

# Introduction to contracting out PH engineering works and contract management

**This Technical Brief provides an introduction to contracting out PHE works and the subsequent management of such contracts for engineers, logisticians and project managers.**

## Introduction

The objective of the guide is to provide advice on successful implementation of any large construction contracts related to public health engineering works. The following key steps must be adhered to, to ensure a successful outcome to the contract management process:

- Planning the full contract document
- Procurement - Selection of contractors through tender process
- Implementation - Advice and supervision during the implementation phase
- Completion – Supervising the handover process

It is essential that the person managing the contract process, not only follows the key process steps, but also liaises closely with the project technical team, the logistics team, the Oxford logistics team and the Oxford PHE Advisory team.

### *Good Practice - Management Considerations*

*It is very important that the same person follows up the contract implementation from start to finish. It is always advisable to use a worksite register where all important decision and remarks are kept throughout the contract implementation.*

## The objective of successful contract management

The objective of successful contract management is to ensure the successful implementation of large construction contract for public health engineering works.

The contract should be designed so as to contribute to good management practice and by so doing reduce the incidence of disputes and improve the overall administration and management of the contract process.

Clear objectives are important in large-scale projects. Without clear objectives responses to changed circumstances may lead to the project going off in undesirable directions.

Given the project cycle consists of *identification, planning & design, implementation & management, and evaluation*, contract management is part of the

implementation-management phase, but in spite of this, issues relating to managing large works contracts need to be fully considered in the *planning & design* phase. In other words, Oxfam must carefully consider if, they have the capacity to embark on a complex construction project on the one hand, and if local conditions allow the successful achievement of the project activities on the other hand.

Typically Oxfam's capacity will be affected by staff availability for the entire duration of the project and those staff having the required capacities to manage the construction contract both technically and administratively.

Typical local conditions undermining the activities are the absence of experienced construction companies, the complexity of works, the lack of equipment, the required materials being unavailable and logistics constraints.

When the conditions are particularly favourable, Oxfam should consider the participation of beneficiaries for labour intensive activities and may manage the works through in-house resources; when conditions are adverse, Oxfam will probably hire external consultants, award international contracts, or even choose alternative solutions to building.

## Keys steps in successful contract management

Let's consider the key steps of a construction activity:

### Step 1 – Planning

1. Prior planning, well-defined procedures, and protocols may prevent poor project performance. Not only does the project process itself need planning, but also the individual activities forming part of the process also need planning. Procedures and protocols refer to systems in place for dealing with recurring issues (like the requisitioning of materials). It is not enough to have such systems in place, but everyone needs to know that they are there and how to use them.
2. Seasonal factors need to be considered in all projects, as there might only be certain activities that can be undertaken at particular times of the year.

3. Verify the proposed technical design has been elaborated by the project technical team in collaboration with local partners such as public works departments, water departments and other relevant government actors.
4. Analyse the **"contract model" required by the Donor**, or in vigour in the country where the works are going to be implemented. Verify the proposed contract is appropriate; if not, propose other more appropriate formats such as **standard contracts** used by World Bank or the European Development Fund, and adapt to the specific context.
5. The **estimate of quantity of different works** should be calculated as precisely as possible as this will minimise **amendments** to the contract and **variation orders**. The same applies to **rate analysis**. This work should be undertaken in close collaboration with the project technical team.
6. Get a **Confidential Cost Estimate** to ensure the price quoted is within a sensible range.
7. While estimating the **project completion time**, a **project implementation schedule** should be prepared and all factors that could delay the project. A **risk register** approach may be considered? This work should be undertaken in close collaboration with the project technical team, as they will be responsible for the day-to-day supervision of works.
8. A decision should be taken on whether to use only national contractors, or a mix of national and local contractors, given Oxfam's community based approach to PH work. Such consultations should be undertaken in collaboration with all the main actors.
9. The contract document, which mainly contains **conditions of contract, bank guarantee, bills of quantity (BOQ), specifications and drawings** should be prepared, in close collaboration with the project technical team, considering local prevailing norms and other legal requirements. Clauses will include **financial, administrative and technical** issues. Wherever possible, quality testing, either under the responsibility of the Contractor or Oxfam, should be scheduled or considered in the overall costing.
10. While preparing the conditions of contract, the local prevailing rules and regulations (including tax related issues) should be considered; both logistics and finance should be consulted before finalising it. It may be necessary to consult a lawyer (locally or internationally) to ensure the documentation is legally sound.
11. A decision will need to be taken on the working currency, (local currency, USD, Euro or GBP), to be used in the contract documents. This decision will be taken in accordance to local practice.
12. Types of financial and performance **guarantees** should be specified as a function of the prevailing norms in the country where the PH works are to be implemented.
13. The contract shall be drafted with the aim of identifying roles and responsibilities of all parties in each circumstance (ex.: what happens when the Contractor does not perform? When should Oxfam pay? What responsibility has Oxfam towards the land Owner? Who can legally represent the parties? Who endorses the technical compliance of works?).
14. The eventual owner, public works departments, water departments and other relevant government actors, should be closely consulted and involved in preparing the contract documents.

## Step 2 – Procurement - Selection of a Contractor through a tender process:

1. **Treating all Tenderers equally** is a key component of the tendering process. For example, it is of paramount importance distributing the same pieces of information to all Tenderers at the same time. Communications in writing must be preferred over verbal informal approaches.
2. The work should be tendered out with Contract Manager advising on the tender process to be followed. **Donors**, such as the EU, may have their own tender guidelines, if so, copies of the guidelines must be obtained.
3. The first contact with construction companies is through an invitation (restricted tender) or a public advertisement (open tender) for **Tenderers** to take part respectively in a **pre-qualification exercise** or **an open tender process**.
4. The tender dossier shall explain the project in detail. If necessary, pre-bid meetings can be organised, ensuring that all interested Tenderers receive exactly the same information.
5. The bid should contemplate mechanisms for the purchase of major construction materials if any (e.g. large water pipes, generators, submersible pumps, etc.), especially if international procurement is required. The offer shall clearly state whether the Government, or Oxfam, or Third Parties need to cooperate in the procurement process (e. g.: for import taxes).
6. A panel shall conduct the selection process using a range of pre-established criteria.

### *Good Practice – Quality Testing*

*e.g. for the construction of a tank: concrete resistance test (at 7, 14 and 28 days) means taking special sample of concrete each time a batch of concrete is prepared.*

*e.g. a pipe pressure test, between 2 valves, may be undertaken each time a section of pipeline is completed*

*e.g. water quality testing may be undertaken when a borehole is drilled.*

### *Good Practice - The Offer (the Bid)*

*Typically, an offer from a Contractor must include details of the following:*

- *declaration of acceptance of tender conditions*
- *power of attorney*
- *site visit certificate*
- *general information about the company*
- *organisation chart*
- *technical qualification certificates*
- *similar construction experience*
- *personnel to be employed on the contract*
- *CV of key personnel*
- *work plan*
- *consortium's ways of working and roles (if applicable)*
- *priced bill of quantities and financial bid*
- *bank details*
- *list of equipment to be made available on the contract*

7. The Contractor shall be carefully selected on the basis of the sealed bid it has submitted or any other accountable fact. Relevant considerations that do not arise from the bid can be acknowledged by the Panel in the Tender Evaluation Report (e. g.: past experience with Oxfam, or with other organizations, not mentioned by the Tenderer). Considerations not mentioned in the tender Evaluation Report cannot influence the selection. The selection must be based on **objective, substantiated** facts.
8. The eventual owner, public works departments, water departments, other government actors, and/or other key stakeholders should be involved in the selection process.

### *Good Practice – Selection criteria*

- *Previous similar experience*
- *Type and number of equipment (compressors, vehicles, etc. need to be verified) and human resources. Those at full disposal of the project should be distinguished from those to be shared with other activities of the Contractor*
- *References (name and contacts should be given).*
- *Up to date to any taxes and social obligation within local laws and Oxfam code of conduct*
- *Duration and beginning date of works*

9. When the selection process has been completed, agreements will be made with the Contractor regarding the best mechanisms for the purchase of major construction materials (e.g. large water pipes, generators, submersible pumps, etc.) especially if international procurement is required and such materials are not available locally or nationally. The eventual owner should be fully involved in the procurement process, as this may avoid import taxes.

## **Step 3a - Implementation, during construction phase**

1. In the field, if there is a variation from original plans, a variation order should be prepared explaining the reasons for this. This then needs to be approved by the Contract Manager in collaboration with the project Technical Team and other key actors. Field support visits to verify the facts on the ground may be necessary.
2. All conditions of the contract must be fully agreed, analysed and carefully complied with by both the Employer and the Contractor.

### *Tips for maintaining a good working relationship with the Contractor.*

- *One clear line of communication (don't give order to workers, go through the line defined at beginning of works)*
- *No surprise or changing decision at last minute (prior notice with time to adapt)*
- *Always remember that the contractor has to make money and don't like to feel he's loosing*
- *It can be "give and take on" what's important to Oxfam and the contractor.*
- *Consider the impact of decisions and changes on cost, time and quality of the works, as well as the interest of each party (humanitarian project needs, reputation. etc.)*

3. Close coordination among the Contractor, Oxfam GB and the eventual Owner is very important and all attempts should be made to ensure that a good working relation exists among all these. The Contract Manager may also need to liaise with key Donors on the contract management process. However it is important to clearly define the communication channels between actors that are non-signatory to the contract. In principle external information, or request, or complaint should go through the Contract Manager before reaching the Contractor.
4. The person managing the works is strongly recommended use of a worksite register, with numbered and maybe multi-layered pages. The register should be kept by, where remarks, warnings, decisions taken and other information may be recorded while conducting joint monitoring visits (Manager + Technician + Contractor). Even contestations may be registered. Those permitted to write notes in the register should be clearly identified, in writing, in the register.
5. In the event that the Contractor fails to comply with the conditions of contract, the Contract Manager must advise on the necessary steps to be taken to facilitate the contractor's work. The Contract Manager may be required to offer support to the project technical team or to plan field support visits in this eventuality.
6. The Contract Manager must coordinate technical, financial and legal aspects of the activities. He shall be in continuous contact with the Technical Experts

in order to ensure that the implementation of the works adheres to the technical aspects agreed in the contract.

### Step 3b - Reacting to problems of poor performance

In the eventuality of poor works progress, due to bad performance by the Contractor, or due to force majeure, a number of measures should have been foreseen in the contract, such as:

- suspending the works,
- offsetting Contractors claims against those of Oxfam GB,
- holding payments,
- rejecting the final technical report and demanding a new report,
- enforcing financial penalties,
- enforcing recovery of amounts due,
- awarding the execution of the undone works to third parties at Contractor's cost,
- seizing the financial guarantees,
- terminating the contract.

### Step 4 - Completion

1. Payments are usually scheduled at the completion of an agreed percentage of works done, or at major milestones of the construction. Certificates of completion shall be signed before these payments are done. That applies to both partial achievements (i.e.: **certificate of provisional acceptance**) and end of works (i. e.: **certificate of final completion**).

*Good Practice – Scheduling Payments*

*It is useful to have sufficient money remaining to be paid at the end of all works that are dependant on final quality testing. This remaining % should be enough to fund, partially or totally, any corrective works that have to be done on what the Contractor has achieved. Not only considering the end of works, but each time payments are scheduled; when possible some quality testing and report should be attached, in particular with pipe networks.*

2. Before issuing a final completion certificate, the Contract Manager shall check all works together with the project Technical Team, the Contractor and the eventual Owner. Only after the inspection process should the **final completion certificate** be issued. Any testing scheduled in the contract should be conducted in presence of the above mentioned parties. They shall sign the test result report(s) and attach them to the completion certificate.
3. When the works are completed, some contractual obligations still remain pending for a certain period of time (e.g.: retentions, warranties, final statement

of account, etc.). The Contract Manager shall ensure that those are correctly processed.

4. The eventual Owner of the works can be given the responsibility to deal with the Contractor on issues such as **retention money** and any repair and maintenance works necessary during the **warranty period**. The Contract Manager should advise the Owner on ways of implementing this strategy.
5. The Contract Manager should advise on the **handover** process and issuing the final completion certificate.
6. The handover is tripartite: the Contractor handovers the facilities to Oxfam; Oxfam handovers the facilities to the Owner. It is very important to ensure the responsibilities of Oxfam and the Owner with reference to the settlement of last payments, guarantees and retentions. Maximum efforts must be paid to meet Owner's satisfaction on the works quality (through all contract stages and this starts before the contract / definition of works' quality) and achievement of the expected project goals.
7. It is highly advisable to ask the Owner to state its full satisfaction of the works done in the handover documents.

### The roles and responsibilities of Oxfam Staff

Typically, the following Oxfam staff will be involved in one way or another in the contracting out process and any of them could be the Contract Manager:

Country Programme Manager	
Main role	Main responsibility
Legally responsible for OGB in the country.	Legally and financially responsible, as well as responsible for overseeing all OGB staff.

Project Manager	
Main role	Main responsibility
Overseeing the project staff and project management	Budgetary responsibility

Public Health Engineer	
Main role	Main responsibility
Technical supervision	Technical designs and specifications. Technical reports of works achievements

Logistics Manger/Officer	
Main role	Main responsibility
Technical supervision	Tender management

Finance Manager/Officer	
Main role	Main responsibility
Financial supervision	Payments

## Skills and competences required for a Contract Manager

- A suitable qualification in a discipline relating to managing legal, administrative, technical and financial issues.
- Preferably, at least two years' practical experience of managing large tenders in developing countries.
- Proven practical experience of managing large contracts in developing countries.
- Good knowledge of Donor's procurement rules.
- Awareness of community based approaches.
- The ability to present concise reports, sometimes at short notice, reflecting the problems and possible solutions for particular situations.
- Diplomacy, tact and administrative skills in order to work with people at managerial and, on occasions, senior government levels. The person should also be at ease in working with local people.
- Well developed interpersonal and team skills and proven ability to be flexible in demanding situations.
- Sympathy with the aims and objectives of Oxfam and to Oxfam's equal opportunity and gender policies.

## Types of contracts

A reminder of the different types of contracts:

**SUPPLIES CONTRACT** = covers the purchase, leasing, rental or hire purchase, with or without the option to buy the products.

**WORKS CONTRACT** = covers the execution of buildings or other such civil engineering structures.

**SERVICES CONTRACT** = covers technical assistance, studies and performances that do not include supply of goods and execution of works.

More details on the different types of contract can be found in the Logistics Procurement Manual, or by following the link:

## Sizes of contract

For large works contracts, the Oxfam GB lawyer in Oxford should be consulted as a matter of routine, to ensure that Oxfam is as fully protected, as possible, from litigious actions. A "large works contract" can mean any works contract that is over **GBP 100,000**. The Oxfam GB legal services can be contacted

## Legal action?

A contract is a legal document, and in the event of disputes, such disputes will have to be settled according to the law.

Contracts usually specify which is the law applicable in case of disputes; most likely it is the one where the obligation has to be met. That is quite clear where the contract pertains works, but it can be more vague in the case of a supplies contract. In that case, the law applicable is usually the one of the country of residence of the part who has to provide the service.

Whether to sue at law or not is a decision to be taken at the highest Oxfam levels. In fact, a legal action may take a period far longer than the presence of the Oxfam staff in the country and can require significant efforts. At the same time, Oxfam GB devotes its resources to the Beneficiaries and cannot renounce its claims.

Whatever decision is taken in this regard, it is the duty of the Contract Manager to ensure that all facts, in every moment, have been properly documented and the documentation itself has been filed.

### Further information

A PRACTICAL GUIDE TO THE ENGINEERING AND CONSTRUCTION CONTRACTS, Seminar Notes, London Business School (2003).

## Terminology

Owner	Who has a right of property (ex.: on the construction land)
Contracting Authority - Employer	Entity awarding the contract
Contractor	Who agreed with the Contracting Authority to undertake an activity in return for a financial consideration
General Contractor	Contractor in charge of the execution of the works as well as the supervision and overall coordination
Sub Contractor	Executes works and/or provides the Contractor with services/supplies, as authorized by OGB
Resident Engineer	represents the Owner's interests during the construction phase
Contract Manager	manages the contract
Project Supervisor	calculates works executed and gives instructions to the Contractor
Surveyor	prepares drawings defining existing site conditions and site boundaries
Quantity surveyor	contributes to drawing the confidential cost estimate and calculating the works executed
Clerk of works	inspects works, quality of materials etc. during the construction. Often resident on a site
tender notice	public invitation (an advertisement) by the Contracting Authority to submit offers for undertaking a certain performance
tender guarantee - bid bond – bid security	bank guarantee, banker's draft or certified cheque, or irrevocable letter of credit issued by a bank or a insurance company. Payable to the contracting Authority when the Tenderer withdraws its offer after the submission deadline. Usually small % of confidential estimate. Released when the contract is signed and the performance guarantee issued
advance guarantee – advance bond	bank guarantee, banker's draft or certified cheque, or irrevocable letter of credit issued by a bank or a insurance company. Payable to the contracting Authority when the Contractor does not fulfil its obligations after having received an advance payment. 100% of advance payment. Released when job done is valued 100% of advance
performance guarantee – performance bond	bank guarantee, banker's draft or certified cheque, or irrevocable letter of credit issued by a bank or a insurance company. Payable to the contracting Authority when the Contractor does not fulfil its obligations after having received an advance payment. Usually 10% of contract. Released with the final statement of account
retention guarantee – retention bond	bank guarantee, banker's draft or certified cheque, or irrevocable letter of credit issued by a bank or a insurance company when the Contractor requests

	payment of final retention. Payable to the contracting Authority when the retention was intended to be released. 100% of final retention
retention	amount deducted, usually in form of a guarantee, from each interim payment due to the Contractor. Payable to the Contracting Authority when the Contractor does not fulfil its obligations during the maintenance. Usually 10% of each instalment
certificate of provisional acceptance – provisional completion certificate	certification on works executed and accepted by the Contracting Authority
Certificate of final completion	Certificate stating that the works are completed. At this stage the entire site is usually handed over to Contracting Authority
maintenance period	period of time during which the Contractor must amend every defect of the works. The period starts from the date of certificate of acceptance of the pertaining works
worksite register	document endorsed by the Project Supervisor; lists all site activities and instructions to Contractors in chronological order. It may also include additional reports as a Register Of Accesses to the site
variation – order change	changes in work authorised by the Contracting Authority Representative. Such changes were not foreseen among the tasks originally assigned to the Contractor. The latter is usually bound to execute them at the price fixed into the original bill of quantities, unless they exceed a certain limit (usually 15%). When they exceed the limit, the Parties may agree new prices
as built drawing	drawing prepared after construction, that describe the actual construction
addendum	document modifying the terms and conditions of a contract
final statement of account	issued some time after the final certificate of final completion, this document certifies the amounts due for the complete settlement of all financial aspects
Power of attorney	declaration stating who can act on behalf of a company
Specifications	Technical and performance specifications.
Confidential Cost Estimate	assessment of cost presumably involved in the activity. Used as a reference for evaluating the bids
Site visit certificate	statement of survey performed by the Tenderer to the construction site
Priced Bill of Quantities	list of materials needed for the construction with individual costs