



TANDALE CHAKULA BORA

WATER FOR
AFRICAN CITIES

BACKGROUND

Tandale Chakula Bora is a low income settlement located in Tandale Ward in the City of Dar es Salam. The settlement lies in the neighborhood of a similar unplanned settlement known as Manzese. The low income area is characterized with high population density, lack of reliable basic social services including water supply and sanitation and prone to waterborne and water induced diseases outbreaks. The socio-economic wellbeing of the suburb contradicts the meaning its name "**Chakula Bora**" which means "**a balanced diet**".



Students enjoy access to clean water. © UN-Habitat

According to the 2002 National Population Census, the current population of Tandale Ward is estimated as 69,999 living in about 19, 5370 households occupying an area of 450/km²

According to the 2002 National Population Census, the current population of Tandale Ward is estimated as 69,999 living in about 19,537 households occupying an area of 450/km². The community has a secondary school with about 1,600 students and teachers who add up to the suburb's day population.

According to the needs assessment baseline study conducted by a consultant hired by Dar es Salaam Water and Sewage Authority (DAWASA) and UN-Habitat, it was established that there is need for training for both the school and the neighboring community. Reliable water supply services stands to be the first priority in front of other basic services. In spite of the fact that the area is covered

by the conventional water supply network, water supply to the area has always been erratic due to the fact demand for the precious liquid in the City of Dar es Salaam is far more than the actual supply at the moment.

In that understanding, DAWASA through its special unit (the Community Liaison Unit – CLU) initiated a standalone scheme for both the school and the community involving the rehabilitation of a deep borehole located in a school compound, installation of a 5000lts storage tank and a water point to lessen the acuteness of water supply scarcity. The borehole ceased operations in 2001 due to several reasons the leading ones being poor management and improper operation set-up. Under the previous arrangement,



Promoting hygiene by the use of hand washing facility in schools. © UN-Habitat

the project did not have any extension to the community outside the campus neither did it include a sanitation component leave alone the fact that the management structure didn't consider interests of both parties for it was entirely managed by the community and hence was biased to the school. The set-up resulted in a series of operational and management conflicts and eventually the project ceased operations.

The aforementioned Tandale Chakula Bora Community situation has been adversely affecting the social-economic wellbeing of the residents of the community and also making the teaching and learning environment of the Manzese Chakula Bora Secondary school, which forms part of the community



Consultative meeting with women on water and sanitation needs. © UN-Habitat

un-conducive. The situation needed a timely intervention to address the problems. This has pushed DAWASA and UN-Habitat to jointly develop and implement the Tandale Chakula Bora Community/School Integrated Water Supply and Sanitation project. The project has focused on addressing the previous management issues and improvement of the existing supply set-up through rehabilitation of the existing infrastructures, extension of water supply services to the neighboring community and overhauling the sanitation facilities of the Manzese School.

The Cooperation Agreement signed between DAWASA and UN-Habitat not only included the physical construction and rehabilitation of the infrastructures, but also fo-

cused on developing a tailor made management model and conducted comprehensive capacity building and awareness programs to ensure efficiency and effectiveness in the operations and management of the facilities.

The lion's share of budget (90%) was covered by UN-Habitat with fund allocated through United Nations Development Assistance Plan (UNDAP) of Tanzania. The remaining balance (10%) was funded by DAWASA. Currently all activities under the agreement are complete and the project is now fully operational. This document provides details of the implementation process from inception to completion and is intended to be useful to various practitioners as well as a reference for future similar interventions.

THE PROJECT

Jointly implemented by DAWASA and UN-Habitat whereby the later was the main financier, Tandale Chakula Bora Integrated Community & School Water Supply and Sanitation project needed a special implementation approach due to its nature to ensure that both beneficiary groups (School and the surrounding community) are adequately covered and sufficiently served.

The Project Objectives

The overall objective of the project was to improve the livelihood of Manzese Secondary School and Tandale Uzuri Community through provision of reliable, affordable and sustainable water supply and improved sanitation services. The following are the project's specific objectives:

- i. Provision of reliable, affordable and sustainable water supply services and improved sanitation and hygiene practices to the Tandale Chakula Bora Secondary School and the neighboring community
- ii. Build capacity of the beneficiaries in managing the scheme and its corresponding infrastructures
- iii. Development of an Apex Organization structure to enhance efficiency, accountability and sustainability in day to day operations

Scope of the Project

The targeted beneficiary population was about 16,000 (including the school community), which is around 25% of the total population of the Tandale Ward whereas the following specific activities have been carried out and completed;

- ▶ Carrying out a comprehensive baseline study of the target school and community
- ▶ Rehabilitation of the existing water supply infrastructures including the borehole, the panel house and water drawing points.
- ▶ Construction of a new 4.5km water supply network with increased storage capacity (from 5,000lts to about 40,000lts) and 5 water drawing facilities within and outside the school compound.
- ▶ Construction of a demonstrational rain-water harvesting system in the target school
- ▶ Rehabilitation of the school toilet facilities and installation of hand washing facilities
- ▶ Formation and capacity building for the Apex Organization that will oversee management and operations of the project through;-
 - ▶ mobilization,
 - ▶ training and
 - ▶ initiation of a self-help strategy
 - ▶ Carrying out school sanitation and hygiene awareness campaign programs

” *It was unsafe and disturbing for community members to fetch water in the school compound.*

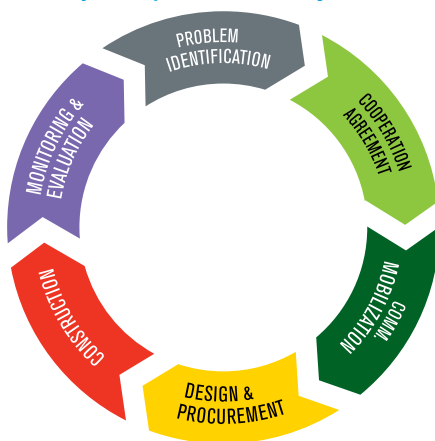
I commend the project set-up for providing water to the neighboring community. We both have to exist and be served in a more organized manner

Mr. Linus Mwakasege, Head Master MCBSS.



PROJECT IMPLEMENTATION PROCESS

3.1 Project Implementation Cycle



3.2 Problem Identification

Prior to implementation commencement, a special analysis was conducted to ascertain the ground situation including the prevailing problems, factors that lead to the previous failure, the actual condition of infrastructures, the prevailing services conditions as well as provisional designs and budget for projects revival. Results of the analysis led to the development of the Cooperation Agreement and eventually the project

3.3 The project Financing Arrangement

The project financing arrangement considered the financing plan, cost elements and funding mechanism/contribution. The financing plan is composed of the physical (hardware) and capacity building (software) part. A total project budget earmarked was US\$115,000. The cost elements included baseline study and capacity building (US\$35,000) and design, supply and construction (US\$80,000). Of the total budget of the project UN-Habitat contributed about 90% and the remaining balance 10% was covered by DAWASA.

3.4 Signing of the Cooperation Agreement

The agreement signed between DAWASA and UN-Habitat outlined roles and responsibility of each party to the agreement. While UN-Habitat had principal roles of financing the project and coordinating its implementation process, DAWASA facilitated the ground execution of the project as well as coordination of various stakeholders involved.

3.5 Community Mobilization and Involvement

In order to create awareness and sensitize the community, community mobilization and capacity building programs were conducted. The process involved the following key activities:

- ▶ Conduction of community meetings at different levels
- ▶ Preparation and conduction of training programs
- ▶ Organizing a stakeholders workshop to review the project and share experience
- ▶ Formation of an Apex Organization comprising of representation from both parties

The project implementation process was participatory in nature with the benefitting communities fully involved in the entire process. The rationale behind the move was to ensure that the beneficiary communities clearly understand the nature and complexity of the project and that the sense of project ownership is created amongst them.

“It’s good that the project will be operated by us through leaders selected by ourselves. I hope they won’t let us down and take us go back where we were!” *Mr. Hassan Rashid Tandale Chakula Bora resident*

These were very important aspects of the project in terms of commitment, accountability and eventually making the intervention sustainable.

3.6 Detailed Designs and Procurement

The process of developing detailed designs and procurement of service providers for goods and services was conducted in observance to the requirements of the pre-set standards and procedures. Ethical conducts and professionalism were observed to ensure that the final products of the projects attain the required standards and eventually the project objectives are met.

3.7 The Construction Process

The following activities were carried out during the construction process:

- ▶ Rehabilitation of the exiting borehole and the panel house
- ▶ Rehabilitation of the existing toilet facilities including installation of water supply and hand washing facilities
- ▶ Construction of new storage facilities
- ▶ Construction of a new water supply network with five drawing points
- ▶ Construction of a demonstrational rain-water harvesting system at the school

3.8 Monitoring and Evaluation

DAWASA and UN-Habitat have been conducting monitoring of the project as a continuous process through implementation review and progress reporting. After completion of the construction process, DAWASA will continue to monitor the project management to ensure that it is being managed with efficiency and in a sustainable manner.



Newly constructed water storage facilities and a panel house. © UN-Habitat

LIFE AFTER THE PROJECT

As earlier narrated, the school campus has been going without water and neither were there decent sanitary facilities to make the learning and even teaching environment conducive. Ms. Asha Ally, a form three student has the following story to share on her experience of the situation before and after the project.



Asha Ally - school student

"Lack of water and proper sanitation facilities in school affected me in two ways. First it affected my learning ability because I had to spend some of my time looking for water in the community for various uses particularly when I wanted to visit the toilet. Secondly due to the use and consumption of unclean water and bad hygiene practices I was frequently attacked by water borne diseases especially diarrhea. Imagine a lady of my age visiting a toilet without water? I think that was terrible not only to me but to my colleagues and of course the teachers as well because they also used to face the same situation. Now that water is available at school I can devote all my time to studies and I am able to use the school toilets comfortably. Hygienically I feel transformed and as a young lady feel my dignity has been restored"

The two stories underline the significance of the project in terms of improving social-economic wellbeing for both the school and the Tandale Chakula Bora community and that the projects objectives have been successfully met.



Tandale Chakula Bora residents getting water from a kiosk outside the school campus
© UN-Habitat

Likewise, the water supply situation in Tandale Chakula Bora used to be terribly desperate. Apart from the fact that the area is covered by the conventional water supply network, water supply to the area has never been reliable. Mrs. Rehema Kobelo, a resident of Tandale Chakula Bora, has the following story to share regarding the project and the expected changes it's going to bring.



"As a result of this project I and my fellow women will be relieved with the burden of walking long distances and queuing long hours for water, also my spending on water has been reduced from Tshs. 4000 to Tshs.2000 per day. We will not be frustrated by dry DAWASCO taps any more as now we have our own water from our own community borehole. I really thank everybody who made this happen because initially we thought it will never happen and it was yet again another tale we have been hearing regarding water supply"



WHAT HAS BEEN ACHIEVED (HARDWARE & SOFTWARE)

S/N	Item	Unit	Quantity
1	Storage Tanks	liters	40,000
2	Tanks Towers 3m & 6m	No	2
3	Supply network	Km	4.5
4	Water drawing points	No	5
5	Rehabilitated school toilets	No	24
6	Demonstrational RW system	No	1
7	Borehole – 75m deep and discharge of 8.8m ³ /h	No	1
8	Panel House	No	1
9	Hand washing basins	No	8

By meeting the project objectives, it is worth saying that the project has been successful to the level of implementers' as well as beneficiaries' expectations. Table 5.1 below provides a summary of infrastructures improved or constructed under the project.

The achievement of the project as far as the beneficiary communities are concerned spreads beyond the infrastructure improvement. The following are some of indirect benefits the communities have gained as a result of the implementation of the project.



Construction of the rainwater harvesting tank. © UN-Habitat

- ▶ A better structured management model has been put in place through formation of the Apex Organization
- ▶ Improved communities' capacity and knowledge through trainings, meetings and workshops
- ▶ Availability of reliable water supply services hence improved health
- ▶ Improved sanitary services particularly for the school campus
- ▶ A remarkable water price relief compared to that of the pushcart vendors
- ▶ A generally improved learning and teaching environment

Students access to safe clean drinking water. © UN-Habitat



LESSONS LEARNED

The implementation of Tandale Chakula Bora project has not only improved the social wellbeing of the School and its surrounding community, but it also has taught DAWASA a lesson in two main aspects.

- ▶ Ms.Neli Msuya, the head of the Community Liaison unit emphasized that development of tailor made management models have proven to be effective in avoidance and management of conflicts in jointly managed schemes.
- ▶ TCB institutional arrangement spearheaded by the Apex Organization under the MoU as the best option to avoid conflicts in situations where the nature of a project requires a joint management structure. Bearing in mind that TCB project eased operations for more than seven years as a result of management conflicts between the community and school management, the newly established management structure seems to be the best workable arrangement and DAWASA are in the process of replicating it in all similar intervention starting with the Kipunguni B community/school WSS project which is underway.
- ▶ Implementation of TCB came with an idea of embedding an income generating activity in the form of a self-help strategy. DAWASA strongly commends the idea and vows to adopt it in implementation of community WSS interventions. According



Rehabilitation of school toilets in progress. © UN-Habitat

to DAWASA experience, one of the major constraints in sustaining WSS projects has always been allocation of projects funds for other community activities apart from the intended investment and O&M services. This has mainly been caused by the fact that communities do not have alternative sources of income to cater for other community challenges hence solely rely on projects revenue. It is believed that intervention like Tandale Chakula Bora project is improving house hold income of the benefiting communities through providing an alternative source of income from water supply services revenue.



THE WAY FORWARD

The project has been completed but this doesn't mark the end of activities. The fact that communities adjacent to Tandale Chakula Bora do not have reliable water supply services, envisages an increase in demand of the precious liquid which can be well beyond the capacity of the current supply. This is a challenge that needs to be addressed by both the beneficiary communities and the implementing entities right from the outset.

In that understanding DAWASA has highlighted the following post construction activities aiming at ensuring efficiency and sustainability in management of the scheme as well as accommodating the future demand:

- ▶ To assist the community to plan and implement a cost recovery program and oversee extension of the network coverage
- ▶ To continue providing training to the community through the apex organization committee
- ▶ To monitor project operations through monthly and quarterly reports

- ▶ To evaluate the impact of the project against the pre-determined objectives
- ▶ To provide technical assistance especially in the areas of O&M and management of the project finance
- ▶ To carryout sanitation and hygiene campaigns for both school and the neighborhood community
- ▶ To document and disseminate the project implementation process

UN-Habitat-Water for African Cities' Programme

The Millennium Development Goals target in relation to water supply is to halve, by 2015, the proportion of people without sustainable access to safe drinking water. The 2002 World Summit on Sustainable Development (WSSD) added another relevant target that reads as 'to have, by 2015, the proportion of people who do not have sustainable access to basic sanitation.

UN-Habitat has contributed towards the achievement of these MDG targets by de-

signing a Water and Sanitation Programme with various components reaching out to various continents of the world particularly those with high number of developing countries. One of these major components is the Water for African Cities Programme, more popularly known as WAC.

The Water for African Cities' Programme aims to contribute to the achievement of the water and sanitation related Millennium Development Goals and the World Summit on Sustainable Development targets by assisting participating utilities to improve the management and delivery of water and sanitation, particularly in informal settlements of cities and towns across Africa.

The first phase of the programme was successfully completed in 2003 giving way to a second phase (WAC II) which incorporates more African countries and cities. The second phase is being implemented in 17 cities in 14 countries.

The ultimate objective of the programme is to address the urban water and sanitation crisis through efficient and effective water



Access to water makes the learning environment clean and conducive for learning. © UN-Habitat

demand management, build capacity to mitigate the environmental impact of urbanization on freshwater resources and boost awareness and information exchange on water management and conservation practices. This objective is tracked through the following six thematic components:

- ▶ Pro-poor Governance and follow up Investment
- ▶ Improved Sanitation for the Urban Poor
- ▶ Urban Catchment Management
- ▶ Water Demand Management
- ▶ Water Education in Schools and Communities
- ▶ Advocacy, Awareness-raising and Information Exchange

- ▶ Gender Mainstreaming in Water and Sanitation
- ▶ Training and Capacity Building

DAWASA Interventions in Serving the Urban Poor

The Dar es Salaam Water and Sewerage Authority (DAWASA) is an autonomous utility authorized to provide water supply and sewerage services for the City of Dar es Salaam, the satellite towns of Kibaha and Bagamoyo as well as the towns and villages located along its two main transmission mains.


Like many other Cities across Africa, DAWASA has been facing similar challenges in the course of undertaking her responsi-

bility major of which is the high percentage of unplanned settlements within its service area. Unfortunately, the settlements, provide homes for the largest population of the City most of them being low income communities. Obviously lack of reliable water supply and sanitation services in such settlements makes them vulnerable to water borne diseases and similar epidemics.

To address the challenge, DAWASA in collaboration with various development partners has initiated several interventions aiming at improving social-livelihood of such communities through provision of reliable, affordable and sustainable Water Supply and Sanitation (WSS) Services. To enhance commitment, DAWASA initiated a dedicated unit (Community Liaison Unit) which directly deals with low income communities. Some of the initiatives include:

- ▶ Implementation of the life-line tariff scheme
- ▶ Implementation of the first time new connection fund programme and
- ▶ Implementation of the Community Water Supply and Sanitation Program (CWSSP)

Through the unit DAWASA initiated more than 250 stand-alone WSS system and has been monitoring their management.



www.unhabitat.org

FRONT COVER IMAGE:

School girls cleaning their hands during break time in Arusha, Tanzania.
© UN-Habitat/Julius Mwelu

BACK COVER IMAGE:

Safe and clean water.
© UN-Habitat

UN-HABITAT:

Tekalign Tsige Sahilu, Regional T. Advisor (Anglophone)
Water for African Cities Programme,
Urban Basic Services Branch
P.O.Box 30030, GPO Nairobi 00100, Kenya
T: +254 (20) 762 5166 M: +254 724 797 185
E: Tekalign.Tsige@unhabitat.org

DAWASA:

Neli Msuya, Community Liaison Manager
Dar Es Salaam Water and Sewerage Authority (DAWASA)
Dunga/Malanga Street, Mwananyamala
P.O.Box 1573 Dar Es Salaam, Tanzania
T: +255 2227 60015 M: +255 784 266 660
E: msuyan@gmail.com

UN  HABITAT