordance with the Borrowers requirements and the Borrower to be able to review the designs and confirm that they meet its requirement.

Lump-sum

Lump-sum payments (linked to milestones) are normally applied to D&B, DBO, Engineering Procurement and Construction (EPC) and noncomplex Works (such as simple maintenance). However, lump-sum contracts within the context of Bank financed projects normally refer to Consulting Services contracts.

Payments under lump-sum contracts are normally made upon successful delivery of a contractual milestone. Payment may be a percentage of the total contract amount. Lump-sum contracts are appropriate when the deliverables of the Consulting Services can be clearly and accurately specified.

In managing lump-sum contracts, the key factors that the Borrower should focus on include:

1. have an effective quality assurance system in place;
2. monitor the performance of the contractor towards meeting the milestones in a timely manner;
3. ensure that the outputs are delivered in a timely manner to the level of quality required by the contract.

Time-based

In the context of Bank financed projects, time-based contracts are normally used for Consulting Services when it is difficult to define or fix the scope and duration of the services (such as supervision of Works that are dependent on activities of the contractor/s). Time-based contracts need to be monitored very closely to ensure that the consultants are charging for the time actually spent on the assignment, that reimbursables are in accordance with the contract and that the quality of services are acceptable. If not managed closely, time-based contracts can be the source of huge time and cost overrun coupled with poor quality of services.

Case study: poor management of time-based contract

Situation: An international expert was employed for a period of two years by the Borrower under a technical assistance project. The TOR included structured training (classroom and on-the-job training) of the Borrower's staff in a specialized field.

Relevant Borrower staff attended the structured trainings. However, the Borrower's management kept the relevant staff busy with their operational tasks. The Borrower's relevant staff had little incentive to get the on-the-job training.

The consultant continued to give the structured training. When the consultant was asked why on-the-job training was not being carried out, the consultant complained that staff had been kept busy with their other work and had little incentive for on-the-job training. This coupled with the lack of a monitoring and evaluation mechanism to ensure the knowledge transfer outcomes resulted in the expiry of the two years with minimum practical knowledge transferred to the Borrower's staff.

Box XXIV– Case study: poor management of time-based contract

Performance-based

Performance-based contracts are result- oriented and payments are made for measurable outputs that satisfy the Borrowers functional/performance requirements. Performance-based contracts may be appropriate for road maintenance and rehabilitation, Non-consulting Services, operation of facilities or other similar contracts where satisfactory performance is the primary focus.

Key factors for successful performance-based contract execution include:

1. adequate skills and expertise within the Borrower's staff;
2. appropriate capability of the contracting and consulting industry;
3. facilitating an enabling contracting and partnering environment;
4. stable multi-year funding;

5. adapting the general principles to the local context of each country.

In managing performance-based contracts, the Borrower would need a performance assessment plan describing how the Borrower will assess the contractor's performance in accordance with the requirements in the contract. Several methods can be used to decide on the scope and timing of the assessment. This may include:

1. random sampling;
2. periodic sampling;
3. trend analysis;
4. customer feedback;
5. third party audit.

Admeasurement

Admeasurement can be used in a contract based on unit price. A unit price contract is based on estimated quantities of items included in the project and unit prices (hourly rates, rate per unit work, volume, etc.). In general, contractor's overhead and profit are included in the rate. The final price of the contract is dependent on the quantities needed to carry out and complete the work.

In a unit price contract, the risk of inaccurate estimation of uncertain quantities for some key tasks has been removed from the contractor. However, some contractors may submit an "unbalanced bid" when they discover discrepancies between their estimates and the Borrower's estimates of quantities.

Managing unit price contracts includes:

1. ensuring that payments are made using the unit prices in the contract;
2. ensuring that the quantities are measured using the method of measurement applicable to the contract;
3. revisiting the unit prices if provided for in the contract.

Annex 2: Measuring performance

Monitoring of KPIs

Key performance indicators (KPIs) are helpful internal tool for the Borrower to facilitate monitoring contract performance and to ensure that successful outcomes are achieved. KPIs are only a monitoring tool and are not a substitute for the contract provisions.

Although the KPI may vary depending on the specific contract, the performance measures normally rotate around cost, time, quality, ESHS performance (for infrastructure contracts) and stakeholder (end users/ community) satisfaction. The contract performance target should be tangible and measurable. It should be kept in mind that monitoring performance using KPIs is not necessarily monitoring activities. The detailed contract execution activities are monitored/ supervised in accordance with the contract and relevant elements of the CMP (if there is one). The KPIs support these efforts by focusing on key indicators for successful performance.

If needed, the key performance indicators could include sub-indicators. A color system may be used to show the monitoring results of the indicators, to guide the focus of attention. The indicators could also be weighted (out of 100 for example) depending on the relevance to successful contract performance, and scores given based on the monitoring results. Caution needs to be taken so that such a weighting system does not end up being a mechanical exercise and thereby losing sight of the realities of the contract. As an example, % of actual physical completion vs. contractual physical completion over the period may score 9/10. On face value, this may seem that the contract is almost progressing as scheduled (which may as well be the case). However, it could as well be that a critical path in the program has just started to be affected and its effect is not yet apparent. If the Borrower loses sight because of the 9/10 performance in this indicator, the contract could soon start to suffer with significant consequences.

KPIs are only indicators and not an end by themselves. If a certain KPI is not met, the reasons should immediately be identified, discussed with the contractor as needed, and issues/bottlenecks addressed in a timely manner in accordance with the contract. As an example, % of actual physical completion vs. contractual physical completion over the period should be 100% if the contract is being implemented in accordance with the agreed programme. If this is below 100%, the reasons should be immediately investigated with focus on the causes. The delay is an effect and the underlying causes could be cascaded and therefore the need to address the underlying cause. In this example, the cause of the delay could be because the contractor has started to slow site operations. The underlying cause may be because the Borrower is delaying payments due and hence the contractor is facing cash flow issues. The real cause is the undue delay in payments and therefore should promptly be addressed.

Good practice would be that the Borrower:

1. includes the KPIs in the CMP;
2. communicates with the contractor to ensure understanding, and get inputs as appropriate;
3. monitors contract implementation against the KPIs;
4. tests the KPIs, reviews and updates them, as appropriate;

5. includes the KPIs in the items for discussion in progress meetings; and
6. uses the KPIs in post-contract review, and record lessons for future operations.

What tools are available to the Borrower to monitor KPIs? This may include:

1. Gantt chart;
2. CMP reports and updates;
3. procurement plan updates;
4. disbursement reports and withdrawal applications;
5. regular progress meeting minutes;
6. project management software.

Example KPIs- Illustrative only (actual KPIs should be developed depending on the nature, size, risk and complexity of the subject contract)

Time

1. Measure of physical progress =

   % of actual physical completion vs. contractual physical completion over the period

2. Measure of time over run =

   $$\frac{\text{actual contract period - contract period x 100 (\%)}}{\text{contract period}}$$

3. Measure of contractor's default: un-excusable delays percentage =

   $$\frac{\text{un-excusable delays x 100 (\%)}}{\text{total delays}}$$

4. Measure of Borrower's default: excusable delays percentage =

   $$\frac{\text{excusable delays x100 (\%)}}{\text{total delays}}$$

Cost

1. Measure of financial progress =

   % of actual paid vs. contractual expected payment over the period

2. Financial progress vs. physical progress: (%):
3. Cost overrun =

   $$\frac{\text{actual contract price x 100 (\%)}}{\text{original contract price}}$$

Quality

1. Number of defects identified during the period.
2. Performance guarantees: % met.
3. End user/ community satisfaction:
   a. number of community grievances during period;
   b. end user satisfaction survey.

ESHS

1. Lost time due to safety related incidents (%) =

   $$\frac{\text{lost time x100 (\%)}}{\text{contract period}}$$

2. Number of environmental related breaches.
3. Number of GBV/SEA related breaches.

Box XXV: Example KPIs

Annex 3: SAMPLE TEMPLATE - Contract Management Plan

CONTRACT MANAGEMENT PLAN

Project name:……..

Project ID number: ……

Contract name: ……..

Contract description:……..

CMP prepared by:……..

Date:……

Version [0.0]
[Date]

Instructions for preparation of a Contract Management Plan (CMP).

This template should be customized to suit the specific needs of the contract implementation. Entries inserted in this sample template tables are examples and the CMP should therefore be prepared based on the needs and specifics of the contract.

A draft contract management plan should be prepared by the Borrower during the initial stages of the procurement process. The first version should be finalized promptly after a contract award decision has been made. It is good practice to share the CMP with the contractor, to ensure that there is a shared understanding of how the delivery of the contract will be managed.

The CMP should be a living document that is updated on a regular basis to ensure that it stays relevant and reflects the latest status of the contract.

PROJECT DESCRIPTION

[Insert a brief description of the project under which the contract is being implemented]

GENERAL CONTRACT INFORMATION

Contract Title	
Contract Number:	
Contract Type:	
Location:	
Contract Start Date:	
Contract Duration:	
Contract end Date:	
Contract Amount and currency	
Name of Contractor and address	

PURPOSE OF THE CONTRACT MANAGEMENT PLAN

[Indicate the purpose of the contract management plan as it relates to the contract under consideration. The information shall include the intended user, values and benefits].

The main objectives of the CMP are to ensure that there is a clear understanding of the roles and responsibilities of the Borrower and contractor.

GOVERNANCE STRUCTURE

[Describe the governance structure relevant to the contract. Where possible include a diagram showing the key parties, the hierarchy, lines of reporting etc.]

RISK MANAGEMENT

Event	Risk	Impact	Likelihood	Risk Rating	Risk Mitigation Action	Time line	Responsible	Remark
	[insert the identified potential risks.]							

KEY CONTACTS, ROLES AND RESPONSIBILITIES

Organization	Name and Title	Roles and Responsibilities	Contact Information (email, tel, address)
Borrower	*Contract Manager*		
Contractor	*Contractor's representative:*		
Consultant	*Engineer*		

COMMUNICATION AND REPORTING PROCEDURE

Communication Procedures

Communication Type	Objective	Format	Frequency	Audience	Owner

Contractual Notices

Descriptions	Objective	Contract Reference	Frequency/ Timing	From	to	

Contractor's documents

Descriptions	Objective	Contract Reference				

Reporting Requirement and Procedure

No.	Contract Ref. Clause	Due date/ frequency	Recipients	Responsibilities	Required Action
[Progress Report]		*[Monthly]*			
[ESHS Progress reports]		*[Monthly]*			
[ESHS immediate reports]		*[immediately after occurrence of event*			
Test results					

Issues Escalation Procedure

Nature of Issue	Level of review	Responsible body	Response time	Type of issue
Low or Routine				
Medium				
High				
Critical				

KEY CONTRACTUAL PROVISIONS

No.	Description	Contract reference	Responsible	Remark	Risks
1.	*Care and Supply of Documents*		*Employer*	*2 copies issued to contractor*	
2.	*Delayed Drawings or Instructions*		*Employer*		*Time extension cost compensation*
3.	*Right of Access to the Site*		*Employer*	*Give right of access within time stated in data sheet.*	
4.					

CONTRACTUAL MILESTONES AND DELIVERABLES

Activity / Milestone	Responsible	Contract Reference	Start date	End date	Remark
Submit work schedule	*Contractor*				
Foundation work for section…	*Contractor*				Critical path
Complete structure for …	*Contractor*				
Pilot testing for …					

KEY PERFORMANCE INDICATORS (to MEASURE PERFORMANCE AND OUTCOMES)

No.	Deliverable	KPI	Performance target	Test	Verification	Remark
1.						
2.						
3.						

UNDERPERFORMANCE/DEFAULT CONTRACTUAL ACTIONS

No.	Description of underperformance	Responsible	Applicable contractual provision/s	Actions to be taken	Remark
1.					
2.					
3.					

CHANGE MANAGEMENT PROCESS

No.	Change initiated by	Type of change	Responsible	Required Action	Review/ Approval Process	Contract Amendment Requirement	Status
1.	*Employer*	*Change in authority of the Engineer*	*Employer*	*Inform Contractor of any change*			
2.	*Employer*	*Change in scope of work*	*Engineer*				
3.							

INSURANCE

No	Type of Insurance	Contract Ref.	Amount / Limit of liability	Required Date	Expiry date	Information Required

1.						
2.						
3.						

GUARANTEES AND SECURITIES

No	Type of Guarantee / Security	Contract Ref.	Amount / Limit of liability	Required Date	Expiry date	Information Required
1.	*[Advance Payment Guarantee]*					
2.	*[Performance Security]*					
3.	*[ESHS Performance Security]*					
4.	[Retention Guarantee]					

PAYMENT PLAN /PROCEDURES

No.	Type of Payment	When / frequency	Documents Required	Process time	Verification process	Approvals
1.	*Advance payment*	*Once*	*Advance payment Guarantee*			
2.	*Interim payments*	*Every month*	*Interim payment certificates, timesheets, proof of incurred expenditure, shipping documents etc.*			
3.	*Interest payments*	*Delayed payments*				
4.	Price adjustment	-				
5.	Claims/ Compensation	As needed	Contractors			
6.	Final Payment					

RECORDS MANAGMENT

No.	Type of Record	Owner	Responsible	Action required	Remark
1.	*[Contract documents and any amendments/]*				
2.	*Insurance details*				
3.	*[change orders]*				
4.	*[notices]*				

No.	Type of Record	Owner	Responsible	Action required	Remark
5.	*[Payment Documents, including documents on application of price adjustment if any]*				
6.	*Minutes of contract related meetings*				
7.	*[Progress Reports]*				
8.	[*immediate Reports on ESHS, if applicable*]				
9.	*[Test Results]*				
10.	*[Guarantees, warranty/defect liability and Securities]*				
11.	*Documents related to any suspension or termination*				

KEY STAKEHOLDERS ENGAGEMENT PLAN

No.	Stakeholder	Format	Frequency	Remark
1.				
2.				
3.				

CONTRACT CLOSURE PROCEDURES

No.	Activity	Responsible	Remark
1.			
2.			
3.			

PRICE ADJUSTMENT PROCEDURES

No.	Activity	Responsible	Remark
1.	*e.g. verification of indices*		
2.			
3.			

INTERFACE MANAGEMENT

No.	Activity	Responsible	Remark
1.			
2.			
3.			

Annex 4: SAMPLE TEMPLATE - Contract Mobilization

Contract Mobilization Plan

(based on SPD- Works, October 2017)

USER INSTRUCTIONS: This template is an example (Works admeasurement type of contracts. It is not a complete treatment of the subject (as the latter depends on the actual contract entered to by the parties). Where a mobilization plan is required, this may be incorporated in the CMP.

Mobilisation	Action	Contractual Clause *[insert applicable contractual provision reference, as applicable]*	Timeline (period)	Responsible party/person
Commercial	• Ensure that all relevant parties have copies of the Contract			
	• Establish contract information management system			
	• Establish a system to monitor expenditures and timelines for the Contract			
	• Obtain evidence of insurance and policies, advance payment and performance securities in accordance with the Contract			
	• Ensure that advance payment is made in accordance with the Contract			
	• Deliver to the contractor reasonable evidence of the Employer's financial arrangements			
	• Agree on contractor's Representative (if already not named in the Contract)			
	• Obtain planning, zoning and other permissions as required			

Mobilisation	Action	Contractual Clause *[insert applicable contractual provision reference, as applicable]*	Timeline (period)	Responsible party/person
	by the Contract			
	• Give right of access to and possession of the Site as required by the Contract			
ESHS	• Ensure that appropriate measures are in place to address environmental, social, health and safety (ESHS) risks and impacts. • Ensure that Management Strategies and Implementation Plans and Code of Conduct, submitted as part of the bid/proposal and agreed as part of the contract are being applied.			
	• Evidence of induction/ training of contractor's and Contract Manager's Personnel on ESHS.			
	• Ensure health and safety risk assessments have been completed for the mobilization activities and necessary safety measures are in place.			
Operational/ Technical	• Ensure that the Engineer is in place and the contractor is notified (if not already notified in the Contract)			
	• Establish key performance indicators (KPIs) for the Contract			
	• Check compliance with Employer's Requirements			

Mobilisation	Action	Contractual Clause *[insert applicable contractual provision reference, as applicable]*	Timeline (period)	Responsible party/person
	• Establish schedule for regular meetings, field visits, inspections, reviews and audits			
	• Ensure that the contractor has instituted a quality assurance system relevant to mobilization			
	• Dispute Board appointed in accordance with the Contract			
	• Notice of the intended date of the commencement of each sub-contractor's work, and of the commencement of such work on the Site			
Contractual Relationship	• Establish reporting modalities			
	• Notify the contractor on the Employer's Personnel i.e. the Engineer, employees of the Engineer and of the Employer; and any other personnel relevant to the Contract			
	• Establish roles and responsibilities			
	• Establish modalities of communication			

Annex 5: SAMPLE TEMPLATE - Contracts Inventory Listing

Interim Unaudited Financial Report
Contract Inventory Listing
as of: _____

Project: _____

Project No: _____ Account No: _____

Ref.	Contract Ref. Number	Contractor	Effective Date	Expiry Date	Contract value	Component / Sub-component	Disbursement from previous period	Disbursement in the reporting period	Cumulative disbursement	Contract balance
1										
2										
3										
4										
5										
	Total									

Prepared by_____ Signature _____ Date _____

Reviewed by _____ Signature _____ Date _____

Approved by _____ Signature _____ Date _____

For additional information about the World Bank Procurement Framework, including Standard Procurement Documents (SPDs), Guidance, briefing, training and e-learning materials see www.worldbank.org/procurement

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