



**BTC TANZANIA**

**Ministry of Water  
and Irrigation**



**THE BELGIAN  
DEVELOPMENT COOPERATION**



# FINAL REPORT

**BTC NAVISION CODE: TAN060211T**

## COMMUNITY WATER SUPPLY AND SANITATION SYSTEMS IN PERI-URBAN AND LOW INCOME SETTLEMENTS OF DAR ES SALAAM



**APRIL 2016**

*This Final Report was produced in the context of cooperation between Tanzania and Belgium. The opinions expressed in this document are those of the authors and do not necessarily reflect the views of BTC, the Belgian Development Cooperation or the authorities of the countries concerned.*

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## Acronyms

BTC	Belgian Development Agency
CBO	Community Based Organization
COWSSO	Community Owned Water Supply and Sanitation Organisation
CWSSP	Community Water Supply and Sanitation Project
DAWASA	Dar es Salaam Water and Sewerage Authority
DAWASCO	Dar es Salaam Water and Sewerage Company
EIA	Environmental Impact Assessment
ES	Exit Strategy
FC	Field Coordinator
ITA	International Technical Advisor
IWRM	Integrated Water Resource Management
JLCB	Joint Local Consultative Body
JLPC	Joint Local Project Coordination
M&E	Monitoring and Evaluation
MC	Municipal Council
MDG	Millennium Development Goal
MKUKUTA	National Strategy for Growth and Reduction of Poverty
MoW	Ministry of Water
MoHSW	Ministry of Health and Social Welfare
MWE	Municipal Water Engineer
NAWAPO	National Water Policy
NWSDS	National Water Sector Development Strategy
NGO	Non Governmental Organization
NTA	National Technical Advisor
O&M	Operational & Maintenance
PHAST	Participatory Hygiene And Sanitation Transformation
PMT	Project Management Team
TSHS	Tanzania Shillings
WAHECO	Water Health Community Development Organization
WCA	Water Consumers Association
WUA	Water User Association

## INTERVENTION FORM

Intervention name	Community Water Supply and Sanitation Systems in Peri-Urban and Low Income Settlements of Dar es Salaam
Intervention Code	TAN 060211T
Location	3 Municipalities of Dar es Salaam: Ilala, Temeke and Kinondoni
Budget	8,358,364.00 Euros: <ul style="list-style-type: none"> <li>Cofinanced project Belgian Government and EU: total: 8,138,309€ (EU: max 3,647,859€, BE: 7,338,309€)</li> <li>Contribution from Partner (in kind)</li> <li>Solid Waste Component: 220,055€ (ineligible for EU funding)</li> </ul>
Partner Institution	MoW, DAWASA, 3 Municipalities
Date intervention start/Opening steering committee	30 <sup>th</sup> December 2007 (start date of implementation for EU cofinancing: 01/04/2008)
End date Specific Agreement	31 <sup>st</sup> December 2015
Target groups	15 WCAs, 3 municipalities of Dar es Salaam, local NGOs and CBOs involved in the action
Impact <sup>1</sup>	Living conditions of communities in peri-urban areas of Dar es Salaam improved
Outcome	Provision of clean, safe and reliable water supply and sanitation in selected project areas in peri-urban settlement of Dar es Salaam improved on a sustainable manner
Outputs	R1. 15 Water Supply Schemes in the targeted areas are designed and installed in a sustainable manner giving access to adequate and safe drinking water to 170,000 persons R2. Hygiene practices are improved and pilot sanitation facilities and services in the selected peri-urban areas are designed and installed in a sustainable manner R3. Community owned water supply and sanitation organizations (COWSSOs) manage, operate and maintain the water supply and sanitation facilities and services in an efficient, transparent and sustainable and are accountable to the users R4. Innovative modals of O&M by COWSSOs and innovative technical options for water and sanitation infrastructure and services are documented and disseminated on city, national and international level and information on water supply and sanitation policies and IWRM are disseminated on decentralized level
Period covered by the report	December 2007 to December 2015 (Final Report)

<sup>1</sup> Impact is a synonym for global objective, Outcome is a synonym for specific objective, output is a synonym for result

## GLOBAL APPRECIATION

Describe your global appreciation of the intervention (max 200 words):	Describe your global appreciation of the intervention (max 200 words):
<p>The project contributes to the Development Vision 2025 and the National Strategy for Growth and Reduction of Poverty, better known as MKUKUTA in Kiswahili. Universal access to safe water is one of the objectives of Vision 2025, to be realised "through the involvement of the private sector and the empowerment of local government". The importance of water supply and adequate sanitation is recognised in the second cluster of MKUKUTA "Improvement of quality of life and social well being". Here, one of the primary goals is to achieve "increased access to clean, affordable and safe water, sanitation, decent shelter, and a safe and sustainable environment."</p> <p>On the other hand the Community Water Supply and Sanitation Project (CWSSP) supports the Government in achieving its National Water Sector Development Strategy (NWSDS) of 2006 and is well aligned with the current institutional reforms in the water sector. NWSDS sets out a strategy for implementing the National Water Policy (NAWAPO) of 2002. NAWAPO aims to achieve sustainable development in the sector through an "efficient use of water resources and efforts to increase the availability of water and sanitation services". It is guided by the principles of decentralisation and localisation of management and services.</p> <p>The project also contributes towards achieving the Millennium Development Goal (MDG) Number 7.</p>	<p>Tanzania is a partner country of the Belgian bilateral cooperation since 1982. The GoT and GoB signed a second general agreement on direct bilateral cooperation on the 16th October 2002.</p> <p>The General Objective of the Belgian development cooperation is to contribute to sustainable human development through poverty reduction and strengthening of democracy and good governance.</p> <p>The 2003 Indicative Development Cooperation Programme (IDCP) involved 6 sectors with more than 19 projects. Water was one of the priority sectors, others being Agriculture, Environment, HIV/AIDS, Education and Infrastructure.</p> <p>The Community Water Supply and Sanitation Project (CWSSP) is in line with the IDCP and supports the Government of Tanzania in achieving its national water sector policy, which aims at achieving sustainable development in the sector through an efficient use of water resources and efforts to increase availability of water and sanitation services.</p> <p>CWSSP has supported suburbs in low income communities to own and manage reliable water systems in a sustainable manner by forming 15 community based Water Consumer Associations.</p>
Score your global appreciation of the intervention <sup>2</sup> :	Score your global appreciation of the intervention <sup>3</sup> :

<sup>2</sup> Very satisfactory - Satisfactory - Non satisfactory, in spite of some positive elements - Non satisfactory

<sup>3</sup> Very satisfactory - Satisfactory - Non satisfactory, in spite of some positive elements - Non satisfactory

Very satisfactory	Very satisfactory
National execution official <sup>4</sup>	BTC execution official <sup>5</sup>
<b>Zephania Mihayo</b> Project Coordinator (PC) 	<b>Praygod Mawalla</b> National Technical Advisor (NTA) 

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<sup>4</sup> Name and Signature

<sup>5</sup> Name and Signature

# PART 1: Results achieved and lessons learned

## 1 Assessing the intervention strategy

In this first chapter the Final Report describes the most noteworthy contextual elements that have had a crucial influence on the intervention and the attainment of results (1.1 Context).

This chapter also describes how the intervention was supposed to work, and how it worked out in reality, why important strategic orientations were made and why these decisions were made (1.2 important changes in the intervention strategy).

Note that the intervention to provide “Community water supply and sanitation systems in peri-urban low income settlements of Dar es Salaam”, was commonly known as the Maji Yetu Project (MYP), “maji yetu” is Swahili for “our water”. In what follows, this denomination will be used to refer to the intervention.

### 1.1 Context

#### 1.1.1 Institutional context

The Maji Yetu Project contributes towards achieving **MDG 7**: “Ensure environmental sustainability”.

In the national context, the project contributes to the Tanzanian **Development Vision 2025** and the National Strategy for Growth and Reduction of Poverty, better known as **MKUKUTA** in Swahili. Universal access to safe water is one of the objectives of Vision 2025, to be realised “through the involvement of the private sector and the empowerment of local government”. The importance of water supply and adequate sanitation is recognised in the second cluster of MKUKUTA: “Improvement of quality of life and social wellbeing”. Here, one of the primary goals is to achieve “increased access to clean, affordable and safe water, sanitation, decent shelter, and a safe and sustainable environment”.

On the other hand, the project supports the government of Tanzania in achieving its **National Water Sector Development Strategy (NWSDS)** of 2006 and is well aligned with the current institutional reforms in the water sector. NWSDS sets out a strategy for implementing the National Water Policy (NAWAPO) of 2002. NAWAPO aims to achieve sustainable development in the water sector through an “efficient use of water resources and efforts to increase the availability of water and sanitation services”. NAWAPO is guided by three pillars: the participatory principles for Integrated Water Resource Management (IWRM); full cost recovery for provision of water supply and sanitation services in urban areas but with lifeline tariff considerations to the most poor; and beneficiary participation in ensuring sustainable and equitable water supply and sanitation services in rural areas. Targets of NAWAPO include universal access (100%) to water supply in urban areas by 2025; and ensuring that water resources are available in a sustainable manner to serve as a driver to both social and economic needs.

Legislation and supporting regulations have been enacted at different times to regulate the provision of water supply and sanitation services in Tanzania. The most recent endeavour in this domain was the enactment of two pieces of legislation by the



parliament of Tanzania in 2009: the **Water Resources Management Act (WRMA)** and the **Water Supply and Sanitation Act 2009 (WSSA)**. These two laws repealed all previous water laws, except (a) the Water Laws (Miscellaneous Amendments) Act No. 1 of 1999, which reformed Dar es Salaam Water and Sewerage Authority (DAWASA); (b) the DAWASA Act of 2001, which made DAWASA subject to regulation by the Energy and Water Utilities Authority (EWURA); and (c) the EWURA Act of 2001. The two Acts, the WRMA and the WSSA provide for the registration and operation of Community Owned Water Supply and Sanitation Organisations (COWSSOs) and regulates the appointment of board members.

The **DAWASA Act**, 2001 Cap 273, provides for sustainable management, adequate operation and transparent regulation of water supply and sanitation services within DAWASA designated area, which includes Dar es Salaam and parts of Kibaha and Bagamoyo.. The Dar es Salaam Water and Sewerage Corporation (DAWASCO) is responsible for operating the city water supply and sewerage system in the area covered by the DAWASA Act. On-site sanitation remains in the hands of the relevant municipal council. The Water Supply and Sanitation Act 2009 allows registration of COWSSOs by Local Government Authorities except for Dar es Salaam area, while DAWASA Act 2001 is silent about registration of COWSSOs.

### 1.1.2 Service provision in Dar es Salaam

#### 1.1.2.1 Dar es Salaam

Over 80% out of 4.4 million (2012 population census<sup>6</sup>) of Dar es Salaam's population live in unplanned areas. These areas are characterised by overcrowding, haphazardly constructed buildings, insecurity of tenure and lack of basic urban services. Unplanned areas are irregularly developed, and over time, consolidate to high densities, leaving little or no land for access and circulation roads, drains, open spaces and social infrastructure such as schools and health centres. Access to safe water is limited and most households get water from wells or buy it from vendors. Sanitation is poor, mainly realised through low-quality pit latrines, while solid waste is not collected.

#### 1.1.2.2 Service provision

The National Water Sector Development Strategy (NWSDS) is to be achieved through the **Water Sector Development Programme 2016-2025 (WSDP)**. The WSDP is a sector wide MoW programme, funded by basket, earmarked and government budgets. The WSDP is being implemented in phases of 5 years each, and commenced its implementation in 2007. The WSDP includes the **Urban Water Supply and Sewerage Component**, the overall objective of which is to improve service provision in the DAWASA service area, which includes Dar es Salaam. The purpose of this programme, is to improve water production from 264,000m<sup>3</sup>/day (2007) to 756,000 m<sup>3</sup>/day (2025), and to rehabilitate and expand the distribution network to reduce Non-Revenue Water<sup>7</sup> (NRW). The programme also pursues the improvement of wastewater management.

Since the start of the programme in 2007, DAWASCO has been involved in improving service delivery as follows:

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<sup>6</sup> Available via [http://www.nbs.go.tz/takwimu/references/Tanzania\\_in\\_figures2012.pdf](http://www.nbs.go.tz/takwimu/references/Tanzania_in_figures2012.pdf).

<sup>7</sup> Non-Revenue Water = Water that is lost during the transfer from the water production site to the water dispense site (in other words: the amount of NRW is equal to the difference between the amount of water produced and the amount of water supplied).

Indicator	Baseline 2007	Status 2014
No. of Domestic (Private) Connections	53,001	116,919
No. of Kiosks/Public Connections	115	205
No. of Sewerage Connections	13,599	18,101
No. of people with access to clean & safe water supply	818,015	1,794,783
% of people with access to clean & safe water supply	24%	36%
No. of people with access to sewerage connections	203,985	271,515
% of people with access to sewerage connections	6%	15%

The total water demand for the service area is estimated to >500,000 m<sup>3</sup>/day, which means that Dar es Salaam experiences a deficit of about 244,000 m<sup>3</sup>/day. The estimated per capita demand is set to 115 litre/day, while the present production allows for 58 litre/day (about 50% of the estimated demand).

The level of NRW in Dar es Salaam is an issue of concern due to its increasing trend. The current level is over 50%. Moreover, the available storage facilities can only meet 4.5 hours of supply interruption.

Year	Population	Estimated Water Demand m <sup>3</sup> /day	Estimated Water Production m <sup>3</sup> /day	Coverage in %	Deficit (-) / Surplus (+) m <sup>3</sup> /day
2007	3,449,000	400,000	264,000	66%	- 136,000
2012	4,365,000	500,000	256,000	51%	- 244,000
2025 (projected)	8,862,000	1,000,000	756,000*	76%	- 244,000

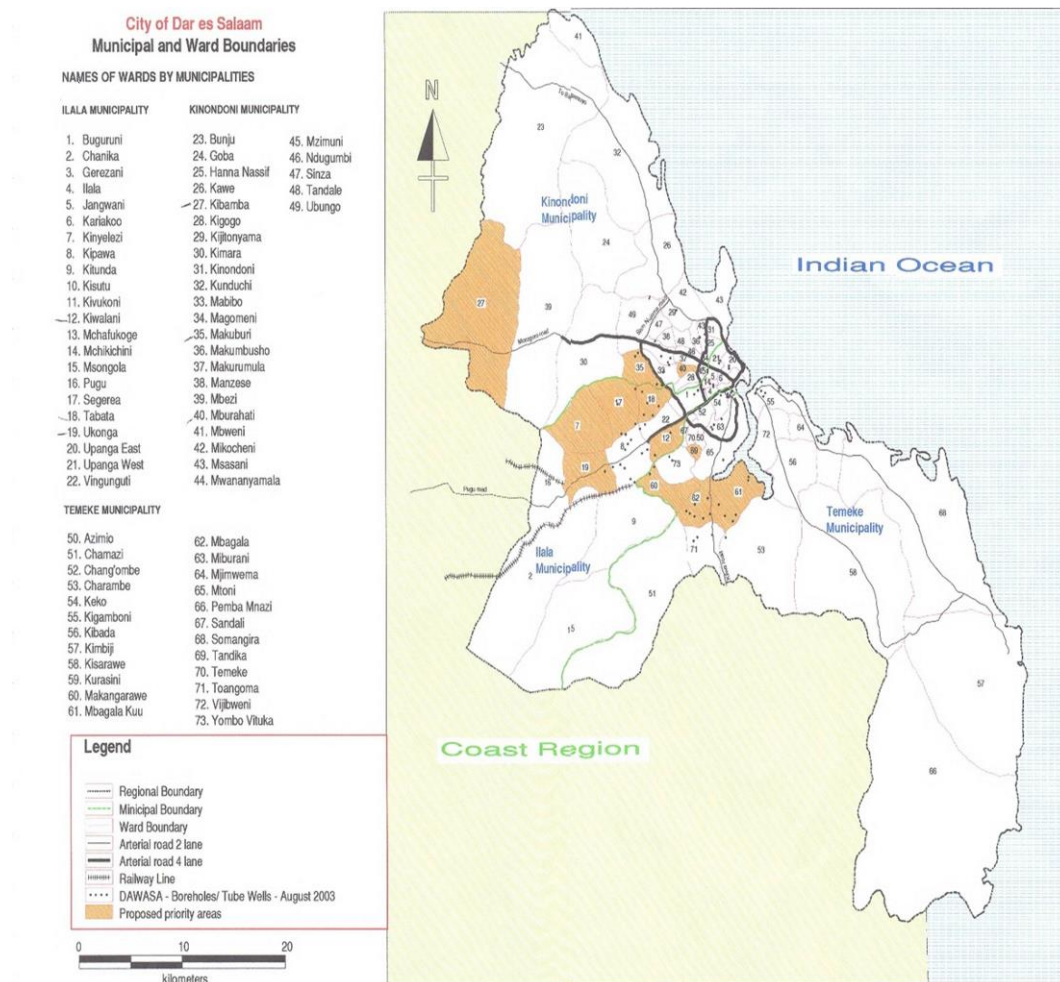
\*Capacity as planned by WSDP.

DAWASA has a real challenge to solicit support to bridge the deficits, current and in the future.

### 1.1.3 Intervention areas

The Technical and Financial File (TFF) identified that the beneficiaries are the people living in the project area and are directly benefiting from the intervention in the **14 prospective project target areas** (Wards). These Wards were selected based on the following criterias; areas that do not receive water and sanitation services, areas inhabited by low-income people (unplanned settlement/squatter), peri-urban areas with no urban services and people living in areas with poor drainage system with constant outbreak of water borne and water related diseases.

Map showing the project target areas within the city of Dar es Salaam:



In 2011, prior to the commencement of implementation of physical works of the Maji Yetu Project, it was estimated that the overall **access to reliable water supply** was 48% in Kinondoni, 49% in Ilala and 36% in Temeke Municipality. As a result of baseline studies, groundwater exploration activities and change in water scheme design configuration (see section 1.2), the final target areas were established. They constituted a total population of 885,800 people (2012 population census<sup>8</sup>).

Applying the above figures as an indication of accessibility to reliable water supply within the projects target areas, there was a need to improve the water supply situation for 91,000 people in Kinondoni, 197,000 people in Ilala and 208,000 people in Temeke. Only the target areas in Kinondoni had access to DAWASCO piped water supply. More than half (50%) of the peri-urban households in Kinondoni, more than three quarters (75%) of the peri-urban households in Ilala, and about two thirds (60%) of the peri-urban households in Temeke get their drinking water from unprotected wells, which may lead to water borne and water related diseases.

The **access to sanitation facilities** is a major obstacle in all three municipalities. The majority (over 75%) of households use pit latrines, mostly traditional pit latrines. This affects the level of sanitation, especially when latrines are full and there is no space for emptying them or constructing new ones. Furthermore, only 3% of the households use rubbish bins, about 50% of the households use rubbish pits, and the remaining households throw rubbish within or outside their house compound.

<sup>8</sup> Available via [http://www.nbs.go.tz/takwimu/references/Tanzania\\_in\\_figures2012.pdf](http://www.nbs.go.tz/takwimu/references/Tanzania_in_figures2012.pdf).

The water and sanitation situation in the target areas before the Maji Yetu Project are shown below:

MUNICIPALITY	Target Areas (Wards)	Estimated population by area (2012 pop.census)	Number of people require access to improved:	
			water	sanitation
TEMEKE	Makangarawe	53 291	30 400	36 771
	Mbagala Kuu	74 774	35 100	53 090
	Kiburugwa	78 911	45 800	52 870
	Kijichi	69 195	32 500	49 128
	Tandika Kilimahewa	49 491	9 400	44 047
ILALA	Gongolamboto & Pugu	106 735	81 119	48 031
	Kiwalani	82 292	43 615	54 313
	Segerea	83 315	42 491	30 827
	Tabata Kisiwani & Darajani	74 742	47 835	43 350
	Kinyerezi	38 366	33 762	26 856
KINONDONI	Mburahati	34 123	13 990	26 616
	Tandale	54 781	44 373	42 181
	Kwembe	56 899	23 329	32 432
	Kibamba	28 885	6 066	26 574
	<b>Total Target Areas (Wards)</b>	<b>1 771 600</b>	<b>642 978</b>	<b>802 993</b>

#### 1.1.4 Management context: Execution modalities

The execution modalities for this project are based on the principles of co-management on the one hand, and own management on the other hand, bringing together the **Belgian Development Agency (BTC)** on the Belgian side, **EU** and the **Ministry of Water (MoW)** on the Tanzanian part to share responsibilities for the project execution.

The **Joint Local Project Coordination (JLPC)** has been the project's steering committee, which approves annual reports, work plans, budgets and approves any necessary changes in the intermediate results, respecting the specific objective and total budget of the project. Members of JLPC include; Dar es Salaam City Director, Ilala, Temeke & Kinondoni Municipal Directors, Chief Executive Officer of DAWASA, Director of Urban Water and Sanitation in the MoW, BTC Resident Representative, Technical Attaché Belgian Embassy, Head of Infrastructure EU Delegation Dar es Salaam and MoF. Furthermore, JLPC supervises the contribution of the parties, appraise the progress of the project and the achievement of the outcome. When necessary, the JLPC formulates recommendations on possible modifications in the project's design, budget, and future directions. However some amendments also required EU approval.

The **Project Management Team (PMT)** comprised of BTC technical and support staff, technical staff from MoW, the three municipalities of Dar es Salaam and DAWASA. The PMT has also functioned as the secretariat to the JLPC.

**Involvement of government staff** in the different roles relative to implementation of the project has been a way to ensure sustainability of the project. For example, the project and the Municipal Councils agreed to utilize municipal based Water, Health, Education and Community (WAHECO) Teams to assist in establishing and training of COWSSOs.

The personnel input over time of the intervention is shown graphically below:

Name	Position	Gender	2008				2009				2010				2011				2012				2013				2014				2015			
			Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Mary Mbowe	Project Coordinator	F																																
Zephania Mihayo	Project Coordinator	M																																
Praygod Mawella	NTA/T	M																																
Manjolo Kambili	NTA/S	M																																
Angela Lyimo	FC/S	F																																
	Act.NTA/S																																	
Pierre Y Dubois	ITA/S	M																																
Roger Andersson	ITA	M																																
	SCT/ITA																																	
Primo Damasi	Temeke MWE	M																																
Selestina John	Ilala MWE	F																																
Emanuel Mwampashi	Kinondoni MWE	M																																
Gonza Rutakimwira	Kinondoni MWE	M																																
Charles Makoye	DAWASA Engineer	M																																
Najib Asumbelle	Assistant Engineer	M																																
Jeroen De Waele	Volunteer	M																																
Nicolas Saussu	Volunteer	M																																
Rehema Gunda	WAHECO Ilala	F																																
Philip Nghumbi	WAHECO Kinondoni	F																																
Juhudi Nyambuka	WAHECO Temeke	F																																

### 1.1.5 Harmonisation context

It has been explained in sections 1.1.1 and 1.1.2 that the Maji Yetu Project is well aligned with the current **institutional reforms in the water sector** and uses the water sector to learn and share experience from other projects in the country. The project is participating in the **Development Partners Water Working Group** meetings along with the Embassy of Belgium, where monitoring progress of the WSDP is done, although Belgium has not contributed directly to the Water basket fund.

Regarding procurement procedures, the project has used **EU procurement procedures** and has not been aligned with the procedures of the government of Tanzania regarding procurement of services and work. This was due to the limitations imposed by the EU cofinancing.

In addition, the project collaborates with different actors to influence the outputs-to-outcome dynamics with regards to the different output areas. Various external **consultants** were engaged in different stages of the project to prepare technical designs, tenders and supervision works. For social engineering, part time consultants have been engaged to mobilize and sensitize community members to participate in project execution. Consultants have also been involved in delivering training and awareness sessions to community members and municipal staff.

The project built on the previous interventions by **Water Aid** in Kwembe in Kinondoni Municipality and Kingugi in Temeke Municipality, which introduced Gulpa pumps for waste pit emptying in these areas.

The project also received training toolkits on PHAST (Participatory Hygiene and Sanitation Transformation) from **UNICEF** through the MoW.

## 1.2 Important changes in intervention strategy

### 1.2.1 Project framework

The Maji Yetu ('Our Water') project was elaborated in several phases. The identification of the project took place early 2004, with a budget of 1.8 million Euro, including a 0.3 million Euro Tanzanian contribution and an implementation timeframe of 3 years. In October 2007 the European Commission accepted a request of co-financing via the 2nd



EU Water Facility Call for Proposals, and the total amount of the project was raised to 7.8 million Euro. The start date was set at the 1st of April 2008 with a 60 months implementation timeframe (extended afterwards to 93 months).

Due to initial challenges to find land for exploratory investigation on water, accessibility and finding accepted water sources (with good quality and enough quantities of water), the preparation of designs and implementation contracts was delayed. In addition, the establishment of community organizations (COWSSOs) has experienced some delays due to; , contradicting WSSA and DAWASA Act in Dar es Salaam and the initial project approach to establish Water Companies was not accepted by the MoW which necessitated to change the approach to establish WCAs. Which caused delay of three years.

The project realized that, due to this combination of a late start in physical works construction and a delay in establishment of scheme management set-ups, the expected results could not be sustainably achieved within the 5 years implementation timeframe (up to mid-2013). In order to enable completion of ongoing works, and to increase the project sustainability, the JLPC decided in December 2012 to prepare an Exit Strategy for the years 2014 and 2015. As a result, the Belgian government allocated an additional budget of 800,000 Euro in order to implement the proposed Exit Strategy activities. On their part, the EU granted a non-cost extension of the contract, bringing the end of implementation to December 31<sup>st</sup>, 2015.

Subsequently, the TFF was updated taking into account the agreed Exit Strategy activities and the additional budget the Belgian government committed to. The updated TFF set out following intervention strategy:

1. Design and installation of water supply systems providing 170,000 people with access to clean and safe drinking water (i.e. 20% of people in need of access to water)
2. Facilitate establishment and registrations of Water Consumers Associations to manage, operate and maintain water supplies
3. Design and provision of sanitation facilities and services, leading to improved hygiene
4. Documentation and dissemination of models of operation and management and distribution of information on water sector policies.

The Specific Agreement signed between Belgium and Tanzania on the 30<sup>th</sup> December 2008 for an implementation period of 91 months still remains valid until the 29<sup>th</sup> of July 2016.

## **1.2.2 Water supply interventions**

### **1.2.2.1 Number of water sources**

The initial aim was to construct 60 water schemes within the peri-urban target areas. After 2.5 years of implementation, the result to find boreholes with good quality and sufficient yields was not promising. The MYP commenced early during the project period to search for surface and groundwater. However, the use of surface water was considered lacking in both quantity and quality. Hence more efforts were put on exploratory drilling for deep groundwater. It was realized that the quality (high salinity) and quantity of water in the target areas north-east of Dar es Salaam (Kwembe and Hondogo/Kibwegere) was not satisfactory for development. Instead it was decided to connect to the pumping main from Upper Ruvu pump-station. Also, because of difficulties in finding areas (space among squatter populations) to drill boreholes, the drilling of

production boreholes was delayed. Even so, some high yield boreholes of good quality water was found and used to serve other nearby target areas in the centre and southern part of Dar es Salaam, i.e. Temeke, Ilala and Kinondoni.

However, with the support of external hydrogeological survey teams and drilling firms, the project managed to drill 21 exploratory boreholes of which **15 boreholes** were developed into production boreholes with safe yields ranging between 5 m<sup>3</sup>/hour to above 60 m<sup>3</sup>/hour. In addition, the project managed to secure the use of **3 existing boreholes** producing enough water to acceptable quality and the project was allowed to make **2 extensions from an existing DAWASA pipeline** from Upper Ruvu pump station.

Considering some of these production boreholes were bigger than what was projected in the beginning of the project, this had an important implication on the number and size (1.2.2.2), design (1.2.2.3), construction (1.2.2.4) and management (1.2.5) of water schemes.

#### **1.2.2.2 Number of water schemes**

In terms of the number of water schemes, the original TFF stipulated/proposed that 60 small water schemes should be constructed to supply 170,000 people (schemes producing >5 m<sup>3</sup>/day, with about 2,800 people per scheme). As a result of finding a reduced number of good quality water sources with ample yields, the project had to design schemes which allowed transfer of water from and between one target area to several target areas, and hence covering a larger population. A total of 20 water schemes were designed, and **15 schemes** were constructed, now potentially **serving over 200,000 people** (with about 13,000 persons per scheme).

#### **1.2.2.3 Design criteria**

The extent and design of the schemes was therefore based on the available yields and as a result of these larger schemes, more sophisticated technical solutions were applied compared to the original envisaged in the TFF. Initially, the project intended to install 60 water boreholes with hand pumps on top. The design of the larger water schemes was more complex. In the case of using hand pumps for instance, there is no need of a power source. Yet with the evolution to bigger schemes, electricity became necessary to drive the water pumps. In addition, these bigger schemes could accommodate private connections for individual households, which the schemes using hand pumps could not. Consequently, building the water schemes also took more time and money than originally envisaged (for instance: because of frequent too low voltage in the power supply, the project was forced to rethink on how to supply power to the water pumping stations using diesel driven generators, which resulted in extra costs. The project has provided 6 of the larger schemes with generators to offset the lack of power supplied an intervention which was not foreseen at the outset of the project. In the light of sustainability, (resources for) continuing power supply will be a challenge.).

The water supply schemes were designed to supply 20 to 25 liter/capita/day (l/c/d), which corresponds to the Tanzania standard for public water points. However, the selected peri-urban target areas represent a mix of poor and rich people, and it was considered that the demand for direct household connections was very important (as opposed to only providing water via kiosks or public taps). It was decided to revisit the 20 preliminary water scheme designs submitted in November 2010, and carry out re-designs of the water schemes, to allow provisions for household connections for 40% of the population

demanding 60 l/c/d, while 60% of the population will be provided with water from kiosks or public taps demanding 25 l/c/d.

Due to the delays in finding borehole sites, the design work was also delayed, and consequently also the preparation of contract documents and finding appropriate contractors. (Refer to 1.2.1) The start of construction was not realized until July 2012. The water schemes were completed between December 2013 and July 2015.

#### 1.2.2.4 Construction of water infrastructures

The project intended to construct all 20 water schemes using contractors. However, it was soon realized that the funds set aside could not be enough to construct all 20 schemes. Instead, 15 schemes were selected for implementation. The selection was based on the willingness to pay<sup>9</sup> the up-front contribution, sustainability (i.e. the smaller size schemes were left out), population distribution and water quality.

Contractors were selected for the 9 largest schemes, while a combination of community, municipality and small contractors was used to build the remaining 6 smaller schemes. The aim was to transfer skills to the local technicians, Municipalities and communities; avoid bureaucratic procedures; and reduce cost and time. The project decided to establish Task Forces, based on the good experience from the dredging works (see 1.2.4). Each municipality (Partner of the project) had a Task Force to coordinate and supervise construction of these smaller schemes. However, the more complex structures – e.g. water storage tanks, pump stations, installation of electro-mechanical equipment – were awarded to specialized small contractors.

#### 1.2.3 Drainage interventions

The TFF stipulated that the project should improve the drainage systems in the target area (outside the EU-Belgian cofinanced project). Considering the project funds available for drainage improvement, the JLPC advised the project to concentrate in Tandale Ward (in Kinondoni Municipality), where the drainage system (being Ng'ombe and Kiboko rivers) was in worse state, causing floods during the rainy season. It was also intended to construct a composting plant<sup>10</sup> at Tandale, but the failure of obtaining land – due to the densely populated and haphazardly constructed area – for constructing a composting plant at Tandale forced the project to abandon the activity. On the other hand, this created the opportunity to relocate the funds to the construction of water works (which demanded more financial investments due to the change in design).

The drainage intervention entailed cleaning and dredging the two rivers, since the two rivers were used as a dump site for all solid waste generated in the area. Originally, this work was expected to be carried out by a contractor, but based on the recommendation of a BTC backstopping mission, it was suggested by the PMT to use community and municipal resources (including the use of their earth moving equipment) to clean the rivers. A local Task Force was set up to guide these works. They managed to remove about 20,000 m<sup>3</sup> of solid waste, cleaning up twice the provisioned length of the rivers, at half of the provisioned expense.

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<sup>9</sup> During the baseline study, the willingness to pay was surveyed.

<sup>10</sup> Solid waste consists of about 70% organic, compostable waste, so a composting plant would already reduce the solid waste to a large extent.



By utilizing community and municipal resources, the project managed to reduce the overall cost of the river restoration, which made it possible to rehabilitate existing latrines at the 6 primary schools targeted in the intervention.

#### 1.2.4 Sanitation interventions

The TFF foresees that hygiene practices and pilot sanitation facilities and services would be improved in a sustainable manner in the selected peri-urban low income areas. It was suggested that the whole community of about 800,000 people would be trained in PHAST by the end of the project. Yet, even though problems related to sanitation are severe, the communities see water supply as their number one priority. The perception of lack of sanitation as a secondary problem compared to water supply, generally makes that most actors involved in water projects, tend to focus on water supply. Mobilization and sensitization, let alone investment in sanitation, remained limited. The willingness to pay for sanitation services is also affected by this. Secondly, the rapid and unplanned growth of the settlements is also a constraint to the development of sanitation schemes in these areas. In addition, the issue of improving hygiene practices needs long and lasting interventions in a community context, since it is a matter of behavioural change.

It was realized early in the project cycle that the capacity and time to promote improved hygiene practices within the entire target area could not be achieved. As a consequence, the PMT embarked on a pilot sanitation concept that concentrated on improving the sanitation facilities of some primary school dispensaries within the water scheme supply areas, accompanied with hygiene and sustainability training sessions and messages. It was also decided to construct pilot sanitation facilities at markets and ward offices in selected target areas. It is anticipated that the primary school pupils will act as 'agents of change' to promote sustainable sanitation and hygiene behavioural changes within communities. The construction of demonstration latrines at the ward level and markets was intended to promote appropriate technologies for individual households to invest in their proper sanitation facilities, even if this means a rather significant investment for individual households.

During the construction of the new sanitation facilities, it was realized that the existing facilities were in appalling condition, which most likely should have resulted in the reliance of the new facilities only. As the project has made savings from the river restoration project, the PMT requested and received an approval from the JLPC and from the EU to use some of these funds for rehabilitation works of existing latrine facilities in the 6 primary schools relying on local artisans and were completed by mid-2014.

#### 1.2.5 Scheme management options

##### 1.2.5.1 Companies

The project was set up in a way that communities can manage their water supply. In line with the Tanzanian Water Supply and Sanitation Act, this allows for communities to manage their water supply through COWSSOs (Community Owned Water Supply and Sanitation Organisations). There are various types of COWSSOs, one being more appropriate in a certain context than the other. At the start of implementation, the project organised a workshop to determine which type of COWSSO was most appropriate in the context of this project. It was established that the use of Companies was more appealing in the context of Dar es Salaam.

So the project engaged in establishing companies. After three years of work in this area, the registration of companies was ultimately changed by MoW and instructed the MYP to select another type of COWSSO. The project had to revert to establishing Water Consumers Associations (WCAs) as the next best option in the context of Dar es Salaam. In WCAs, people need to pay a fee to become a member of the association, hence increasing the commitment and ownership of the members.

#### **1.2.5.2 Water Consumers Associations (WCAs)**

The establishment of WCAs was equally a challenge experienced. Firstly, the TFF proposed to form COWSSOs/WCAs using the Water Supply and Sanitation Act (WSSA) without noticing that there was a specific DAWASA Act from 2001 covering the area of Dar es Salaam. The WSSA had the provision to register COWSSOs in Tanzania, except in the DAWASA service area. So in Dar es Salaam, COWSSOs could not be applied. Secondly, the DAWASA Act did not have the provision to appoint a registrar in the municipalities, impeding the registration of COWSSOs/WCAs.

From February 2010 several discussions took place between the PMT, MoW, DAWASA and the three municipalities to resolve existing contradictions between the WSSA of 2009 and the DAWASA Act of 2001. The PMT, together with legal assistance from MoW, DAWASA and the municipalities, formulated a proposed amendment of the two Acts in 2013. The delay in processing the proposed amendment through the official path, caused delays in the registration of COWSSOs. The PMT, together with the other stakeholders (MoW, DAWASA, Municipalities), proposed on writing a 'Circular' to allow registration of COWSSOs while waiting for the amendment of the WSSA and DAWASA Act by the parliament. This was requested to the MoW to expedite the process. This way, WCA's could operate legally on an interim basis, until both Acts were amended.

In May 2014, the Minister of Water issued a Circular, which then allowed the project to re-institute the formation and registration of Water Consumers Associations (WCAs). The interim Executive Committees were dissolved and the respective communities could elect permanent Executive Committee members.

The project has been instrumental to resolve the differences and a supplementary amendment of the two Acts was approved by the Parliament in mid-2015. In this way, the project accomplished to remove the bar in the WSSA that prevented the establishment of COWSSOs in Dar es Salaam, and the bar in the DAWASA Act that prevented to registering of COWSSOs.

#### **1.2.5.3 WCAs with Scheme Management Staff**

In addition, the concept of WCAs had to be adapted to the particularities of the project. In essence, WCAs consist of community members. In the case of this project, the water schemes became technically complicated, that the Executive Committee of the WCA was not able to manage these big schemes on their own. Professional management staff was hired to assist with the maintenance and operation of these schemes. That is why a Scheme Management Staff was introduced to the structure of the WCA, operating directly under the command of the Executive Committee of the WCA (see figure in section 2.2.3.3). While Executive Committee members have to be part of the community, Scheme Management Staff can be recruited outside the community, the only influencing factor in their selection being their professional skills.

In addition, the management capacities of WCAs need to be trained and coached, to ensure that the installed water schemes can be managed in a sustainable way.

## 2 Results achieved

### 2.1 Monitoring matrix

Results / indicators	Baseline Value	End Target	End Value obtained	Comments
<b>IMPACT:</b> Living conditions of communities in peri-Urban areas of Dar es Salaam improved.				
Prevalence of cholera reduced by 50% in the 14 target areas by end of project implementation	0%	0%	0%	No outbreak of cholera has been reported since start of the implementation.
The time to get water is reduced by 50% in the 14 target areas by end of project implementation	2 hrs	30 min	<30 min	
The price paid for drinking water is less than 1 Tshs/l in all seasons for all people in the 14 target areas.	15Tshs/l	1 Tsha/l	2.5 Tshs/l	Completed water schemes are selling at a price of 2.5 Tshs/l taking into account the actual costs of installation and O&M
<b>OUTCOME:</b> Provision of clean, safe and reliable water supply and sanitation in selected project areas in peri-urban settlement of Dar es Salaam improved on a sustainable manner.				
At least 170,000 people are permanently served 25l/Cap/day with water supply	None	170,000	> 200,000	All schemes have been completed and handed over to the communities in the respective areas.
Number of people with permanent access to some form of basic sanitation facilities	80%	100%	80%	The existing community have some basic sanitation. The project decided not to install sanitation facilities in households. But chose to construct demonstration pilot latrines to instill the community to emulate. Constructions of demonstration sanitation facilities have been completed, including rehabilitation of school latrines. 21 institutions received 138 stances (not including rehabilitated ones).
Provided water quality meets Tanzania standards	None	100%	100%	Water supplied meets Tanzanian quality standards.
The installed water and sanitation systems are functional for at least 350 days per year	None	100%	15 water schemes & 138 stances	Reliable power supply to run some of the water schemes is a problem which may affect realization of this indicator
<b>OUTPUT 1:</b> 15 water supply schemes in the targeted areas are designed and installed in a sustainable manner giving access to adequate and safe drinking water to 170,000 persons				
Design results per target area, based on investigation results, with following criteria:				
✓ Discharge > 5m <sup>3</sup> /h (potential to serve 2,000 – 2,500 people)	none	-		The project constructed water schemes that are

				discharging water ranging from 5 m3/h to 60m3/h serving <b>more than</b> 2,500 people per scheme.
✓ Long term salinity level <3000uS/cm	<3000 uS/cm	<3000 uS/cm	<3000 uS/cm	This is a MoW standard otherwise the source would have been abandoned.
✓ Satisfying Tanzania criteria for drinking water	Data available with MoW	Reach MoW standard	Reach MoW standard	The project is supplying water that is within MoW standard
✓ Over-all costs of water < 1Tshs/l	15Tshs/l	-	2.5 Tshs/l	Completed water schemes are selling at a price of 2.5 Tshs/l taking into account the actual costs of installation and O&M
Number of water supply system per target area installed according to design criteria	none	15 water schemes	15 water schemes	Water supply systems have been constructed according to the design.
Water quality does not deteriorate over time (salinity production rates)	< 3000uS/cm	<3000uS/cm	<3000uS/cm	Regular monitoring to ensure it meets MoW standard. [<3000uS/cm]
<b>OUTPUT 2:</b> Hygiene practices are improved and pilot sanitation facilities and services in the selected peri-urban areas are designed and installed in a sustainable manner				
-Number of pilot facilities and services for latrine emptying functional - Maintenance of rain water storm water facilities is functional	none	-	2 Gulper pumps were given to each Municipality	The available budget only provided for 2 Gulper pumps per Municipality.
Storm water does not stagnate more than two hours in drained areas	none	-	Since dredging the two river no floods have been experience in Tandale	Dredging of two rivers in Tandale ward has significantly controlled storm water stagnation and pit flushing practices is minimized.
No pit flushing during rainy season where toilet emptying services are in place	None	-	None	Gulpa emptying facilities have been introduced in the three municipalities using CBOs
Hygiene practices are adopted hand washing, reduces misuse of toilet facilities (rain flushing, flying toilet), uncontrolled littering.	None	-	None	Mass awareness building on hygiene practices is an ongoing process.
<b>OUTPUT 3:</b> Community owned water supply and sanitation organizations (COWSSO) manage, operate and maintain the water supply and sanitation facilities and services in an efficient, transparent and sustainable and are accountable to the users.				
The installed water supply and sanitation systems are functional for at least 350 days per year.	None	100%	100%	Reliable power supply to run some of the water schemes is a problem which may affect realization of this indicator
95% of COWSSOs have a sound financial situation.	None	95%	85%	More financial management training to be given to COWSSOs in order to be considered as sustainably sound
One year after installation of each COWSSO, 50% of adult know three responsible people	None	50%	50%	More than 50% will be achieved
<b>OUTPUT 4:</b> Innovative modals of O&M by COWSSOs and innovative technical options for water and sanitation infrastructure and services are documented and disseminated on city, national and international level and information on water supply and sanitation policies and IWRM are disseminated on decentralized level.				
At least one publication from the lessons learnt of the project is known by all WSS actors in Dar es Salaam and easily	None	1		Under preparation

accessible on internet (via search machine)				
COWSSOs and Municipalities disclose of all relevant water and sanitation policies and strategies and can mention at least one crucial (conflicting?) point for their management.	None	100%	100%	Water policy, Act and its regulations have been distributed to all COWSSOs for awareness creation.

## 2.2 Analysis of results

### 2.2.1 To what extent will the intervention contribute to the impact<sup>11</sup> (potential impact)?

The Maji Yetu Project was designed to have an impact on improving the living conditions of communities in peri-urban areas of Dar es Salaam.

Since the outputs and outcome have been realized to a large extent, the intervention will consequently contribute to achieving the impact. This can be demonstrated by the end values that were obtained regarding the three indicators that were set forth to measure the impact on improving the living conditions of the project beneficiaries: the price of drinking water, the time to collect water and the prevalence of cholera.

- In terms of the price that is being paid for drinking water, the cost of water has been reduced from 15 to 2.5 Tanzanian Shilling (TZS) per litre. On setting the water tariff, several influencing factors were included: the capital investment, O&M, depreciation. Resulting the tariff to range from 1TZS to 2.5 TZS/Liter.
- In terms of the time to collect water, this has been reduced from 2 hours to less than 30 minutes.
- The tangible positive results on these two indicators allow for increased use of safe water and improved hygiene. In turn, this has improved healthy living conditions in general, and the non-spread of communicable diseases in particular. As a result it has reduced the possibility of cholera outbreaks. Concretely, in 2015 an outbreak of cholera in Dar es Salaam occurred, yet no outbreak of cholera was recorded in the intervention target areas.

Sustainability of the intervention and hence the impact is foreseen to be maintained by the instituted Water Consumer Associations, School Hygiene/Health Clubs and individual stakeholders (see section 3. Sustainability). The WCAs are autonomous bodies working under DAWASA and Municipalities, in this way WCAs allow for ownership of communities of their water facilities and supply.

### 2.2.2 To what extent has the outcome been achieved? Explain

The Maji Yetu Project aimed at improving the provision of clean, safe and reliable water supply and sanitation in selected project areas in peri-urban settlements of Dar es Salaam in a sustainable manner. The outcome has been realized, and has even surpassed the target value of certain indicators. Yet, 'in a sustainable manner' will have to be determined at a later date. In the area of WCA management capacities, some efforts were undertaken to ensure sustainability: MoU and operation guideline have been signed between WCAs, DAWASA and Municipal Councils where roles and obligations of parties are well established, this is likely to ensure monitoring and evaluation of the WCAs by

<sup>11</sup> Terminology: Impact = General Objective ; Outcome = Specific Objective; Outputs = Expected Result

DAWASA and Municipalities. DAWASA has a section in its organization which deals only with Community Water Supply and Municipalities have only dealing with Community Water Supply therefore the established WCAs are well taken care off by the two institutions. Its indicated in the operation guideline of the WCAs to conduct a joint annual meeting which will involve all existing WCAs and new comers, in which various experiences will be shared among WCAs.

The indicator of having installed water and sanitation systems which are functional for at least 350 days per year, was reached for a large part. All **15 Water Supply Schemes** have been completed, are functioning and have been handed over to the communities through their WCAs. Yet the 350 days per year functionality may not be realized due to unreliable power supply from TANESCO (Tanzania Electric Supply Company), a situation outside the control of the project. The project has however provided 6 of the larger schemes with generators to offset the lack of power supply (see section 1.2.2.3).

The indicator to serve 170,000 people with 25 l/c/d, has been surpassed by 30,000 people. The 15 schemes have the potential to serve over **200,000 people** with an average per capita water consumption of 39 litres per day.

In terms of the number of people with permanent access to some form of basic sanitation facilities, the project managed to construct a number of **pilot latrines** at markets, schools, dispensaries and sub-Ward offices, which have the aim to instil the communities to emulate the demonstrated latrines at household level. In addition, the project has also constructed new sanitation facilities for all pupils at 6 primary schools. The facilities can cater to over 4,200 pupils, disabled persons and teachers.

In terms of the quality indicator, to provide water of which the quality meets Tanzanian standards, the water supplied meets these standards. This is documented in the Water Quality Test results and the Water User Permits issued by the Wami/Ruvu Basin Water Board.

## 2.2.3 To what extent have outputs been achieved? Explain

### 2.2.3.1 Output 1 – Water supply interventions

The Maji Yetu Project set out to achieve the following outputs in four output areas, the first one being the establishment of “15 Water Supply Schemes in the targeted areas, designed and installed in a sustainable manner giving access to adequate and safe drinking water to 170,000 persons”.

The project managed to construct **15 Water Supply Schemes**, 13 of which were constructed during the project and provided safe borehole **yields ranging between 5 m<sup>3</sup>/hour to more than 60 m<sup>3</sup>/hour**; and 2 of which were utilizing DAWASCO produced water. The total capacity of these water sources was enough to supply approximately 200,000 people with water, with about **13,000 people per scheme**.

In terms of the daily supply of water, the project has a capacity to discharge 7,685 m<sup>3</sup>/day. Adding this to the existing capacity, the total production will reach 263,685 m<sup>3</sup>/day, amounting to a total of 53% of the demand. Furthermore, the project has added a total storage volume of 2,235 m<sup>3</sup> and a total pipe network of 110 km (77 km distribution pipes and 33 km pumping mains).

The intervention will increase (based on 2012 population figures) the access to water in the target areas of Kinondoni Municipality from the current 50% to 76%, Ilala Municipality from the current 35% to 71% and Temeke Municipality from the current 53% to 73%. The

project has improved the water supplied to the target areas significantly, yet, to cover 90% of the target population the water schemes need to be extended.

The **cost of water** supplied by the project is by 2015 estimated at 33,600 TZS per capita, at scheme level (capita investments). By considering all costs – overhead, survey and investigation and design, and socio-engineering – the cost will increase to about 96,100 TZS per capita, which comes to **2.5 TZS per day**. The applied water tariffs have been determined in order to achieve a full cost recovery of the investment and Operations & Maintenance (O&M) costs. This has been accepted by the community, which shows their understanding of the opportunity cost of water.

The **quality of the water** supplied by the project is within Tanzanian standards. Regular monitoring shows that the quality does not deteriorate over time. Salinity production rates remain **under 3,000 µS/cm**.

Fact sheets of the 15 schemes by municipality are exposed below:

### ***Maji Yetu Water Projects in Kinondoni Municipality***

(based on 60% DPs and 40% PCs for 90,800 people)

FACT SHEET	TANDALE W/S	MBURAHATI-BARAFU W/S	KWEMBE W/S	HONDOGO, DELINI, KIBWEGERE W/S
Type of water source	2 x Boreholes	1 x Borehole	DAWASCO (pump)	DAWASCO (gravity 8hrs/day)
Design capacity (m³/day)	1,600	192	968	784
Population to be served	41,000	4,900	24,800	20,100
No of Domestic Points	21	8	5	12
Max no of Household Connections	1,067	128	645	523
Length of pumping main (m)	3,130	800	3,800	7,000
Length of distribution pipes (m)	8,000	3,900	3,600	3,000
Storage capacity (m³)	2 x 135	90	2 x 45	3 x 45
Investment cost (Euro)	612,400	115,100	135,000	108,100
Coverage (2012)	75%	18%	22%	43%
Per capita Investment cost (Euro/capita)	14.9	23.5	5.4	5.4
* including DAWASCO charge of 1,119 Tshs/m³				

### ***Maji Yetu Water Projects in Ilala Municipality***

(based on 60% DPs and 40% PCs for 58,400 people)

FACT SHEET	TABATA-DARAJANI W/S	MNAZI MIREFU W/S	KINYEREZI W/S	GONGOLAMBOTO, GULUKAKWALALA, ULONGONI W/S	UGOMBOLWA W/S
Type of water source	1 x Boreholes	1 x Borehole	2 x Boreholes	1 x Borehole	1 x Borehole
Design capacity (m³/day)	960	192	512	468	56
Population to be served	24,600	4,900	13,100	12,000	3,800
No of Domestic Points	13	8	9	23	4
Max no of Household Connections	640	124	341	312	58
Length of pumping main (m)	1,550	72	750	7,156	900
Length of distribution pipes (m)	4,144	2,090	12,514	9,326	750
Storage capacity (m³)	200	90	680	135	10
Investment cost (Euro)	317,000	131,600	524,000*	102,000	28000
Coverage (2012)	33%	17%	34%	29%	30%
Per capita Investment cost (Euro/capita)	12.9	26.9	40.0 (10.1*)	8.5	7.4
*) Project input 132,200 Euros					

### ***Maji Yetu Water Projects in Temeke Municipality***

(based on 60% DPs and 40% PCs for 63,700 people)

FACT SHEET	MBAGALA KUU-MGENINANI - KICHEMCH EM W/S	MTONI KIJICHI-MISHENI W/S	MWANAMTOTI W/S	KIBONDEMAJ I B – KICHEMCHE M W/S	YOMBODO VYA-UWAZI-MSAKALA W/S	KINGUGI W/S
Type of water source	1 x Boreholes	1 x Borehole	1x Boreholes	1 x Borehole	1 x Borehole	1 x Borehole
Design capacity (m³/day)	640	640	256	176	640	132
Population to be served	16,400	16,400	6,600	4,500	16,400	3,400
No of Domestic Points	23	10	9	13	9	13
Max no of Household Connections	427	427	171	117	427	88
Length of pumping main (m)	1,850	2,300	1,194	270	125	1,800



Length of distribution pipes (m)	7,418	5,900	2,730	3,265	5,720	3,600
Storage capacity (m³)	135	135	90	50	90	40
Investment cost (Euro)	379,000	344,000	155,000	102,000	231,000	28,000
Coverage (2012)	36%	33%	36%	36%	36%	60%
Per capita Investment cost (Euro/capita)	23.1	21.0	23.5	22.7	14.1	8.2

A typical water project construction scenario is pictured below:



Drilling of Borehole at Mgeninani



Storage Tank and Pumphouse at Yombodoya



Trench digging at Kibondemaji B



Construction of a DP



Finished DP at Yombodoya



Collection of water at Hondogo



Water Vendor at Hondogo



Consumption of MYP water



Water meter at a DP



Paying for water



Meter reading



Consolidating meter reading results

### 2.2.3.2 Output 2 – Sanitation and drainage interventions

The second output was: “Hygiene practices are improved and pilot sanitation facilities and services in the selected peri-urban areas are designed and installed in a sustainable manner”.

In terms of **sanitation interventions**, the project constructed **21 new latrine facilities**, with a total of 148 stances, using contractor. Furthermore, **rehabilitation works** of existing latrine facilities were carried out in the 6 primary schools, relying on local artisans. These construction and rehabilitation works were completed by mid-2014.

**Awareness building on hygiene practices** (hand washing, reduced misuse of toilet facilities, uncontrolled littering), was facilitated by the three municipal social engineering organizations (**WAHECOs**<sup>12</sup>). The communities of the target areas were supported by WAHECOs, as a means to empower the 15 WCAs. The WAHECOs conducted training sessions in hygiene and sanitation with the COWSSOs by means of the PHAST method. For the primary schools, the School Wash Concept was promoted through the Child-to-Child approach.

Fact sheets of the newly constructed sanitation facilities are exposed below:

District	Ward	Location	Number of stances provided per location					Type of facility
			Boys	Girls	Disabled	Teacher's	Total	
Primary Schools								
Temeke	Mbagala Kuu	Mbagala Kuu Primary School	8	12	2	0	22	Septic tank connected to Cesspit
Temeke	Mbagala Kuu	Kizuiani Primary School	9	7	2	2	20	Pour flush with Biogas dome & French drain
Ilala	Kinyerezi	Kinyerezi Primary School	4	6	2	0	12	Bio - latrine
Ilala	Gongolamboto	Ulongoni Primary School	11	14	2	0	27	Septic tank connected to Cesspit
Kinondoni	Tandale	Tandale Elimu Primary School	5	8	2	0	15	Septic tank connected to French drain
Kinondoni	Tandale	Muhalitani Primary School	2	2	2	2	8	Pour flush Bio-gas dome & French drain
		Total	39	49	12	4	104	

District	Ward	Location	Number of stances provided per location			Type of facility
			Patients/Staff	Disabled	Total	
Health Facilities						
Temeke	Makangarawe	Makangarawe Dispensary	2	2	4	Septic tank connected to Soak Away pit
Kinondoni	Kibamba	Kwembe Dispensary	2	2	4	Septic tank connected to Soak Away pit
Ilala	Gongolamboto	Guluka Kwalala Dispensary	4	2	6	Septic tank connected to Soak Away pit
Ilala	Kinyerezi	Kinyerezi Dispensary	2	2	4	Septic tank connected to Soak Away pit
		Total	10	8	18	

<sup>12</sup> WAHECOs = Water, Health, Community Development and Education Teams

District	Ward/Mtaa	Location	Number of stances per location		Number of bath rooms per location		Total	Type of facility
			Male	Female	Male	Female		
Other Facilities								
Ilala	Tabata	Tabata Darajani Market	2	2	1	1	6	Septic tank connected to Soak Away pit
		Total Markets	2	2	1	1	6	
Temeke	Tandika	Tandika Ward Office	1	1	0	0	2	Pour Flush Toilet
Temeke	Makangarawe	Makangarawe Ward Office	1	1	0	0	2	Pour Flush Toilet
Temeke	Mbagala Kuu	Kibondemaji B Mtaa	1	1	0	0	2	Raised VIP latrine with SanPlat slab
		Total Temeke Offices	3	3	0	0	6	
Ilala	Tabata	Tabata Ward Office	1	1	0	0	2	Pour Flush Toilet connected to Septic Tank & Soak Pit
Ilala	Gongolamboto	Gongolamboto Ward Office	1	1	0	0	2	Pour Flush Toilet connected to Septic Tank & Soak Pit
Ilala	Kiwalani	Kiwalani Ward Office	1	1	0	0	2	Pour Flush Toilet connected to Septic Tank & Soak Pit
Ilala	Kinyerezi	Kifuru Mtaa	1	1	0	0	2	VIP latrine with SanPlat slab
Kinondoni	Mburahati	Mburahati Ward Office	1	1	0	0	2	Pour Flush Toilet connected to Septic Tank & Soak Pit
Kinondoni	Tandale	Tandale Ward Office	1	1	0	0	2	Pour Flush Toilet connected to Septic Tank & Soak Pit
		Total Ilala Offices	6	6	0	0	12	
Kinondoni	Kibamba	Kibamba Ward Office	1	1	0	0	2	VIP latrine with SanPlat slab
		Total Kinondoni Offices	1	1	0	0	2	
		Total	12	12	1	1	26	

Examples of sanitation facilities are pictured below:



Construction of School latrines (foundation)



Construction of superstructure /latrine



Completed School pour latrine at Mbagala Kuu

In terms of **drainage interventions**, the available funds allowed for the drainage of **Ng'ombe and Kiboko rivers in Tandale**. These were prioritized due to their worse condition, causing floods during the rainy season. About 20,000 m<sup>3</sup> of solid waste was removed. The cleaning and dredging works were completed using community and municipality resources and the establishment of a Task Force. The works were completed by February 2013 and since then, no floods have ever been experienced in Tandale, even when heavy rains occurred (e.g. December 2013).

The drainage improvement scenario is pictured below:



Original Ng'ombe river bed



Restoration of Ng'ombe river  
Stuck of Chai Excavator



Stuck of Chain Excavator





Original Ng'ombe river bed



Complete river restoration



Setting of gabions along river Ng'ombe

The restored Ng'ombe and Kiboko rivers (green) and the lay-out of the Tandale Water Supply (blue and red) is pictured below:



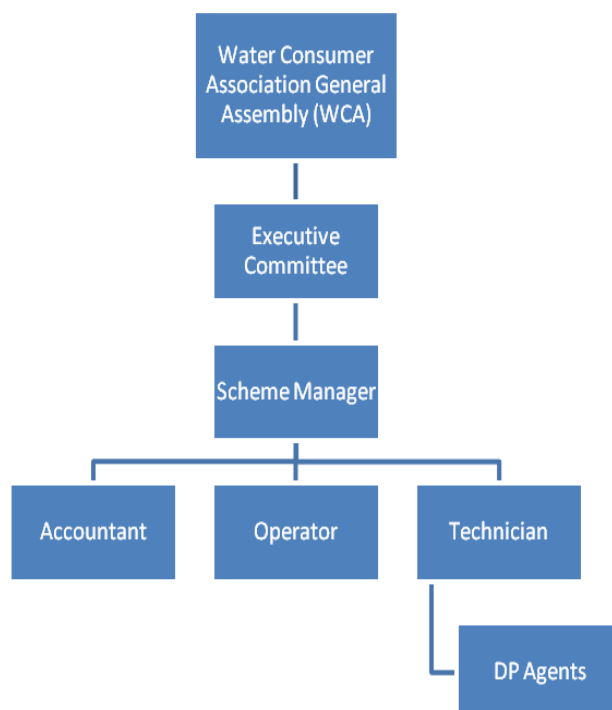
Despite these achievements, some sanitation activities the project wanted to undertake, were not covered. Solid waste management measures were not undertaken due to the lack of available land to install a composting plant at Tandale, and a lack of time to look for alternative solutions in the timeframe of the project. Also, adoption of appropriate latrines for individual households has not been achieved; instead, pilot sanitation facilities were installed or rehabilitated.

### 2.2.3.3 Output 3 – Management options

The third output was: “COWSSOs manage, operate and maintain the water supply and sanitation facilities and services in an efficient, transparent and sustainable manner and are accountable to users”.

The project has now **formed and registered 15 Water Consumer Associations (WCAs)**, which have now elected permanent Executive Committees and employed Scheme Management Teams.

Organogram of a WCA:



A lot of emphasis has been put onto capacity building of the WCAs Executive Committee members and Scheme Management staff. A Sustainability Training Plan was developed and has been implemented as part of the Exit Strategy. The aim of the Exit Strategy is to ensure that the results achieved in the area of developing the Water Schemes, will be sustainably managed by the WCAs. Through Sustainability Training Plan, the WCAs and their Scheme Management staff have obtained the basic skills and knowledge to manage and operate their water schemes.

With regards to the financial situation of these WCAs, extensive financial management training sessions have been carried out as part of the Sustainability Training Plan. Yet, several of the WCAs do not comply with the lay-down financial procedures. The Maji Yetu Project in cooperation with Municipal Councils and the Ministry of Water have up to now carried out probes for Mbagala Kuu – Mgeninani – Kichemchem Water Scheme and Mburahati – Barafu Water Scheme, and both probes have found irregularities in handling the financial aspects. Another probe has been carried out for Kwembe during June 2015, with the same result. It is the aim to carry out such probes for each scheme.

As an early result of the coaching, the project realized that the earlier selected interim Scheme Managers did not have the competence which was required to manage the operation of the schemes. Therefore, recruitment of permanent and competent Scheme Managers was initiated in September 2015, which is a precondition to commence the implementation of the Coaching/Monitoring Plan notable to the one-on-one coaching to individual staff.

#### **2.2.3.4 Output 4 – Dissemination of innovative models**

The fourth output to be obtained was: “Innovative models of O&M by COWSSOs and innovative technical options for water and sanitation infrastructure and services are documented and disseminated on city, national and international level and information on water supply and sanitation policies and IWRM are disseminated on decentralized level”.

As of now, all relevant documentation (boreholes specifications, technical drawings, etc.) for each water scheme is being grouped in separate folders (15 folders in total) in

preparation of the handing over of the assets to DAWASA, as well as summary sheets for each water supply system. These documents should provide support to the Maji Yetu Project's partners to ease progress follow up and to partners involved in the discussions on the next Belgian-Tanzanian Indicative Cooperation Program if water is raised to the attention.

#### 2.2.4 To what extent did outputs contribute to the achievement of the outcome

Each output has reached a substantial level, in some aspects even surpassing the set target:

- (1) All 15 water schemes have been completed by June 2015, providing quality water to about 13,000 people per scheme at 2.5 TSZ/day;
- (2) 21 sanitation facilities and additional rehabilitation works were completed in August 2013 and awareness on hygiene practices was raised through WAHECOs, the drainage of Ng'ombe and Kiboko rivers in Tandale was completed in February 2013;
- (3) Formation and training of 15 WCAs have been accomplished, while coaching continues to ensure sustainability;
- (4) Preparation of scheme folder is going on which will consist of as built drawings, user permit, list of equipments and suppliers and service providers etc.

The achievement of all four outputs has contributed tremendously towards the achievement of the outcome. This is reflected in the indicators that measure the attainment of the outcome: The first indicator (*at least 170,000 people are permanently served with 25 l/c/d*) has been achieved. The second indicator (*number of people with permanent access to some form of basic sanitation facilities*) is partially achieved. However, the sanitation activities have no evidence of potential for replication at household level due to the cost involved. The third indicator (*provided water meets Tanzanian standards*) is achieved. In addition the project has provided a disinfection system on some of the water schemes built. The fourth indicator (*the installed water and sanitation systems are functional for at least 350 days per year*) will be realized if power supply will be rectified and the institutionalised management system is performing as per guidelines.

#### 2.2.5 Assess the most important influencing factors. What were major issues encountered? How were they addressed by the intervention?<sup>13</sup>

Some of the most important influencing factors which have contributed to alterations of the intervention are:

- Firstly the time gap between the formulation of the intervention and the start of the implementation of the intervention. The rapid rural (up-country) - urban migration into Dar es Salaam City and internal population dynamics in which more people are moving from central part of the city to Peri-urban areas within Dar es Salaam City boundary has meant that intervention has changed from being designed for satellite rural poor settlements to being designed for a mixture of squatter and semi-urban settlements. Hence, instead of 60 smaller stand-alone water schemes to 15 larger water investment projects.

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<sup>13</sup> Only mention elements that aren't included 1.1 (Context), if any.

- Secondly, the long time to solve the contradictions between the legal or policy frameworks, which have guided the implementation of the intervention in Dar es Salaam, have not only delayed the formation and registration of COWSSOs, but also delayed the intervention to build their capacity to operate and maintain installed infrastructures. The project have over a long period of time worked with the MoW, DAWASA and Municipal Councils to solve the contradictions between the guiding Water and Sanitation and DAWASA acts in order to make it possible to form and register WCAs within the target areas.
- Thirdly, the good collaboration between the Project, the Municipal Councils, WAHECO and the target population had a positive influence on and participation of the communities in implementation of the intervention.
- Fourthly, delay in actual starting dates of implementation and slow progress of some contractors has put strains on both the project and communities. Even so the communities have shown appreciable willingness to participate in construction activities and provision of up-front contribution and prepared to pay the established water tariffs.
- Fifthly, frequent power interruptions and low voltage in target areas are expected to affect operation of water schemes. The intervention has temporarily solved the situation by providing stand-by generators for some the larger schemes, while the provider of power, TANESCO, improves the power supply.

#### 2.2.6 Assess the unexpected results, both negative and positive ones

Due to unexpected changes in the scheme management options, the project reverted to the use of Water Consumers Associations (WCAs) instead of companies to manage the water schemes, three years after the start of project implementation. The establishment of these WCAs – bringing forth a significant degree of ownership of beneficiaries regarding water supply and bringing forth a new model of community owned water management in Dar es Salaam – has been a positive unexpected result. The resolution of the differences and the amendment of the two Acts has been a far-reaching result of the projects' efforts.

The formation and registration of Community Owned Water Supply and Sanitation Organisations (COWSSOs) in Dar es Salaam (in the case of this project in the form of WCAs), is now supported by the guiding Water Supply and Sanitation Act (WSSA) and the DAWASA Act of the Government of Tanzania. Yet, it is still a new concept for many actors within the political and local government establishments. At the same time, the use of WCAs seems more accepted and appreciated by the communities.

Also the introduction of a Scheme Management Staff to the structure of the WCA, operating directly under the command of the Executive Committee, to professionally assist with the maintenance and operation of these schemes, is a whole new concept that was introduced by the Maji Yetu Project (see section 1.2.5.3).

Municipalities are used in formation of Water Committees to manage community water supply schemes, formation of WCAs which are autonomous institutions have not been well received by Municipalities, hence it creates misunderstanding and poor cooperation. This may lead to unexpected results in area of governance/democracy.

## **2.2.7 Assess the Integration of Transversal Themes in the intervention strategy**

### **2.2.7.1 Gender**

The project recognizes gender as one of the key factor to the success of this project, both women and men play different roles in project interventions. In various activities undertaken during the intervention period, both women and men were given equal opportunities to participate in different project activities, like trainings and meetings to come with solutions and make decisions.

Since women are custodians of water and sanitation at household level, the project has encouraged women to take up a leadership role to be able to represent women's views and ideas in decision making, division of labour and distribution of project benefits. WCA board members are represented by both women and men; women representation to the Executive Committee is more than 50%. And most tap agents are women.

### **2.2.7.2 Environment**

Environmental Impact Assessment (EIA) for this project was done in 2010 and special attention was put on the protection of water sources (boreholes) from pollution. Various environmental awareness sessions were done including meetings, seminar and trainings to community members and municipal staff. A drainage system in Tandale has been completed as well, and since then no floods have been experienced. This intervention significantly helps to reduce negative environmental impact to the community.

The project adopted large schemes which needed substantial amount of power which ranges from 25 – 45KW which could not easily be powered by solar power. However the smaller schemes like Ugombolwa (3 KW), Kingugi (4.5 KW) and Kibondemaji B (4.5 KW) could be supplied by solar power, but there were enough power supplied by local power utility TANESCO.

### **2.2.7.3 HIV/Aids**

The project was enforcing the National Policy on HIV prevention by including the measures in the awarded contracts. In the section of the technical specifications of the contracts, there are references to health related issues, including HIV/Aids.

Additionally, during the project works, the Ministry of Health conducted sessions with the contracted staff to raise awareness on HIV/Aids in the workplace.

Moreover, an additional notice was added to all project signboards showing the impact of HIV/Aids and propagate on how to stay safe.

## **2.2.8 To what extents have M&E, backstopping activities and/or audits contributed to the attainment of results? How were recommendations dealt with?**

### **2.2.8.1 Mid-term Review**

The mid-term review was carried out in February 2010 and came up with a number of recommendations to attain the results. The recommendations that were most relevant to achieve the project results will be discussed here.

With regards to the water supply construction component, the mid-term review pointed out the limited available budget and timeframe remaining for infrastructure construction and set-up of management structures, which will require “on the job” training and follow-



up. Therefore, it was recommended to start with the construction works as soon as possible. The recommendation was taken up by the PMT, leading to the corresponding action of developing 10 production boreholes, extending DAWASA pipelines (supplying Kwembe and Hondogo/Kibwegere water schemes) and rehabilitating existing boreholes (supplying Ugombolwa, Kibonde maji B and Kingugi water schemes).

Regarding social mobilisation, it was suggested that hygiene sensitisation activities and capacity building at community level should start in the selected schemes only when construction works have started because of the actual mistrust and lack of confidence of the potential beneficiaries. Since the project is setting up community based water supply schemes, it was deemed essential by the project that communities were involved in all the stages of the project; from planning, to designing, to construction and finally the operation of the water and sanitation infrastructures. That is why mobilisation of the communities started at a very early stage of the project, even before the exploration of water was complete. In some situations no water suitable for human consumption was found, although the community had been mobilized and sensitized. This created frustration and trust issues of the community towards the project. The project tried to mitigate this as much as possible, by using people from the community that were involved in the exploratory drilling to inform their fellow community members that there was no suitable water found and to explain them why.

Regarding the sanitation component, the mid-term review raised serious concerns about the feasibility of this component and its sustainability. Sanitation is not the top priority of beneficiaries, and there is little evidence of willingness to pay for these services. For the reviewers, it was obvious that there won't be any tangible results for sanitation if there is no political willingness to enforce existing bylaws at municipal and ward level. They put forward that an efficient tax recovery system and imposing fines for non-respect of bylaws are essential to ensure any durability of the services that could be implemented. The project tried to mitigate this lack of law enforcement by reserving a part of earnings of water sales for sanitation. The project also installed demonstration latrines in public places (schools, dispensaries, markets and sub-ward offices), by using local masons. The idea was that if these latrines are constructed by local people, they can be replicated in the future. Also the maintenance of these latrines were left in the hand of the schools, dispensaries, markets and sub-ward offices.

Moreover, the mid-term review field visits showed that the main issues regarding sanitation appear to be solid waste collection and uncontrolled liquid waste disposal. Solid waste is sometimes collected by Community Based Organisations (CBOs) at household level, but there is no organized municipal system for transit locations and final transport to the dumping sites. In Temeke for instance, it is estimated that more than 1.035 tons of refuse is produced each day, but only about 280 tons are collected and transported to the official dumping site. Most often solid waste is thrown in the natural drainage, worsening the flooding issue and storm water sewage. Thus solid waste needs to be tackled first before trying to improve sewerage. Correspondingly, the project proposed to address the solid waste issue in Tandale Ward, where the problem was paramount. However, the project was later cancelled due to land availability (see section 1.2.3).

#### **2.2.8.2 Backstopping missions from BTC/HQ**

The BTC backstopping services (from HQ/REP) have delivered important inputs for successful implementation of the project. Most of the recommendations set out in the Mission Reports have been dealt with or considered as much as possible. Some of the

crucial recommendations made and corresponding actions taken by the PMT are presented here.

- Firstly, the concern was raised that none of the 15 WCAs had an elected Executive Committee, and that this was a major constraint to start with the recruitment of management teams and the training on O&M. Measures needed to be taken to speed up the process of WCA registration by the authorities. Taking up this recommendation, the project managed to complete WCA registration and election of permanent executive committee members by June 2015.
- Secondly, apart from the works side, they recommended that more attention should be paid on the social engineering component (notably based on the results of other BTC water facilities projects). The observed delays in constituting WCA boards and recruiting professional management teams could jeopardize chances of proper implementation of the project. Taking up this observation, the project had recruited professional management teams. Basic training has been given following the agreed training plan and the project is embarking on coaching as per the agreed coaching plan.
- Thirdly, the observation was that many private owned water kiosks are present within the new scheme perimeter. A large number of private vendors also operate in these areas. It was deemed absolutely necessary to engage in a proactive dialogue between the WCAs, the Municipalities and these informal stakeholders who live on water sales. It was recommended that arrangements with the informal sector must be mapped, assessed and conflicts must be prevented far in advance. In line with this suggestion, the project engaged in a dialogue with the vendors. A meeting was called together to explain the project, and emphasize that the project does not pose a threat: the vendors are too small to supply the whole target area, and they also operate beyond the borders of the target areas. In this sense, the project can even be to their advantage, since they can buy water from the project boreholes to resell in non-covered areas, which is often closer and cheaper than their other options.
- Fourthly, it was suggested that the collection and treatment of solid waste in Tandale (earlier proposed by the mid-term review), which was still at a study stage, must be abandoned due to timeframe restraints. These activities would extend beyond the contract period, and is not acceptable. It was recommended that funds would be reallocated. The project followed this recommendation and the funds were used in the water scheme construction works.
- Fifthly, restoration of Ng'ombe and Kiboko rivers has been successful, although, it does not solve the problem of solid waste management in the overcrowded market place of Tandale in the long term. It is advised that an overall documentation should be put together in a separate report including interviews of neighbouring household heads and municipality staff as a capitalization exercise. So far, the project has not done this capitalization exercise.

### 2.2.8.3 *Audit*

The project accommodated Expenditure Verification Audits, these took place in November 2011, May 2012, April 2014 and February 2016. All expenditures were found to be eligible expenditures.

### 3 Sustainability

The principal strategy, as was formulated in the TFF, is to ensure that sustainability of the four outputs or results indicated in the Project Sheet is achieved. The Project has since its commencement therefore been involved in actions which are aimed to develop physical and soft-ware interventions that are geared towards sustainable of community managed projects.

The project, through its PMT, managed to conduct technical and social baseline studies, work designs, preparation of tender documents, selection and engagement of consultants and contractors as well as formulation of basic institutional arrangements for sustainable management of projects during the period 2008 – 2015.

The majority of works commenced during Q3 2012. A total of 15 water projects, 21 latrine projects and 1 river restoration project have been completed by now. All physical infrastructures have been handed over to the Water Users Associations (WUAs) by mid 2015, while more is still to be done to WCA to ensure sustainable management of the water and sanitation infrastructures by the end of the project 31<sup>st</sup> December 2015. It was foreseen that the established WUAs and their operational staff will need continued support to achieve the goal of sustainable management of the schemes for a period of 2 years or up to end 2015. However the permanent registration of WCAs was done May 2014 after signing of “circular” by the Minister for Water to allow registration of COWSSOs in DAWASA supply area.

The Project developed an Exit Strategy which takes into consideration that WCA gets enough capacity building to enable them operate and maintains the infrastructures built sustainably by December 2015.

#### 3.1.1 What is the economic and financial viability of the results of the intervention? What are potential risks? What measures were taken?

Financial and economic sustainability is potentially very good.

As explained in section 2.1.1, all costs for water supply (costs for investments, services and maintenance) are covered in the determined water tariffs for all water schemes, and are affordable for the beneficiaries (2.5 TZS/L). This is a measure to mitigate the risk of lack of financial resources to sustain the established water schemes. Additionally, the tariffs also include 3 to 5% for community based sanitation interventions. This part of the water tariff is devoted to sanitation improvements. Thus, the actual selling price for water produced is higher than the full production cost (including amortizing, operation and maintenance). The margin above production cost will be invested in sanitation actions. This principle is an integrating part of the National Water Policy (2002). Sanitation actions will be limited to such a level that the budget made available through water sales and through direct contributions is sufficient to cover all recurrent costs. This should ensure the sustainability of the sanitation efforts.

The WCAs in general and the Scheme Management Staff in particular, have been trained in financial management, including installation and use of a billing system. The use of payment through mobile phones for payment of water bills has been encouraged by the project and is already applied in some WCAs. (This reduces the risks of dealing with cash, collection of money more quick and involves less staff and paperwork.) The good management of water sales incomes is also essential to sustain the established water schemes in the future. However, the experience is that the principals of financial management are not fully understood and/or adopted. This has to be mitigated through

continued coaching of the Scheme Management Staff by the project and other experienced consultants and its assurance of electing creative and committed Executive Committee members and skilled and knowledgeable Scheme Managers.

Another constraint might arise mainly due to changing external economic factors and change in water policy, which both are beyond the control of the project and for which no mitigation measures were taken.

### **3.1.2 What is the level of ownership of the intervention by target groups and will it continue after the end of external support? What are potential risks? What measures were taken?**

Probability of sustainability is good but there is room for improvements, i.e. ensure the implementation of Scenario 3 of the Handing over plan, in which “the project assets are handed over to DAWASA and DAWASA hands over fully the operations and management to WCAs” (all water infrastructure installed in the DAWASA service area belongs to DAWASA, because this is stated in the DAWASA Act, so after the handing over the WCAs would operate under DAWASA). DAWASA and Municipalities (WAHECOs) continue to provide support to WCAs and Scheme Management Staff, since some of the WCAs started their operations towards the end of the project, and therefore did not have extensive opportunities to be coached during the project.

*The potential risk is the political interference into the management of WCAs. The project has continued meetings with DAWASA and Municipal Councils for a smooth handing over of the assets and management. Furthermore, the project has a rolling coaching plan to support the WCAs in improving their capacity in running their water schemes.*

To mitigate the risk of the newly installed water systems being damaged, the project sensitized the communities prior to implementation. Communities also selected the members of the WCAs, and in turn people who are members of the WCA have selected the Executive Committee of the WCAs. Hence communities “own” the management of the water schemes. Through this measure, their decision power is assured.

With regards to the sustainability of the sanitation efforts, a similar measure was taken: operation and maintenance of the pilot sanitation facilities at primary schools, markets, dispensaries and sub-ward offices are in the hands of these institutions, to assure sustainability. Because this way, key stakeholders continue to support the implementation and maintenance of the sanitation facilities and services. In the same reasoning, the pit emptying facilities (Gulpa pumps) were introduced to the community through CBOs who will operate them commercially.

Improvement of sanitation facilities at the primary schools, in combination with accompanied hygiene education and campaigns have significantly raised the expectation of pupils as hygiene change agents within the community, which in a longer timeframe will contribute to maintain the impact.

The project has also ensured that the members of the WCAs and other resource people are permanent residents of the target area. This is a measure to mitigate the risk of trained resource personnel leaving the target communities after the project implementation. (The Scheme Managers do not need to be permanent residents, rather their qualifications are based on required professional skills, experience and knowledge.)

Also for sustainability purposes, the project opted not to use a consulting company for social engineering, instead the project created WAHECOs in the 3 municipalities.

Despite these mitigation measures, political and/or religious differences in some areas may jeopardize the sustainability of the project results. Although WCAs try to maintain harmonization, and ensure that the involved communities remain organised and unified.

### **3.1.3 What was the level of policy support provided and the degree of interaction between intervention and policy level? What are potential risks? What measures were taken?**

Policy and policy enforcement institutions have been supportive and not hindered the project implementation and are likely to continue to support the outcome of the project. However, an eventual change in the water policy may out rule the continuation of WCAs, which is beyond the control of the project and for which no mitigation measures can possibly be taken.

Yet, the lack of attendance of municipal directors in JLPC meetings has created some difficulties in getting things to be done. This has often resulted in that decisions are taken, but not followed up as decided. Their participation during these meetings in person, and not by representatives, would have helped the project's timely performance.

According to Scenario 3 of the Handing over plan, both DAWASA and the Municipalities have the responsibility to support the WCAs management and maintenance efforts. Yet, since community owned water management through WCAs in Dar es Salaam is still a new concept for many actors within the political and local government establishments, there are still some issues of political interference in the WCAs. Though it is within the law of the land.

Lack of understanding of the autonomous status of the WCAs is especially an issue among municipalities/politicians, since they still think they should be involved in WCAs and have access to their money, which is not part of the set-up of WCAs. To mitigate this risk, intensive awareness creation have been done to Municipalities and politicians by stating clear roles and responsibilities.

### **3.1.4 How well has the intervention contributed to institutional and management capacity? What are potential risks? What measures were taken?**

Project management has been well embedded in the institutional structures and has contributed to capacity building both at central and local levels. Additional expertise might be required in order to guarantee sustainability. In urban areas, communities are not uniform since they come from different areas of the Country with different cultural background, religion and tribes sometimes more effort is required to form a workable community group. MYP used much effort to establish these groups however municipalities had already established another type of COWSSO which did not guarantee the ownership. A follow up is required to keep the coherence of these groups especially the groups with members with very low education level. Introduction of management staffs in the COWSSO structure also complicates the management since it was obviously not possible to operate with only WCA along, a more technical skilled staff were required to ensure sustainability.

As was explained above (section 1.2.5), WSSA and DAWASA Act has limited the formation and registration of COWSSOs, which delayed the establishment of Water Consumer Associations. The impediments in the Acts have created a serious delay in registration of WCAs, while the project continued training of interim Executive Committee members. After resolution of the difficulties by the MoW, registration of WCAs was allowed. As a matter of procedure, the new registered WCAs had to conduct re-election

of permanent Executive Committee members and the project was forced to plan a crash training programme for the new elected WCA members. This training is deemed essential for sustainability purposes, but due to time constraints, had to be done in a very short time.



# Learning

## 3.2 Lessons Learned

Following important Lessons Learned can be drawn from the intervention's experience, which other projects should take into consideration as from the planning stage:

- i. The period between identification and implementation was too long, which necessitated multiple revisions of strategies because the assumptions on which they were based changed over time, due to the fast changing context in peri-urban areas. As a result agreements between partners had to be reviewed and amended, delaying implementation.
- ii. The observation of the project was that during registration of COWSSOs in Dar es Salaam it became obvious that this was not possible because of the contradictions between the Water Act and DAWASA Act, whereby the Water Act prohibited the registration of COWSSOs in the DAWASA area of jurisdiction. While the DAWASA Act was silent on registration of COWSSOs.  
The lesson learned is that the choice of strategy during formulation must be better informed by an in-depth analysis of sector policies and Acts in order to avoid contradictions between proposed strategy and legal framework. A full understanding and knowledge of the sector policies can foster a more efficient approach during project execution.
- iii. Community participation is necessary because the community needs to be involved in the process (for instance: (1) you need the local knowledge; (2) the community needs to be ready to manage their water supply once the adequate water source is found). Yet, the project learned that there is a risk in starting the community mobilisation at the same time as the search for adequate water sources, because it is difficult to control the expectations of the community.
- iv. Members of the JLPC (the Steering Committee of the project) often did not attend the JLPC meetings themselves, but sent representatives to the meetings. However, these representatives did not have the mandate to make and implement strategic decisions; since there was no delegation of decision making power. Allowing representatives at these strategic meetings often had the result that strategic decisions taken during the JLPC were not executed as agreed.
- v. Another observation was that WCAs were tasked to recruit technical managers of the schemes. Yet, people recruited were not of adequate capacity: in communities, charismatic leaders are often pushed forward to also technically manage the water schemes, but they do not necessarily have the adequate skills to manage these schemes.  
The lesson learned is that for COWSSOs to be successful (i.e. operationally and financially sustainable), they require professional technical management.
- vi. It is necessary to give (stand-alone) technical training to WCA management staff to acquire technical, financial and management skills; but it is not enough to enable the COWSSOs (WCAs) to stand on their own.
- vii. Community based management of water schemes in urban areas requires a different approach than in rural areas because of different community dynamics: urban environments experience weaker social cohesion due to a more heterogeneous composition of the community; whereas in rural areas you have a more homogenous community.

- viii. The fact that water projects generate revenue, invites interference from local authorities and politicians. The potential misuse of water funds affects sustainability of the water schemes.
- ix. Support for and ownership of the project of the partner institutions was inadequate. Less than optimal involvement of the partners in project implementation may affect the degree of sustainability; as the partner institutions have not taken the agreed supporting role.
- x. The project aimed at both water supply and sanitation, yet there was very little funds for sanitation.

### 3.3 Recommendations

Following recommendations correspond to the lessons learned mentioned above:

Recommendation	Source	Target audience
i. Limit the time between project identification and start of implementation.	Maji Yeu project reports	MoW, BTC, DAWASA, EU
ii. Project strategies should be formulated with in-depth knowledge of the existing legal framework.	Maji Yetu project reports	BTC, other actors in water sector
iii. Projects should be very cautious to raise (false, unrealistic) expectations or make promises during community mobilization and sensitization in the feasibility stage. This should be reflected in the project strategy. Especially when the mobilisation requires the community to commit resources before an adequate water resource is found.	Maji Yetu Project report	BTC, MoW, LGAs, Consultants, Politicians
iv. Ensure that elected members of the Steering Committee (JLPC in this case) are of the appropriate level of decision making power and participate during its meetings in person and not by representatives.	JLPC minutes, Maji Yetu Project report	LGAs, MoW, DAWASA,
v. The project should support the communities/WCAs to recruit capable professional staff. Management of Water schemes must be recruited on an objective and competitive basis, and hired on the basis of their merit.	Maji Yetu Project reports	BTC, LGAs, MoW, DAWASA
vi. The technical, financial and management training of the COWSSOs (WCAs) should be complemented by extensive on-the-job coaching over a prolonged period of time until the COWSSOs are able to stand on their own.	Maji Yetu Project reports	Donors, BTC, LGAs, DAWASA
vii. Organizing people in peri-urban areas should consider the restrictions and possibilities of the urban setting (for instance: asking financial contribution of the community instead of contribution in kind; organizing meetings in the weekend; etc.)	Maji Yetu Project reports	BTC, LGAs
viii. Reduce cash handling through the use of	Maji Yetu	COWSSOs,



electronic or prepaid payment systems, i.e. M-PESA and prepaid meters.	Project reports	LGAs, DAWASA
ix. More institutional involvement is recommended. For water schemes to be successful, all key partners should play their role in supporting the schemes as agreed in an enforceable post-project Memorandum of Understanding, which includes capacity building, monitoring, repair and maintenance.	Maji Yetu Project reports	LGAs, DAWASA, MoW
x. Combining water supply and sanitation in one project is too ambitious for one project. In order to achieve the intended impact in sanitation, adequate funds and time should be allocated.	Maji Yetu Project reports	Donors, MoW, MoH

Following additional recommendations are given:

Recommendation	Source	Target audience
Use available Procurement acts appropriately to help get the most favourable Contractors. Having separate Lots for each project may allow more local and lower grade Contractors to compete for tender of works which will lower the costs and distribute the risks.	EU, BTC and/or GoT Procurement Guidelines/Acts	MoW, BTC
The beneficiary country should well in advance prepare/acquire land for project execution. Establishing a formal contractual agreement between landlords and the beneficiary country is advised.	Maji Yetu Project Reports	MoW, LGAs, DAWASA
Rehabilitation of existing (serviceable or non-serviceable) schemes should be considered with caution. Thorough assessment of works and costs should be well presented prior to approval for execution.	Maji Yetu Project Reports	MoW, Municipalities, BTC
Adopt existing Design Manuals applied in the beneficiary country.	Design Manuals	MoW, Municipalities, NGOs, CBOs, and Donors.
Use local Task Forces in combination with local small contractors for construction of smaller water schemes.	Maji Yetu Project Reports	MoW, Municipalities, BTC, EU
Include water vendors as they extend the scope of the water projects through sale of water to the nearby settlements not covered by the projects.	Maji Yetu Project Reports	MoW, Municipalities, DAWASA, BTC, EU
It is important to have full time government counterparts (Project Coordinator and other Municipal/district staff) to support the interventions.	TFF	MoW, Municipalities, DAWASA, BTC, EU

## PART 2: Synthesis of (operational) monitoring

### 1 Follow-up of decisions by the JLPC

SN	Issue	How it was tackled
1.	<p>The first JLPC which set 13th February 2008 insisted PMT to complete the inclusion of Fund added by Belgian Government into the project fund by adding more activities of water and sanitation.</p> <p>The PMT should revisit the target areas through baseline study since many changes have taken place in the target areas this include intervention by other donor like Water Aid.</p>	<p>This was done and modified the TFF financial and activity plan which was later approved by both BTC and EU.</p>
2.	<p>Second JLPC which set on 29th August 2008 instructed PMT and RR's office to modify the Specific Agreement to accommodate the funds from EU.</p> <p>The municipalities suggested to JLPC to change purchase of motorbike to pick up vehicle to be used by municipality supervising team, JLPC instructed PMT to see the possibility of purchasing the vehicle using the resource allocated in this budget line.</p> <p>JLPC insisted that the community should be mobilized early as to involve them throughout the project circle.</p>	<p>Specific Agreement was modified and approved by the parties. Mobilization of the communities was done after completion of the baseline study.</p> <p>PMT propose possible reallocation to facilitate the purchase of vehicle instead of motor bike and submitted to JLPC for approval.</p> <p>The mobilisation of the community was done as to involve them from planning to construction and subsequently manage and operate the water and sanitation infrastructures.</p>
3.	<p>Third JLPC was held on 28th April 2009 by approving the purchase of vehicles to municipalities by reallocating funds from other activities.</p> <p>The intervention by other donor made the project to change target area from Tandika Nyambwela to include Yombo Dovy in Temeke district.</p> <p>Approval of purchase of water quality test kit was granted by JLPC.</p> <p>JLPC proposed the formation of municipal steering committee to steer the implementation of the project at municipal level.</p>	<p>The approval of purchase of the vehicle instead of motorbike was approved and three FORD double cabin pick-ups were purchased.</p> <p>Municipalities have similar committees in its structure therefore no new steering committee was formed instead the existing committee was assigned the duty of following up water and sanitation project.</p> <p>The water quality kits were purchase to all municipalities.</p>
4.	<p>The fourth JLPC set on 17th December 2009 instructed PMT to plan using MTEF system used by MoW and Municipalities.</p>	<p>This was followed and the project could now be monitored by MoWI and Municipalities</p>
5.	<p>The fifth JLPC set on 39th November 2011 instructed PMT to change type of COWSSOs which were registered by BRELA as Company to Water User Associations and to be registered by Municipal councils.</p> <p>Cleaning of Tandale rivers (Ng'ombe and Kiboko) using the community and Kinondoni municipality.</p>	<p>This decision brought us another problem on the registration of COWSSOs since the registration of COWSSO in Dar es Salaam was not possible under Water and Sanitation Act of 2002 which exclude Dar es salaam and DAWASA act 2009 did not provide for registration of COWSSO under its area of jurisdiction. This open up a long process of amending both acts to accommodate our</p>

		case. This was realized in May 2014. The two rivers were cleaned by task force and maintained by community.
6.	The sixth JLPC meeting set on 8th June 2012 JLPC approved the Project to finance the Kingugi water scheme after Temeke presented the issue of management problem and how will they tackle it. The JLPC received new ITA for the project and promise to work together to realize the intended outcome of this project.	Kingugi water scheme was rehabilitated and management training was given to the newly formed WCA.
7.	The seventh JLPC was held in 19th December 2012 approved the construction of Gongo la mboto scheme jointly with Ilala municipality whereby the project had finance the construction of 135m <sup>3</sup> tank at Gongo la mboto, reticulation system for Gongo la Mboto, Guluka kwa lala and Ulongoni and Ilala municipality with assistance from WB through WSDP program will finance the construction of rising main, pumping station and reticulation at Pugu Kajiungeni. JLPC instructed PMT to write an exit strategy which will ensure sustainability of the water and sanitation infrastructure installed. JLPC also approved the use of study fund to finance the consultancy fee of ITA to the end of the project.	The project complete construction of its part 2014 however Ilala had not completed its part. All three municipal councils had appointed a registrar for the COWSSO. Exit strategy was prepared and submitted to the next JLPC.
8.	The eighth JLPC set on 30th September 2013 approved exit strategy whereby the document was further submitted to BTC, MoF and then to Belgian Embassy for approval. JLPC approved the use of study fund. JLPC approved the addendum of extension of period of performance of this project for two years which was later to be approved BTC and EU. JLPC approved the purchase of three standby generator for Tandale VES 1 and 2 and Tabata Darajani water supply scheme.	Approvals were obtained. Addendum to the Grant Contract was prepared and approved. The Project continued implementing along the approved guidelines up to December 2015.
9.	The 9th JLPC set on 17th December 2013 approved new TFF for exit strategy which will accommodate the exit strategy fund from Belgian Government of 800,000 Euros.	The project amended the FIT to incorporate the additional 800,000 Euro.
10.	The 10th JLPC was held on 7th March 2014 due to delay in registration of COWSSOs as water user association the PMT together with other stakeholders proposed to the JLPC on the writing of the Secular to allow registration of COWSSOs be signed by Minister for Water while waiting for amendment of the Water and Sanitation act and DAWASA act by Parliament. This was agreed by JLPC and requests the MoW to expedite the process. JLPC approve the Result Oriented Annual	The Secular was signed by the Minister for Water and the registration process started and is now completed.  Inauguration was successfully done.  Indicators were changed accordingly.

	<p>Report for year 2013.</p> <p>JLPC agreed the inauguration be done on 12th March 2014. The inauguration to be done by Hon.Prof Jumanne Maghembe (MP) and in attendance of delegation from Belgian Government, Ambassador and Head of Delegation EU Tanzania.</p> <p>Change of indicators like Overall cost of water &lt; 1sh/l to overall cost of water less or equal to 5sh/l, the indicator for result two which reads “ Hygiene practice are adopted hand washing, reduced misuse of toilet facilities ( rain water flushing, flying toilet)uncontrolled littering” was removed because it was difficult to measure.</p>	
11.	<p>The 11th JLPC meeting was held on 25th June 2014 approved budget modification due to addition money due to exit strategy fund of 800,000 euros.</p>	Noted.
12	<p>The 12th JLPC meeting was held on 17th March 2015 approved Result Annual report for the year 2014.</p> <p>JLPC also approved handing over modality for the Maji Yetu Project.</p> <p>JLPC instructed PMT to use coaching method to impart the knowledge to WCAs</p>	<p>Handing over modality implemented according to Scenario 3. Some practical issues in handing over process is still ongoing with DAWASA and Municipalities.</p> <p>Coaching programme is under implementation.</p>

## 2 Financial report

Expenditures	Initial Budget in €	Budget per Addendum No. IV in €	EXPENDITURE REPORT in €
<b>1. Human Resources</b>			
1.1 Salaries (gross amounts, local staff)			
1.1.1 Technical			
- local technical engineer (Technical Assistant-BTC)	219,090.00	275,000.00	<b>289,274.59</b>
- local social engineer (Technical Assistant-BTC)	75,000.00	120,950.00	<b>122,766.04</b>
1.1.2 Administrative/ support staff			
- secretary	21,780.00	34,480.00	<b>37,442.19</b>
- drivers (2)	43,470.00	78,770.00	<b>76,960.58</b>
- accountant	97,875.00	112,075.00	<b>116,487.46</b>
- Volunteer MOW	2,700.00	2,700.00	<b>2,718.93</b>
- HR competence training Drivers	-	500.00	<b>618.25</b>
- Competence training Secretary	-	1,015.00	<b>304.24</b>
1.2 Salaries (gross amounts, expat/int. staff)			
- international social engineer (Technical Assistant-BTC) -60%	633,600.00	648,600.00	<b>646,803.42</b>
- Expatriate personnel BTC - Dar es Salaam representation (follow-up - 10%)	86,250.00	75,250.00	<b>75,000.01</b>
- Personnel BTC - Headquarters (technical backstopping - 5%)	43,125.00	57,000.00	<b>35,935.10</b>
- Costs of support to project from RR office		22,300.00	<b>3,273.14</b>
1.3 Per diems for missions/travel			
1.3.1 Abroad (staff assigned to the Action)			
- missions by BTC-HeadQuarters	7,900.00	7,900.00	<b>6,588.81</b>
1.3.2 Local (staff assigned to the Action)	0.00	5,700.00	-
1.3.3 Seminar/conference participants	0.00		-
- allowances for Joint Local Partner Committee 20 €/meeting/8 personsX2/year	1,760.00	3,760.00	<b>4,191.42</b>
1.4 Labour contribution from final beneficiaries (only comp. C)			-
-labour for WS unit (digging, backfill, compacting canals)	28,800.00	23,800.00	<b>22,725.89</b>
-labour for Sanitation Facilities (storm- and rainwater dikes)	28,800.00	22,000.00	<b>23,676.35</b>
<b>Subtotal Human Resources</b>	<b>1,290,150.00</b>	<b>1,491,800.00</b>	<b>1,464,766.42</b>
<b>2. Travel</b>			
2.1. International travel			<b>0.00</b>
-missions by BTC-HeadQuarter (Brussels-Dar es Salaam)	6,000.00	8,500.00	<b>9,775.00</b>
2.2 Local transportation			<b>0.00</b>
<b>Subtotal Travel</b>	<b>6,000.00</b>	<b>8,500.00</b>	<b>9,775.00</b>
<b>3. Equipment and supplies</b>			
3.1 Purchase or rent of vehicles			

Expenditures	Initial Budget in €	Budget per Addendum	EXPENDITURE REPORT
-vehicles for Project Management Team (PMT)	55,000.00	55,000.00	55,003.15
-motorcycles for municipalities (3)	0.00	0.00	0.00
- Vehicles for Municipalities (3)	60,000.00	60,000.00	59,637.00
3.2 Furniture, computer equipment			
-telecommunication PMT	5,000.00	5,000.00	5,078.40
-telecommunication municipalities	6,000.00	4,000.00	3,943.36
-computer/printer/inventor for PMT and admin staff	15,360.00	17,360.00	13,247.30
-software	7,700.00	9,200.00	6,605.86
-beamer	1,500.00	1,500.00	1,240.00
-computer equipment for municipalities	12,000.00	12,000.00	12,063.89
3.3 Machines, tools...			
-maintenance/repairation furniture/computers/... PMT	13,397.50	11,897.00	10,410.99
-maintenance/repairation furniture/computers/... municip.	-	-	0.00
3.4 Spare parts/equipment for machines, tools			
-office maintenance costs	14,375.00	14,375.00	16,572.93
-water quality testing kits	37,500.00	35,500.00	33,957.31
3.5 Other (please specify)			
<b>Subtotal Equipment and supplies</b>	<b>227,832.50</b>	<b>225,832.00</b>	<b>217,760.19</b>
<b>4. Local office</b>			
4.1 Vehicle costs			
-vehicle running costs PMT	102,603.00	112,603.00	109,391.29
-motorcycle running costs municipalities (3)	-	-	-
-vehicle running costs municipalities (3)	85,500.00	84,039.48	84,053.58
4.2 Office rent			
-installation/renovation cost PMT-office	25,000.00	27,500.00	26,732.09
4.3 Consumables - office supplies			
-consumables-office supplies PMT	19,757.00	35,757.00	34,701.20
-consumables-office supplies 3 municipalities	-	-	47.16
4.4 Other services (tel/fax, electricity/heating, maintenance)	-	-	-
-tel/fax, electricity, maintenance PMT	21,363.17	30,064.00	25,539.78
<b>Subtotal Local office</b>	<b>254,223.17</b>	<b>289,963.48</b>	<b>280,465.10</b>
<b>5. Other costs, services</b>			
5.1 Publications			
-capitalisation documents and brochures (prod.and dissem.)	12,000.00	12,000.00	11,528.85
5.2 Studies, research			
-inventorise existing and planned WS systems			



Expenditures	Initial Budget in €	Budget per Addendum	EXPENDITURE REPORT
	4,500.00	4,500.00	4,487.50
-inventorise sanitation facilities and services	4,500.00	4,500.00	4,487.50
-baseline study (national consultant+workshop)	9,000.00	15,397.17	9,787.56
-design and set-up mgt. structures WSS (national consult.+workshop)	9,000.00	14,000.00	10,807.91
-investigation and Design Sanitation Pilot Facilities	22,500.00	27,500.00	27,548.31
5.3 Auditing costs	50,000.00	40,000.00	40,405.62
5.4 Evaluation costs	60,000.00	67,960.52	56,062.73
5.5 Translation, interpreters			
5.6 Financial services (bank guarantee costs etc.)	1,400.00	4,112.61	3,540.90
5.7 Costs of conferences/seminars			
-seminar on community managed water supply			-
publicity, television,....	1,000.00	951.00	-
rent conference room/meals (50 pers)	3,000.00	5,000.00	5,364.13
documentation	600.00		-
resource person	300.00		-
-seminar on community managed sanitation services			-
publicity, television,....	1,000.00	-	-
rent conference room/meals (50 pers)	3,000.00	6,000.00	7,479.26
documentation	600.00	1,304.00	-
resource person	300.00		-
5.8 Visibility actions			-
-production of T-shirts	5,000.00	5,000.00	4,359.48
-production of brochures on the project results	3,000.00	3,290.22	3,290.22
<b>Subtotal Other costs, services</b>	<b>190,700.00</b>	<b>211,515.52</b>	<b>189,149.97</b>
<b>6. Other</b>			<b>0.00</b>
6.1 Organisation Local concertation: 3 municipalities, 3X/year/1 day (each 15 pers)/3 municipalities together 1X/year (30 pers) for 1 day			-
rent conference room/meals	1,500.00	-	-
allowances participants	16,500.00	13,084.67	13,084.65
6.2 Training COWSSOs and other actors on maintenance/ reparation/ management (per 5 systems/45 WSSsystemsX 4 trainings x 15 participants x 3 days)	-		-
rent conference room/meals	34,800.00	150,000.00	172,406.24
documentation	3,480.00	30,000.00	-
resource person	7,200.00	3,357.29	-
6.3. Community training on hygiene and sanitation, WSS, O&M, water policy	57,200.00	41,684.16	43,869.74

Expenditures	Initial Budget in €	Budget per Addendum	EXPENDITURE REPORT
6.4.Training of local organisations for social engineering in WSS, EIA and socio-ecopolicy (6 trainings of 3 days/year, and recyclage 6 trainings of 2 days, 5 local organisations and 2 pers/organisation+municipal staff: 3 pers/municipality)	-		-
rent conference room/meals	13,500.00	50,000.00	51,146.62
documentation	3,000.00	8,111.97	-
resource person	-	-	-
6.5. Organisation exchange on approach and best practices with other WS-actors in Dar es Salaam (MoW, DAWASA, CWSS, WaterAid, Plan, Care,...)	-		-
rent conference room/meals	3,000.00	4,277.91	4,362.60
6.6. External backstopping on social engineering component (O&M, EIA, hygiene/sanitation)	100,000.00	100,000.00	99,694.48
6.7. Equipment for set up sanitation services by COWSSO (shovels, helmets, gloves, etc)	54,120.00	14,120.00	12,713.63
6.8. Publication and dissemination WSSpolicy and IWRM	375.00	375.00	255.68
6.9. Tools (manuals, figurines,...) on hygiene and sanitation	4,400.00	6,000.00	5,561.65
6.10. Set up sanitation services (latrine-emptying, maintenance drainage,...)	67,500.00	42,300.00	41,722.88
6.11. Training on monitoring water quality (5 persons/training for 5 days/3 times)			-
rent conference room/meals	7,500.00		-
documentation	7,500.00	18,750.00	19,224.30
resource person	3,750.00		-
6.12. Local social engineering organisations (1organisation/3 WSSsystem/year=total 5 organisations)	300,000.00	356,000.00	347,299.63
6.13 Training and capacity building (Municipal, Wards, and Mtaa level)	-		-
Rent, conference room/meals	22,500.00	54,800.00	56,947.01
Allowances participants	15,000.00	-	-
Documentation	15,000.00	-	-
Resource person	7,500.00	-	-
6.14 Diverse consultation (legal advice, start up, tendering)	30,000.00	30,000.00	28,856.77
<b>Subtotal Other</b>	<b>775,325.00</b>	<b>922,861.00</b>	<b>897,145.88</b>
<b>7. Subtotal direct eligible costs of the Action (1-6)</b>	<b>2,744,230.67</b>	<b>3,150,472.00</b>	<b>3,059,062.56</b>
<b>9. Subcontracting related to construction activities</b>			
<b>9.1 Works</b>			
9.1.1 Construction of Water Supply Systems	-		-
9.1.1.1 Drilling of 10 production boreholes	150,000.00	152,000.00	151,999.99
9.1.1.2 Construction of water schemes (tank and networks)	1,689,000.00	2,359,080.34	2,397,780.89
9.1.2 Pilot Sanitation Infrastructure	1,200,000.00	336,200.00	336,142.83
9.1.3Work medium scale drainage and WW infrastructure	675,000.00	338,000.00	337,999.91
9.1.1.(b) Construction of water tanks Hondogo/Delini/Kib. And Gongo la mboto	-	87,000.00	90,208.17
9.1.2 (b) Protection of water supply system area	-	29,000.00	30,596.13

<b>Expenditures</b>	<b>Initial Budget in €</b>	<b>Budget per Addendum</b>	<b>EXPENDITURE REPORT</b>
08 9.1.2b work pilot sanitation - Rehabilitation of existing primary school toilets	-	100,000.00	<b>99,243.09</b>
09 9.1.1.2b Work construction of water scheme by task force Kingugi, Mburahati barafu, Ugombolwa, Kibonde Maji B, Kichemchem	-	439,000.00	<b>441,704.20</b>
9.1.1.2.3 Standby Generators - NEW		80,000.00	<b>75,946.60</b>
9.1.1.2 Improvement/extensions of water supplies and sanitation facilities - NEW		100,000.00	<b>44,127.64</b>
9.1.1.2 Improvement of electric supplies for remaining schemes - NEW		30,000.00	<b>29,732.48</b>
<b>Subtotal Subcontracted Works</b>	<b>3,714,000.00</b>	<b>4,050,280.34</b>	<b>4,035,481.93</b>
<b>9.2 Supplies</b>			
<b>Subtotal Subcontracted Supplies</b>			<b>0.00</b>
<b>9.3 Services</b>			<b>0.00</b>
9.3.1 Investigation, Design and tender document preparation (water supply) infrastructure works	194,640.00	188,840.00	<b>188,790.97</b>
9.3.1.2 Test borehole drilling (water Supply)	143,000.00	146,171.70	<b>146,171.68</b>
9.3.1.3 Work supervision (Water supply)	150,000.00	221,323.00	<b>221,323.01</b>
9.3.2 Consultant office for Design of sanitation infrastructure and services	-	-	-
9.3.3 Design of sanitation infrastructure and services	30,000.00	30,000.00	<b>29,696.61</b>
9.3.4 Design medium scale sanitation infrastructure	27,000.00	25,882.96	<b>25,882.96</b>
9.3.5 Supervision of sanitation infrastructure works	150,000.00	139,900.00	<b>139,900.00</b>
<b>Subtotal Subcontracted Services</b>	<b>694,640.00</b>	<b>752,117.66</b>	<b>751,765.23</b>
<b>Subtotal Subcontracting (9.1+9.2+9.3)</b>	<b>4,408,640.00</b>	<b>4,802,398.00</b>	<b>4,787,247.16</b>
<b>10. Total (7+9)</b>	<b>7,152,870.67</b>	<b>7,952,870.00</b>	<b>7,846,309.72</b>
<b>10.a.Partie BEL</b>		<b>4,490,450.00</b>	<b>4,430,026.47</b>
<b>10.b.Partie EU</b>		<b>3,462,420.00</b>	<b>3,416,283.25</b>
<b>11.EU Management fee</b>	<b>185,439.00</b>	<b>185,439.00</b>	<b>182,954.31</b>
<b>Total eligible costs of the Action (10+11)</b>	<b>7,338,309.67</b>	<b>8,138,309.00</b>	<b>8,029,264.03</b>

### 3 Personnel of the intervention

Personnel (title and name)	Gender (M/F)	Duration of recruitment (start and end dates)
1. National personnel put at disposal by the Partner Country:	F	Project Coordinator : Eng. Mary Mbowe (1 <sup>st</sup> June 2008 to 28 <sup>th</sup> February 2012)
	M	Project Coordinator : Eng. Zephania Mihayo (28 <sup>th</sup> February 2012 to 31 <sup>st</sup> December 2015)
	M	Temeke Municipal Water Engineer : Eng. Primy Damasi ( 1 <sup>st</sup> June 2008 to 31 <sup>st</sup> December 2015)
	F	Ilala Municipal Water Engineer: Eng. Selestina John (1 <sup>st</sup> June 2008 to 31 <sup>st</sup> December 2015)
	M	Kinondoni Municipal Water Engineer: Eng. Gonzalves Rutakyamirwa (1 <sup>st</sup> October 2009 to 31 <sup>st</sup> May 2010)
	M	Kinondoni Municipal Water Engineer: Eng. Emanuel Mwampashi ( 1 <sup>st</sup> June 2008 to 31 <sup>st</sup> September 2009 and 1 <sup>st</sup> June 2010 to 31 <sup>st</sup> December 2015)
	M	DAWASA Community Water Engineer : Eng. Charles Makoye. (periodically)
2. Locally recruited expert by BTC:	M	National Technical Advisor : Eng Praygod Mawalla (1 <sup>st</sup> June 2008 to 31 <sup>st</sup> December 2015)
	M	National Technical Advisor-Social : Manjolo D Kambili (1 <sup>st</sup> October 2011 to 31 <sup>st</sup> August 2015)
	F	Acting National Technical Advisor-Social : Angela Lyimo (1 <sup>st</sup> September 2015 to 31 <sup>st</sup> December 2015)

3. Training personnel, locally recruited:	F	Field Coordinator-Social : Angela Lyimo (15 <sup>th</sup> August 2012 to 31 <sup>st</sup> August 2015)
	M	Engineering Assistant: Eng. Najib Asumbwile (Sept. 2009 – May 2010)
4. International Personnel (outside BTC):	M	Short Term Consultant : Eng. Roger Andersson (1 July 2013- 31 <sup>st</sup> December 2015 - Total time 13.5 months)
5. International experts (BTC):	M	International Technical Advisor-Social: Pierre-Yves Dubois 1 <sup>st</sup> October 2008 to 30 <sup>th</sup> June 2011)
	M	International Technical Advisor: Eng. Roger Andersson 1 <sup>st</sup> February 2012 to 31 <sup>st</sup> April 2013)

## 4 Public procurement

S/No.	Tender Nr	Name of the tender	Brief description of the tender	Kind of tender	Currency	Amount (Estimated)	Amount Euros (Realized/actual)	Execution mode	Budget codes(s)	Supplier(s)	Award procedure	Progress of tender	Remarks	Date(s) / period(s) Preparation of Tender	Date(s) / Period(s) Publication	Date(s) / Period(s) Awarding	Date(s) / Period(s) Execution from	Date(s) / Period(s) Payment
1	2008/05	Baseline survey of the Social-Cultural issues regarding water and sanitation	Baseline study	Services	Euro	6 000	6 000	Joint management	A_05_04	WATSANET	Simplified procedure with publicity	Completed	None	October 2008	16/10/08	November 2008	22/12/2008	02/02/2009, 11/03/2009 and 01/06/2009
2	2008/04	Baseline survey for Water Supply in DSM - Lot 1	Baseline study	Services	Euro	8 975	8 975	Joint management	A_05_02	DON Consult	Simplified procedure with publicity	Completed	None	October 2008	13/10/08	November 2008	12/12/2008	02/02/2009 and 27/02/2009
		Baseline survey for Sanitation Facilities and services in DSM - Lot 2						Joint management	A_05_03	DON Consult	Simplified procedure with publicity	Completed	None	October 2008	13/10/09	November 2009	12/12/2009	02/02/2009 and 27/02/2009
3	127320/D/SER/TZ	Consultancy Services for Water Supply for 14 selected areas of DSM	Investigation, design and supervision of water supply scheme	Services	Euro	405 000	405 000	Joint management	A_08_01 9.2.1.	-	International tender procedure	Cancelled	None	23/08/2008	23/08/2008	-	-	-
4		Identification of potential Financial contribution to sanitation activities per target area - Investigation on financial and technical feasible options in sanitation facilities and service per target area.		Services	Euro	20 000	20 000	Joint management	A_05_06	DON Consult	Simplified procedure	Completed	None	February 2009	NO PUBLICATION	6/04/2009	29/04/2009	20/01/10 and 01/04/10
5	2009/07	Expenditure verification with regard to financial report for the Grant contract	Audit	Services	Euro	9 300	9 300	Own management	A_05_07	MEKONSULT	Simplified procedure	Completed	None	May 2009	NO PUBLICATION	9/07/2009	20/07/2009	30/09 and 01/12/2009



6		Analyse to best available practices on water and sanitation facilities/services and propose options/strategies to create efficient and effective management structures on local level	Study - best available practices on water and sanitation facilities/services	Services	Euro	6 000	6 000	Joint management	A_05_04	WEPMO	Simplified procedure	Completed	None	March 2009	NO PUBLICATION	29/07/2009	17/08/2009	1/10/09 and 1/06/10
7	TAN09	Purchase of cars for the 3 municipalities	Purchase of vehicles	Supply	Euro	60 000	60 000	Joint management	A_03_03	CMC Automobiles Ltd	Simplified procedure	Completed	None	December 2009	03/12/2009	February 2010	February 2010	09/04/10
8	-	Purchase of water testing kits	Purchase of water testing kits	Supply	Euro	45 000	45 000	Joint management	A_03_12	Wagtech International Ltd	Simplified procedure	Completed	None	December 2009	NO PUBLICATION	February 2010	February 2010	23/02/10
9	2009/01	Social engineering - Community mobilisation for the Management of Water Supply and Sanitation Services, Kinondoni Municipal council	Social engineering - Community mobilisation - Creation of COWSSO - Capacity Building - Traing - Monitoring & Evaluation	Services	Euro	75 000	73 800	Joint management	A_06_12	WEDECO	Simplified procedure with publicity	Completed	None	November 2008	17/12/2008	7/05/2009	22/06/2009	01/07/2009
		Social engineering - Community mobilisation for the Management of Water Supply and Sanitation Services, Ilala Municipal council				75 000	74 418	Joint management	A_06_12	ACHRID Ltd	Simplified procedure with publicity	Completed	None	November 2008	17/12/2008	7/05/2009	15/07/2009	01/07/2009
		Social engineering - Community mobilisation for the Management of Water Supply and Sanitation Services, Temeke Municipal council				75 000	72 150	Joint management	A_06_12	EWAREMA Consult Ltd	Simplified procedure with publicity	Completed	None	November 2008	17/12/2008	7/05/2009	15/07/2009	01/07/2009

10	4 of 2009	Community water supply for people living in the peri-urban and low income settlements of Dar es Salaam	Investigation, design and tender documents preparation of water supply scheme	Services	Euro	146 000	144 280	Joint management	A_08_01 9.2.1.1.	COWI Ltd	Simplified procedure	Completed	None	June 2009	NO PUBLICATION	31/07/2009	15/08/2009	07/09/2009
	4 of 2009	Community water supply for people living in the peri-urban and low income settlements of Dar es Salaam	Addendum for the Investigation, design and tender documents preparation of water supply scheme	Services	Euro	22 720	22 720	Joint management	A_08_05	COWI Ltd	Open tender							
11	TAN 43	Drilling of test boreholes in peri-urban Dar es Salaam	Test boreholes drilling	Works	Euro	140 000	136 000	Joint management	A_08_01 9.2.1.2.	Al Thai Water Wells Drilling Company	Simplified procedure	Completed	None	September 2009	NO PUBLICATION	19/10/2009	06/11/2009	31/12/09, 14/05/10, 24/06/10 and 30/09/10
12	TAN 44	Technical Referee on the Social engineering component of the project	External back-up	Services	Euro	72 850	72 850	Own management	A_06_06	GITEC Consult GMBH	Simplified procedure	Completed	None	August 2009	NO PUBLICATION	30/10/2009	07/12/2009	05/01/10
13	BXL 861	Mid-term review	Mid-term evaluation of the project	Services	Euro	30 000	21 860	Own management	A_05_08	Hydro R&D Int. Sprl	Simplified procedure	Completed	None	August 2010	NO PUBLICATION	07/10/2010	16/11/2010	-
14	TAN 47	Design and Supervision of works of water supply schemes	Design and Supervision of works of water supply schemes	Services	Euro	125 220	125 220	Joint management	A_08_01 9.2.1.3.	Norplan Tanzania Ltd	Simplified procedure	Completed	None	August 2010	NO PUBLICATION	November 2010	june 2013	September, 2015
15	TAN 48	Design of sanitation infrastructure and services	Design of sanitation infrastructure and services	Services	Euro	67 705	67 705	Joint management	A_08_02, A_08_03, D_01_01 & D_01_02	EEPCA & BORDA	Simplified procedure	Completed	None	August 2010	NO PUBLICATION	November 2010	24/02/2011	= 60% 40 623 € 03/2011 last payment 40% in 05/2012

16	TAN 49	Supervision of construction of sanitation infrastructures works, drainage, solid waste and training	Supervision of construction sanitation infrastructures works + training	Services	Euro	150 000	129 900	Joint management	A_08_04	EEPCA & BORDA	Simplified procedure	Completed	None	August 2011	NO PUBLICATION	March 2012	03/2012	from 03/2012 until September 2014
17	TAN 50 lot 1	Drilling of 5 Production Boreholes	Drilling of 5 Production Boreholes	Works	Euro	75 500	38 418	Joint management	A_07_04 9.1.1.1	PW Builders Co. Ltd (Lot1)	Simplified procedure	Completed	None	October 2010	NO PUBLICATION	June 2011	June 2011	12/2011
18	TAN 50 lot 2	Drilling of 5 Production Boreholes	Drilling of 5 Production Boreholes	Works	Euro	75 500	34 611	Joint management	A_07_04 9.1.1.1	Make Engineering & Water Works Ltd (Lot 2)	Simplified procedure	Completed	None	October 2010	NO PUBLICATION	June 2011	June 2011	12/2011
19	TAN 51	Supervision of drilling production boreholes	Supervision of production boreholes	Services	Euro	17 400	16 783	Joint management	A_08_04	M and M (T) Ltd	Simplified procedure	Completed	None	February 2011	NO PUBLICATION	June 2011	June 2011	12/2011
20	TAN 52	Expenditure verification with regard to financial report for the Grant contract	Audit Financial year 2009/2011	Services	Euros	10 000	5 963	Own management	A_05_07	Mekonsult	Simplified procedure	Completed	None	June 2011	NO PUBLICATION	November 2011	December 2011	January 2012
21	TAN 53	Construction works for water schemes 4 lots (lots 1, 2, 3, 4)	Construction of water supply schemes	Works	Euro	2 329 608	2 324 359	Joint management	A_07_01	Lukolo Co. Ltd & Oriental Construction Co. Ltd	national open tender procedure	Completed/ Retention period	None	November 2011	publication December 2011	april 2012	june 2012	june 2012 - Sept 2015
22	TAN 54	Construction works for latrines	Construction of infrastructures	Works	Euro	485 000	322 042	Joint management	A_07_02	Lukumbulu Investment Co. Ltd	national open tender procedure	Completed	None	Not yet	PUBLICATION 02/2012		July 2012	-

23	TAN 55	Construction works of sorting facilities for solid waste	Construction of infrastructures	Works	Euro	150 000.00		Joint management	D_01_03	-	Simplified procedure	Cancelled	None	Not yet	PUBLICATION 02/2012		July 2012	-
24	TAN 56	drainage works for 2 rivers	cleaning, transportation, embankment	Works	Euro	675 000	338 640	Joint management	A_07_03	-	national open tender procedure	Completed	None	Not yet	PUBLICATION 02/2012		July 2012	-
25	TAN 57	Social engineering services (12 months)	Social engineering - Community mobilisation - Capacity Building - Training - Monitoring and Evaluation	Services	Euro	76 000	24 300	Joint management	A_06_12	Angela H. Lyimo	Simplified procedure	Completed	None	In progress	PUBLICATION 02/2012	August 2012	1st Sept 2012	March, 2014
26	TAN 61	Construction of Kingugi Water Scheme- Temeke Municipal Council	Drilling of boreholes and Civil Works in Kingugi - DSM	Works	Euro	20 000	24 300	Joint management	A_07_01	IFANGO	Simplified Procedure	Completed	None	June 2012	NO PUBLICATION	August 2012	Sept 2012	-
27	TAN 62	Construction of Water Tank at Gongo la Mboto - Dar es Salaam	Construction of Water Tank at Gongo la Mboto -Dar es Salaam	Works	Euro	30 000	24 300	Joint management	A_07_06	KIM Investment		Completed	None		Open tender			
28	TAN 63	Construction of Water Tank at Delini/Hondogo/Kibwegere in Dar es Salaam	Construction of Water Tank at Delini/Hondogo/Kibwegere in Dar es Salaam	Works	Euro	56 235	56 235	Joint management	A_07_06	KIM Investment	Simplified procedure	Completed	None	September 2012	NO PUBLICATION	October 2012	18th October 2012	
29	TAN 64	Construction of Water Tank at Mburahati-Barafu in Dar es Salaam	Construction of Water Tank at Mburahati-Barafu in Dar es Salaam	Works	Euro	26 938	26 728	Joint management	A_07_06	KIM Investment	Simplified procedure	Completed	None		NO PUBLICATION		19th December 2012	

30	TAN 65	Construction of Water Tank at Kibondemaji B in Dar es Salaam	Construction of Water Tank at Kibondemaji B in Dar es Salaam	Works	Euro	26 729	26 729	Joint management	A_07_06	KIM Investment	Simplified procedure	Completed	None		NO PUBLICATION	January 2013	February 2013	
31	TAN 66	Expenditure verification with regard to financial report for the Grant contract	Expenditure verification with regards to financial report for the Grant contract	Services	Euro	10 000	10 000	Joint management	A_07_06	Mekonsult	Simplified procedure	Completed	None	March 2013	NO PUBLICATION	April 2013	April 2013	
32	TAN	Rehabilitation of Existing Water Tank at Kwembe Dar es Salaam	Rehabilitation of Existing Water Tank at Kwembe Dar es Salaam	Services	Euro	10 000	10 000	Joint management	A_07_07	KIM Investment	Simplified Procedure	Completed	None	April 2013	NO PUBLICATION	May 2013	May 2013	
33	TAN	Construction of Pump House at Mburahati Barafu	Construction of Pump House at Mburahati Barafu	Services	Euro	10 000	9 145	Joint management	A_07_06	KIM Investment	Simplified Procedure	Completed	None	February 2013	NO PUBLICATION	April 2013	April 2013	
34	TAN	Construction of Fence Wall around Muhalian Primary School Latrines	Construction of Fence Wall around Muhalian Primary School Latrines	Services	Euro	25 000	24 351	Joint management	A_07_08	KIM Investment	Simplified procedure	Completed	None	July 2013	NO PUBLICATION	August 2013		
35	TAN	Creating awareness for the community about water quality	Creating awareness for the community about water quality	Services	Euro	3 167	3 167	Joint management		Mrs Kazinja	Simplified procedure	Completed	None	July 2013	No publication	August 2013	September 2013	September, October 2013
36	TAN	Thrust boring across Dar es Salaam roads	Thrust Boring across Dar es Salaam Roads	Services	Euro	46 782	46 782	Joint management	A_07_05	Hematec Investment	Simplified procedures	Completed	None	December 2013	NO PUBLICATION	January 2014	January 2014	January, March 2014
37	TAN	Expenditure verification with regard to financial report for the Grant contract April 2013-December 2013	Expenditure verification with regards to financial report for the Grant contract	Services	Euro	3 500	3 500	Joint management	A05_07	MEKONSULT	Simplified Procedures	Completed	None	March 2014	NO PUBLICATION	April 2014	April 2014	May 2014

38	TAN	Tender for Supply of 3 Generators to run water supply schemes in Dar es Salaam	Tender for supply of 3 generators to run water supply schemes in Dar es Salaam	Services	Euro	65 000	65 000	Joint management	A_07_05	Car and General	Simplified procedures	Completed	None	May 2014	NO PUBLICATION	June 2014	August ,2014	August, 2014
39	TAN	Tender for Social Engineering services for 12 months July to June 2015	Social Engineering for Community capacity building - training - Monitoring and Evaluation	Services	Euro	30 000	30 000	Joint management	A_06_13	Angela H. Lyimo	Simplified procedures	In progress	In progress	jul-14	NO PUBLICATION	July	jul-14	September, 2014
40	TAN	Tender for the procurement of Water pump and Generator for Gongolamboto Water scheme	Tender for the procurement of Water pump and Generator for Gongolamboto Water scheme	Works	Euro	45 000	45 000	Joint management	A_07_05	Merry water	Simplified procedures	Completed	None	aug-14	NO PUBLICATION	August	August	September, 2014
41	TAN	Tender for procurement of sanitation equipment	Tender for procurement of sanitation equipment	Supply	Euros	36 000.00	36 000.00	Joint management	A-06_10	Sirito Investment	Simplified procedures	Completed	None	Sept-2014	NO PUBLICATION	October-14	October-14	October-14
42	TAN	Training consultancy on financial management	Training consultancy on financial management	Services	Euros	30 000.00	30 000.00	Joint management	A_06_02	Camie & Business Management Consultancy (TZ),	Simplified procedures	Completed	None	June,2014	NO PUBLICATION	July,2014	July,2014	October,2014
43	TAN	Sanitation baseline study	Sanitation baseline study	Services	Euros	20 000.00	9 900.00	Joint management	A_05_04	Ms Juliet mangowi	Simplified procedures	Completed	None	September, 2014	NO PUBLICATION	September, 2014	September, 2014	September, 2014
44	TAN	Legal consultancy for registration of COWSSOs	Legal consultancy for registration of COWSSOs	Services	Euros	10 000.00	10 000	Joint management	A_06_02	Mr.Henry Mgonja	Simplified procedures	Completed	None	January,2014	NO PUBLICATION	April,2014	April,2014	October,2014
45	TAN	Procurement of 15 Computers and Printers	Procurement of 15 Computers and 15 printers for WCAs	Supply	Euros	16800	16800	Joint management	A_06_02	Simply Computers	Simplified procedures	Completed	None	41883	NO PUBLICATION	October, 2014	42005	



46	TAN	Procurement of sanitation emptying facilities	As the project constructed sanitation facilities on the target areas	Supply	Euros	36.000	36000	Joint management	A-06_10	Sirito Investment		Completed	None	okt-14	NO PUBLICATION	okt-14	okt-15	nov-14
47	TAN	Setup of sanitation facilities	Procurement of sanitation tools	Supply	Euros	11000	11000	Joint management	A-06_10		Simplified Procedure	Completed	None	May 2015	NO PUBLICATION	May 2015	May 2015	June 2015
	Key																	
			ongoing															
			completed															

## 5 Public agreements

No Public Agreement.

## 6 Equipment

INVENTORY LIST DECEMBER 2015					
S.No	QTY	Item	REGISTRATION	OFFICE	HANDED TO
1	1	Visitors' chairs	BTC-EU/MYP/REC/CHAIRS/001-002	RECEPTION	MOW
2	1	1 Small table with drawer	BTC-EU/MYP/REC/W.DESK/005-006	RECEPTION	MOW
3	1	Writing table	BTC-EU/MYP/REC/W.DESK/005-006	RECEPTION	MOW
4	1	1 Secretary chair	BTC-EU/MYP/REC/SEC.CHAIR/002	RECEPTION	MOW
5	1	1 Open shelf	BTC-EU/MYP/REC/BOOKSHELF/015	RECEPTION	MOW
6	1	1 small fridge – LOGIK	BTC-EU/MYP/REC/FRIDGE/001	RECEPTION	MOW
7	1	1 small table without drawers	BTC-EU/MYP/REC/TABLE/001	RECEPTION	MOW
8	1	1 Fan – DOLPHIN	BTC-EU/MYP/REC/WALL FAN/001	RECEPTION	MOW
9	2	2 Fire extinguishers	BTC-EU/MYP/REC/FIRE EXT./001-002	RECEPTION	MOW
10	1	1 Reception Phone - PANASONIC	BTC-EU/MYP/REC/TEL/001	RECEPTION	MOW
11	1	1 laptop – ACER	BTC-EU/MYP/ACER LPTP/002	RECEPTION	MOW
12	2	D-link	BTC-EU/MYP/REC/D-LINK/001-002	RECEPTION	MOW
13	1	1 Modem	BTC-EU/MYP/REC/MODEM/001	RECEPTION	MOW
14	1	1 Internet SB Guard	BTC-EU/MYP/REC/SB GUARD/001	RECEPTION	MOW
15	1	1 Automatic voltage Regulator	BTC-EU/MYP/REC/AVR/005	RECEPTION	MOW
18	1	1 Notice Board	BTC-EU/MYP/REC/NOTICEBOARD/007	RECEPTION	MOW
19	1	1 Exchange Changeover Switch	BTC-EU/MYP/REC/EXC.SWITCH/001	RECEPTION	MOW
20	1	1 Main Switch	BTC-EU/MYP/REC/MAIN SWITCH/001	RECEPTION	MOW
21	1	1 Sony Camera	BTC-EU/MYP/REC/CAMERA/001	RECEPTION	MOW

22	1	1 GPS	BTC-EU/MYP/REC/GPS/001	RECEPTION	TEMEKE
23	1	External Hard Drive	BTC-EU/MYP/REC/EXT.HDRIVE/001-002	RECEPTION	DAWASA
	1	External Hard Drive	BTC-EU/MYP/REC/EXT.HDRIVE/001-003	RECEPTION	DAWASA
25	1	Photocopy-scan-printer machine HP laserjet 1536dnf	BTC-EU/MYP/REC/COPIER/002	RECEPTION	DAWASA
26	1	1 small table for copier	BTC-EU/MYP/REC/CTABLE/001	RECEPTION	MOW
27	1	1 Printer -HP LaserJet P2015	BTC-EU/MYP/PC/HP/PRINTER/004	RECEPTION	MOW
28	1	1 Executive Chair		NTA OFFICE	
29	1	1 Executive table	BTC-EU/MYP/NTA/W.DESK/004	NTA OFFICE	MOW
30	2	2 Visitor's Chairs	BTC-EU/MYP/NTA/CHAIR/004-005	NTA OFFICE	MOW
31	2	2 Open shelves	BTC-EU/MYP/NTA/BOOKSHELF/012-013	NTA OFFICE	MOW
33	1	1 Telephone handset	BTC-EU/MYP/NTA/TEL/006	NTA OFFICE	MOW
34	1	1 Notice board	BTC-EU/MYP/NTA/NOTICEBOARD/005	NTA OFFICE	MOW
35	1	1 Apple Laptop	BTC-EU/MYP/NTA/APPLE LPTP/001	NTA OFFICE	DAWASA
36	1	1 Printer HP Laserjet P2055d	BTC-EU/MYP/NTA/HP/PRINTER/003	NTA OFFICE	MOW
37	1	1 Computer table	BTC-EU/MYP/NTA/COMP.TABLE/004	NTA OFFICE	MOW
38	1	1 Automatic Voltage Regulator	BTC-EU/MYP/NTA/AVR/004	NTA OFFICE	MOW
41	1	1 LG Air conditioner	BTC-EU/MYP/NTA/LG AC/002	NTA OFFICE	MOW
42	1	1 Bookshelf	BTC-EU/MYP/VOL/BOOKSHELF/001	NTA OFFICE	MOW
43	1	1 Steel Cabinet	BTC-EU/MYP/STLCAB/002	NTA OFFICE	MOW
44	1	1 Open shelve – small	BTC-EU/MYP/NTA/B.SH/013	TA-CONSULTANT OFFICE	
45	1	1 Open shelf – Medium	BTC-EU/MYP/ITA/BOOKSHELF/007	TA-CONSULTANT OFFICE	MOW
46	1	1 Executive table	BTC-EU/MYP/PC/W.DESK/003	TA-CONSULTANT OFFICE	MOW

47	1	1 Computer table	BTC-EU/MYP/PC/COMP TABLE/003	TA-CONSULTANT OFFICE	MOW
48	1	1 Chair	BTC-EU/MYP/PC/CHAIR/006	TA-CONSULTANT OFFICE	MOW
49	1	1 Telephone handset	BTC-EU/MYP/PC/TEL/004	TA-CONSULTANT OFFICE	MOW
50	1	laptop – ACER NEW	BTC-EU/MYP/ITA/ACER LPTP/001	TA-CONSULTANT OFFICE	DAWASA
52	1	Notice board	BTC-EU/MYP/PC/NOTICEBOARD/004	TA-CONSULTANT OFFICE	MOW
53	1	Automatic Voltage Regulator	BTC-EU/MYP/PC/AVR/003	TA-CONSULTANT OFFICE	MOW
55	1	AC LG Big	BTC-EU/MYP/PC/LG/AC/001	TA-CONSULTANT OFFICE	MOW
56	1	Fan – LOGIK	BTC-EU/MYP/CONF/PED FAN/004	TA-CONSULTANT OFFICE	MOW
57	1	Conference table	BTC-EU/MYP/CONF/CONF.TABLE/001	CONFERENCE ROOM	MOW
58	4	Conference chairs	BTC-EU/MYP/CONF/CHAIRS/001-003	CONFERENCE ROOM	MOW
	4	Conference chairs	BTC-EU/MYP/CONF/CHAIRS/004-008	CONFERENCE ROOM	MOW
59	3	Open shelves	BTC-EU/MYP/CONF/BOOKSHELF/009-011	CONFERENCE ROOM	MOW
60	1	table with drawers	BTC-EU/MYP/CONF/W.TABLE/004	CONFERENCE ROOM	MOW
61	1	LG Air Conditioner	BTC-EU/MYP/CONF/LG/AC/003	CONFERENCE ROOM	MOW
62	1	Telephone handset	BTC-EU/MYP/CONF/TEL/005	CONFERENCE ROOM	MOW
63	1	Microwave		CONFERENCE ROOM	MOW
66	1	Decoder	BTC-EU/MYP/CONF/TV/001		MOW
67	1	TV set			MOW
68	1	Roll Cable	BTC-EU/MYP/CABLE/001		TEMEKE
69	1	1 HP A3printer – 7000 Series	BTC-EU/MYP/ITA/HP/A3PRINTER/001		MOW
	2	2 HP A3printer – 7000 Series	BTC-EU/MYP/ITA/HP/A3PRINTER/002		DAWASA
70	1	Paper cutter – Alpha	BTC-EU/MYP/AFO/PCUTTER/001		BTC
72	1	Binder machine – Renz	BTC-EU/MYP/AFO/BINDING/001		BTC

73	1	Stapler machine	BTC-EU/MYP/STAPLER/001		BTC
74	1	LG Air conditioner,	BTC-EU/MYP/AFO/AC/005		MOW
75	1	Visitor Chair	BTC-EU/MYP/NTA/CHAIR/003		MOW
76	1	Telephone handset	BTC-EU/MYP/AFO/TEL/002		MOW
77	1	Steel cabinet	BTC-EU/MYP/AFO/STEEL CABINET/001		MOW
78	3	Open shelves	BTC-EU/MYP/AFO/BOOKSHELF/003-005		MOW
79	1	Executive table	BTC-EU/MYP/AFO/W.DESK/001		MOW
80	1	Table with drawers	BTC-EU/MYP/AFO/TABLE/003		MOW
81	1	HP LaserJet printer P2015	BTC-EU/MYP/HP/PRINTER/002		DAWASA
82	1	laminating machine Rexel	BTC-EU/MYP/AFO/LAMINATING/001		BTC
83	1	Chair	BTC-EU/MYP/AFO/CHAIR/003		MOW
85	1	Notice board	BTC-EU/MYP/AFO/NOTICEBOARD/006		MOW
86	1	Punching machine	BTC-EU/MYP/AFO/PUNCH/001		BTC
	1	DELL LAPTOP	NOT WORKING/ CABINET		MOW
87	1	Dell Desktop computer	NOT WORKING/ CABINET		MOW
88	1	Water Testing Kit	BTC-EU/MYP/NTA/W.TESTING/001		MOW
90	2	Bookshelves	BTC-EU/MYP/VOL/BOOKSHELF/002		MOW
93	1	Automatic Voltage Regulator	BTC-EU/MYP/CONS/AVR/001		MOW
94	1	Desk top Computer	BTC-EU/MYP/REC/DESKTOP-DELL/001		MOW
95	1	Computer and flat screen	BTC-EU/MYP/REC/COMP DELL/002		MOW
96	1	Brother copier	BTC-EU/MYP/REC/COPIER/001		MOW
97	1	Table with drawers	BTC-EU/MYP/ITA/W.DESK/002		MOW
98	1	Open Shelf (Big & Small)	BTC-EU/MYP/ITA/BOOKSHELF/006		MOW
99	1	Computer Table	BTC-EU/MYP/ITA/COMP.TABLE/002		MOW
100	1	Stand fan – LOGIK	BTC-EU/MYP/ITA/PED.FAN/004		MOW
101	2	Notice boards	BTC-EU/MYP/ITA/NOTICEBOARD/002-003		MOW

102	1	Laptop – Dell	BTC-EU/MYP/ITA/ACER LPTP/002		DAWASA
	1	HP printer laserjet P2055D	BTC-EU/MYP/ITA/HP/PRINTER/003		DAWASA
103	1	Telephone Extension	BTC-EU/MYP/ITA/TEL/003		MOW
105	1	Automatic Voltage Regulator	BTC-EU/MYP/ITA/AVR/002		MOW
106	2	Chairs	BTC-EU/MYP/ITA/CHAIR/004-005		MOW
107	1	Projector Dell	BTC-EU/MYP/ITA/PROJECTOR/01		MOW
	1	Projector Dell 1210S	BTC-EU/MYP/ITA/PROJECTOR/02		DAWASA
108	2	2 tables with drawers	BTC-EU/MYP/CONS/TABLE/001-002		MOW
109	1	1 Visitor Chair	BTC-EU/MYP/NTA/CHAIR/006		MOW
110	3	chairs	BTC-EU/MYP/CONS/CHAIR/001-002		MOW
111	1	telephone handset	BTC-EU/MYP/CONS/TEL/001		MOW
112	1	Air Conditioner Window	BTC-EU/MYP/CONS/LG/AC/001		MOW
114	1	Fan	BTC-EU/MYP/CONS/PED.FAN/001		MOW
115	1	Main Switch	BTC-EU/MYP/CONS/MAINSWITCH/001		MOW
116	1	Dell Laptop	BTC-EU/MYP/DELL/LPTP/002		MOW
	1	Dell Laptop		MUNICIPAL	ILALA
	1	Dell Laptop		MUNICIPAL	TEMEKE
	1	Dell Laptop		MUNICIPAL	KINONDONI
	1	Printer P2015		MUNICIPAL	ILALA
	1	Printer P2015		MUNICIPAL	TEMEKE
	1	Printer P2015		MUNICIPAL	KINONDONI
	1	Kodak Cameras		MUNICIPAL	ILALA
	1	Kodak Cameras		MUNICIPAL	TEMEKE
	1	Kodak Cameras		MUNICIPAL	KINONDONI
	1	Water Testing Kits		MUNICIPAL	ILALA
	1	Water Testing Kits		MUNICIPAL	KINONDONI



	1	Water Testing Kits		MUNICIPAL	TEMEKE
	1	Water Testing Kits		chuo	chuo
	1	Fridge		MUNICIPAL	ILALA
	1	Fridge		MUNICIPAL	KINONDONI
	1	Fridge		MUNICIPAL	TEMEKE
	1	Air condition		MUNICIPAL	ILALA
	1	Air condition		MUNICIPAL	KINONDONI
	1	Air condition		MUNICIPAL	TEMEKE
	1	Pressure cooker		MUNICIPAL	ILALA
	1	Pressure cooker		MUNICIPAL	KINONDONI
	1	Pressure cooker		MUNICIPAL	TEMEKE
	1	AVS(Automatic Voltage Regulator)		MUNICIPAL	ILALA
	1	AVS(Automatic Voltage Regulator)		MUNICIPAL	TEMEKE
	1	AVS(Automatic Voltage Regulator)		MUNICIPAL	KINONDONI
	1	Internet handle Punching Machine		MUNICIPAL	ILALA
	1	Internet handle Punching Machine		MUNICIPAL	TEMEKE
	1	Internet handle Punching Machine		MUNICIPAL	KINONDONI
	1	GPS		MUNICIPAL	ILALA
	1	GPS		MUNICIPAL	TEMEKE
	1	GPS		MUNICIPAL	KINONDONI
	1	Sets Various Equipment		MUNICIPAL	ILALA
	1	Sets Various Equipment		MUNICIPAL	TEMEKE
	1	Sets Various Equipment		MUNICIPAL	KINONDONI
	1	Sets Various Equipment		MUNICIPAL	ILALA
	1	Sets Various Equipment		MUNICIPAL	TEMEKE

	1	Sets Various Equipment		MUNICIPAL	KINONDONI
	1	Desk Tops Computers		MUNICIPAL	ILALA
	1	Desk Tops Computers		MUNICIPAL	TEMEKE
	1	Desk Tops Computers		MUNICIPAL	KINONDONI
	1	Furniture		MUNICIPAL	ILALA
	1	Furniture		MUNICIPAL	TEMEKE
	1	Furniture		MUNICIPAL	KINONDONI
	1	Gas regulator and pipes		MUNICIPAL	ILALA
	1	Gas regulator and pipes		MUNICIPAL	TEMEKE
	1	Gas regulator and pipes		MUNICIPAL	KINONDONI
	1	Gas cylinder and cooker		MUNICIPAL	ILALA
	1	Gas cylinder and cooker		MUNICIPAL	TEMEKE
	1	Gas cylinder and cooker		MUNICIPAL	KINONDONI
	1	Writing desk, hanging pedestal		MUNICIPAL	ILALA
	1	Writing desk, hanging pedestal		MUNICIPAL	TEMEKE
	1	Writing desk, hanging pedestal		MUNICIPAL	KINONDONI
	1	Steel cabinet		MUNICIPAL	ILALA
	1	Steel cabinet		MUNICIPAL	TEMEKE
	1	Steel cabinet		MUNICIPAL	KINONDONI
	1	Sink		MUNICIPAL	ILALA
	1	Sink		MUNICIPAL	TEMEKE
	1	Sink		MUNICIPAL	KINONDONI
	1	Desk with sink		MUNICIPAL	ILALA
	1	Desk with sink		MUNICIPAL	TEMEKE
	1	Desk with sink		MUNICIPAL	KINONDONI
	1	Electric cable 50m		MUNICIPAL	ILALA

	1	Electric cable 50m		MUNICIPAL	TEMEKE
	1	Electric cable 50m		MUNICIPAL	KINONDONI
	1	Ford Pick Up D/cabin DFP 6971		MUNICIPAL	KINONDONI
	1	Ford Pick Up D/cabin DFP 6972		MUNICIPAL	ILALA
	1	Ford Pick Up D/cabin DFP 6973		MUNICIPAL	TEMEKE



## 7 Annexes

### 7.1 Original Logical Framework from TFF

Specific Objective		Indicators	Means of verification	Assumptions and risks
Provision of clean, safe and reliable water supply and sanitation in selected project areas in peri-urban settlements of Dar es Salaam improved on a sustainable basis.		<ul style="list-style-type: none"> <li>- Number of people served with water supply and sanitation facilities and services</li> <li>- Provided water quality meets Tanzanian standards</li> <li>- The installed water supply and sanitation systems are functional for at least 350 days per year</li> </ul>	<ul style="list-style-type: none"> <li>- Yearly comparison of data from base line study with periodically updated data by the PMT</li> <li>- Tanzanian water quality standards and regulations</li> <li>- Reporting by water and sanitation user associations</li> </ul>	<ul style="list-style-type: none"> <li>- Development Cooperation between Belgium and Tanzania continues.</li> <li>- Water sector is given high priority by the Government.</li> <li>- Collaboration among stakeholders in place</li> <li>- Water sources and surroundings protected.</li> <li>- Means and management are mobilised for sanitation facilities and services.</li> </ul>
Results		Indicators	Means of verification	Assumption and risks
1	Water supply systems in the selected peri-urban areas are designed and installed in a sustainable manner.	<p>Design results per target area, based on investigation results, with following criteria:</p> <ul style="list-style-type: none"> <li>- discharge &gt; 5 m<sup>3</sup>/h (potential to serve 2.000 – 2.500 people)</li> <li>- long term salinity level &lt; 3.000 µS/cm</li> <li>- satisfying Tanzanian criteria for drinking water (annex 5)</li> <li>- over-all cost of water &lt; 1TSh/l</li> </ul> <p>Water quality does not</p>	<p>Baseline study</p> <p>Investigation, design report and as built plans produced by COIDS for every single supply system.</p> <p>Approval design report by EBO for every single supply system, according to planning.</p> <p>Results of physical and bacteriological analysis, reported by COIDS for every</p>	<p>Suitable groundwater resources are available and sustainable, and if not, alternative solutions are affordable.</p> <p>Resource of sustainability is assured by water selling price covering all costs of water supply and good management of water sales incomes.</p> <p>New installed supply systems are not damaged.</p>

		deteriorate over time (indicating sustainable production rates)  Number of water supply system per target area, installed according to design criteria	supply system after installing wells. (Analysis repeated every year.)	
Activity			Means	
1.1.	Inventorise existing and planned water supply systems per target area.		PMT, Municipal Officers, community organisations	
1.2.	Investigate salinity issues and feasible drilling sites per target area.		Consultant Office, Contractor, External Backstopping Office	
1.3.	Design standard and alternative water supply systems per target area		Consultant Office, Contractor, External Backstopping Office	
1.4.	Install water supply systems: <ul style="list-style-type: none"> <li>- Standard or alternative borehole based water supply systems</li> <li>- Rehabilitate or improve existing water supply systems with potential of fresh water production.</li> <li>- Construct water storage tanks in DAWASCO served areas</li> </ul>		Consultant Office, Contractor, External Backstopping Office	
Results		Indicators	Means of verification	Assumption and risks
<b>2</b>	Sanitation facilities and services in the selected peri –urban areas are designed and installed in a sustainable manner.	Number of (pilot) facilities: toilets, wastewater drainage and solid waste facilities per target area.  Frequency of toilet emptying in served areas Frequency and duration of storm water stagnation in drained areas Frequency of solid waste collection in served areas	Baseline study  Investigation, design reports and as built plans produced by COIDS for every target area.  Monthly progress reports by COIDS to PMT.	Key stakeholders, including communities, continue to support implementation and maintenance of sanitation facilities and services.  Source of sustainability is assured by contribution as a fraction of the selling price of the water, and by other cash contributions by the beneficiaries.

		<p>Presence of technical and safety tools to facilitate sanitation services.</p> <p>Amount of shillings collected for provision and maintenance of sanitation facilities</p>	Monthly working reports by (water and) sanitation user associations on sanitation services	
Activity			Means	
2.1.	Inventorise existing and planned sanitation facilities and services per target area		PMT, Municipal Officers, community organisations	
2.2.	Identify potential of financial contribution to sanitation activities per target area, as a source of sustainability.		Consultant Office, Municipal Officials involved in the project, Community administration at ward and sub-ward levels	
2.3.	Investigate financial and technical feasibility of sanitation facilities and services per target area.		Consultant Office, Municipal Officials involved in the project, Community administration at ward and sub-ward levels	
2.4.	Design feasible sanitation pilot facilities and services.		Consultant Office, Municipal Officials involved in the project, Community administration at ward and sub-ward levels	
2.5.	Construct pilot facilities (toilets, wastewater drainage and solid waste facilities) per target area.		Contractor, Community contribution in kind Consultant Office for supervision	
2.6.	Set up sanitation services (toilet emptying, wastewater drainage maintenance and solid waste removal) per target area.		Contractor, Community contribution in kind Consultant Office for supervision	
2.7.	Procure technical and safety tools to facilitate sanitation services.		Suppliers, Consultant Office, PMT	
Results		Indicators	Means of verification	Assumption and risks
<b>3</b>	<b>Water supply systems and</b>	Number of new management systems for water and sanitation facilities and	Official documents proving the creation or registration	Communities have the assurance of having the decision power in the management of the facilities

	<p><b>sanitation facilities in the selected peri-urban areas are utilized, operated and managed in a sustainable manner.</b></p>	<p>services in place and gender specific composition of members and key functions are respected</p> <p>Community awareness on water supply and sanitation is improved:</p> <ul style="list-style-type: none"> <li>- Reduced misuse of toilet facilities (rain-flushing, "flying toilets")</li> <li>- Reduced random littering in the target areas</li> </ul> <p>Number of training programs are in place for Municipal staff, WSC/WSUA and community resource persons, on water supply and sanitation:</p>	<p>of WSC/WSUA</p> <p>Minutes of community participatory meetings at each stage of the project</p> <p>Comparison water meter data and revenue data, by water user associations and PMT on monthly basis.</p> <p>Control of technical reports on maintenance of water supply and sanitation facilities</p> <p>Monthly report on operational and financial results of water supply and sanitation services</p>	<p>Municipal authorities support management and maintenance of facilities by community organisations</p> <p>Trained resource personnel does not leave target communities.</p> <p>The involved communities remain organised and unified.</p>
Activity		Means		
3.1.	Perform baseline study on social, cultural and management issues regarding water and sanitation	PMT, staff personnel MoWLD, Municipalities, Ward and Sub-Ward		
3.2.	Design and set up efficient and effective management structures on local level	PMT, staff personnel MoWLD, Municipalities, Ward and Sub-Ward		
3.3.	Create community awareness on water and sanitation issues	PMT, contracted trainers		
3.4.	Train Municipal staff, water and sanitation user associations and community resource persons on water supply and sanitation	PMT, contracted trainers		



## 7.2 Complete Monitoring Matrix

Results / indicators	Baseline Value	End Target	End Value obtained	Comments
<b>IMPACT:</b> Living conditions of communities in peri-Urban areas of Dar es Salaam improved.				
Prevalence of cholera reduced by 50% in the 14 target areas by end of project implementation	0%	0%	0%	No outbreak of cholera has been reported since start of the implementation.
The time to get water is reduced by 50% in the 14 target areas by end of project implementation	2 hrs	30 min	<30 min	
The price paid for drinking water is less than 1 Tshs/l in all seasons for all people in the 14 target areas.	15Tshs/l	1 Tsha/l	2.5 Tshs/l	Completed water schemes are selling at a price of 2.5 Tshs/l taking into account the actual costs of installation and O&M
<b>OUTCOME:</b> Provision of clean, safe and reliable water supply and sanitation in selected project areas in peri-urban settlement of Dar es Salaam improved on a sustainable manner.				
At least 170,000 people are permanently served 25l/Cap/day with water supply	None	170,000	> 200,000	All schemes have been completed and handed over to the communities in the respective areas.
Number of people with permanent access to some form of basic sanitation facilities	80%	100%	80%	The existing community have some basic sanitation. Demonstration pilot latrines in this project will instil the community to emulate. Constructions of sanitation facilities have been completed including rehabilitation of school latrines.
Provided water quality meets Tanzania standards	None	100%	100%	Water supplied meets Tanzanian quality standards.
The installed water and sanitation systems are functional for at least 350 days per year	None	100%	15 water schemes & 138 stances	Reliable power supply to run some of the water schemes is a problem which may affect realization of this indicator
<b>OUTPUT 1:</b> 15 water supply schemes in the targeted areas are designed and installed in a sustainable manner giving access to adequate and safe drinking water to 170,000 persons				
Design results per target area, based on investigation results, with following criteria:				
✓ Discharge > 5m <sup>3</sup> /h (potential to serve 2,000 – 2,500 people)	none	-		The project constructed water schemes that are discharging water ranging from 5 m <sup>3</sup> /h to 60m <sup>3</sup> /h serving <b>more than</b> 2,500 people per scheme.
✓ Long term salinity level <3000uS/cm	<3000 uS/cm	<3000 uS/cm	<3000 uS/cm	This is a MoW standard otherwise the source would have been abandoned.

✓ Satisfying Tanzania criteria for drinking water	Data available with MoW	Reach MoW standard	Reach MoW standard	The project is supplying water that is within MoW standard
✓ Over-all costs of water < 1Tshs/l	15Tshs/l	-	2.5 Tshs/l	Completed water schemes are selling at a price of 2.5 Tshs/l taking into account the actual costs of installation and O&M
Number of water supply system per target area installed according to design criteria	none	15 water schemes	15 water schemes	Water supply systems have been constructed according to the design.
Water quality does not deteriorate over time (salinity production rates)	< 3000uS/cm	<3000uS/cm	<3000uS/cm	Regular monitoring to ensure it meets MoW standard. [<3000uS/cm]
<b>OUTPUT 2:</b> Hygiene practices are improved and pilot sanitation facilities and services in the selected peri-urban areas are designed and installed in a sustainable manner				
-Number of pilot facilities and services for latrine emptying functional - Maintenance of rain water storm water facilities is functional	none	21 institutions received 138 stances	21 institutions received 138 stances not including rehabilitated once.	Procurement of emptying facilities is earmarked in 2014.
Storm water does not stagnate more than two hours in drained areas	none	-	Since dredging the two river no floods have been experience in Tandale	Dredging of two rivers in Tandale ward has significantly controlled storm water stagnation and pit flushing practices is minimized.
No pit flushing during rainy season where toilet emptying services are in place			Not known yet.	Gulpa emptying facilities have been introduced in the three municipalities using CBOs
Hygiene practices are adopted hand washing, reduces misuse of toilet facilities (rain flushing, flying toilet), uncontrolled littering.	None	-	Not known yet.	Mass awareness building on hygiene practices is an ongoing process.
<b>OUTPUT 3:</b> Community owned water supply and sanitation organizations (COWSSO) manage, operate and maintain the water supply and sanitation facilities and services in an efficient, transparent and sustainable and are accountable to the users.				
The installed water supply and sanitation systems are functional for at least 350 days per year.	None	100%	100%	Reliable power supply to run some of the water schemes is a problem which may affect realization of this indicator
95% of COWSSOs have a sound financial situation.	None	95%	66%	More financial management training to be given to COWSSOs
One year after installation of each COWSSO, 50% of adult know three responsible people	None	50%	50%	More than 50% will be achieved
<b>OUTPUT 4:</b> Innovative modals of O&M by COWSSOs and innovative technical options for water and sanitation infrastructure and services are documented and disseminated on city, national and international level and information on water supply and sanitation policies and IWRM are disseminated on decentralized level.				
At least one publication from the lessons learnt of the project is known by all WSS actors in Dar es Salaam and easily accessible on internet (via search machine)	None	1		Under preparation
COWSSOs and Municipalities disclose of all relevant water and sanitation policies and strategies and can mention at least one crucial (conflicting?) point for their management.	None	100%	100%	Water policy, Act and its regulations have been distributed to all COWSSOs for awareness creation.

## **Monitoring and evaluation**

Monitoring and evaluation was done at two levels: the project delivery level and the project output level (related to delivery level).

Project delivery monitoring is relatively simple and straightforward: it shows the level of delivery against the projected plans (results, activities and inputs). Available indicators and means of verification have been introduced in the logical framework.

To that effect, a baseline survey was carried out in the project area, coordinated by the Project Management Team, supported by the other stakeholders at the very beginning of the project (12/2008). This survey was undertaken not very comprehensive manner regarding the three project results, and cover the indicators mentioned in the logical framework. However what was obtained will provide the reference points against which the achievements of the project must be compared.

A mid-term review was performed after 30 months of project implementation. This mid-review verified the project progress, and changed the orientation of project results and changed implementation modalities please refer to MTR report.

A final evaluation was conducted at the end of the project implementation (12/2015). The evaluation mission will gather the required information through direct contact with implementers and project beneficiaries, through a review of project documents and in depth analysis through questionnaires. The PMT will facilitate this mission.

The different review missions focussed on the relevancy, impact and effectiveness, efficiency and sustainability of the project.

The PMT ensured that the reports, plans and documents indicated above are produced in accordance with the BTC requirements and formats. The reports, plans and documents were submitted to the JLPC for approval.

A financial audit was performed for each request of funds from EU.

<b>MISSIONS FROM HQ AND EU TO WATER PROJECT</b>			
<b>SN</b>	<b>Date</b>	<b>name</b>	<b>from</b>
1	29.8.2008	Guy Rijcken	EU
2	30.9.2008	Janeth Ndonde	EU
3	30.9.2008	Bilas A. Silamu	EU

4	8.10.2009	Janeth Ndonde	EU
5	17.12.2009	Bilas A. Silamu	EU
6	26.1.2010	Janeth Ndonde	EU
7	5.9.2011	Inge Janssens	BTC HQ
8	7.5.2012	Nhamo Masanganise	EU
9	20.11.2012	Koenraad Goekint	BTC HQ
10	19.2.13	Olivier Stoupy	BTC HQ
11	22.2.2013	Grégoire Douxchamps	BTC HQ
12	10.5.2013	Kalla Van Eynze	BTC HQ
13	14.6.2014	Olivier Stoupy	BTC HQ
14	14.6.2014	Inge Dumortier	BTC HQ
15	16.2.2015	Marie Lesenfants	BTC HQ
16	16.6.15	Danny Verspreet	BTC HQ
17	24.11.15	Grégoire Douxchamps	BTC HQ

### 7.3 Tools and products

METHOD/TOOLS & MATERIALS USED	EXPERIENCES GAINED
Public Address System	Used to reach the public during mobilization of the communities and appreciated.
Advertisement clips during (Radio & TV clip)	This was used during the annual Maji Week which created awareness to the public on the Maji Yetu Project and the relationship between water, hygiene and sanitation.
Information Leaflets, T-shirts, Caps & Posters	Part of project visibility and disseminated information concerning the project outputs, outcome and impact of the project.
Sign Boards	Used at all work sites to inform the public about ongoing construction works, it contained information about the Financier, Contractor, Consultant and HIV-Aids messages). Also act as visibility effect of donors to the public.
Participatory Hygiene And Sanitation Transformation (PHAST) Step by Step Guide	Tool to facilitate behaviour change on water, hygiene and sanitation. ToTs course were given at district level to facilitate community groups on behaviour change.
Child to Child (C to C) Health and sanitation education. A method used in School Water and Sanitation Guide (SWASH)	Pupils have understood the message and they freely discuss the message with parents to improve sanitation and hygiene at household level. The programme has improved the hygiene of the food vendors at the schools, emphasizing

	hand-washing practices during critical moments like hand washing after toilet and before eating.
Kibuyu Chirizi (Locally made hand-washing facility).	Has been adopted at schools and at household level to wash hand after attending toilet..
Toilet emptying facility using gulpa pump (locally made).	Provided to local CBOs in all 3 municipalities who received training for emptying household latrines in squatter areas. The request from the public to use the facilities are on increase.
Capitalisation/Lessons Learned	The project assembled all stakeholders in workshop form where the participants had the opportunity to discuss the positive and negative aspects in the project circle and how to improve them in future projects and wide sharing.

## 7.4 Visibility

This project has been financed by the EU, the Belgian Government and the Tanzanian government. In the course of implementation of this intervention, the project has well addressed Article 6 of the Grant Contract between EU and BTC which deals with visibility. The article requires the project to adhere the following key issues:

- The project to take all necessary steps to publicise the facts that EU has financed or cofinanced the action. In this case the project instructed all publications/reports submitted by consultants and contractors to bear a clause showing the financier of this project .
- The project has mentioned the Action and EU financial contribution in information given to final recipient of the Action, in its internal annual report and in any dealings with the media. The project displayed the EU logo on every report.
- Notice or publications by the project concerning the Action including those given at conference and seminars bore information that the project has received EU funding. All publications, reports in any form and by whatever medium such as internet included the following statements: "This document has been produced with the financial assistance of the European Union. The contents of this document are the sole responsibility of the project and can under no circumstance be regarded as reflecting the position of the EU".

Below are some pictures showing various displays during the implementation of the Action.





