

Mayange, Rwanda

Mayange Cluster: 5 Millennium Villages | 25,000 residents

The Millennium Village cluster in Rwanda is located in Mayange, a sector of Bugesera District located about 40 km south of the capital, Kigali. In a country known as the "pays des milles collines" ("land of 1,000 hills"), the terrain around Mayange is flatter and drier than most of Rwanda. The area suffers from sporadic rainfall and declining soil fertility, leading to endemic poverty, illness, and a lack of economic opportunity. The project began working with an initial 5,000 people in Kagenge, one of Mayange's five subdivisions, or cells as they are referred to in Rwanda, in early 2006. The population was facing impending famine because of failing rains and a poor harvest the year before, and the health center was severely lacking in staff, medicines, equipment, and supplies, and had no electricity or running water.

Unlike most of rural Rwanda, where individual homesteads are scattered across the hilly landscape, Mayange has several *umudugudus*, or settlements, of closely spaced dwellings, which the government built to house returnees after the 1994 genocide. Nearly 14 years after the genocide, Bugesera and Rwanda as a whole are intently focused on rebuilding and reconciliation.

Village Characteristics by Sector

AGRICULTURE

Declining rainfall over the past five years has made productive agriculture challenging. Following a drought in September-December 2005, when the project arrived in January 2006 the team worked with UNICEF and the World Food Programme to facilitate the establishment of an emergency feeding center for severely malnourished mothers and children.

EDUCATION

Primary schools are overcrowded, with classes as big as 80 children; the teachers lack books, supplies, and training. The costs associated with secondary education are such that most parents are unable to pay for their children to attend school past the primary level.

HEALTH

When the Millennium Village project began, Mayange Health Center was attempting to serve the local population despite having inadequate nursing staff and virtually no medicines or equipment, as well as no running water or electricity, even though power lines passed a few hundred meters away. Estimates of HIV and child mortality were not encouraging: HIV prevalence was estimated to be the highest in the nation at 13% (though the government has since revised those figures down into single digits). At the time nearly one in five children died before age 5. In February 2006 when the Millennium Villages Project began work at Mayange Health Center, the clinic with a catchment of roughly 25,000 people was seeing fewer than 750 patients a month. With simple, cost-effective interventions, Mayange Health Center – which had 6,146 total outpatient visitors in all of 2005 – consulted over 4,000 outpatients in just one month. All of this is helping to dramatically reduce under-5 mortality, ensuring healthy mothers are delivering healthy babies, and reversing the impact of limited access to care.

INFRASTRUCTURE

The lack of accessible drinking water forced villagers to spend hours each day retrieving what their family needed to survive. This time-consuming process diverts effort from other important activities, such as education and farming.

Intervention Highlights

By applying targeted, science-based interventions and maximizing community leadership and participation, the villagers of Mayange went from chronic hunger to a bumper harvest in 2006. Malaria incidence is significantly down, the health clinic is booming with patients who know they'll receive good care and treatment, and children now have electricity and a computer lab at school. In just a year and a half, Mayange is on the verge of transformation. **The Government of Rwanda recently announced its plans to scale the Millennium Villages project to all 30 districts under its Vision 2020-Umurenge initiative, part of the national development strategy. Each district has designated its neediest sector for Millennium Village interventions**, thereby taking the project to unprecedented scale.

Agriculture: Increase crop yields, decrease hunger and diversify crops

Agriculture yields tripled in the first year and the villagers have set up a cereal bank to store grain and help curb the risk of food insecurity. Farmers have also made great progress in terracing which is proving to be highly effective in combating soil erosion and harvesting rainwater. The villagers are diversifying into high-value crops and are planting fruit trees such as avocado, mango and pomegranate trees. They are also planting beans and sweet potatoes to sell at nearby market for extra income. During the 2007 long rain season, a maize streak virus severely damaged the maize crop, in part because of the delayed rains. This shows the ongoing unpredictability of rainfall in the area and highlights the need for the population to diversify their economic activities.

Health: Improve access to basic medical services, improve maternal and child health, and combat the spread of major diseases

Malaria incidence has declined dramatically thanks to a mass distribution of insecticide-treated bed nets, and sensitization on their use, and malaria testing and treatment at the health center. Maternal and child mortality rates are improving as well. The number of pregnant women now coming to the clinic to deliver has quadrupled due to improved health facilities that are helping to ensure safe births. Before the project began, an average of only 5 to 10 mothers came to the clinic each month to deliver. Now, that number has increased to as many as 40 to 45 per month. In addition, contraceptive use has increased dramatically since the health center introduced routine counseling on contraception for all patients, male and female, regardless of the nature of the health center visit.

Business opportunities and income generation

Many women are undertaking additional income-generating activities such as basket weaving. The Imasirire (sunrise) basket weaving cooperative comprises more than 200 women who are learning basket weaving and business techniques, leading to additional income for their families; the baskets are being sold to visitors and many have been exported internationally. The project is also opening up the community to access to microcredit. Over 75 percent of farmers in Mayange took out a loan for agriculture inputs such as seed and fertilizer for the long rains in 2007, thereby reducing dependence on outside financial assistance. All farmers who took out a loan were required to prove that their entire family had health insurance, and the project provided subsidies for those who could not afford the insurance, which has helped ensure financial access to health care and a dramatic increase in the

Millennium Villages Project in Rwanda

In 2005, a steering committee formed within the Government of Rwanda selected Kagenge, a rural village of 5,000 in [Mayange](#) sector, as Rwanda's first Millennium Village.

[The Millennium Villages Project](#), in Rwanda and 9 other countries across sub-Saharan Africa, seeks to enable the poor to escape extreme poverty and comprehensively improve quality of life by implementing key programs across agriculture, health, education, business development, and infrastructure.

Since beginning the project in Kagenge in December 2005, our team has worked to scale up key, life-saving interventions in the surrounding area, reaching a population of 50,000 in the nation's poorest region.

Ensuring Sustainability Through Community Leadership

A key determinant to the long term success of the Millennium Village Project, local leadership and community engagement have already generated significant changes in Mayange. Committees on agriculture, water, and health oversee improvement in these sectors, while community mobilizers act to distribute information and engage the local population.

Meeting the Millennium Development Goals in Rwanda

Agriculture

In a country where 90% of the population engages in subsistence agriculture, and approximately 52% are living on \$1 or less per day, the need to improve crop yields is urgent. Before the Millennium Villages project began, the people of Kagenge had not seen a corn harvest in almost 10 years. In 2005, there was no harvest at all.

The 2006 harvest, however, brought dramatic differences. Fertilizer, drought resistant seeds and other interventions generated a staggering 10 fold increase in agricultural productivity, from 300 kg/ha to 3,700 kg/ha, representing the single largest harvest in the history of Mayange. The village agricultural committee now plans to promote the cultivation of fruit orchards and other high value cash crops. Additionally, we have partnered with a Rwandan micro-finance bank via [Opportunity International](#) to enable all farmers to purchase maize seed and fertilizers up front, with a commitment to pay back loans after the harvest.

[\(TOP\)](#)

Water

Over 55% of Rwandan households use surface water for cooking, cleaning, and hygiene practices. Far from an ideal source, surface water is not only easily contaminated by parasites and other pathogens, but supply is also subject to seasonal variation. Fortunately, analyses by water engineers from [SearNet](#) (Southern and Eastern Africa Rainwater Network) identified a ready solution for Kagenge: rainwater harvesting.

Today in Kagenge, as the result of a community led effort, water catchment structures exist at both the health center and schools. Progressive terracing and water capture techniques now ensure proper irrigation of crops and prevention of flooding, and plans for additional water tanks are underway. [\(TOP\)](#)

Health

Prior to January 2006, the Mayange Health Center existed as a largely empty building, bereft of both patients and an adequate number of health care professionals, and without access to electricity.

Revitalization efforts began in early 2006 with connection to a nearby electricity grid, the addition of essential equipment including stethoscopes and thermometers, and – most significantly – the posting of a medical doctor to the center, the first ever Ministry-sponsored physician posted to a rural health center. These improvements, along with new programs in antenatal care, growth monitoring, immunization, and expansion of the local community health insurance program, generated an immediate and dramatic increase in use of the facility by community members.

Once virtually empty, the health center now sees approximately 100 patients per day for general consultations, 400 children per week for nutritional supplements, and up to 5 deliveries in a single night. Additionally, door to door distribution of insecticide treated bed nets has decreased local malaria incidence dramatically and information on family planning techniques is also provided on an opt-out basis.

As individuals from surrounding areas flock to utilize the newly invigorated Health Center, future plans include the construction of additional rooms and facilities, and initiation of HIV/AIDS and TB programs. In this way, a once barren and defunct building is intended to become a model health center, and a guide for how to deliver rural healthcare to the rest of Rwanda. [\(TOP\)](#)

Education

Overall, primary school enrollment for Rwanda is relatively high, standing at approximately 86.5%. In Mayange, the introduction of school feeding programs enhances students' learning by eliminating the distractions of hunger and ill-health. Students, teachers and project staff also work together to cultivate the school garden, which provides an additional food source as well as hands-on experience in farming techniques and best practices.

Due to a local partnership with the Kigali Institute for Science and Technology, students and staff at the school also now benefit from the addition of two computers, and hope to soon join the global online community with assistance from Rwanda's main internet service provider, Terracom.

While primary school attendance is generally high in Rwanda, the outlook for secondary schooling is far less positive, with only an estimated 18% of males and 15% of females enrolled. To help remedy this imbalance, future educational improvements in Mayange include the provision of scholarships to students accepted into secondary school, and advocacy for the construction of new secondary schools in the region. ([TOP](#))

Economic Opportunity and Small Business Development

As a result of the vastly increased 2006 maize harvest, the people of Mayange are now building for the future by diversifying crops, developing micro-finance committees and engaging in other entrepreneurial projects. For example, after over 200 local women participated in a 30-day basket weaving training program provided by the Rwanda Investment and Export Agency (RIEPA), five basket weaving associations were developed.

Additionally, as cultivation of fruits and other cash crops progresses, co-operatives will be formed to help deliver these goods to local and international markets. Central to these efforts is a government initiative to improve the main road leading from Kigali to Mayange, currently underway and expected to be complete by July 2007. ([TOP](#))