**FINANCIAL AND BUSINESS MANAGEMENT TRAINING FOR ROAD CONTRACTORS**

**MODULE SIX SESSIONS EIGHT AND NINE**

**CONTRACTS MANAGEMENT IN THE ROAD SECTOR**

**1.0 NTRODUCTION**

**Training Objectives**

By the end of the module, participants will be able to:

1. Outline the roles and responsibilities of the different stakeholders in contract management
2. Discuss risks faced by contractors during the management of contracts
3. Discuss mitigation measures for contract risks
4. Identify the different types of resources available to a road contractor
5. Identify skills of managing different resource on a contract and
6. Become aware of environmental, health and safety challenges of road contracts

**1.2 Understanding Road Contracts’ Management**

Contract management is the process that enables the contractor to meet the contractual obligations and deliver the objectives required of the contract. It also involves building a good working relationship between the PDE (e.g. LG, MoWT, UNRA) and the contractor. This relationship continues throughout the life of a contract and involves managing proactively to anticipate future needs as well as reacting to situations that arise

**1.3 Why contract Management?**

If contracts are not well managed by the contractor the following may happen:

1. The employer is obliged to take control, resulting in unbalanced decisions that do not serve the contractor’s interests
2. Decisions are delayed or not taken
3. Risk of time and cost overruns is increased
4. Straining of employer-contractor relationship may result
5. Substandard work may result with a risk of losing reputation and getting blacklisted.
6. Contract staff fail to understand their obligations and responsibilities
7. There are misunderstandings, disagreements and underestimations; too many issues are escalated inappropriately;
8. Progress is slow or there seems to be an inability to move forward;
9. Opportunities to improve value for money and performance are missed;
10. The contract may becomes unworkable.
	1. **Reasons why Contractors fail to Manage Contracts**

There are several reasons why organizations fail to manage contracts successfully. Some possible reasons include:

* Failure by the contractor to read and interpret the contract document;
* Inadequate resources are assigned to contract management;
* The wrong people are put in place, leading to personality clashes during contract management;
* Authorities or responsibilities relating to commercial decisions of the contract are not clear;
* A lack of performance measurement or benchmarking by the contractor versus the needs of the client;
* A failure to identify and mitigate risk during the contract.
	1. **Tools of Contract management**

**The major tools of contract management include;**

1. **Contract,**

After award of tender/bid a contract is signed between the contractor and the client. Ultimately, the contract document becomes the guiding tool upon which all contract activities are based. The contract document clearly states how the following will be handled;

|  |  |
| --- | --- |
| * Performance Security
* Advance Payment
* Quality test plan/QTP/ITP
* Schedule of work
* Request for Approval
* Request for Inspection
* Variation Orders
* Site Diary
* Weather Record
 | * Interim Certificates
* Snag list
* Site meetings
* Defects liability
* Retention
* Certificate of substantial completion
* Certificate of final completion
* Final Payment Certificate
* Release of retention
 |

It is therefore important that when any issue arises during the implementation of the project, the contract document is used as a critical reference point. A contract manager/officer must be identified to read and interpret the contents of the contract to the letter.

1. **Implementation plan/Schedule**

A contract implementation plan indicates to the contractor the critical performance schedules during the life of the project. The contractor must be particular about the time of delivery other factors constant. Time is a major component of the triple constraint of the contracts. A typical road contract schedule will take care of the activities indicated in the schedule below;

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Activity**  | **Jan**  | **Feb.** | **Mar** | **April** | **May** | **June**  | **July**  | **Aug** | **Sep** |
| **Mobilization & Site Clearing**  | \*\*\*\* | \*\*\*\* |  |  |  |  |  |  |  |
| **Earth Works**  |  |  | \*\*\*\*\* | \*\*\*\*\* |  |  |  |  |  |
| **Drainage works**  |  |  |  |  | \*\*\* | \*\*\*\*\* |  |  |  |
| **Gravelling and completion**  |  |  |  |  |  |  | \*\*\* | \*\*\* |  |
| **Preliminary and generals items**  | \*\*\*\* | \*\*\*\* | \*\*\*\* | \*\*\*\* | \*\*\*\* | \*\*\*\* | \*\*\*\* | \*\*\*\* | \*\*\* |
| **Contract Monitoring**  | \*\*\*\* | \*\*\*\*\* | \*\*\*\*\*\* | \*\*\*\*\*\* | \*\*\*\*\* | \*\*\*\*\*\* | \*\*\*\*\* | \*\*\*\*\* | \*\*\*\* |

The contracting team should breakdown contract activities into small and measurable units that are easy to measure and quantify on a daily, weekly and monthly basis. It is important that the contractor follows the schedule to ensure timely delivery, value for money and improve business probability. Works activity scheduling and monitoring is a key success factor in the timely and cost effective delivery of a contract. (Refer to the activity scheduling and costing work)

1. **Project/Contract Management Plan(PMP)**

PMP includes a series of actions, changes or operations that bring out an end result in management of a road contract. PMP is aimed at ensuring that a contractor manages cost, schedule and technical performance objectives. PMP ensures the contracts Key Result Areas (KRAs) to be achieved. It focuses of the following;

1. **Planning**-Identification of works structure and appointment of right staff
2. **Evaluation**- Monitoring and assessment of performance at critical stages of the contract
3. **Budget**-Execution of contract activities within the budget and financial constraint
4. **Reporting and communication**-of successes and failures at critical stages of the contract
5. **Schedule**-Contract schedule and timing of critical contract outputs
6. **Stakeholder Management-** satisfaction of the stakeholders at different fronts
7. **Financial management-budgets**, accountability, internal and external audits
8. **Quality control**-execute work within the acceptable standards as indicated in the BOQs

**Structure of the Project Management Plan**

|  |  |  |  |
| --- | --- | --- | --- |
| Item  | Key Result Areas (KRAs)-OVIs | Means of Verification | Assumptions |
| Planning  |  |  |  |
| Evaluation  |  |  |  |
| Budget  |  |  |  |
| Reporting and Communication  |  |  |  |
| Schedule/time  |  |  |  |
| Stakeholders  |  |  |  |
| Labour  |  |  |  |
| Quality Control  |  |  |  |

**Stakeholders in Contract Management**

Any internal or external persons, organizations, Institutions that affect the outcome of a contract e.g

1. Organizational staff-right staff will play a key role in successful completion of the road contract e.g Engineers, Quantity Surveyors, Masons
2. Client (LG, UNRA, MoWT)
3. Suppliers/sub-contractors
4. Banks-These are required incase the contractor needs initial or working capital to finance road works. An arrangement can be made with the banks to pre-finance the contract and contractors pay when they receive payments from the client.
5. Insurance companies - may provide guarantees and insurance cover as needed
6. Public (Road Users) - Suffer inconvenience and other risks during ongoing contracts
7. Civil Society Organizations
8. Politicians obtain political capital out of ongoing and completed projects

The major person responsible for management of the contract for the contractor is the contract manager. He/she determines actual against planned contract activities and is critical in ensuring performance and profitability of the contract. The contract manager works with other team members but is there to provide guidance on major issues that arise. The tasks of the contract manager include;

1. Read and analyze the contract properly
2. Evaluate organization’s ability to comply with contract conditions
3. Function as focal point for internal support/team-members
4. Protect the financial interests of the organization
5. Obtains commitments from subcontractors (if any)
6. Establishes a contract administration plan
7. Plans and conducts a pre performance conference
8. Monitors, measure and reports progress
9. Manages contract changes
10. Resolves disputes
11. Ensures timely delivery
12. Manages the invoice and payment process
13. Documents decisions and events
14. Closes out or terminates the contract

**Critical Success factors in contract management**

*The following factors are essential for good contract management:*

* **Good preparation**.

An accurate assessment of needs helps create a clear output-based specification.

* **The right contract**.

The contract is the foundation for the business relationship. It should include aspects such as allocation of risk, the quality of service required, and value for money mechanisms, as well as procedures for communication and dispute resolution.

* **Single business focus**

The contractor needs to understand the objectives of the contract and how it impacts on his business and that of the client. The contractor must be able to achieve their objectives, including making a reasonable margin.

* **Service delivery management and contract administration**.

Effective governance will ensure that the contractor gets what is agreed and the PDE also gets value for money spent. The performance under the contract must be monitored to ensure the contractor gets a margin out of the contract.

* **Relationship management**.

Mutual trust and understanding, openness, and excellent communications are as important to the success of an engagement as the fulfillment of the formal contract terms and conditions.

* **Continuous improvement**.

Improvements in price, quality or service should be sought and, where possible, built into the contract terms. This should be done at contract negotiation level

* **People, skills and continuity**.

The contractor must have the right professional with the right management skills to manage these relationships on a peer-to-peer basis and at multiple levels in the organization. Clear roles and responsibilities should be defined, and continuity of key staff should be ensured as far as possible.

* **Knowledge**

Those involved in managing the contract must understand the business fully and know the contract documentation inside out. This is essential if they are to understand the implications of problems (or opportunities) over the life of the contract.

* **Flexibility**.

Management of contracts usually requires some flexibility on both sides and a willingness to adapt the terms of the contract to reflect a rapidly changing world.

* **Change management**.

Contracts should be capable of change (to terms, requirements and perhaps scope) and the relationship should be strong and flexible enough to facilitate it.

* **Pro-activity**.

Good contract management is not reactive, but aims to anticipate and respond to business needs of the future.

**Record Keeping and Reporting**

Good contract management is a function of good record keeping and management. Availability of well-kept records helps to retrieve and use information about the contract in a timely manner. The following records are important in management of contracts;

1. Copy of request/specifications.
2. Copies of delivery schedules
3. Copies of delivery certification.
4. Documents of any negotiations
5. Email message pertinent
6. Contract management reports.
7. Site visit book
8. Results of sites
9. Weather records
10. Labour attendance
11. Machine utilization and maintenance
12. Stores and stores control records

**Monitoring Contracts Performance (cost, time & quality)**

Contract monitoring is a regular process of evaluating contractors/providers performance based on measurable service/work deliverables and verifying provider compliance with the terms and conditions in the contract.

**The purposes of monitoring are to:**

1. Improve program performance through early identification of questions and issue resolution
2. Identify potential problems that may require additional scrutiny
3. Evaluate provider performance controls to ensure there is a reliable basis for validating service deliverables, and
4. Assure that financial documentation is adequate and accurate
5. Ensure that the quality of works is up to required standards to avoid repeat works

A key purpose of contract monitoring is to identify program or financial problems as early as possible so that corrective action may be taken to prevent/minimize program implementation deficiencies and financial problems that will result in questionable **COSTS** and other types of exceptions that may be identified as part of an audit of the contract.

In addition, monitoring helps provide qualitative observations and data on how well services are being provided and whether desired service outcomes are being achieved.

Performance monitoring measures should provide concrete information on the **COST, TIME AND QUALITY** of supplies, works or services.

**Variations in contracts and Change orders**

A contract variation or change order is a change to the price, completion date or statement of requirements of a contract, which is provided for in the contract to facilitate adaptations to unanticipated events or changes in requirements.

1. A contract variation or change order may be issued with the approval of the contracts committee.
2. Any additional funding required for a variation or change order should first be committed and communicated officially to the contractor.
3. A contract may be varied in accordance with a compensation event or the issue of a variation, change order or similar document, as provided in the contract. A variation or change order should be in accordance with the terms and conditions of a contract and should be authorized by a competent officer.
4. A contract which provides for a variation or change order shall include a limit on a variation or change order which should not be exceeded without a contract amendment.
5. It is a common practice for a consultant or project engineer to give specific instructions while on site visits that the contractor must follow. If such instructions have financial implications the contractor should bring it up so that the modifications proceed with an agreed variation order in place.
	1. **Contract amendments**

An amendment to a contract, on the other hand, refers to a change in the terms and conditions of an awarded contract. Where a contract is amended in order to change the original terms and conditions, the amendment to the contract should be prepared by the procurement and disposal unit. A contract amendment should not be issued to a provider prior to-

1. Obtaining approval from a contracts committee;
2. Commitment of the full amount of funding of the amended contract price over the required period of the revised contract; and
3. Obtaining approval from other concerned bodies including the Attorney General, after obtaining the approval of a contracts committee.

A contract amendment for additional quantities of the same items should use the same or lower unit prices as the original contract.

No individual contract amendment should increase the total contract price by more than fifteen percent of the original contract price.

Where a contract is amended more than once, the cumulative value of all contract amendments should not increase the total contract price by more than 25 percent of the original contract price.

1.12 **Contract termination**

Contract termination happens when both or either parties (contractor and client) fail to agree to the contract deliverables. Where the contract manager or a procurement and disposal unit believes that a contract should be terminated, the contract manager or the procurement and disposal unit should submit a recommendation for termination with a copy of the contract to a contracts committee. A recommendation for termination of a contract should state:

(a) The name of a provider and the procurement reference number;

(b) Reasons for the termination;

(c) The actions taken to avoid termination, where applicable;

(d) The contractual grounds for the termination;

(e) The costs, if any, resulting from the termination; and

(f) Any other relevant information.

No contract should be terminated prior to obtaining the approval of a contracts committee or a communication from the contractor.

Where a contract is terminated, a procuring and disposing entity should, inform PPDA of the provider involved, the reasons for the termination and make a recommendation on the provider's registration status. The same applies to the contractor.

**1.14 Risk and Contract Management**

**Definition of risk:** A risk is something that may happen and if it does, will have a positive or negative impact on the procurement. Risks should be identified and measures put in place to prevent or mitigate their impact on the execution of the contract.

* 1. **Risks in Contract Management**

Potential areas of risks in contracts include:

1. Risk of innacurate description of the item of works through specifications and legal documents.
2. Risk of loss of financial and legal interest
3. Contractual risks - establishing change order procedures
4. Risk of failing to complete works timely.
5. Performance Risks of sub standard work
6. Price risks – Inflation risk
7. Financial & Profitability Risk of non payment
8. Risk of loss of key staff
9. Terms and Conditions Risks
10. Human Behavior Risks
	1. **Managing Contract risks**

Risk management is the identification, assessment, and prioritization of risks followed by coordinated and economical application of resources to minimize, monitor, and control the probability and/or impact of unfortunate events or to maximize the realization of opportunities. The contract manager should understand the elements that constitute risk in projects. Typical risk categories and types of risk in each category should be identified. The role of the contract team is to minimize the occurrence of risks.

For the most part, these methods consist of the following elements, performed, more or less, in the following order.

1. Identify, characterize, and classify key threats
2. Assess the vulnerability of critical assets to specific threats (risk of occurrence)
3. Determine the risk (i.e. the expected consequences (impact) of specific types of risk on specific assets)
4. Identify ways to reduce those risks
5. prioritize risk reduction measures based on a generic strategy (Recall the TARA approach from M4)

## Risk management process

Principles and guidelines on implementation, the process of risk management consists of several steps as follows:

### Identification

One of the first steps in the process of managing risk is to identify potential risks. Risks are about events that, when triggered, cause problems. Hence, risk identification can start with the source of problems, or with the problem itself.

* **Source analysis.** Risk sources may be internal or external to the system that is the target of risk management. Examples of risk sources are: stakeholders, employees of a PDE, the contractor’s staff, weather etc... A brain storming session at the beginning of the contract will help to identify and categorize the key threats to a successful execution of the works.
* **Problem analysis.**  Risks are related to identified threats. For example: the threat of losing money, the threat of bad workmanship or the threat of accidents and casualties. The threats may exist with various entities, most important with shareholders, customers and legislative bodies such as the government. A problem once occurred gives rise to a range of risks that have to be isolated and dealt with. For example the rise in bank interest rates when it occurred gave rise to risks such as defaulting on bank loans or equipment leases, business failure of subcontractors, late payment from clients etc.

 **(c) Assessment**

Once risks have been identified, they must then be assessed as to their potential severity of loss and to the probability of occurrence. These quantities can be either simple to measure, in the case of the value of a building, amount of money, time etc…or impossible to know for sure in the case of the probability of a river bursting its banks! Therefore, in the assessment process it is critical to make the best educated guesses possible in order to properly prioritize the implementation of the risk management plan.

### (d) Potential risk treatments

Once risks have been identified and assessed, all techniques to manage the risk fall into one or more of these four major categories:

* Avoidance (eliminate, withdraw from or not become involved)
* Reduction (optimize - mitigate)
* Transfer (transfer - outsource or insure)
* Accept (retain and budget)

### Principles of risk management

The following are principles of risk management: Risk management should:

* create value
* be an integral part of organizational processes
* be part of decision making
* explicitly address uncertainty
* be systematic and structured
* be based on the best available information
* be tailored
* take into account human factors
* be transparent and inclusive
* be dynamic, iterative and responsive to change
* be capable of continual improvement and enhancement

**Contracts Monitoring, Tracking and Improving Contract Performance:**

Firstly, contractors need to understand what successful monitoring requires. One needs to examine the different objectives of the customer against the contractor such as the demand for quality and performance meets the aspiration of both. The project manager should also understand the use of project management measurement tools and third party performance assessments as well as anticipate cost and schedule variances so as to determine appropriate actions to correct performance variances and fulfill customer expectations.

**Key Element: Monitoring and Ensuring Progress:**

In order to have successful progress monitoring ensure that:

* + There is a careful planning process
	+ Have a keen observation during performance
	+ Ensure adequate data collection and reporting systems as the contract runs and
	+ Do continuous analysis of events and results as they emerge, comparing them with planned status and projecting revised expectations while maintaining a record of baseline

**Tips to Improve Contract Management**

* Avoid using ambiguous terms
* Identify risk at planning stage
* Meet with vendor community
* Establish contract management team early
* Maintain open mind when gathering information
* Seek legal counsel input
* When documenting compliance issues, use direct quotes from solicitation or contract to strength position.

**Health and Safety**

Employer is obliged by law to provide a safe working environment for the employees Health and safety equipment/gear must be provided to the employees at all stages of road construction.

**Responsibility of Government on OH&S**

1. Enforcement of occupational health and safety legislation (2007) and the Workers Compensation statute.
2. Conduct workplace inspections.
3. Register work related incidents and accidents
4. Dissemination of information related to workplace safety and health.
5. Promotion of training, education and research.
6. Resolution of OH&S disputes.

**What are the employer's responsibilities on OH&S?**

1. Establish and maintain a joint health and safety committee, or cause workers to select at least one health and safety representative.
2. Take every reasonable precaution to ensure the workplace is safe.
3. Train employees about any potential hazards and in how to safely use, handle, store and dispose of hazardous substances and how to handle emergencies.
4. Supply personal protective equipment and ensure workers know how to use the equipment safely and properly.
5. Provide clear marking of dangerous places and gadgets and enclose them off.
6. Immediately report all critical injuries to the government department responsible for OH&S.
7. Provide good social amenities such as toilets, clean water and healthy breaks.
8. Appoint a competent supervisor who sets the standards for performance and who ensures safe working conditions are always observed.
9. Maintain workers’ compensation insurance.
10. Expected to have a public liability insurance cover.
11. Voluntarily provide to staff HIV awareness, counselling and protection
12. Respond to gender related and the disadvantaged issues

**Road site OH&S requirements:**

Some of the requirements under road construction include:

1. Road signage
2. Protective wear (safety shoes/boots, overalls, masks, helmets, gloves, reflectors)
3. Traffic controllers to stop or redirect traffic
4. Speed controls such as humps
5. Diversions for waters and carriage
6. Walk talkies
7. Global Positioning System (GPS)
8. Seal-off tapes for excluded areas
9. Site clinics (active doctor & nurse)
10. Reflector jackets

**What are the employees’ rights and responsibilities on OH&S**

* To work in compliance with OH&S acts and regulations (use safe working methods).
* To be provided with protective gears.
* To be trained to use gadgets safely.
* To use personal protective equipment and clothing provided by the employer.
* To report workplace hazards and dangers.
* To work in a manner as required by the employer and use the prescribed safety equipment.
* Maintain the safety related systems and infrastructure
* Right to refuse to work if the work environment is perceived unsafe

Management of key contract resources:

The main contract resources include time, management and technical skills, labour, physical and financial resources. These resources must be well utilised to ensure timely, quality and profitable delivery of the contract.

Contract time management:

Time management is critical for the timely and cost effective completion of a works contract. Works have a big component of fixed costs that will increase with time such that the longer the contractor stays on the job the less costly it becomes. Therefore at the start of a contract ensure that:

Activities in a project are identified and their durations and sequencing identified. This will tell which activities are sequential and which ones could be run in parell. The timing of such activity is presented usually presented on a GANTT chart for easy presentation. The information is then put in a net work diagram and critical path activities are identified. These activities deserve maximum attention and must be carefully controlled. Critical path activities are the ones without any slack time where any delay on their execution will increase the project time by the same time.

It is important that a project manager ensures that works follow the scheduled program and that critical path activities are not delayed in any way.

**Skills and labour resources**

A contractor should retain management skills capable of planning and supervising an ongoing contract. If the business is small and unable to retain appropriate skills inhouse the skills such as those of a contract manager should be contracted for during the duration of the contract. Such costs should be built into the bid price. Engage staff with appropriate technical skills and experience, able to read and interpret drawings and BOQs. Just like the specialised management skills, some technical staff may be contracted only for periods where the contract requires them. Engage non skilled staff as per demand. These may be on part time or piece rate basis only. Avoid keeping idle staff at the site as such presence will create risk of accidents, disruption of works and pilferage. Where you have limited capacity to perform a portion of the contract consider to sub contract it.

**Management of equipment and inventory**

It is critical to keep own equipment secure. Ensure that there is adequate security at site or if in doubt have the equipment parked overnight at premises where there is security. Have the keys of the equipment secure and only accessible by authorised operators. Maintain a log for use of the equipment. Keep own equipment insured. Provide routine maintenance to equipment when due so that it is in good operating state. This avoids unnecessary breakdown and outrageous consumption of fuel. Avoid keeping equipment idle. When it is hired it should be timed to do all the tusks needed then demobilised. It is better to hire equipment not ordinarily utilised instead of owning it and keep it unutilised most of the time!

An efficient procurement and stores system should be maintained to manage materials procurement and utilisation to avoid stock out of critical materials or excessive holding costs. Quality and profitability of works will be influenced by the procurement and stores system. Ensure that only materials of acceptable quality are procured at acceptable prices and that they are delivered on sight and used for works. The system should involve periodic verification. Hence maintain sufficient internal controls over the inventory of materials and consumables. Keep inventory and assets insured against loss.

**Financial resources**

Management of finances is critical to success of the contract. Plan for adequate finances to meet capital needs, working capital and standby needs. Plan and control costs within activity cost estimates and ensure timely work measurements and certification so that payment is obtained without delay. Monitor regularly cash availability and demands. Do a cash flow for the project and update it as the contract progresses. The cash flow forecast will place costs and revenues to when they expected to be paid out or received. This would indicate any possible cash constraints or excess cash availability; plan in advance how to deal with the emerging patterns. Monitor both the payments and the receipts to ensure that there is a smooth cash flow.