



# Build Capacity- Build Transfer (BCBT)

Piloting an innovative contracting arrangement for urban water, sanitation and hygiene services (WASH)

## Fast facts

### BCBT

BCBT stands for Build-Capacity-Build-Transfer and combines contracting of works with capacity building to help ensure that infrastructure delivers improved services as intended.

### Piloting in eight towns

Eight Ethiopian towns in four regions are now testing the BCBT approach.

### Promising results to date

The initial piloting has been promising with most parties involved agreeing that it can improve efficiency.

## Services that last

**This learning note is about an innovative new contracting arrangement that combines infrastructure development and capacity building for town water utilities. The Build Capacity-Build Transfer (BCBT) approach was developed by UNICEF with its partners in the ONEWASH Plus programme. The note identifies lessons learned to date from piloting in eight towns in four regions of Ethiopia (Amhara, Oromia, Tigray and Somali).**

Infrastructure development is essential to improving water supply services in towns. Town water utilities also need the capacity to operate and maintain infrastructure to provide and sustain services. Often, utilities lack some critical skills, personnel, systems, technology and equipment, and end up providing services that are sub-standard and fail to meet customers' demands.

The services in many towns suffer from limited coverage, poor water quality, high losses (Non-Revenue Water or NRW) and frequent breakdowns with gaps in supply. Aiming to both speed up infrastructure development and improve the sustainability of services, the UNICEF/DFID ONEWASH Plus programme has developed an innovative contracting arrangement to bring together in one contract the development of infrastructure for water supply and sanitation with capacity building support to utilities.



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# Different contracting options

ONEWASH Plus innovation started from an analysis of the contractual components usually involved in water supply and sanitation services development. These are:

- Water source development and treatment works (drilling, surface water intake, spring development etc.)
- Civil works (for structures related to water supply storage, treatment and sanitation facilities etc.)
- Supply and installation of pipes and fittings (for pressure mains, water distribution networks, wastewater collection etc.)
- Supply and installation of electromechanical components (pumps, generators etc.)
- Capacity Building to utilities or local administrations (to improve efficiency and quality of service delivery)

In addition, consideration was given to the design of services, including technical feasibility assessments, business plans, environmental impacts assessments, and the supervision of works.

There are various ways of contracting out such services:

- Individual contracting: a single contract arrangement for each of the above components
- Packaged contracting: combining different components
- Turnkey contracting: provider has full responsibility from design to commissioning of infrastructures while supervision is separate
- Different forms of lease/concession arrangements whereby the private sector is recruited to construct and operate the system with a variable degree of asset ownership by the public sector. Supervision of works is independent.

UNICEF has focused on the “lease/concession arrangements” and particularly the **Build-Operate-Transfer** (BOT) concept. Within this arrangement, the private partner builds a

facility to the specifications agreed by the public agency, operates the facility for a specified time period under a contract or franchise agreement with the agency, and then transfers the facility to that agency after a specified period of time. In most cases, the private partner will also provide some, or all, of the financing for the facility. The length of the contract or franchise must be sufficient to enable the private partner to realize a reasonable return on its investment through user charges.

The BOT model, more than any other procurement option, offers the possibility of packaging different contractual components into a single legal agreement, and transferring the liability for the infrastructure development and operations to the private sector with expected benefits in term of more effective and efficient service delivery.

## WASH Procurement in Ethiopia

Over 90% of projects in town water supply and sanitation in Ethiopia are implemented through an individual contracting arrangement. The client then hires consultants, suppliers and contractors separately. The performance of this arrangement has not been encouraging, with long delays and often sub-standard construction work. The client is forced to manage many different contracts and contractors with often lengthy tendering processes and unclear lines of accountability between the different partners contractually involved.

Packaged contracting has already been tried within the WASH sector in Ethiopia with variable results. These depend on the capacity of the client or procuring agency to put together attractive packages for the private sector and then to effectively manage the contract throughout its implementation.

In the ONEWASH Plus Programme it was decided to package all the contractual components into one single contract, while the design and supervision assignment have been assigned to a joint venture of international and national consulting firms.

Uniquely, UNICEF also proposed to make capacity building part of the package. This obligates the contractor to support and orientate the utility to achieve better service delivery performance as the new infrastructure is completed. This innovation led to the Build Capacity-Build Transfer (BCBT) approach.

## Packaged expectations

The first advantage of a packaged arrangement is expected to be higher efficiency in implementation of the project. According to Seyum Berhanu, General Manager of Raycon Construction, “the packaging of the different contracts into one has a number of advantages. The first ... is to have a joint plan of the project including all aspects of the project execution, drilling, construction, supply order and installation of electro-mechanical parts, as well as capacity building, so a high level of project organization is achieved.” With a better integration of planning, the different elements of the project should be delivered more timely.

According to Abdulwase Mohamed, Wukro Water and Sewerage Utility, “the main contractor will not have any excuse to the client that goods are not supplied or the electro-mechanical parts are not according to the standard.”

The joint venture arrangement that is implied requires different companies to work together and enhances their capacities. According to Shiferraw Lulu, Manager Geo Tam Engineering, which is a joint venture partner for the contract in two towns in Oromia “the arrangements promote partnership among the contract parties and build their overall capacity to undertake projects”.

According to Getachew Abdi, consultant, the packaging of water supply and sanitation works under one contract promotes the integration of both at the construction stage. The complications that can arise from undertaking water supply and sanitation works at different times or by different contractors should be eliminated.

The aim of bringing different elements of a WASH project together in a single contract is more efficiency, more collaboration and better quality control of the outputs.

# Unpacking BCBT

The BOT arrangement transfers all the different liabilities into a single legal entity, the private contractor, who is in charge of constructing the assets and operating them. Although BOT may be a good model in some contexts, its applicability in the WASH sector in Ethiopia is limited by the existing policy framework. Public water supply assets cannot be leased to private entities.

UNICEF has then re-shaped the BOT concept to be consistent with the local context without compromising the basic principles. The Build-Capacity-Build Transfer model is still based on i) clear and defined liability; ii) implicit quality control assurance<sup>1</sup> and iii) involvement of the private sector in the post-construction phase.

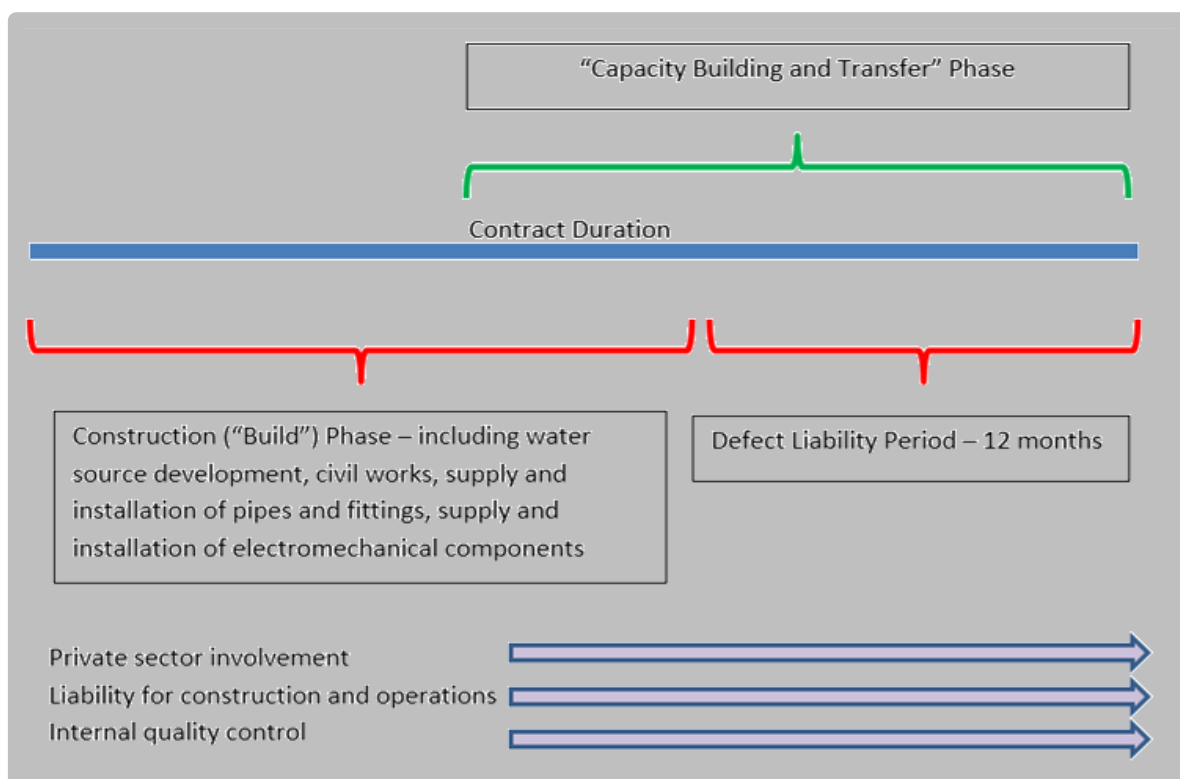
- **“Build”**: construction activities are regulated by the provisions included in a Request for Proposals (RFP)/contract document and arranged in the form of a “semi-turnkey” modality where the Contractor delivers the project infrastructure in a completed state and is responsible for: i) water source development; ii) execution of civil works, iii) supply and installation of pipes and fittings and, iv) supply and installation of electromechanical components. Asset ownership and management remains with the Town Water Utility.
- **“Capacity Building and Transfer”**: as needed support provided by the Contractor to the Town Water Utility and Board during the construction and, predominantly, during the post-construction phase. This coincides with the 12 months liability period for notification of defects. The delivery of this

<sup>1</sup> Private contractor performance, for building the facilities and providing support to the utility for their management is measured throughout the “build” and “capacity building and

transfer” phases with a contractual interest to ensure quality of works and deliverables.

component by the contractor is regulated by simple performance-based provisions linked to the release of the final retention

payment as set out in the contract document.



## Capacity Building in BCBT Approach

To make BCBT effective, the main contractor is required, as part of the tender document provisions, to bid either through a joint venture or a sub-contracting association with consultancy firms with relevant experience in WASH (besides qualified suppliers and drilling company for the "Build" component). The consultant for capacity building is part of the main contract and a part of the overall team of the contractor.

### Steps in the capacity building and transfer component

The first step in the capacity building and transfer component is to assess the situation of the utility including organisational

arrangements, operations, financial situation and commercial practices of the utility. The focus of the assessment is to identify gaps between the targets in the business plan of the utility and the reality of existing systems, skills and capacities.

Based on the assessment, the consultant prepares a capacity building plan that outlines the detailed training and support to be provided by the consultant. Once the capacity building plan is approved by the client the consultant starts the training and technical support for staff of the utility and the board.

After the completion of training, the consultant provides support with monitoring to ensure that agreed performance targets are achieved by the utility. Finally after the completion of the liability period, the client, through the firm hired for works supervision, evaluates whether the performance indicators have been met or not. Based on the evaluation, further actions are required or the contract is considered completed.

## Areas of capacity building

The main areas of support provided to utilities cover establishing external accountability, internal accountability, operation and maintenance, and financial management.

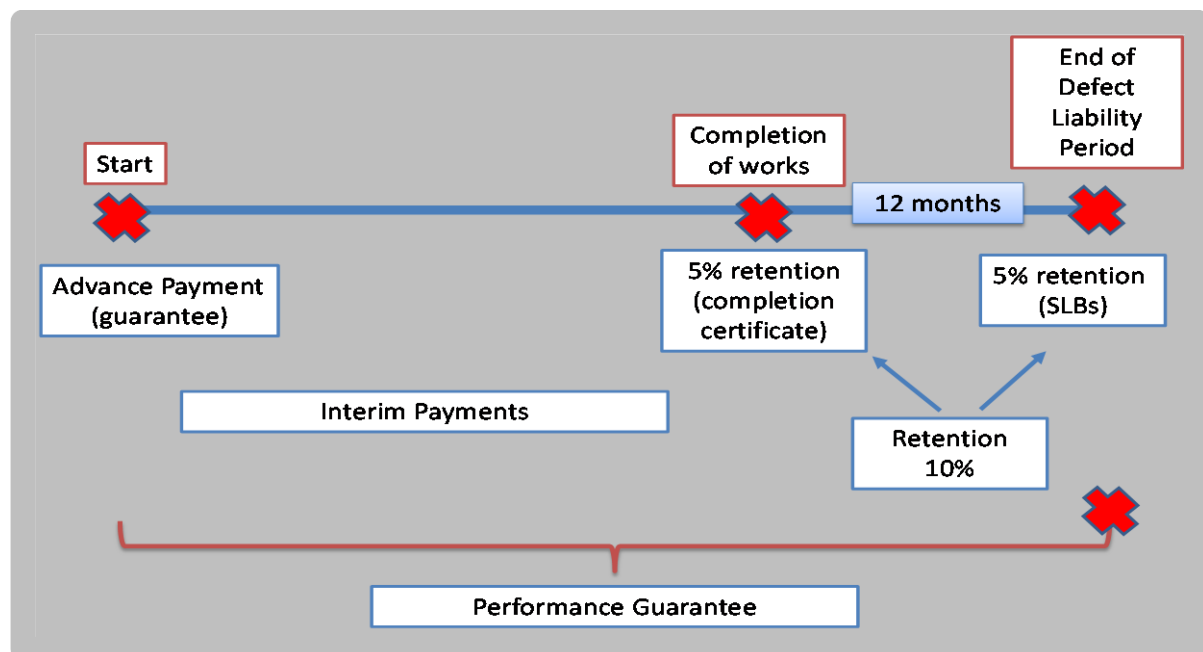
**External accountability** is about supporting the operator and board to adopt a performance agreement. This defines the targets to be achieved in all areas of operation and seeks to improve the utility's interface with costumers, aiming at making the utility more responsive and accountable to users' needs.

**Internal accountability** is about supporting utilities to enhance operational efficiency through improved organisation and

coordination of activities of different departments, and supporting the setting up of structured and systematized information flows.

The capacity building in **Operation and Maintenance** seeks to achieve reliable service delivery through effective management of assets, reduction and control of leakages and ensuring the quality of water supplied through periodic testing and proper treatment.

The purpose of support in **financial management** is to achieve financial viability of the utility through adoption of appropriate tariff rates, implementation of utility financial management system, and improving metering and billing collection.



## Contract administration of the BCBT

Because of the innovative nature of the BCBT arrangement it was necessary to develop a contract administration mechanism, particularly for the capacity building components, to ensure quality of the deliverables.

While physical works progress is relatively easy to assess and payments are effected against the actual workload executed, the

main critical issue was working out how to evaluate the inputs of the capacity building consultant within the overall BCBT framework and ensure a clear liability line. To do this, the UNICEF team, in collaboration with procurement specialists of different regional water bureaus, defined performance benchmarks against which the contractors work could be evaluated. Such benchmarks, defined in the contract document as minimum Service Level Benchmarks (SLBs) are drawn from the utility business plan and are assessed through Key Performance Proxy Indicators (KPPIs). The ONEWASH Plus

program has defined KPPIs in order to monitor the performance of the utility as result of the continuous support of the contractor.

The benchmark indicators selected were:

- non-revenue water (to decrease as shown in utility business plan)
- number of new metered and functioning connections (for each mode of service as outlined in the utility business plan)
- quality of water supplied: 100% compliance with Ethiopian water quality standards – microbiological, chemical and physical - with a minimum of six complete tests

The payments for the BCBT contract are made according to a schedule set out in the tender documents. The payment for retention is linked to achievement of the KPPIs by the utility. In the case that external events undermine the achievement of KPPIs, the client, the contractor and UNICEF shall may unanimously agree on variations.

The performance-based arrangement has been intentionally kept simple to try and ensure:

- the correlation between capacity building and improved efficiency is as linear as possible, and therefore easy to assess
- that the liability of the contractor in terms of supporting utility operations is clear and limited to the support in basic and “mandatory” operations (assessing NRW, extending connections and ensuring water quality)
- interest from private companies to bid for and be part of this new contractual approach. A more complex performance contractual arrangement would have discouraged private sector applications.

## Emerging lessons

BCBT contracts have now been put in place in all eight towns supported by the ONEWASH Plus Programme and implementation is underway. Even though the capacity building activities are only just starting, some lessons

have already emerged that can be considered by the wider One WaSH National Programme.

- The BCBT does bring improved efficiency and quality control in construction works according to most involved in the ONEWASH Plus pilot. The sector may be able to improve efficiency of implementation by adopting innovative contracting arrangements and should give this more attention.
- New arrangements require a new approach

### Contracting works



Poor quality casting from an individual contracting approach



Proper civil work execution using the BCBT

and a willingness to experiment. BCBT as a new contracting arrangement can only bring improved efficiency and effectiveness if key stakeholders are willing to change the way contracts are administered with less bureaucracy and flexibility from the client side and enhanced project management arrangement from the contractor side.

- Contractors need support. It is important to support contractors in establishing effective and viable joint ventures through exchange of experience, exposure visits and project management training. This can help facilitate the transition from a traditional contractual approach towards more collaborative and performance based arrangements.
- The uptake of new approaches for implementation needs rigorous planning, modified accountability arrangements and new skills. Orientation sessions are needed for all key stakeholders like regions, municipalities, and contractors and consultants to share lessons and experiences.



## Conclusion and follow-up

The One WASH Plus programme has taken the initiative to introduce the innovative BCBT contracting arrangement as a way to improve WASH service delivery in small towns. The initial results appear to be promising with potential to speed up and make procurement more efficient: a key factor in achieving value for money in WASH investment.

While the contracting arrangement is new and will require some adjustment and modification to fit into the wider One WASH National program, the lessons emerging can already be debated within the sector. This learning note is intended to trigger and contribute to that debate.

The ONEWASH Plus Programme pilots will be further evaluated over the next two years.



## About...

ONEWASH Plus learning notes promote the sharing of experiences from innovations within the ONEWASH Plus Programme.

This learning note focuses on the Build Capacity-Build Transfer approach. BCBT is a form of packaged contracting which has been developed to improve the procurement of urban WASH investments and ensure the capacity of Town Water Utilities and Boards to sustain services. It was prepared by Eyob Defere and Michele Paba, and edited by John Butterworth and Tereza Nega.