



Wellspring of Hope

Expanding Water Sources in East Africa
to Nourish Communities and Break the Cycle of Poverty

TANZANIA: The challenge of life in and around the water basins

Increasingly, indigenous populations have been pushed to marginal areas where they lack sufficient water for farming and herding, and where they face competition over water resources. CRS works with these marginalized populations to help them secure equitable water rights and rehabilitate degraded lands and livelihoods. One such basin is the Pangani Basin in the east-northeastern part of Tanzania. The Catholic Diocese of Mbulu is within this basin. The population of diocese is estimated to be just under 1 million, with an estimated Catholic population of about 26%. Sustainable land in this region is in short supply due to the lack of water and the degradation of soil and plant cover. The area is home to both agriculturists and pastoralists. Catholic Relief Service Tanzania, in partnership with the Diocese of Mbulu is ready to begin an Integrated Water Resource Management project to improve the water supply, sanitation and watershed management for poor, rural communities as part of a larger effort to alleviate poverty and improve the lives of thousands of people. This project will reach some 38,000 people over the next 5 years.

The project will focus on:

Water for domestic use – contributes to health of communities through adequate water supply, hygiene education and sanitation promotion, water quality, household drainage, and solid waste disposal;

Water for productive use – improves the livelihood of beneficiaries through small scale irrigation systems, home gardens, livestock watering, small enterprises, and fisheries;

Water for environment protection – helps sustain the natural resources within the watershed through water conservation, wildlife protection, watershed management and erosion control, flood protection and prevention of water pollution.

Good Shepherd Church's contribution in the first year of the project will allow CRS to: Provide 10km (over 6 miles) of pipeline to enable clean water to reach 6,250 people in 5 communities; Assist with the construction of Ecological Sanitation facilities (i.e. latrines and basins for hand washing) for 3,375 people in 5 communities; Assist with watershed development on 4,000 hectares (approximately 10,000 acres) of land including runoff control measures such as bunds, terraces, trenches, check dams etc.

The following pages provide background on Catholic Relief Services and its approach to integrated human development programming which begins with and then builds upon ensuring access to clean, safe water. CRS is honored by Good Shepherd's interest in partnering with us to bring about truly amazing changes in the lives of some of the poorest people in the world.

About Catholic Relief Services

Since its establishment in 1943 to support refugees in war-torn Europe, CRS has grown to become one of the world's leading humanitarian relief and development agencies. We provide lifesaving emergency relief in the wake of natural and man-made disasters, and address chronic issues of poverty and injustice through innovative and sustainable development programs. CRS implements the vast majority of projects in partnership with local organizations with which we share a vision. Strengthening the capacity of these partner organizations is fundamental to programs in every country where we work. We give special emphasis on collaborating with the social agencies of the local Catholic Church and other faith-based organizations.

In all of our work, CRS partners with and builds the capacity of the local Church and thousands of small, local grassroots agencies that share our focus—to serve the poorest of the poor, to respect local customs and tradition, to empower communities to address their own development, and to apply long-term, integrated, sustainable solutions. One of the keys to our success in East Africa is the talent, commitment and accountability of our partners, who include top-notch water engineers, public health experts, agronomists and other professionals who know the local communities and conditions. They identify the most vulnerable communities (and the most vulnerable people within them), while working collaboratively at the grass-roots level to involve the people and their leadership from the project's very outset. These partners provide valuable local insight, enabling CRS to work more effectively with those we serve; in turn, CRS provides logistical or management support that leaves the organizations stronger and better able to design their own humanitarian responses in the future.

A Longstanding Commitment to Health, Water and Sanitation

The development of water resources, particularly community water supply and sanitation, has been an essential component of CRS' work for more than half a century. Today, our water programs reach hundreds of thousands of people in 40 countries across East Africa, Latin America, the Caribbean, and South and Southeast Asia. It is in some of the most remote, isolated and destitute areas where the majority of our programming takes place—often in villages hours from any main road, in communities that have never seen a school, a water pump, or an electrical outlet. Across rural East Africa, the **Wellspring of Hope** program builds upon a half-century of CRS programs that have:

- Established strong networks and trusted relationships with accountable, committed on-the-ground partners, especially the Catholic Church
- Provided water and sanitation to an estimated 1 million people
- Constructed 700 water sources and 50,000 toilets
- Supported savings and lending programs, health, and agro-enterprise activities that will be a foundation for this program to achieve long-term sustainable change
- Strengthened the capacity of our local church partners to provide for the corporal works of mercy

CRS brings the following assets to this initiative:

- **Five decades of experience** in East Africa;
- An **extensive network of partners**, most importantly the Catholic Church;
- An **extensive network of mobilized communities** with whom we work on a wide range of programs, that can support rapid expansion of integrated watershed interventions;
- **Proven models** of new watershed management programs that are ready to be replicated across East Africa;
- Functional **linkages with government** structures at the national, state, provincial and district levels;
- Agency expertise in and **commitment to quality monitoring and evaluation, stewardship of donor resources, documentation and learning.**

Central to our approach is the belief that communities have the best knowledge of their needs, and that a combination of informed mobilization, technical assistance and provision of assets enables them to pursue locally appropriate solutions. CRS strives to engage local leaders in the design of its programs to cultivate a high degree of local ownership and sustainability. Regional learning and exchange ensures that innovation and achievements in any country contribute to excellence in programming at the regional level and agency-wide.

The Vital Role of Water

Clean water is vital to sustaining life. Something we take for granted in the western world, available clean water is essential for growing healthy communities and economies. In East Africa, half the rural population lives without access to this most basic human need. In rural areas of some countries the percentage without access to clean water can be 75%. The region has a population equal to two-thirds of the United States, at 205 million people. Millions are vulnerable to preventable disease and illness. At any moment, almost half the population is suffering from an illness linked to insufficient or poor quality of water, with diarrhea the leading cause of child mortality.

Children spend long hours fetching water instead of going to school. Women often walk miles to the nearest water source. Lack of sufficient water contributes to poor health, malnutrition, meager incomes and low agricultural productivity. Yet, the potential to develop good water sources is there, as is community interest to own and maintain better water systems. Wellspring of Hope is a Catholic Relief Services program, spanning 2009 - 2013, that will dramatically increase our capacity to improve health and livelihoods in East Africa, and help break the cycle of poverty.

The Wellspring of Hope program is a focused effort to:

1. Improve the environment through watershed management and the development of water systems
2. Strengthen people's health through access to clean water and sanitation
3. Increase family income through strengthened livelihoods
4. Build the capacity of communities to sustainably manage their water systems

In East Africa, CRS already has supported integrated water programs, which include water, sanitation, livelihood and health components. Each of our projects involves training, education, evaluation and the creation of a community system for sustainability. More than 65 years of experience has taught us that bringing clean water to communities as part of development programs can help lift people out of poverty.

The **Wellspring of Hope** program uses a three-phased integrated approach:

- Community dialogue, training and preparation
- Construction of local water points for household and domestic uses, irrigation, sanitation and hygiene education, and natural resource management
- Improvement of farming and marketing practices to strengthen local capacity for a complete handover of water program management at the community level.

Our goals are to generate enough support to directly reach 700,000 people in Ethiopia, Kenya, Sudan, Tanzania and Uganda, as well as build capacity to support a population that is likely to double over the next 20 years.



In many communities in East Africa, finding water is a physical endeavor: there is no tap to turn on. The walk to the nearest river or stream is often several miles (with or without shoes) on rough terrain. The water is typically carried by women and children, and often weighs 20 to 40 pounds. Many women develop arthritis or have chronic neck pain from a lifetime of carrying water, and children, especially girls, are kept out of school when they are old enough to fetch water for the family. While traditionally men do not carry water, they may transport water from streams to villages via a bicycle or donkey. Whatever the arrangement, it is physically tiring, time consuming and diverts human energy from other important tasks in life. The women and children at these remote water sources have one thing in common: they are poor. Most of these families live at the lowest spectrum of society and are among the poorest on our planet.

A majority of them lacks toilets of any kind. It's of no surprise that these are the same people who suffer disproportionately from water-related diseases and malnutrition. The water that fills their glasses, cooking pots, wash buckets, baths and fields is often contaminated. Diarrhea is one of the top four causes of death in children under five. The child mortality rate is so high that in parts of Ethiopia where children's hair is traditionally groomed with a small patch at the front, parents say that if their children die, the tuft of hair "makes it easier for the angels to reach down and pick them up."

CRS' Approach to Integrated Water Program

CRS supports *integrated* water programs in some of the most isolated villages in East Africa to help people break free from poverty and live longer, healthier lives. In the five countries supported by this initiative, life expectancy reaches no higher than the age of 52. Not only is people's health at risk with insufficient or polluted water, but so are the livelihoods, land and livestock that depend on water to thrive. With clean water, children have a better chance at reaching adulthood and communities at large are able to improve their lives and overcome the chronic issues that have kept them mired in poverty. CRS' integrated water programs have four main components: **watershed management, health and sanitation, community management** of new water systems, and the improvement of **livelihoods**.

Watershed Management

Watersheds are natural basins where water flows to a common point. Watersheds are ideal locations to undertake and combine programming activities given that many aspects of life improve when water improves. Watershed management implies a commitment of all people in a community to work together to improve their watershed, and thus quality of life. Watershed management begins with natural resource management, which is comprised of activities that help retain soil and water infiltration to improve the overall ecosystem for farming and grazing. These efforts rehabilitate degraded land and increase ground water supply for domestic and productive use. Planting a variety of trees, shrubs, and grasses, for example, helps to stabilize soil, while terracing helps to slow rushing rainwater, allowing it to seep into the ground and recharge the local groundwater supply. As a result, farmers have more water for their livestock and crops, a boost in their income, and consequently greater local availability of food. CRS provides the farmers and communities with comprehensive training to ensure best practices and long-term sustainability. Watershed management, as depicted in the diagram on page 11, also involves developing existing and new water sources and infrastructure for multiple uses of water. Multiple use means that CRS works with communities to design systems that simultaneously serve people's diverse water needs for domestic and productive purposes. Water sources include springs, hand-dug wells, boreholes (a hole that is drilled into the earth for wells), dams and ponds. Water infrastructure refers to centrally located water points with taps, and hand pumps linked to wells, boreholes, ponds and dam filters. New irrigation activities reduce families' dependence on rain-fed crops and help them to grow high-premium vegetables they can eat and sell—a life-saving change in drought-prone areas. We also work with community leaders to build livestock troughs near the community center so that families no longer have to herd their animals long distances to find water. Having more locally available water supports livelihoods, such as brick-making and backyard gardening, thereby improving people's income and means for self-sufficiency.

Health and Sanitation

A second large component focuses on helping people derive the maximum health benefits from their new water systems. CRS and its partners provide health and hygiene education on a variety

of topics including HIV prevention, newborn and child health, nutrition, malaria control, the use of clean drinking water and toilets to avoid water-borne diseases, and the promotion of hand washing at key times, such as after using the toilet. With greater access to water, people also bathe and wash their clothes more frequently, reducing the incidence of skin and eye diseases. CRS strives for 100% sanitation coverage in the communities we serve. We promote toilets that provide the double benefit of hygienic sanitation and fertilizer for crops.

CRS' signature toilet, the arborloo, is simple to construct and inexpensive (an average of \$5 per toilet slab) in its creation of a safe compost for growing fruit trees in backyard gardens. How it works: The arborloo is a toilet that is dug about three feet deep and designed to last a year (traditional toilets are usually 15-18 feet deep, and last about a decade). When family members dig the arborloo, they place a basic concrete slab over the opening and build a simple privacy structure of local materials, like grass. Once the latrine is full after a year's time, the family covers the opening with fertile top soil, and plants a seedling to grow into a bounty harvest. CRS has helped build these and other toilets for tens of thousands of families in East Africa since 2005, even in areas where previously no toilet could be found. The key to success is the farmers' realization that these toilets improve their food security, producing fruit trees and other crops at double and triple the normal amount.

Livelihoods

We know that providing water and sanitation alone is not enough. Most of the people we serve in East Africa are farmers and herders, and thus heavily dependent on water for their livelihoods. When these families have access to improved water sources for their land and livelihoods, they have a dramatically improved quality of life. The results are felt in all aspects of life: women have more time to focus on other priorities; children increase in attendance at school; well-tended lands yield more crops; people's livestock become stronger; farmers have more food and income; and, overall, families strengthen their foundation for a greater life expectancy and prosperity. Activities to improve livelihoods include introducing simple small-scale irrigation schemes, connecting farmers to markets and setting up internal savings and lending groups.

Program Activities and Outcomes

In typical integrated watershed based programs, a number of activities and outcomes come into play. While not all projects contain all of these elements, all projects involve nearly all elements at some level.

Activities at the Technical Level

- Hydrological surveys and assessments of future impacts of climate change
- Water source protection, development of water sources, construction of water distribution points (hand-dug wells, spring catchments, boreholes, sand dams, earth dams, rainwater catchment, water storage tanks)
- Multiple use water constructions (animal troughs, showers, washing basins, drip irrigation)
- Ecological and conventional toilets, like the arborloo
- Environmental restoration activities (terracing, soil-stabilizing plants, reforestation, closures for regeneration of grasses and fodder plants, animal corrals, closing gullies)

At the Community Level

- Participatory planning and implementation with communities and local governments
- Formation and training of community committees to manage water systems and their environments
- Health and hygiene education through participatory learning activities
- Formation of micro-finance groups
- Formation of farmers' groups and irrigation associations; linking these to markets (market-led agriculture).

Expected Achievements

Watershed Management

- 100% coverage of clean safe water supply in project areas at 20 liters/person/day within one third of a mile (.5km) of people's homes
- Improved ecosystem and increased biodiversity through natural resource management
- Raised water table, increased soil moisture and fertility, and prevention of erosion

Health and Sanitation

- 100% sanitation coverage in project areas using mainly the arborloo but also other latrine options as appropriate
- Improved health and hygiene behaviors, including handwashing, HIV/AIDS prevention, alaria control, prevention of water borne diseases, healthy child care, reduction in harmful traditional practices, separation of animals and humans in living quarters, and community showers and washing basins
- 100% of schools in project areas have water supply within one-third of a mile, and separate toilets for girls and boys

- Increased female participation in education by reducing water collection time and building private latrines for girls
- Community showers and washing basins

Community Management

- Community management committees for multiple uses of water and watershed management
- Increased community ability to manage their environment and water-related risks

Livelihoods

- Improved access to water for farming and other productive purposes, such as animal watering troughs
- Improved crop productivity
- Increased household income through diversified crop production and other productive uses of water, linkages to markets and participation in micro-finance groups
- Reduced vulnerability to drought

Phases of Change: Breaking the Cycle

It's simple: With clean, accessible water, one life-changing benefit leads to the next. The activities outlined above take place in three phases:

Phase One: Working with the local community and government to plan for change. This involves training in health, hygiene and natural resource management, as well as setting up local governance structures that will manage the project well into the future. Natural resource management begins in this phase to improve the environment and increase ground water and soil moisture.

Phase Two: Mobilizing the community to participate in and contribute to the construction and improvement of water sources, such as wells, dams and spring catchments; water distribution systems for households and school sanitation facilities and other uses. This phase can take one year or more.

Phase Three: Introducing new crops, farming methods, irrigation, and other techniques to improve crop production, as well as helping farmers link to larger markets. The efforts include the formation of micro-finance groups to increase household savings.

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