

WaterPartners International Project Funding Proposal: Gulomekeda and Ganta-afeshum, Ethiopia

Project Summary:

Location: Eastern Region of the Tigray Regional State

Number of Individual Beneficiaries: 1,720

Number of Household Beneficiaries: 215

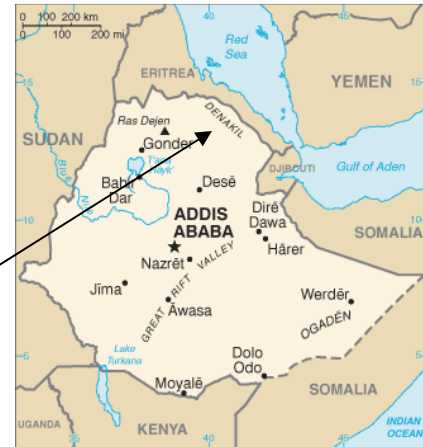
Project Start Date: August 2006 (anticipated)

Project End Date: August 2007

Project Budget: \$30,250

Cost per Beneficiary: \$17.58

Project Area



Background

Ethiopia is the fourth largest country in Africa. With relatively high birth rates and mortality rates, Ethiopia is still in the early stages of demographic transition. Life expectancy at birth is among the lowest in the world (52 years average). Some 4.2 million Ethiopians suffer from acute lack of water. The disappearance of natural forests and vegetative cover, has led to accelerated soil erosion and a severe decrease in the amount of water available to refill aquifers. This ecological imbalance has led to the depletion of traditional sources of water, such as streams, springs and shallow wells. In rural Tigray, the vast majority of rural families survive on a strict ration of less than 5 liters of water a day.



Zafu Mebrahtom (12 years old) collecting water for her family. As the only girl at home, Zafu is responsible for helping her mother with household tasks, such as collecting water, cooking and cleaning, leaving her little time for other activities, such as attending school.

There is clearly an urgent need to develop safe water supplies and basic sanitation for the majority of the rural population of Ethiopia. Only 13% of the rural population has access to safe water and only an estimated 9% to a latrine. Consequently, the majority of Ethiopian children are exposed to polluted water. With such limited access to potable water and limited access to and under-utilization of health services, most children are vulnerable to a host of water- and sanitation-related diseases. According to the Ethiopian Ministry of Health (2001), diseases related to water, sanitation and hygiene problems are among the leading causes of morbidity and mortality, accounting for a majority of the 500,000 deaths each year. Moreover, water-related diseases are a particular threat to people with HIV/AIDS, who have compromised immune systems with limited resistance to opportunistic infections.

Current Situation in Gulomekeda and Ganta-afeshum

Located in the eastern zone of Tigray, the districts of Gulomekeda and Ganta-afeshum are comprised of several farming communities dominated by small independent farmers.

Throughout the region, traditional farmlands have been fragmented, leading to a decline in overall agricultural productivity. Currently, women and children spend hours each day collecting water for household use and drinking. Most months, water is collected from a local river. When the river runs dry, they get it from unprotected springs and wells. Often these sources are miles away from their homes, and unfortunately, the water is frequently contaminated. Water-related diseases remain excessively high. The impact of unsafe water has had devastating effects on the children in the communities. Incidences of child mortality and morbidity are on the rise and the children are often sick with diarrhea. Each episode hinders a child's growth by lowering their appetite and reducing their calorie and nutrient uptake. Repeated infections can lead to increased malnutrition, which in turn increases susceptibility to further infection (the diarrhea-malnutrition cycle). Persistent diarrhea and severe diseases, such as cholera and dysentery, jeopardize children's healthy development. According to local statistics, more than 50% of the children are suffering from chronic malnutrition and more than 10% from acute malnutrition. Local sanitation customs further impede access to safe drinking water. Unsanitary conditions and practices at the household level, such as the absence of sanitary latrines, unsafe waste disposal and unhygienic behavior in childcare and food preparation, create a dangerous environment with health risks to children. A lack of sanitation facilities in schools helps transmit diseases and keeps millions of girls out of school.

The current sanitation situation has led to greater contamination of the existing water sources. The incidence of water-related diseases and malnutrition are on the rise, fueling the cycle of poverty and disease.

The Solution:

The Gulomekeda and Ganta-afeshum water project encompasses four small villages (Seshayto, Mai-righe, Mai-adi and Medadib) and the local elementary school located in the village of Azet. The members of these communities are ready to end these problems. They are prepared to pay some of the capital costs and 100% of the maintenance costs of a new water system, but they lack the financial resources to get started. WaterPartners International and our Ethiopian partner will work with them to develop and implement a sustainable community water supply and sanitation system.

The Gulomekeda and Ganta-afeshum Water Project has four major goals:

- Community Management: to develop, implement & maintain a community-managed sustainable water supply system and community-managed sanitation system.



Between Mekelle and Adigrat, just off of the main road, lies Hile, a small farming community. Although primarily focused on cereal crops such as corn, barley and tef (an indigenous plant similar to wheat), Hile also has a few vegetable gardens and other crops. On top of a hill to the east is Medadib, home to the community's main water source—a small, unprotected spring. The spring's water is contaminated and cases of giardia and diarrhea are increasingly leading to a spike in the region's child mortality.

At just nine years old, Fireweyni Hailemariam spends several hours collecting water from Medadib every day. Fireweyni is lucky, though. She attends the local elementary school whenever she can. She likes school and talks fondly about it. When asked about school, she replies, "I want to be a teacher when I grow up".

The Gulomekeda and Gantaafeshum Water & Sanitation Project is going to help Fireweyni achieve her dream. By significantly decreasing how long it will take to collect her family's water, she'll be able to attend school more regularly—and, just maybe, get to be a teacher after all.

- **Community Ownership:** to involve communities in the decisions, the construction and the maintenance of the water supply and sanitation system.
- **Community Learning:** to increase community knowledge and practice of proper hygiene and sanitation through participatory learning practices, training through local water/sanitation committees and community health workers.
- **Capacity Building:** to strengthen the community's capacity to administer community development projects.

The Gulomekeda and Ganta-afeshum Water & Sanitation Project is a comprehensive project combining health/sanitation education with the construction of sanitation and water systems. This combination is more successful at reducing water-related diseases than either alone.

Anticipated project impacts include:

- Increase potable water supply coverage.
- Decrease cases of water-related diseases.
- Increase the amount of water consumed per person from five liters to 15 liters.
- Increase awareness of the role that hygiene and sanitation have in the disease cycle.
- Decrease the amount of time women and girls spend collecting water, reducing their walking time from 1-2 hours to 15-20 minutes. By reducing their workload, women will have time to pursue other activities, such as farming and other income-earning activities, and allow them to spend more time with their children.



Local children from the village of Hile gathering water at Medadib, a local spring .

The project will be done in two phases and take approximately one year to complete. In Phase 1, with the help of our Ethiopian partner, the beneficiary community will assess its existing water use and scarcity trend. As part of this, the community will undergo an extensive community development program. A water committee will be formed to oversee the other stages of the project and to head the community development program. The commitment and participation of the community in identifying, preparing, constructing and evaluating the project is crucial in ensuring the sustainability of the project. Further, the role of women in the Gulomekeda and Ganta-afeshum Water & Sanitation Project (and all WaterPartners' supported projects) is critical. Because women

are traditionally responsible for collecting the household's daily water, female membership on the water committee will be highly encouraged by our local partner organization through gender and leadership training courses. Our partner will also work in the villages to select and train community health workers who will take on the leadership roles in the water committee and play an essential role in other activities. A crucial part of this stage is education about safe hygiene practices and their importance to an individual's health. Once people understand the link

between hygienic practices and disease, they are much more likely to maintain the water supply system and to build household latrines. The community health workers, with the help of hygiene educators, will provide community hygiene education through village meetings and trainings.

In Phase 2 of the project, each participating household will build a sanitary latrine for their own personal use. The wide range of types and prices of latrines will enable families of any economic level to construct one for their household. Simultaneously, the community will begin building the spring water catchments and the public water points . Additionally, the water committee will develop a local maintenance and repair system. Our partner organization will train local technicians elected by the community to operate and maintain the water system. In past projects, the local technicians are most often women. Community members will also pay a water bill to cover these operation and maintenance costs.

Proposed New Water System:

District	Village	Specific Site	Proposed New Water System	# of Beneficiaries	Project Budget
Gulomekeda	Azet	Mereta Elementary	Rainwater Catchment	645	\$5,850
Gulomekeda	Seshavto	Seshayto	Spring Catchment & Reservoir	225	6,068
Gulomekeda	Seshavto	Mai-righe	Spring Catchment & Reservoir	200	6,054
Ganta-afeshum	Genahiti	Mai-adi	Spring Catchment & Reservoir	250	6,086
Ganta-afeshum	Hile	Medadib	Spring Catchment & Reservoir	<u>400</u>	<u>6,192</u>
Total				1,720	\$30,250

Proposed Sanitation Facilities: Individual household pit latrines.

Proposed Project Budget: See attached.

Estimated Total Project Budget

In U.S. \$Dollars

	Mereta Elementary	Sehayto	Mai-righe	Mai-adi	Medadib	Total
Construction Costs (includes materials & contractors)	2,800	2,800	2,800	2,800	2,800	14,000
Community Education/Training	375	130	118	145	232	1,000
Other Personnel Costs (includes hydrologists, technicians, etc.)	975	1,400	1,400	1,400	1,400	6,575
Monitoring & Evaluation	685	685	685	685	685	3,425
Project Management	<u>484</u>	<u>502</u>	<u>500</u>	<u>503</u>	<u>512</u>	<u>2,500</u>
Total Direct Costs	5,319	5,517	5,503	5,533	5,629	27,500
Indirect Costs	<u>532</u>	<u>552</u>	<u>550</u>	<u>553</u>	<u>563</u>	<u>2,750</u>
Total Project Costs	5,850	6,068	6,054	6,086	6,192	30,250