



Water and Sanitation Project

Problem Statement

Water-borne diseases like diarrheal, caused by ingestion of contaminated water from pathogens contained in human or animal excreta, represent a major burden on human health worldwide. Every year, 1.8 million people die from water-borne diseases out of which 1.5 million are children under the age of 5.

Access to safe drinking water, basic sanitation and proper hygiene education could not only prevent diarrheal or water related diseases by nearly 90% but furthermore lead to improved health, poverty reduction and socio-economic development.

“Almost 90% of child deaths from diarrheal diseases are directly linked to contaminated water, lack of sanitation, or inadequate hygiene” **Sanjay Wijesekera, Global Head of UNICEF’s Water, Sanitation and Hygiene Programme.**

The United Nations Goal 7 of the Millennium Development Goals (MDG) set in 2000 is to halve the proportion of people without sustainable access to safe drinking water and basic sanitation by 2015.

Around 1.1 billion people globally do not have access to improved water supply sources whereas 2.4 billion people do not have access to any type of improved sanitation facility. Sub Saharan Africa (including Uganda) which has the lowest drinking water coverage and the lowest sanitation coverage in the world, 39% of its population lack access to improved drinking water and 47% lack improve sanitary facilities. An improved drinking water source is one that by the nature of its construction adequately protects the source from outside contamination, in particular fecal matter. An improved sanitation facility is one that hygienically separates human excreta from human contact.

Water, sanitation and hygiene improvements are based on three related interventions:

- Provision of sufficient quantities of and an improved source of water and/or improved distribution.
- Provision of improved facilities of excreta disposal, through latrines or connection to the public sewer.
- Introduction of sound hygiene behaviors.

“We shall not finally defeat AIDS, tuberculosis, malaria, or any of the other infectious diseases that plague the developing world until we have also won the battle for safe drinking water, sanitation and basic health care.” **Kofi Annan, United Nations Secretary-General.**

Official statistics suggest that only 56% of Uganda’s rural population has access to safe drinking water and only 41% of Uganda’s residents have access to adequate sanitation. According to Water Aid Uganda, 9.3 million people in Uganda do not have access to safe water and around 26,000 children die every year from water-borne diseases mainly diarrhea which is due to lack of sustainability of water supply and sanitation services, poor hygiene behaviors, poor sanitation, lack of enough financial resources and inadequate sanitation in most landing sites. 75% of the diseases in Uganda are as a result of lack of clean water and proper sanitation. The most common water-borne diseases and leading cause of death in Uganda are diarrhea, dysentery, typhoid, and cholera. A significant amount of disease could be prevented in Uganda through better access to safe water supply, adequate sanitation facilities and better hygiene practices.

Socio-economic surveys carried out by UN-HABITAT in more than 20 secondary towns around Lake Victoria reveal that less than 30% of the people have access to water and sanitation. Poor sanitation is a problem on Lake Victoria landing sites which lack adequate toilets where open defecation and throwing polythene bags with human waste into the water is not a shame and when it rains, most of the dirt is washed into the lake and yet it is the same water that people fetch for domestic use and consumption.

Access to safe water and adequate sanitation is a basic human right and an essential first step to protect human health and social economic developments. Lack of safe water, pit latrines and hygiene education is a big problem in rural communities around Lake Victoria shores, some schools and trading centers in Buikwe District. Responding to the significant lack of access to drinking water and sanitation, the deep-seated poverty, and the high infant mortality rate, Child2Youth Foundation and the concerned communities have designed an initiative to overcome water and sanitation challenges on the lake shores of Lake Victoria, some schools and trading centers in Buikwe District.

Child2Youth Foundation Water and Sanitation Project intends to construct permanent communal ventilated pit latrines, protect water sources and provide hygiene education to the targeted communities, lake landing sites, schools and trading centers to reduce water-borne diseases and diarrhea related illnesses by 70%. Making safe water and sanitation accessible are not only critical to saving lives, but also the precious time and money the victims spend in trying to recover from such illness. Hundreds of lives are at risk due to the deteriorating water and sanitation, poor fecal waste disposal mechanisms with inadequate toilet facilities, in some areas more than 600 residents have only one stance pit latrine to share which is poorly built. Pit-latrines coverage is only 20% in these areas and at least 78% of the diseases treated in the areas are related to poor sanitation and hygiene.

Child2Youth Foundation in conjunction with the landing site communities proposes to construct 8 pit latrines each with 6 stances on 8 landing sites that will serve over 6,240 people, 4 pit latrines each with 4 in 4 trading centers that will serve over 5,600 people, 8 pit latrines each with 8 stances in 8 schools that will serve over 2,400 school children and construct and protect 15 water sources for community and schools use that will serve over 11,600 people.

Project justification

The justification of this proposal is that over 8 landing sites on Lake Victoria in Buikwe District do not have access to pit latrines, 4 trading centres have no toilets, 8 schools lack adequate toilet facilities and 15 communities and schools lack clean water sources. The lake becomes highly polluted, people in trading centres and school children become infected with continuous outbreaks of water-borne diseases which sometimes lead to death.

The project will construct pit latrines and protect water sources, form and train community and schools committees which will be provided with the technical and managerial skills necessary to manage their pit latrines, water sources and training the communities and school children in sanitation and hygiene education.

Objectives and Activity Description

Overall objective of the project is to reduce mortality rate due to water-borne diseases through the construction of pit latrines and water sources.

Objectives:

1. To increase awareness on hygiene, sanitation and the dangers of contaminated water
2. To increase access to clean water and improved sanitation conditions
3. To improve the health status of the landing sites and surrounding islands communities of Lake Victoria, in trading centres and schools
4. To decrease mortality rate due to water-borne diseases through the construction of pit latrines, water sources and conducting sanitation education to over 34,200 people.

Output:

- a) 15 improved water sources constructed/protected serving 11,600 beneficiaries.
- b) 20 constructed pit latrines serving over 14,240 people.

Activities:

- 1) Mobilization of community members for the provision of unskilled labor, food, water and tools during the constructions. The project input will be limited to the purchase of all building materials, payment of the experienced masons and transportation.
- 2) Formation of water and toilets management committees: Water and toilet management committees will be formed for the maintenance and management of the protected springs and constructed pit latrines. They will be responsible for safeguarding the water sources, cleaning and general cleanliness of the pit latrines.

Sustainability for the project:

The project after donor funds ends, will be under the ownership of the communities and schools. The community pit latrine committees set will collect revenue for maintenance and repair.

Project success indicators:

After the implementation of this project, the communities and schools will benefit in: introduction and maintaining of hygienic education, the strong and permanent pit latrines in the areas, improved pit latrine coverage, improved privacy as a result of closed defecation, decreased diseases, better living conditions, less expenditures on their health, clean lake water source for human consumption and supporting aquatic life.

SEE CHARTS BELOW FOR BUDGET

Estimated Cost

Water Source Construction

Description	Quantity	Cost (US\$)	Total (US\$)
Lake Sand (trips)	02	80.00	160.00
Pit Sand (trips)	02	60.00	120.00
Clay (trips)	02	72.00	144.00
Hard Core (trips)	05	60.00	300.00
Cement (bags)	18	12.00	216.00
Bricks (trip of 1000)	01	92.00	92.00
Metallic pipe	01	12.00	12.00
Plastic pipe	01	08.00	08.00
DPC paper (meters)	15	01.60	24.00
Sub-Total 1			1,076.00
Contingency (10%)			107.60
Sub-Total 2			1,183.60
Technical Labour Costs			720.00
Grand Total Amount per Water Source			1,903.60

Lake Landing Site Pit Latrine

Description	Quantity	Cost (US\$)	Total (US\$)
Bricks (a trips of 1000)	07	92.00	644.00
Lake Sand (trips)	05	80.00	400.00
Pit Sand (trips)	12	60.00	720.00
Gravel Stones (trips)	03	60.00	180.00
Hard Core (trips)	04	60.00	240.00
Iron Bars	16	13.60	217.60
Binding wire (kgs)	05	01.60	08.00
Metallic Net	04	12.00	48.00
Cement (bags)	42	12.00	504.00
Iron sheets	10	14.00	140.00
Roofing nails (kgs)	04	03.40	13.60
Wire nails (kgs)	15	02.40	36.00
Roofing timbers	45	07.60	342.00
Facier boards	14	06.00	84.00
Blue paint (tins)	01	20.00	20.00
Brick red paint (kgs)	08	02.00	16.00
Pit digging			200.00
Soak pit digging			100.00
Plastic pipe	01	08.00	08.00
DPC paper (meters)	15	01.60	24.00
Sub-Total 1			3,945.02
Contingency (10%)			394.52
Sub-Total 2			4,339.54
Technical Labour Costs			1,600.00
Grand Total per Landing Site Pit Latrine			5,939.54

School Pit Latrine

Description	Quantity	Cost (US\$)	Total (US\$)
Bricks (a trip of 1000)	04	92.00	368.00
Lake Sand (trips)	03	80.00	240.00
Pit Sand (trips)	06	60.00	360.00
Gravel Stones (trip)	01	60.00	60.00
Hard Core (trips)	04	60.00	240.00
Iron bars	06	13.60	81.60
Metallic Nets	03	12.00	36.00
Binding wire (kgs)	03	01.60	4.80
Cement (bags)	30	12.00	360.00
Iron sheets	08	14.00	112.00
Roofing Timbers	45	07.60	342.00
Facier boards	14	06.00	84.00
Roofing nails (kgs)	04	03.40	13.60
Wire nails (kgs)	15	02.40	36.00
Blue paint (tins)	01	20.00	20.00
Brick red paint (kgs)	08	02.00	16.00
Pit digging			200.00
Soak pit digging			100.00
Plastic pipes	02	08.00	16.00
DPC paper (meters)	15	01.60	24.00
Sub-total 1			2,714.00
Contingency (10%)			271.40
Sub-total 2			2,985.40
Technical Labour Costs			1,300.00
Grand Total per School Latrine			4,285.40

Trading Centre Pit Latrine

Description	Quantity	Cost (US\$)	Total (US\$)
Bricks (a trip of 1000)	03	92.00	276.00
Lake sand (trips)	02	80.00	160.00
Pit sand (trips)	04	60.00	240.00
Gravel stones (trips)	01	60.00	60.00
Hard Core (trips)	04	60.00	240.00
Iron bars	05	13.60	68.00
Metallic net	03	12.00	36.00
Binding wire (kgs)	02	01.60	03.20
Cement (bags)	25	12.00	300.00
Iron sheets	06	14.00	84.00
Roofing Timbers	30	07.60	228.00
Facier boards	10	06.00	60.00
Roofing nails (kgs)	02	03.40	06.80
Wire nails (kgs)	10	02.40	24.00
Blue paint (tins)	01	20.00	20.00
Brick red paint (kgs)	05	02.00	10.00
Pit digging		200.00	200.00
Soak pit digging		100.00	100.00
Plastic pipe	01	08.00	08.00
DPC paper (meters)	10	01.60	16.00
Sub-total 1			2,140.00
Contingency (10%)			214.00
Sub-total 2			2,354.00
Technical Labour Costs			1,200.00
Grand Total per Trading Centre Pit Latrine			3,554.00