



# A FUTURE FREE FROM POVERTY

ANNUAL REPORT 2014

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COLUMBIA GLOBAL CENTERS | AFRICA  
NAIROBI

**ANNUAL REPORT 2014**

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# FOREWORD

By Dr Belay Begashaw, Director

Widening our  
collaborations to extend  
the reach of our model



*Distinguished guests at the launch of the Columbia Global Centers | Africa in January 2013.*

The launch of the Columbia Global Centers | Africa in January 2013 marked the start of a dynamic new chapter for all Columbia University activities in Africa. The launch event brought our work to the attention of policy makers, world leaders, academics, civil society and global business, and our work during the year helped to secure the Center's regional and international standing. The Center has regularly featured in international media, and we are seeing growing interest from partners in both the private and public sectors to work with us. We continue to host successful graduate and undergraduate student internships, as well as a range of Columbia University schools and projects at the Center. Together, these are all marks of confidence in our efforts, and they have helped us to expand with the support of an ever-expanding network of collaborators and friends.

Our connections to the seven other Columbia Global Centers around the world, and to the main campus in New York, has moved us closer to becoming the leading research, academic and development institution in Africa. Columbia University students and faculty can now call on our unique expertise to enrich in their work, and we feel that we are at the vanguard of a new era in the University's quest for knowledge and discovery in our increasingly globalized world.

We were honored to welcome Lee C. Bollinger, the President of Columbia University, and his wife, Jean Magnano Bollinger, to launch the Center alongside His Excellency Mwai Kibaki, Kenya's former President, and His Excellency Haile Mariam Desalegn, Ethiopia's Prime Minister. Soon after the launch, we began a rapid consolidation of our leadership system, setting up two important management councils, the Columbia Global Centers | Africa Steering Committee and the Advisory Board, both established with the invaluable support and guidance of the Vice President of the Global Centers, Professor Safwan Masri. I am happy to announce in this report that Professor Mahmood Mamdani is now the chair of the faculty Steering Committee, which convened in New York earlier in 2013. The first Advisory Board meeting was hosted at the Nairobi Center in July, 2013.

The launch event also marked the first meeting in Africa of the Sustainable Development Solutions Network, a new forum dedicated to mobilizing scientific and technical expertise from academia, civil society, and the private sector to support sustainable development problem solving. The Center's connections with the Solutions Network means we will play a steering role defining the post-2015 development agenda, and ensure that our experience working to attain the Millennium Development Goals in the



***Professor Jeffrey Sachs demonstrates the innovative Quench smart water dispenser to former President Mwai Kibaki, Haile Mariam Desalegn, Prime Minister of Ethiopia, and distinguished guests.***

Millennium Villages Project will have a global impact. The Project, and its allied initiatives like the One Million Community Health Workers campaign, will inform approaches to finding sustainable solutions to worldwide development challenges. With the close support of Ban Ki-moon, the UN Secretary-General, and directed by Professor Jeffrey Sachs, the Center is proud to be able to play a long-lasting role fostering sustainable development, working closely with UN agencies, governments, and civil society.

Already, governments and communities around East Africa are adopting our work in the Millennium Villages with enormous enthusiasm, helping thousands of people move closer towards permanently eradicating poverty and taking that first irrevocable step onto the ladder of development. Our efforts to scale-up our approach were given a big boost in 2013 thanks to generous funding from the Islamic Development Bank, which helped our long-standing partner, the Government of Uganda, to grow the Millennium Villages model to five other districts across the country. The Bank further plans to allocate funds to the Drylands Initiative, in Uganda and in the arid areas of Djibouti and Somalia.

The Governments of Ethiopia and Rwanda have made preparations for widening the reach of the Millennium Village concept this year, and as we near the conclusion of our engagement, national and local government across the region are taking over key activities and infrastructure, as you will read in the pages of this report. This is hugely encouraging in terms of keeping the momentum of progress going after the 2015 deadline, and it is a clear demonstration of the confidence that policy-makers have in the efforts of The MDG Centre. To help maintain that progress,

we are also working hard to document our results and our experience, so that the lessons we have learned and the best practices we have identified are available to development stakeholders and to feed into the work of the new Solutions Network.

Our achievements could not be possible without the tireless and heartfelt efforts of our staff at all levels around the region. This is not just something to be proud of now, as we sum up our progress for the year, but I believe is a key part of our successes as we see this dream slowly becoming reality: an Africa that is increasingly able to launch its own development solutions on a world scale, with human resources developed by the Project and the new Columbia Global Centers | Africa.

Although we are a regional organization, we are very grateful to be hosted in Nairobi by the Government of Kenya, with whom we share a special relationship. The year 2013 has seen many triumphs but also many unfortunate events in Kenya, but we are confident that the people and government will persevere, and their example can be taken as an inspiration to others.

During 2014, we at the Center will accelerate the pace of scaling up development efforts in the region so that thousands more can benefit from the advances in health, education, food and water security, which the 500,000 people who live in the Millennium Villages are already experiencing. With increased links to the other Global Centers and the Solutions Network, we also look forward to collaborative research and learning that will become the foundation of answering some of the world's greatest challenges.

## Partnering on a new path to success



*Columbia University President Lee C. Bollinger and his wife Jean Mag-nano Bollinger congratulate Belay Begashaw at the Center's launch.*

### COLUMBIA GLOBAL CENTERS | AFRICA IN 2013

The Columbia Global Centers provide flexible hubs for a wide range of activities that enhance the quality of research and learning at Columbia University, and at the same time extend the benefits of that academic study to development work in the regions where they are located. Shaping this kind of global interactive network and creating collaborations across academic disciplines can help address complex challenges, by bringing together scholars, students, public officials, private enterprise and innovators from many fields.

The new Columbia Global Centers | Africa, which houses The MDG Centre, was officially opened in January 2013, at a high profile launch led by Mwai Kibaki, Kenya's President at the time, and Lee C. Bollinger, the President of Columbia University. Kibaki highlighted how Kenya's own strategic plan to be a middle-income country by 2030 would be helped by the Center's "objective and research-based advice to the government and relevant stakeholders".

Regional heads of state including Haile Mariam Desalegn, Prime Minister of Ethiopia, senior government officials and leading figures from Columbia University attended the event, which included panel discussions on sustainable development, health and the impacts of media on regional democracy.

"Each opening of a Columbia Global Center holds great promise, not only for new academic partnerships in the host nation and region, but also for the continuing reinvention of Columbia's home campuses in New York City, where our scholarly mission demands a global presence," said Bollinger. "Kenya's embrace of higher education underscores that the core values of great universities – including a belief in the power of dialogue to reveal truth – stand also at the center of Kenyan society."

### HEALTH - NOW AND FUTURE PANEL

One of the highlights of the event was the panel discussion on health, Moderated by Lee Goldman, Dean of the Faculties of Health Sciences and Medicine at the Columbia University Medical Center. Panelists included Wafaa El-Sadr, Director of ICAP and the Global Health Initiative at Columbia University's Mailman School of Public Health and Nelly Mugo, Senior Scientist at Kenyatta National Hospital and the University of Nairobi, Kenya.

The launch of the Global Center for Rio De Janeiro later in the year brought the total number of Global Centers to eight.

### PROGRAMS

The Nairobi launch marked an exciting 2013 for the Center as we embarked on a series of new programs. These included:

#### AFRICA SOILS INFORMATION SERVICE

In August, the Center began the next phase of the Africa Soil Information Service (AfsIS), with \$4.9 million from the Bill & Melinda Gates Foundation. AfsIS is an African-led initiative that aims to develop for the first time a comprehensive, high-resolution and real-time map of the continent's soils and landscapes. Africa's population, and particularly the rural poor, is dependent on natural resources for food, fuel, and shelter. But knowledge of the condition of the soils and landscapes that support these resources is incomplete and out of date. The continent's population is projected to double within 30 years, which will place a growing burden on agriculture. Improving the management, productivity and sustainability of African soils is therefore now an urgent priority.



*The successful launch of the Columbia Global Centers | Africa this year will propel academic, research and development activities.*

African countries will be able use the detailed soil map to manage natural resources and improve the agricultural productivity of small-holder farmers, by helping inform decisions about optimal land use. In this way, the data can play a key role in reducing poverty across Sub-Saharan Africa. During the next 18 months, AfSIS will continue its mapping activities, design innovative ICT applications and technologies, and develop ways that business can commercially use the map data, to ensure the project's sustainability in the future. "AfSIS will continue to make major contributions to improving the quality of data on African soils, and to stimulate increased productivity and better environmental stewardship while building capacity within national organizations," said Begashaw. "In its second phase, and hopefully as a self-sufficient enterprise, AfSIS will address the need to make effective use of soil and landscape information in decision making at different scales – at farm, local, regional and national levels."

#### SUSTAINABLE DEVELOPMENT SOLUTIONS NETWORK

The United Nations Sustainable Development Solutions Network (SDSN) held its first regional meeting in Africa in January in Nairobi, as part of the launch of the Global Center, which now continues supporting the network's Africa chapter.

Launched in 2012, the Solutions Network gathers experts to give advice on ways to overcome challenges to long-term development at local, national and global scales. It draws on the experiences of existing work on achieving the Millennium Development Goals, including in the Millennium Villages. It then looks to widen that practical knowledge out for the post-2015 agenda, by supporting governments, NGOs, UN agencies, civil society and the private sector. Dr Belay Begashaw brings his wealth of expertise to the Solutions Network's Leadership Council and Executive Committee, and co-chairs its thematic group on "Reducing Poverty and Building Peace in Fragile Regions".

The Network, through its university partners, facilitates engagement with a consortium of African Universities in an effort to better address local and global issues.

The Solutions Network presents an excellent opportunity for the Columbia Global Centers | Africa to use our expertise in poverty eradication and rural development to lead the way on overcoming these entrenched barriers to progress.

With African nations shouldering a disproportionate share of those barriers, including a high disease burden, poor infrastructure and relatively weak public institutions, it was important that the Solutions Network had a firm presence in Africa. "From its regional base in Nairobi, the SDSN will act as a resource for East African governments to fast-track development planning, and support practical solutions to the greatest challenges facing this region, including the fight against poverty," said Professor Jeffrey Sachs, founder of the Millennium Villages Project. "The network will mobilize new technologies to create breakthroughs in health, agriculture, energy, and governance."

#### AFRICAN NUTRITIONAL SCIENCES RESEARCH CONSORTIUM

There is a clear consensus on the need for PhD training in nutritional sciences in East Africa. In an example of how the Global Centers encourage a free flow of ideas between academia in New York and the regional hubs, the Institute of Human Nutrition at the Columbia University Medical Center is helping to set up a regional training consortium for PhD graduates. During the first year, the African Nutritional Sciences Research Consortium assessed PhD programs in 17 academic and research institutions in East Africa, initially in Kenya, Uganda, Tanzania and Uganda. The findings were given to stakeholders and academic institution representatives at workshops in Nairobi and Arusha, where detailed work plans and timelines were agreed to link the Consortium with the African Development Bank.

# Partnering on a new path to success continued

## MODI LABS: THE SUSTAINABLE ENGINEERING LAB

The Sustainable Engineering Lab at The Earth Institute at Columbia University uses engineering to address development issues. Software solutions are designed for smarter planning and to improve the delivery of critical services like health and energy in the developing world. During the Global Center's launch celebrations, we showcased the Quench smart water metering system, which uses a cell phone-based pay-as-you go model that allows communities to pay a minimal fee for water they need, when they need it, over and above a free quota. It will soon be rolled out to rural communities across Africa. The Lab continued its work with the Millennium Village Project to ensure a smooth adoption of CommCare, the Villages' new cell-phone based health data system.

With Internews, an international non-profit helping to train of local media to broadcast humanitarian messages, we put together a toolkit for data collection in the field. This is a single briefcase containing a laptop, two cellphones, a scanner, a WiFi router, a solar panel and a rechargeable battery. These tools enable any organization rapidly to conduct surveys and assess situations and determine how best to allocate resources and expertise for the best outcomes.

We also had the chance to visit India and contribute to the Dristhi project, an android tablet-based mobile health platform for Auxiliary Nurses and Midwives (ANMs) and contributed to the Africa Soil Information Service.

## ADDITIONAL PROGRAMS

Highlights among our other programs include our partnership with the International Research Institute for Climate and Society (IRI) in New York. We are working together to address the challenges of a changing climate in communities that bear the greatest burden of infectious disease, malnutrition and disasters, which often have the least access to basic health services. The particular focus is on Policy, Practice, Services and Data, along side building research capacity.

During 2013, stakeholder workshops have been held in Ethiopia, Kenya and Tanzania and support has been provided specifically to: the World Health Organization to launch its Clim-Health Africa initiative, the Ethiopian Ministry of Health and WHO to develop a new malaria stratification map, and to the national met services of Tanzania and

Madagascar to pilot open-access platforms for data and services in partnership with the IRI Data Library. These activities have generously been supported by WHO, the World Meteorological Organization, the National Oceanic and Atmospheric Administration, NASA and The Wellcome Trust.

The Center will continue to add to its growing portfolio of programs in 2014, in partnership with Columbia University schools and programs.

## FACULTY AND STUDENTS

### PRINCETON GLOBAL SEMINAR – DOCUMENTARY FILMMAKING IN KENYA: THE ART OF SCIENCE STORYTELLING

In line with its mission to help and connect with Columbia alumni and students, the Center hosted several student groups during 2013. Princeton University's Institute for International and Regional Studies sponsors six "Global Seminars" a year, all taught by Princeton University faculty at sites around the world. In 2013, 15 Princeton students joined five Kenyan students for a seminar at the Center in Nairobi, titled "Documentary Filmmaking in Kenya: The Art of Science Storytelling", taught by Su Friedrich, Professor of Visual Arts and a documentary filmmaker, and Katie Carpenter, a documentary film producer specializing in science and environmental subjects.

### SCHOOL OF INTERNATIONAL AND PUBLIC AFFAIRS INTERNSHIP

The Center also hosted a number of Columbia University student interns, including the annual intake from the Masters program in Development Practice at the School of International and Public Affairs (SIPA). These students are posted to the Millennium Villages every year for a period of three months.

Students from a host of other schools and universities have also undertaken placements at the Center, and we are excited about the growing intake of students in 2014.

## OUTREACH AND EVENTS

The Center held a number of development workshops and cultural events, in an effort to build its reputation as Africa's intellectual and cultural hub, and deepen engagement with partners and the media.



*The first Kenya screening of **Pray the Devil Back to Hell** generated an animated discussion, and the Center plans to host many similar events in the coming years.*

#### PRESIDENT BOLLINGER MEETS WITH KENYA-BASED JOURNALISTS

Columbia University President Bollinger met with local and international media during his time in Nairobi for the Center's official launch. Professor Safwan Masri, the Columbia Global Centers Vice-President, was also present, with Jewelnel Davis, the University Chaplain and Director of the Earl Hall Center at Columbia University. Discussion focused on the changing face of media in East Africa, and included leading commentators from the Foreign Correspondants Association of East Africa, the news website AllAfrica.com and Kenya's Citizen TV.

#### PRAY THE DEVIL BACK TO HELL FIRST KENYA SCREENING

The Center with the New York group Peace Is Loud hosted the first Kenyan screening of the award-winning documentary *"Pray the Devil Back to Hell"*, produced by Abigail Disney. The film chronicles the remarkable story of the courageous Liberian women who came together to end a civil war and bring peace to their shattered country. The Q&A with the film's producer stimulated an in-depth discussion on how local grass-roots NGOs can affect change.

#### COLUMBIA GLOBAL CENTERS BIENNIAL MEETING AND ADVISORY BOARD MEETING

The Center hosted the Columbia Global Centers advisory board meeting in Nairobi in June, allowing representatives of other Centers to acquaint themselves with the region, our work and facilities, and to discuss possible collaborative opportunities.

#### SPEAKER SERIES AND ALUMNI EVENTS

A series of Columbia events are planned for 2014, to bring together Africa's 1,000-strong alumni population. A speaker series, featuring regular public talks by scholars on issues relevant to the region, is also planned.



*The Princeton Seminar on documentary filmmaking.*

#### MEDIA

There was a marked rise in our public profile during 2013. We redesigned The MDG Centre website and launched the Columbia Global Centers | Africa website ([www.globalcenters.columbia.edu/nairobi](http://www.globalcenters.columbia.edu/nairobi)) and Facebook page. Our "Voices of Africa" short video series, profiling regional government leaders' collaboration with the Project, is an example of using new media portals to better connect with people. There has been broad local and international coverage of our work this year, beginning with the Center's launch and continuing with sustained television, radio and press coverage of the Project's work. We have arranged site visits for journalists from all over the world, including from the Czech Republic, Germany, and the USA. See p38 for more.

# The MDG Centre

## East and Southern Africa

EARTH INSTITUTE | COLUMBIA UNIVERSITY

[www.mdgcentre.org](http://www.mdgcentre.org)

The Millennium Development Goals (MDGs) were developed out of the eight chapters of the United Nations Millennium Declaration, signed in September 2000.

The eight goals and 21 targets are:



### **Eradicate extreme poverty and hunger**

Halve, between 1990 and 2015, the proportion of people whose income is less than one dollar a day.  
Achieve full and productive employment and decent work for all, including women and young people.  
Halve, between 1990 and 2015, the proportion of people who suffer from hunger.



### **Achieve universal primary education**

Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling.



### **Promote gender equality and empower women**

Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015.



### **Reduce child mortality**

Reduce by two thirds, between 1990 and 2015, the under-five mortality rate.



### **Improve maternal health**

Reduce by three-quarters the maternal mortality ratio.  
Achieve universal access to reproductive health.



### **Combat HIV/AIDS, malaria and other diseases**

Have halted by 2015, and begun to reverse, the spread of HIV/AIDS.  
Achieve, by 2010, universal access to treatment for HIV/AIDS for all those who need it.  
Have halted by 2015 and begun to reverse the incidence of malaria and other major diseases.



### **Ensure environmental sustainability**

Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources.  
Reduce biodiversity loss, achieving, by 2010, a significant reduction in the rate of loss.  
Halve, by 2015, the proportion of the population without sustainable access to safe drinking water and basic sanitation.  
Have achieved, by 2010, a significant improvement in the lives of at least 100 million slum dwellers.



### **Develop a global partnership for development**

Develop further an open, rule-based, predictable, non-discriminatory trading and financial system.  
Address the special needs of least developed countries.  
Address the special needs of landlocked and small island developing States.  
Deal comprehensively with the debt problems of developing countries.  
In cooperation with pharmaceutical companies, provide access to affordable essential drugs in developing countries. In cooperation with the private sector, make available benefits of new technologies, especially information and communications.

# BUSINESS DEVELOPMENT

## Boosting rural resilience through better businesses



Climate change is having an increasingly detrimental impact on rural economies that rely on rain-fed agriculture, and unreliable weather has cut into the income that farmers traditionally earned. Add to that the existing relative scarcity of financial services, loans and initiatives to support small businesses, and it has been very difficult for people to take those first steps to lift themselves out of poverty. These are among the reasons that The MDG Centre has focused on encouraging an entrepreneurial spirit in the Millennium Villages by teaching people how to diversify their incomes by moving from subsistence farming towards profitable businesses.

Across the Villages, many more farmers now produce valuable horticultural crops with supplementary irrigation and in greenhouses. They use fertilizer and improved seeds that they buy using money borrowed from community savings and loans programs, which are now also giving more and more start-up funding for new businesses. Staff from those programs have been trained how to encourage more savers, how to manage existing loans, and how to widen their reach by visiting farmers at home to offer them financial services on their door-steps. Similarly, farmers' cooperatives have been coached on developing business plans, adding value to their products, reaching new markets, and how best to manage their finances and comply with regulatory requirements.

Among the most successful cooperatives have been those in the dairy sector. In Sauri, Kenya, the New Yala Dairy Cooperative added 16 new heifers this year, increasing milk delivery to the plant by a fourth, from 12,000 liters a month to 15,000 liters. This helped bring in \$101,250 during the year from its 452 members. Plans to install a pasteurizer and an additional cooler would double daily milk supply, and a loan of \$18,750 to do this has already been approved. In Ruhira, Uganda, a loan from one of the Village credit unions allowed the Kabuyanda Dairy Cooperative to

*Poultry keeping has provided additional incomes for farmers across the Millennium Villages.*

buy 20 more heifers, and in Mwandama, Malawi, the Project helped the Tiyanjane Cooperative buy six new cows.

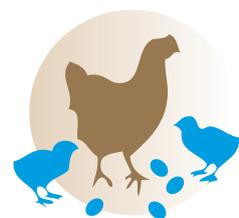
In Koraro, Ethiopia, a modern poultry unit equipped with an incubator and hatchery machine began operation in 2013, with 3,330 day-old chicks and 800 fertile eggs. In the last six months, the society earned \$4,500 and expects to increase that in the coming months. In Sauri, the Gem Poultry Farmers' Cooperative has been so successful collectively marketing its hens and eggs at the established Market Service Centre that its members have not been able to satisfy demand. In Mwandama, Malawi, the Chikasamaganga Cooperative built two new poultry units and now sells 480 eggs daily, giving the society's 101 members a combined income of more than \$700 a week.

**Chikasamaganga Cooperative, Mwandama in Malawi has built a new poultry unit**

**and sells 480 eggs daily**

**giving the society's 101 members a combined income of more than**

**\$700 a week.**



480

101 members

\$ 700

# BUSINESS DEVELOPMENT continued



**Mwandama's new convenience store opened with Grain Bank profits.**

Finding fertilizer and certified seeds had always been a problem at planting time across the Villages. Cooperatives allow for group planning to make sure these inputs are available, and give credit so farmers can buy what they need, then pay back their loans at harvest time. One such program providing seeds and fertilizer in Mwandama meant that the Village Grain Bank collected more than 800 tons of maize from 6,000 farmers. With money from the maize sales, the Grain Bank's management committee built a new grain mill and shop, and bought a truck, which together provide local employment, give workers new skills, and will help the group guarantee independent income after the Project hands-over in 2015.



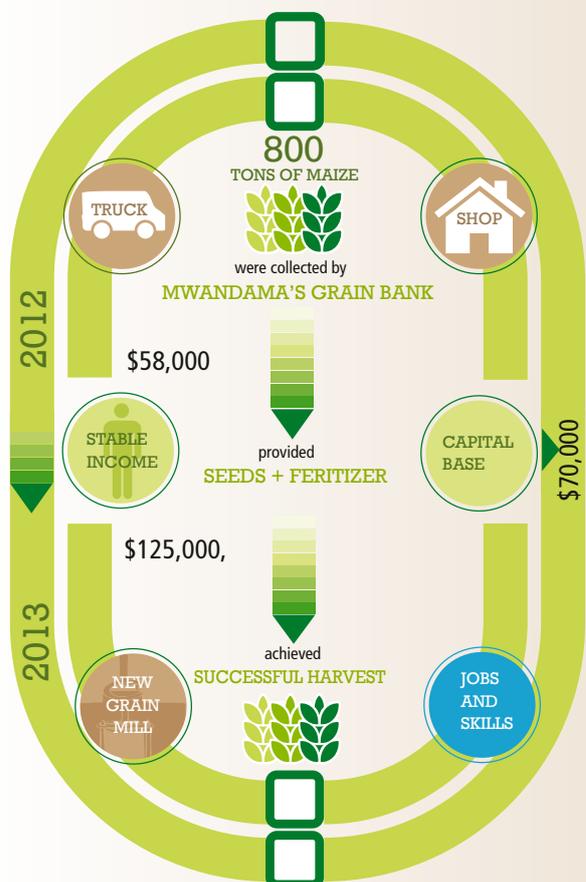
**Mayange's new Craft Center hosts a number of successful businesses, such as the welding cooperative.**

The US African Development Foundation gave Mayange's Koperative Twitezimbere Kagenge a three-year \$250,000 grant to expand its cassava sales, by buying new machines and a small truck, and building more drying areas and a sales kiosk. Other cooperatives in the Villages expanded their production of high-value vegetables during 2013, growing crops including onions, capsicums, cucumbers, tomatoes and watermelons. The Gem Horticultural Farmers' Cooperative in Sauri has disbursed \$12,500 of low-interest loans. In Mayange, the Tunozumurimo Tomato Farmers' Cooperative built a tomato greenhouse, and in Mwandama, the Maera farmers' group has forged links with buyers in the city of Blantyre.

**“We aim to save \$70,000 in capital to prepare for the project handover in 2015,” said Bonwell Kaunga, the Grain Bank Manager. “Last year, we had an income of \$125,000, more than double the \$58,000 we earned the year before. With a constant rise in our sales, I believe it is possible to increase our capital base, so we can plan for the future.”**

**Florence Owiti is the chair of Sauri's Indigent Cooperative Society. She said:**

**“I have to ensure that the fertilizer and seed is available to my members when they need it. Unlike in most parts of the country that experienced delays and shortages for the 2013 planting season, we were able to provide the inputs. It is normal that during planting the price goes up and stockists charge farmers exorbitantly. We were able to sell a bag of fertilizer for \$30, when in the market it was almost \$45.**





*Girls in Mayange learn computing skills which will boost their competitiveness in the job market.*

On the island of Pemba, Tanzania, the Project and Government staff trained 82 mostly women villagers how to use irrigation to grow high-value crops, in an area previously seen as poor for agriculture because of low rainfall and infertile coral soils. Earnings from fishing and seaweed farming will now increase with the marketing of tomatoes, onions, eggplants and spinach.

Beyond agri-businesses, several other innovative ways to earn extra income were expanded during 2013. Mayange's Craft Center is now fully operational, hosting 22 welders, 22 carpenters and 145 weavers, with space for more. Already, by working together, these cooperatives have a one-stop-shop to market their skills, and the Center is becoming a place where many other people come for on-the-job training. Nine men and three women in Mwandama will soon open their own bicycle maintenance businesses after coaching from the Project this year. In Koraro, Ethiopia, the Gheralta Millennium Villages Community-Based Eco-tourism Cooperative is up and running, with 55 members, and has already bought a van and established connections to tourism operators. Sauri and Mayange are both working on following suit, exploring options for arranging visits to sites of local significance, home-stays and agro-tourism.

### **SAVING AND BORROWING FOR BETTER BUSINESS**

Village Savings and Loans Associations allow their members to put money aside and then take larger sums in credit when they need it, thereby building up credit histories for future loans. In Mwandama, 33 Village Saving and Loan Groups with 481 members have saved close to USD19,000 and given it out to members as loans. Sauri's three separate Associations have loaned \$23,750 and in Mbola, Tanzania, where the Village has the only such credit union in the area, \$44,000 was lent in 2013, close to a five-fold increase from the \$9,000 given out in 2012. Ahead of them all is Mayange's SACCO, with an impressive 4,305 members, which has taken in \$273,000 and loaned \$252,000.



*One of Mayange's highly successful knitting cooperative members.*

"The Village Savings and Loans program has helped us in enhancing the saving culture and getting financial services at our doorsteps without traveling long distances," said Egrey Swira, chair of Malua Village and Saving and Loans Groups in Mwandama. "We didn't know we had such significant resource in the Village. We are very grateful to for the Project for introducing such helpful initiative which is being managed by the communities themselves."

To make sure that all cooperatives continue to operate as going concerns after 2015, we held a series of training days for management boards and supervisory committee members. These were designed to help them better understand their roles and responsibilities, especially in terms of complying with relevant national regulations governing credit unions. "I did not understand what financial management entailed before, and we constantly had problems with the auditors at the end of the financial year," said Willis Juka, chair of the New Yala Dairy Cooperative. "We now know what type of books to keep, what kind of financial records to produce and how to interpret them. Now, the management committee has no difficulties presenting their reports at the annual general meeting, and our reports are nowadays delivered on time to the commissioner of cooperatives."

The Villages still face challenges achieving full business potential and growth, including shortfalls in the governance of some cooperatives, a lack of adequate funding, rising inflation and international fuel costs, factors beyond their control.

In 2014, we will further support the cooperatives in business planning and financial management to ensure that they run smoothly after the Project support ends in 2015. We will also draft and distribute financial and materials management manuals, and continue to provide guidance on how to draw up viable business plans, and to create more access to markets and financial services, to cement in place the existing successes we can already see in many of the Villages.

# HEALTH

## Healthy communities, healthy families



As with each different division of the Millennium Villages Project, those of us working in the health sector are seeing more and more of our activities taken over by governments or our partner organizations. With the end of the Project due in 2015, we are increasing our efforts to make sure that our interventions are institutionalized and continue well beyond that deadline into a future free of poverty and suffering from preventable or treatable illnesses. From our early work repairing or building from scratch the physical infrastructure of good health, we are now well into the second phase. In 2013, we especially focused on reducing as much as possible the transmission of HIV from mothers to their unborn children, and on cutting the stigma associated with carrying the virus. We moved towards even higher quality family health care, always with an eye on the Millennium Development Goals, and we have enhanced the use of information technology and mentoring programs to boost the success of our Community Health Worker scheme.

The running of most of the major infrastructure that the Project helped build – clinics, staff housing, dispensaries – has been handed over to partners and governments, who also now employ or manage most of the health staff, and stock facilities from national supply chains. This is not to say that the Project is not still intimately involved: in 2013, we supplemented costs for staff and utilities, helped pay for consumable commodities, and ran training to continue to improve the quality of health care in all the Villages. We also worked closely with many district health directors to ensure the smooth running of new referral services, including ambulances and telecommunications.

Several ideas piloted in the Villages are being adopted at national or international levels. Perhaps the leading example is our Community Health Worker program. With our global partner, the One Million Community Health Worker campaign, we have been working with regional governments dramatically to increase the number of these

*Innovative phone-based health applications have positively impacted community well-being.*

frontline health staff deployed across Africa. Already, Malawi has completed its ‘roadmap’ for a national roll-out, Tanzania is progressing well, and other countries are following suit. Inevitably, the more community health workers there are, the greater the number of people who will be reached with health messages and education, which in the long run saves lives.

### MENTORING HIV+ MOTHERS TO REDUCE TRANSMISSIONS

The focus of our HIV programs remains on making discreet testing available in communities, on education, prevention, care and treatment, and on psychosocial support for people living with the virus. With UNAIDS, the Project this year made great strides in reducing Mother-to-Child Transmission (MTCT) of HIV, and rates of HIV+ babies born to women with the virus has fallen dramatically, to as low as 5% in some villages.

“Our commitment here is to demonstrate the elimination of MTCT, to really show that it can be done, through the unique opportunity that the Millennium Villages Project gives,” said Maya Harper, UNAIDS’ Kenya Country Coordinator. “This has never been done or demonstrated before, and is therefore an opportunity to show that we are on the cutting edge of a transformative agenda. It is one thing to launch a global plan to eliminate MTCT at the highest levels; it is totally another thing to do it. This is what the Project is doing.”

We worked to widen the number of mothers and their infants who join our programs to prevent HIV transmission, most successfully with a mentorship scheme bringing “model mothers” together with HIV+ women. We have found that mothers with the virus who are supported by



“ *Model mothers like me are helping to reduce stigma. Women used to shy away from support groups, they feared people would see them. Now they want to improve their lives by taking part in our activities. They learn income-generating activities like baking and poultry farming, which give them confidence and hope. Both positive and negative status women have joined us. The distinction is not important any more.*”

*Rose Asiko, a “Model Mother” from Sauri Millennium Village in Kenya.*

such role models are much more likely to stick to their medication, attend ante-natal classes, give birth with professional help, and have regular income. Health staff are also more likely to be able regularly to monitor the infants of these HIV+ women up to the important age of 18 months. Many pass proudly through our HIV-exposed infant graduation ceremonies, which celebrate children reaching that age still free of the virus. This mentorship program began in Sauri, Kenya, in 2012, and was extended to all of the other Villages in 2013, with graduation ceremonies being held in Sauri, Ruhira, Uganda, Mayange in Rwanda, and Mwandama, Malawi.



A helpful by-product of these colorful events is that they help to strip away the stigma of being HIV+, which very often prevents people from undergoing testing and treatment for fear of being ostracized by their community. When Rose Asiko, from Sauri, was diagnosed with HIV, “many women talked behind my back,” she said. “They looked at me like I was already dead, and my children were frightened.” Since then, however, she has been trained as a model mother, teaching newly-diagnosed women about living with HIV and speaking out at the graduation ceremonies. “Model mothers like me are helping to reduce stigma,” she said. “Women used to shy away from support groups, they feared people would see them. Now they want to improve their lives by taking part in our activities.

They learn income-generating activities like baking and poultry farming, which give them confidence and hope. Both positive and negative status women have joined us. The distinction is not important any more.”

To help our staff and partners keep track of HIV+ mothers and their families, during 2013 we launched central registers of all such women and their children in each Village. These make it easier to identify and fill gaps in follow-up, and to improve connections to Community Health Workers. Next, we plan to automate the database to further improve efficiency. This year we also widened regular, annual testing, training and certification of qualified staff and volunteers to ensure their ongoing proficiency in carrying out HIV testing.



*A Community Health Worker weighs a baby during house visits in a Village.*

# HEALTH continued

## EXEMPLARY FAMILY HEALTH

In each of the Villages, we strengthened the reproductive, maternal, neonatal and child health (RMNCH) framework – and the preparations for hand-over – by working even more closely with partner institutions, including district and national medical officers, United Nations agencies and international NGOs (see p36 for details of Partners). Together, during 2013, we concentrated on increasing women’s awareness of what health facilities can offer them and their children, while at the same time boosting capabilities of staff in those facilities through training and supervision and performance management. Closer monitoring of clinic stocks and better supply-chain management means that crucial equipment like family planning and resuscitation tools are now rarely out of stock across all Villages. Quality control guidelines are in place, including Community Health Worker job aids and counseling cards, frameworks for standards of care for clinical staff have been developed, and Villages are using the “1,000 Days” checklist for infant health, and another from the World Health Organization on safe childbirth.

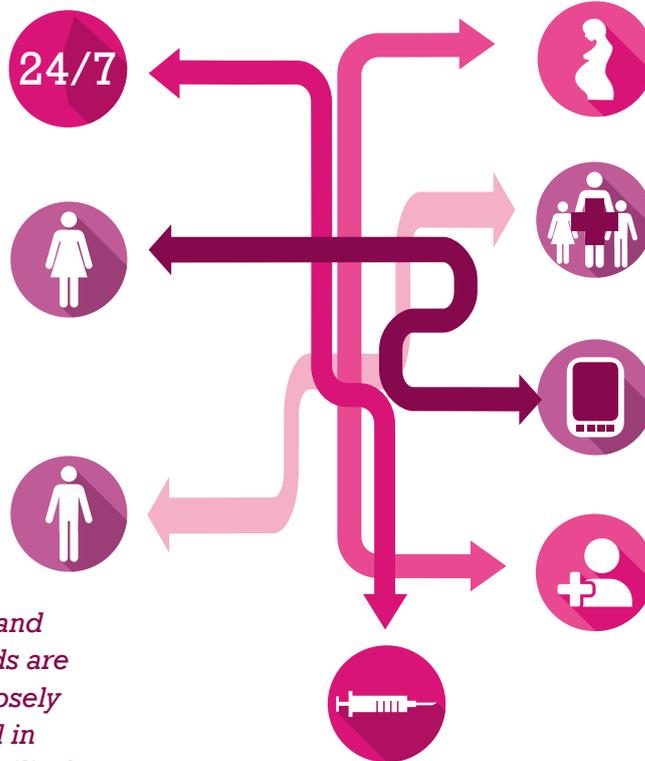


*Phiona, a CHW in Ruhiira, conducts a household medical consultation.*

**80%** of all health facilities in the region now offer 24-hour services for women to give birth,

*Closer monitoring of clinic stocks and better supply-chain management means that crucial equipment like family planning and resuscitation tools are now rarely out of stock across all Villages.*

*Fathers and husbands are more closely involved in their families’ health.*



*More mothers are giving birth in health centers with professional assistance*

*Mobile phone app: “1,000 Days” checklist for infant health*

*The number of women giving birth with the help of a trained professional, and in Sauri’s main health center, increased from 30% to 80%.*

*More children are being vaccinated against preventable disease*



*A community health worker in Ruhiira.*

More than 80% of all health facilities in the region now offer 24-hour services for women to give birth, a figure that has been achieved through staff motivation, community engagement, and construction of staff houses. The number of women giving birth with the help of a trained professional, and in Sauri's main health center, increased from approximately 30% to 80% between July 2012 and July 2013.

Together, all of these enhanced interventions have helped the Project mark significant progress towards most the RMNCH targets, with several milestones passed across all sites. More pregnant women attend at least four ante-natal consultations with specialists, more mothers are giving birth in health centers with professional assistance, more children are being vaccinated against preventable disease,

and fathers and husbands are more closely involved in their families' health. All of these trends move us closer to achieving the Millennium Development Goals.

We have widely discussed our experiences in the Villages with regional and national health authorities, to make sure we pass on what worked best and what did not. In Kenya, this has helped the government plan and implement its new policy to abolish charges for maternal and under-five health care nationwide in 2013. Maintaining the momentum that we have built up so that more and more of our work can be scaled up nationally across all Villages will need the close engagement of governments and partners to bring about true breakthroughs in maternal and child health.

## HEALTH continued

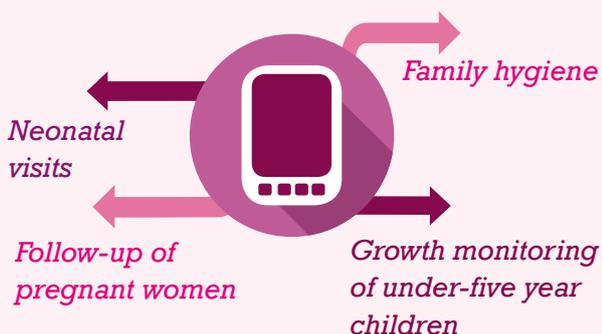
### TECHNOLOGY AND TRAINING FOR BETTER COMMUNITY HEALTH

We are especially proud of the wide adoption of our Community Health Worker (CHW) model, which recruits and trains volunteers to go out among Village populations to spread information about better family health. We continue to invest in this program, most recently with the introduction of the CommCare system, a smartphone app that allows efficient storage and synchronizing of large volumes of patient data, and with increased training and mentoring.

CHWs in almost all of the Villages now use CommCare to collect and submit real-time data. The smartphones come loaded with standardized health education messages that are then passed on to families when the health workers visit them at home.

**“The CommCare phone has improved my work performance because it contains all my patients’ and clients’ information. It has made it easier for me to master all my households, and also to monitor the children I have visited and the ones I have not yet seen at any one time. The phone is also toll-free so communication with colleagues and my supervisors has been made easy.”**

Maurine Akinyi Otieno,  
a Community Health Worker in Sauri.



The CHWs’ roles have widened now to include follow-up of pregnant women, neonatal visits within seven days, growth monitoring of under-five children, family hygiene and sanitation and community-based case management. With these increased responsibilities, supportive supervision and mentoring are very important.



*CommCare check-list for a medical visit*

To make sure this happens, Village facilitators observe individual CHWs’ performance and compare it to set standards, then give supportive feedback, updates on technical guidelines, and on-site training. Additionally, senior CHWs play a significant supervisory role, using checklists to monitor performance that were specifically designed for the Project. Those more senior community health workers also act as mentors for new starters, carrying out training, giving guidance and helping the CHWs in their professional development. Taken together, all of these measures leave us with better-equipped CHWs, motivated by their peers and supervisors, who are continually upgrading their skills with fresh training.

With the mentoring programs, and the use of the CommCare smartphone system, we have this year seen further improvements to the whole chain of health care in the Villages. The fact that CHWs upload data from the field directly to central servers means more timely reporting. Supplies are better stocked because of greater communications. Health workers are able to target their visits to families, and more individual cases are being managed at community level. Even basic treatments, for example for malaria or diarrhea, are now being administered in households rather than at health centers, freeing up staff time and resources for more serious conditions.

Our plans for the next 12 months focus on further strengthening partnerships with key stakeholders in the post-2015 landscape, particularly national and local government bodies. We will continue our energetic involvement in international campaigns like the One Million Community Health Worker scheme. The overarching aim is that by 2015, each Village has firmly in place fully-functioning systems covering all of their health needs, and are able to keep those systems running independently of the Project far into the future.

# GENDER

## Narrowing the equality gap for social wellbeing



Activities to empower women and girls cut across all programs of the Millennium Villages Project. In business, women's cooperatives and individual entrepreneurs continue to receive training and loans, which have helped bring about impressive increases in income; maternal health initiatives in our hospitals and clinics have reduced the risks of pregnancy, delivery and child-rearing in remote areas; and community outreach programs have helped to start shifting traditional attitudes towards women and girls, as well as to counter gender-based violence.

By working with girls growing up in the Millennium Villages, we are sowing the seeds for a new generation of confident young women, who will be able to take an active part in running households, communities and businesses.

Coping with menstrual hygiene is a significant challenge for women and girls in many of the Villages. Cultural beliefs restrict open talk about the subject, often considered taboo, which makes the situation worse. Store-bought sanitary towels are either unavailable or too expensive, and the local alternative has been to use strips of material torn from old clothes. During their periods, many girls stay away from school because a lack of sanitary towels. Schools also rarely have decent sanitary facilities or improved, gender-sensitive latrines. The more classes that girls miss, the harder it is to catch up, and many eventually drop out of school altogether.

In response, in Mbola, Tanzania, we began gender clubs to discuss puberty and sexual and reproductive health. This gives girls more confidence to make informed decisions, especially on sexual maturity and avoiding early pregnancy to enable them to continue their education. In addition, re-usable sanitary kits have been piloted. In both Mbola and Mayange, Rwanda, fifty girls in each site received the Be-Girl reusable hybrid pad kit, which can be made cheaply with readily-available materials. The nylon waterproof

envelope can be filled with disposable toilet paper or reusable washable cloth. One kit includes two pads, allowing girls to have enough alternatives to change.

*“Be-Girl pads are environmentally-friendly and affordable compared to the disposable ones, which are very expensive,” said Juliet Mgasa, Gender and Community Development Coordinator in Mbola. “Most girls cannot afford them and they are instead forced to use piece of old clothes, which are not hygienic and have implications for their general reproductive health.”*

In Mayange, the Project also built girls' changing rooms at two schools. These are large private spaces where girls can change napkins, wash, rest and talk together or with teachers about physical development, sexual reproductive health and hygiene and sanitation.



Connect To Learn supports **415** students as they work towards completing secondary school

Other work in the Villages this year has focused on promoting girls' access to education. The Connect To Learn program currently supports 415 students as they work towards completing secondary school, with full scholarships and a focus on information and communications technology. In Ruhira, Uganda, the Project routinely meets with scholarship beneficiaries – 100 supported by Connect To Learn, 20 by Millennium Promise Japan, and eight others – to encourage them to set meaningful goals, to urge them to stay in classes and be role models to others.



**Community Education Workers in Mbola with education facilitator Mr Nemes. Their efforts help more girls to go to school.**

In Sauri, Kenya, bicycles were given to 50 scholarship girls from disadvantaged families, to make it easier for them to get to and from school. Previously, they walked up to six miles every day, tiring them out and raising risks that motorcycle taxi drivers could take advantage of them by transporting them for sexual favors. The bicycles were handed over with new text books in an enthusiastic ceremony earlier in 2013. The bicycles are to be used for travel to and from school only, and if a girl drops out it is given to another needy student.

Christine Osiala, one of the scholarship students, had to leave school two years ago for more than a year because her family could not afford to pay the fees. Thanks to the Project and Connect To Learn, she is now at Ulumbi Secondary School. "I would be a miserable housewife and probably a mother of three children had this chance not come my way," she said. "Now I have my fees paid, and I have a bicycle to move to school. I sincerely thank the Project for this opportunity. Now it is my responsibility to work hard, complete my education and pass well."

The effect of these enhanced efforts to keep girls in schools can already be seen in the number of graduates who have started successful careers. In Ruhiiira, Nishaba Miria and Nayebare Doreen, two scholarship-sponsored girls, recently joined nursing school.

"We now participate in clinical practice, where we spend about half our time in the week going on rounds in the wards," said Doreen. "I can now administer an injection, measure pressure of patients, do an intravenous insertion for drip and a lot more."

Lawrence Ssenkubuge, the education coordinator in Ruhiiira, said: "We could not hide our joy as we looked at these smart young ladies who are going to be our first crop from the scholarships. We are looking forward to having them treat the members of the community that raised them."

Other programs work with adult women, who play a key role in the Villages as agricultural producers but have limited access to assets like land and often do not control their household income. This has created a gender gap and made women dependent on men. Widening women's economic activities helps to boost their financial independence. With training and regular workshops, we try to improve women's access to productive resources, including land and financial credit, and increase their knowledge of property and contractual rights. Women's groups were taught technical agricultural skills, as well as given ideas on how to diversify into other industries such as craft and retail, to increase their income and self-reliance.



In Mayange, the project launched a campaign aimed at women about development opportunities and the benefits of collective innovation, with a special focus on entrepreneurship and access to loans. In less than 12 months, 1,000 women accessed loans equivalent to \$70,000 that they have used to improve the sales and marketing of their farm produce. Long-established women's cooperatives in industries such as knitting continue to go expand. Thanks to steady profits and access to loans, the knitters were able to purchase new machines this year. They have started to take on young girls as apprentices after school hours, and moved to a purpose-built facility at the newly constructed Mayange craft center.

# WATER, SANITATION AND HYGIENE

Secure supplies and clean environments for progress across the board



*Children celebrate global handwashing day in Mwandama, thanks to a partnership with Unilever.*

Millennium Development Goal 7 includes the pledge to halve the proportion of the world's population without access to safe drinking water and basic sanitation, and from the beginning it has been our aim swiftly to hit this target in the Millennium Villages. The first part of the Goal was achieved quickly, but it has taken longer to reach the second promise, on sanitation. Nonetheless, we have already seen significant successes, with the number of people who can now find clean water close to their homes doubling or often tripling in the Villages. We have protected springs, dug shallow wells and installed hand-pumps, put in deep boreholes with mechanical pumps, harvested rainwater, and piped supplies directly into many more homes and buildings. During 2013, our focus has been to maintain already improved water sources, increase the number of people with access to sanitation, and help prepare communities for a smooth transition once the Project ends in 2015.

In Sauri, Kenya, 54 more springs were protected this year, with the help of the Diageo Foundation, further increasing access to better water supplies to the point that 94% of the Village's population, or 6,500 people, now get their water from a safe source every day. When the Project started, that figure was just 36%.

Preparations to hand over management of key water infrastructure before 2015 is in top gear. Each improved water source in Sauri has a management committee trained how to maintain the water quality and conserve the local environment. Most committees are in the process of registering as Water User Associations, legal entities mandated by Kenya's Water Act to levy fees for spring maintenance, helping to ensure that they independently pay their way after 2015.

Similarly in Mbola, Tanzania, 94 water users groups were trained how to register as legal entities, how to collect fees, and best practices for management, governance and reporting. Already, the Project has begun handing over water

facilities to organized groups and Village authorities. This gives us time to nurture the transition process and provide technical help where it is needed.

Elsewhere in Mbola, there is a much-needed new borehole that was paid for thanks to the efforts of a Columbia University intern, Yobo Takemura. She spent time in Mbola's Lyaudusi sub-village, and saw that it was not connected to piped water because of its location further up the hill. Takemura, touched by the community's needs, created a personal website through which anyone wanting to give her a birthday present could make a contribution. She was surprised and delighted to find that she in the end raised \$6,240, which was used to drill the new Nguvumali borehole and equip it with a durable hand pump. The community contributed in-kind by supplying building material, and in-cash by buying cement, iron bars, and wire. During the commissioning ceremony, Kiyungi Isike, the area Chairman, could not hide his happiness. "The situation was very serious," he said. "Most of the people especially women were not sleeping at night since they had to wake up so early to go to search for water. Their husbands were left to take care of the sleeping children."

In Mwandama, Malawi, rainwater harvesting was installed at eight more primary schools. Starting in 2013, The Coca Cola Africa Foundation's "RAIN - Replenish Africa Initiative", dedicated to improve water, sanitation and hygiene, is paying to build or repair boreholes and shallow wells, expand rainwater collection, and install hand-washing facilities in 16 schools, work which will be completed before the end of the Project. We began a training program for "Area Mechanics" to repair boreholes, with the community paying for the service, and ensured all boreholes are linked with the District Water Department, which provides annual monitoring and maintenance. This public-private sector partnership will ensure sustainability of all the water points in Mwandama.



*Clean water now flows to more schools, health clinics and households than ever before thanks to infrastructure built by the Millennium Villages Project.*

A further 317 households were linked to piped water this year in Mayange, Rwanda, where improved supplies have been integrated within the work of the government's Energy, Water and Sanitation Authority.

Working with the Zanzibar Water Authority, the Project in 2013 expanded pipes in the two-mile network around the Village of Pemba, Tanzania, from the existing three inches to six inches diameter. This significantly increased the volume of water flowing from a rehabilitated reservoir to the Village, and improved supplies for 1,500 households. Previously, only 9.6% of the population had access to safe, clean water.

### IMPROVED SANITATION AND HYGIENE

The Project has provided hygiene and sanitation infrastructure from the outset. We helped to install drinking water facilities and hand washing stations in schools, homes and health clinics. Waterborne diseases like diarrhea have decreased significantly. Despite these successes, infrastructure improvements without behavior change are not enough to stop the spread of illnesses caused by poor sanitation and hygiene, to hit MDG 7. Our partnership with Unilever gave those efforts a boost during 2013, with the company's proven hand washing program being expanded in ten countries: Ethiopia, Kenya, Malawi, Rwanda, Tanzania, Uganda, Mali, Ghana, Nigeria and Senegal. Global Hand Washing Day in October was marked in all of the Villages, giving an opportunity again to encourage better behavior regarding hygiene.

"Sanitation means dignity," said Berlings Banda, Mwandama's water, sanitation and hygiene facilitator. "It shows your status in society. The signing of the pledge by Unilever representatives, Mwandama's school community and the Millennium Villages Project, represents a new commitment to ensuring every child lives past their fifth birthday."

In Mwandama, more than 600 children and adults publicly pledged to wash their hands with soap and water – the simplest and cheapest way to prevent the diarrheal diseases that cause the death of almost two million children every year, the disproportionate proportion in rural Africa. Children as young as six were able to identify the five key moments when washing their hands would be important, and they jostled each other to demonstrate the proper technique for using soap and clean water.

A parallel campaign to build better pit latrines and encourage people to use them properly is also proving successful across all the Villages. In one of Mwandama's sub-villages, each of the 28 homes has an improved toilet and a hand-washing facility, and a water pump delivers clean water to the center of the village. The initial funding was provided by the Project and the community supplied labor and some materials. "I am most proud of the fact that our children are not getting diarrhea and the frequency of other diseases like malaria is also reduced," said the location's elder, Chief Nelson. "Hand washing and sanitation are being instilled as part and parcel of every day hygiene," said Banda. "That's what makes this village special, and others in Mwandama are already following this example."

## THE EFFECT OF CLEAN WATER



Mrs. Mukamana, a 40-year-old mother with six children, says she used to trek one-and-a-half hours each way to collect water from her home in Mayange.

“ I could carry only one jerrican at a time, on my head, because I did not have a wheelbarrow to carry more. I had to make at least four trips to and fro each day. The water contained impurities, germs, worms and parasites, and my children often had diarrhea. Before the Project, waterborne diseases were frequent not only in our family but the entire community. We faced water shortages from time to time, and we had a poor temporary toilet with no roof.

“The good news is that within a few years, everyone has started to see a positive change. Now most of us have access to clean and safe water from pipes, not in water ponds or lakes as before. The community is now drinking good quality water, and the Project helped us improve the pit latrines. This has reduced incidences of water related illnesses and diarrhea.”

### QUALITY OF LIFE

Women have more time to pursue education or earn income

### FEMALE EMPOWERMENT

Food production improves with access to clean water

### HEALTH

Medicine is practiced more effectively with clean water, clean instruments and facilities

### MATERNITY

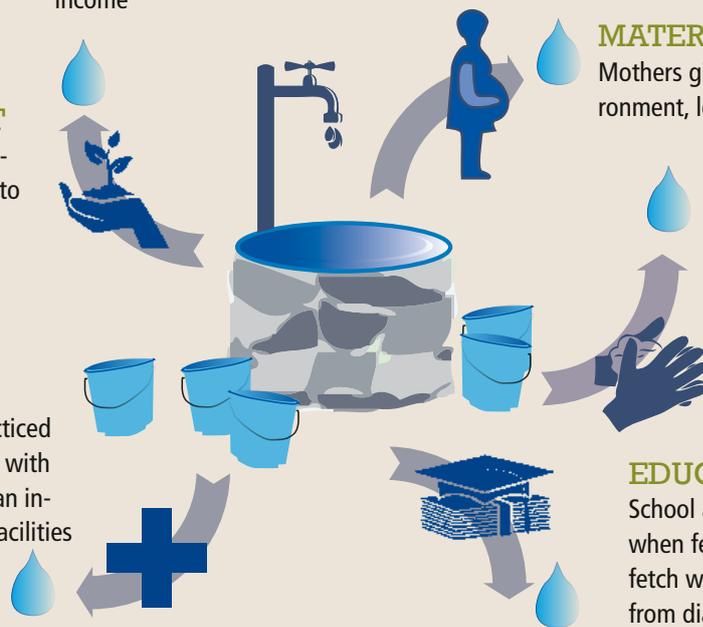
Mothers give birth in a clean environment, less chances of infection

### HYGIENE

40% of diarrheal deaths can be reduced with improved toilets and hand washing

### EDUCATION

School attendance increases when fewer students have to fetch water and don't suffer from diarrhea



Village	Improved water coverage (%)		Improved sanitation coverage (%)	
	Baseline	2013	Baseline	2013
Sauri	36	94	40	46
Mwandama	36	96	4	10
Mbola	13	66	2	40
Ruhiira	25	56	25	74
Koraro	42	90	15	70
Mayange	28	99	25	40

# EDUCATION

## Boosting education through community involvement



*Girls' empowerment class, Ruhira.*

Beyond the impressive gains in school enrollment made in the early phases of the Project, our focus now is to cement in place strategies that make sure boys and girls start school at the optimal age, that they do not drop out of class, and that learning is as good as it can be. During 2013, we have worked to achieve these aims by extending the involvement in schooling of both the community and the national governments, with a view to handing-over our role after 2015.

The main way we are engaging the wider population in each Village is with our Community Education Workers (CEWs), low-cost education extension agents who create a bridge between the school, parents, school-age going children and underserved groups in the community. The model, pioneered in 2012, builds trust between education professionals and the community in an informal way to enhance accountability in education service delivery in rural communities. Community involvement in education has the potential to propel learning outcomes.

The main role of community education workers is to monitor pupils' participation in school and keep an eye on those at risk of dropping out. They visit homes and share information with parents about their children's progress that helps them to understand their children's best interests. Parents are encouraged to understand their responsibilities to make decisions about their children's schooling, that they can advocate and demand quality services from teachers and schools, and ultimately that they play a key role in supporting positive change in the education system.

As soon as we introduced the CEWs, we worked to involve the ministry of education at the district level in each country to enhance their buy-in to the idea. Programs designed to increase the authorities' understanding of the scheme are carried out in collaboration with local education officials, and we will continue to enhance these links during 2014.

Our monitoring and evaluation team has found that CEWs have already improved school participation and

performance. In Mbola, Tanzania, 8,717 students attended 17 primary schools during 2013 as a result of intensified enrolment campaigns. Of those, 1,470 started their first year of school at the correct age, surpassing our targets by more than 100 pupils. Overall enrolment jumped from 75% to 87% in the first three months of 2013, largely thanks to the efforts of the community education workers.

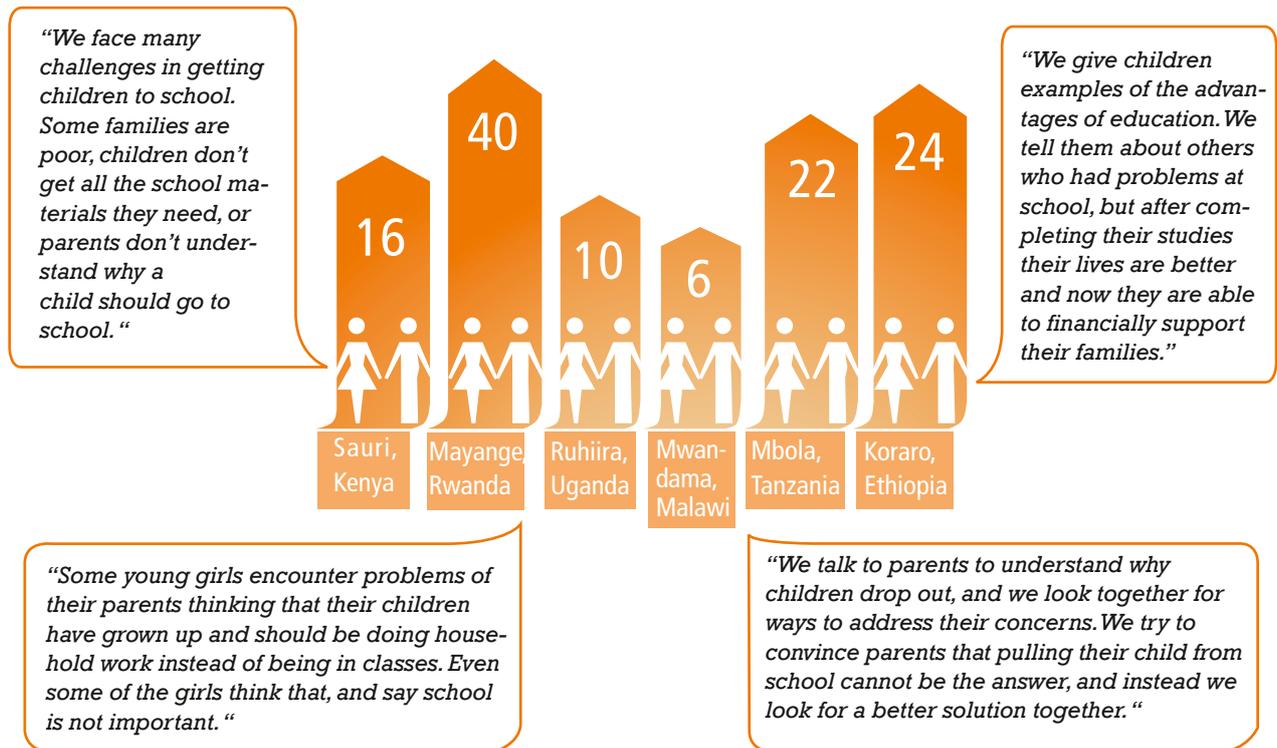
In Koraro, Ethiopia, 100% of students in four schools have passed examinations to enter secondary school. From 12 primary schools in the Village, 1660 out of 1743 students passed their secondary school exams, a rate of over 95%. This great achievement is a result of the combined efforts of teachers, students, education extension agents and the Project.

In Mwandama, Malawi, CEWs also prepare children who had earlier dropped out of school to go back to classes at Village Learning Centers supported by Malawi's Ministry of Primary Education. We are proud to note that its advisors agreed this year to provide text books for the pupils. A joint Child Tracking Committee was also formed to work with village leaders and communities to identify and report absent students and those at risk of dropping out.

“ *Mayange is a success story, when we look at what has been done so far in terms of education, it is excellent. Firstly, the Project responds to the goals of our government to provide basic education to our children. Second, it helps Rwanda to develop to a knowledge-based economy. We also focus on ICT education, and the Project has distributed computers in our schools. So, the Project supports and helps the government of Rwanda achieve its goals and achieve the MDGs. This is something that we as a government really appreciate.*”

**Mathias Harebamungu, Rwanda's Minister for Primary and Secondary Education**

## Building a bridge: The Millennium Villages' Community Education Workers



All quotes are from Dushimimana Claudine, a Community Education Worker in Mayange, Rwanda.

In Mayange, Rwanda, the Project has stepped up its work with the community, local leaders and other NGOs to promote sustainability and ownership of the CEW program, particularly with the national education network, the Rwanda Education NGO Coordination Platform (RENCP). Mayange Village is now pushing for CEW interventions to be discussed at the Education Sector Review at the national Ministerial level.

This is a key focus now: to document the CEW model to show evidence of its effectiveness in involving communities in enhancing accountability in providing education, so that the program can be adopted more broadly by governments. Best practices and lessons learnt will be used to show policymakers ways to improve learning in rural schools by investing in community-based human resources.

Other innovations implemented during 2013 to address specific education challenges included Mbola's Education Cup, awarded to the three best performing schools graded quarterly on student and teacher attendance, literacy and numeracy. This year, the winning school reached an average of 89% across all priority education indicators.

The Kenya National Library, supported by the American Corners program that gathers literature about life in the US, organized a book club in nine schools in Sauri, Kenya to encourage a reading culture and boost literacy rates. Easy-to-read picture books in English were given to younger children, while those in more advanced classes were given books a week in advance to read, and then they discussed them together in their book clubs.

We were impressed to see parents in Ruhiiira, Rwanda, set up two different scholarship funds – which they pay into themselves – to begin to prepare to support the poorest students' school fees after the Project ends in 2015. The Kabuyanda Girls Education Association's 50 members each agreed to give \$10 a month, and in less than a year can already boast of more than \$5,000 in the association's savings account. Parents in other areas of Ruhiiira have followed suit, forming a second association which has saved \$3,000 in just six months. Members are encouraged to make monthly deposits into a joint village bank account, a ledger of member savings is kept, and operational procedures are followed. The two associations meet monthly to review their progress, and routinely talk with scholarship beneficiaries, their parents, community members and village elders to ensure students fulfill their end of the bargain by getting good marks.

The associations plan to boost their savings through local investments, including planting trees and coffee, and rearing goats and chickens, so that proceeds can sustainably support school fees. They are also working to add more members, and preparing project proposals for potential partners who can turn the program into a foundation.

In 2014, our priority will be to research and document education innovations across all the Villages. We will strengthen partnerships with local government and other stakeholders in preparation for handing over in 2015. We will continue to identify challenges that can inform the post-2015 development agenda.

# INFRASTRUCTURE

## Innovation for improved health, education and business



The first years of the Millennium Villages Project focused on large infrastructure projects – dams, schools, roads, bridges – to improve mobility and access to markets in all the sites. With these building blocks now largely in place, our infrastructure activities now concentrate on better health care delivery, education and business. Information and communications technology innovations help people deliver better services, and further reduce the virtual distances between the Villages and rest of the world. We are also working to ensure that infrastructure points are handed over and maintained by governments and community groups.

In Sauri, Kenya, and Mwandama, Malawi, we built housing for medical staff to widen the availability of emergency health care and professional help for women when they give birth. A key challenge that all of the Villages have faced is the number of mothers who deliver at home, without qualified attendants. In case of complications, home deliveries put the lives of mothers and babies at risk. Working with the help of the community, we built six staff houses in Mwandama and two in Sauri, which were handed over to the countries' health ministries in June. With nurses and midwives now on site around the clock, the chances that mothers will give birth with the help of a trained attendant will be much higher.

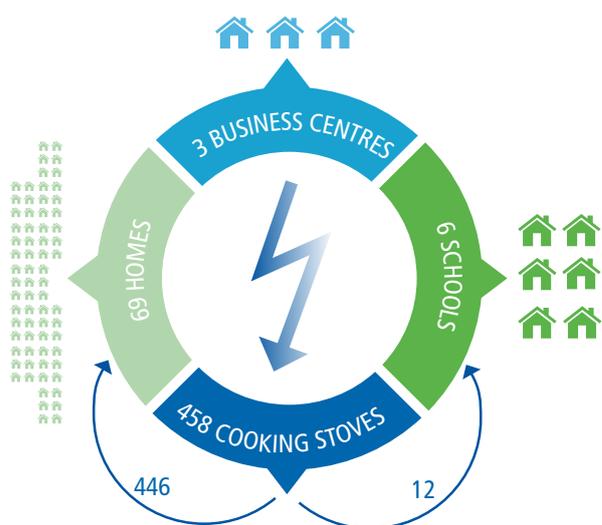
We have continued to expand electricity connections in partnership with the relevant national authorities. Electricity came to Mwandama this year with the installation of a transformer and grid that now supplies the Mwandama Health Clinic, three nurses' houses, the Grain Bank, Mwandama Primary School, the maize mill, and a grocery store. Five households are now fully powered, with more to follow next year.

In Mayange, Rwanda, six schools, three business centers and 69 homes were connected to electricity. On top of this, 446 improved cook stoves were provided to vulnerable households, and 12 installed at schools. The stoves use half of the energy of traditional cooking equipment, and reduce

cooking time and the amount of fuel needed. They also give off less smoke, reducing health risks.

In Sauri and Mayange, new infrastructure developments in 2013 have been designed to accelerate expansion of the growing business community. The new Mayange Crafts Center, built in partnership with the Bugesera district in 2012, can house 1,000 small businesses, and 200 have already taken up residence, including carpenters, welders, bicycle and motorcycle mechanics, weavers and knitters. Working in the same space helps joint training and marketing of products. The Project gave \$60,000 to build a fence, two hangars, and a sanitation facility and connected water and electricity supplies.

### BRINGING POWER AND CLEAN COOKING TO MAYANAGE IN 2013



In Sauri, the Project and the community worked together to build a workshop at the Mindhine Polytechnic, which opened in September 2013. It is currently training 88 students from the Millennium Villages and beyond in skills including metal-work, carpentry, electrical wiring, hairdressing and beauty, tailoring, and the food and beverage industry.



*Mayange's new Craft Center provides a home and market base for its highly successful cooperatives.*

*“Before, I was a temporary driver of tractor earning about \$60 per month. I have 16 years' experience in the carpentry industry, and now I have been able to build a house, buy half an acre of land, connect to electricity, and I have two employees. My salary is now \$120 monthly, and I am planning to raise more capital for business and train at least 10 young people in carpentry skills every year”.*

**Nteziryayo Jean Marie Vianney, 39, is a carpenter working at Mayange Crafts Center.**

The \$56,250 construction cost construction was generously covered by The Earl Phillips Jr. Family Foundation. The new workshop provides metal and carpentry students with a dedicated space to carry out their practical coursework, which they previously had to do in make-shift shelters. The Polytechnic's management Board is approaching the local County Government to further equip the workshop and to build a boarding dormitory for students.

Now that the Villages boast secure electricity connections, the Project has been working on ICT installation and training across all the sites, to expose more people to its opportunities and to give them the skills needed to benefit from those possibilities. This push will improve communication in our new cooperatives, primary schools and community resource centers, as well as expanding access to wider sources of information and increasing interaction with the rest of the world via the internet.

In Mayange, the MVP equipped four primary schools with 35 computers this year and 12 desktops were provided at Muyenzi and Mbyo primary schools. Internet connection and a further 54 laptops were provided at two other schools.

### *MPANGO “to plan” in Swahili*

#### *The Project's management legacy to development*

*With hundreds of millions of people still living in extreme poverty, there is a pressing need to understand how rapid gains can be made to maximize the impact of every dollar spent.*

*Development teams must work directly within the community to understand their needs, and be able to identify and measure simple targets and indicators that reflect shared goals. Against those goals, advisors and project managers have to develop comprehensive workplans and budgets to ensure that together they are achieving their targets on-time and on-budget. The ability to do this requires strong internal communication and the ability to rapidly correct the project when operational, financial and impact indicators begin to tilt the wrong way.*

*Mpango, “to plan” in Swahili, is a break-through technology platform, developed by the Earth Institute and Millennium Promise, in partnership with Vulcan Labs, to help development practitioners plan, analyze and manage community development efforts in real time. Information critical to the success of sustainable development programs should be available in seconds, not hours or days.*

*This simple online tool has been rolled out across the Millennium Villages this year, as the platform which allows Project teams across the world to track daily activities that are happening in the field in real time, and to change course where necessary. In addition, the program facilitates better communication with various stakeholders (management, executive, donors and partners), allowing them to be fully informed of the activities and progress happening in the field. Following the completion of the project in 2015, the dissemination of both lessons learnt and technologies like Mpango will form part of the Project's legacy to other development practitioners.*

We have also helped private entrepreneurs open internet kiosks, equipping three of them with 13 computers.

A computerized medical records system, and four computers, were installed at Mayange's health center and have greatly improved the tracking of health data. Community health workers now use cellphones to send messages on health issues to the server, which automatically responds and synchronizes with the system, called OpenMRS. Cases of illnesses are reported using a toll free number, and an ambulance can then be sent to carry the sick person to the health center.

# ENVIRONMENT

## Showcasing successes in ecologically-sound development



*Pemba island's unique ecotourism potential includes unspoilt beaches and forests.*

As the Villages prepare to continue their activities independently of the Millennium Villages Project after 2015, there were a number of important themes underpinning our work this year. First was the need to continue long-term investment to improve the environment, and especially soils, working with the procedures of Integrated Soil Fertility Management (ISFM). The second theme was that a healthy environment is fundamental to achieving all the other Millennium Development Goals. The third was that evidence of climate change continues to grow, and the impact of temperature extremes and unpredictable rainfall is increasingly felt and understood across the Villages, and indeed the African continent.

The farmers in Mwandama, Malawi, have been working hard to improve crop yields, using fertilizer when they could afford it, manure when it was available and better seeds and irrigation, all of them key ISFM components. A movement is gathering momentum in the Village around "Mbeya Manure" (see agriculture section, following page). The name comes from southern Tanzania, and informal trials have shown good crop yields. The next step, which we will take in 2014 with scientists at Bvumbwe Agricultural Research Station, is to analyze the benefits of combined mineral and organic fertilizer against pure mineral fertilizer. The rationale is that mineral fertilizer is often too expensive for farmers but "Mbeya Manure" could be both affordable and sufficiently improve yields to make it worthwhile.

In Mbola, Tanzania, we continue to expand a reforestation program to protect the remaining indigenous Miombo woodland. Trees have been felled for fuel, charcoal, timber and to cure tobacco. To reduce the environmental impact of this loss, we encourage people to plant tree nurseries, and we have distributed more than 30,000 seedlings to schools and farmers in 2013. We have also trained 1,162

farmers on environmentally-sound interventions, including the use of organic fertilizer, crop rotation and conservation tillage. Farmers have been encouraged to diversify what they grow, with a particular emphasis on reducing tobacco crops, which have had such a detrimental affect on the woodland.

Crop diversification has already taken root in Mayange, Rwanda, where the Project has been giving out grafted fruit trees to allow farmers to expand and earn more at the market.

Mayange differs from the other Millennium Villages in that it lies in a semi-urban area close to Rwanda's capital, Kigali. This means that it needs to actively deal with waste management. In 2013, the Project ran training on how to collect solid, non-solid, organic and non-organic waste left after market days, and helped design and install waste disposal areas in two of the Village's main trading centers. This has encouraged people to operate in a cleaner environment with the additional benefit of providing free organic fertilizer from the disposal sites.

Mayange is also the only Millennium Village so far with an established ecotourism business, and a cooperative has now been formed specifically to promote and manage the enterprise. It has already developed a tailor-made Village tour in collaboration with a tour company, and has set up a restaurant for visitors. As many as 400 people visit annually, and revenues are slowly increasing. The plan in 2014 is to develop ecotourism experiences, including visits to the caves at Rwabayanga and hikes up Rebero hill.

We are keen to expand ecotourism in the other Villages, because it provides financial incentives to preserve fragile ecosystems while showcasing the Villages' success in



**George Wajewa looks after his mango trees in Sauri. Tree seedling initiatives boost farmers' incomes and help the environment.**

environmentally-sound development. In Sauri, Kenya, a new ecotourism project has started, designed to link with the national tourism board's aim to encourage visitors to spend time in Western Kenya. The Gem-Sauri Community Organization is now officially registered, and is working hard to identify its niche tourism products with attractions including the Mumwe hills and the Ndanu waterfalls. Discussions are ongoing on opening a museum honoring Odera Akang'o, a powerful early-20th century local chief who ordered trees to be planted long before the dangers of deforestation were well known, and who ruled that people must send their children to school, many of whom are now well-known academics. The museum would also provide insights into the history, culture and folklore of the Gem people, including its unique lyre-like instrument, the nyatiti, and the area's Benga and Ohangla music and dance styles.

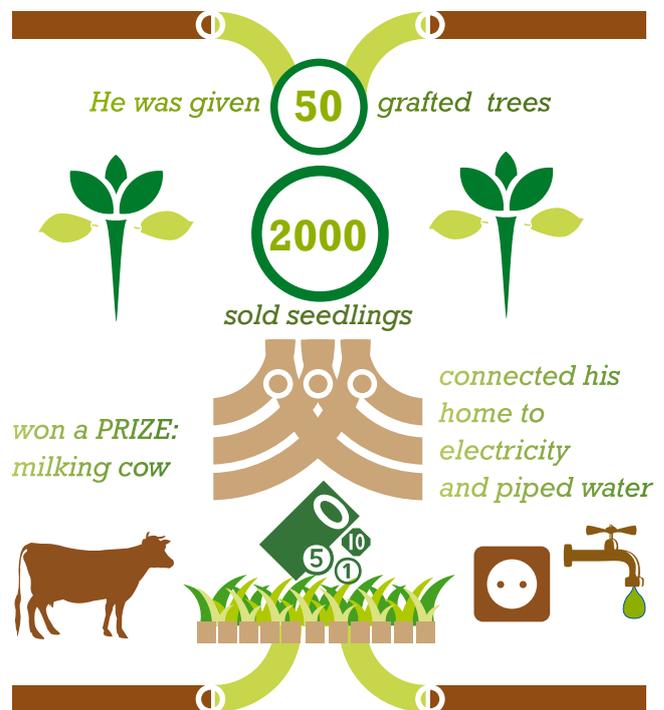
Efforts are also underway to expand ecotourism in Koraro, Ethiopia. The Village is flanked by the Gheralta mountains, which boast rock-hewn churches skillfully carved in to the hills, and which feature ancient rock art and antiquities. The difficulty of reaching these sites means that few visitors have yet fully explored the area – there are even rumours of churches that have not been seen for years. The area's potential as an adventure tourism and trekking destination, combined with the bucolic abundance of fascinating traditions of the local people, makes Koraro a fascinating destination. An ecotourism cooperative has been formed with the support of Tigray Regional State Culture and Tourism Agency and other partners, and they are now working on how to improve the infrastructure to reach the sites, as well as how best to illustrate to the community the benefits of tourism. The cooperative already has an office with computers linked to the internet for both tourists and local residents to use. It has set up a website [www.visitgheralta.com.et](http://www.visitgheralta.com.et), and has begun to promote itself.

*Munyemana Thadée, 56, was given 50 grafted trees, and used them to start his own fruit tree nursery. During 2013, he sold 2,000 of the seedlings to his neighbours, and with the extra income has been able to connect his home to electricity and piped water, and is now considered a farmer technician trainer who is paid to pass on his expertise to his peers.*

**“ The situation of my family has improved so much since I diversified my crops,” he said. “I now have enough to eat, and sell to the market to buy school materials.”**

*He also won a milking cow as a prize for being the best model farmer in his village.*

**A SUCCESSFUL START -UP OF FRUIT TREE NURSERY.**



Kiyu-Mbuyuni village in Pemba, off the East Coast of Tanzania near the island of Zanzibar, is also starting to capitalize on its eco-tourism potential. The village boasts traditional houses and the people have a unique way of dressing and dancing. This can be linked to tours of the Ngezi Forest Reserve, and seeing Pemba's famous flying fox, an endemic species of bat. At the same time, progress in achieving the MDGs can be showcased by visiting seaweed farms, soap manufacture, health clinics and schools. The Revolutionary Government of Zanzibar in 2013 launched the "Tourism for All" campaign which calls for the communities involvement. The Michweni District Committee has done tremendous work in conservation of culture and advising guests on local customs and taboos, including the need to respect the diversity of religious and moral beliefs.

# AGRICULTURE

## Leading the way to the farms of the future

Advanced agricultural techniques to increase harvests is the foundation of improved food security, better health and nutrition, and more lucrative agri-business opportunities in the Villages. After achieving and maintaining huge gains in staple crop yields in the early years of the Project, our attention has now shifted to sharing ideas and technologies for diversified farming practices.

In 2013, we launched the Lead Farmer program, which has helped to transform how Village farmers learn of new techniques in agriculture. The approach involves communities choosing innovative and successful farmers with the skills, aptitude and commitment to work with their peers towards the ultimate goal of increasing productivity. These selected farmers are then trained in technical, communication and leadership skills so that they can share their progressive experiences with others.

The program, financially supported by Agrium, a Canadian agricultural products company, is community-led and recognizes the skills of individuals at the local level to promote learning amongst their fellow farmers.

Already, close to 1,600 Lead Farmers have been trained in five Villages. The Lead Farmers have in turn passed on their newfound understanding of sustainable agricultural technologies to 47,000 individual Follower Farmers, and acted as mentors to those farmers as they introduce these new ideas to their fields.

Each Lead Farmer works with up to 100 Follower Farmers, and is expected to perform four functions:

- To mentor “trainee” farmers, keep track of their progress and suggest improvements
- To teach Follower Farmers simple but innovative agricultural technologies
- To impart knowledge of local conditions, constraints and solutions
- To provide a community-based forum for sharing knowledge and information



Site	Farmers	Extension Officers	Lead Farmers
Ethiopia	17,034	15	660
Kenya	13,790	10	420
Malawi	7,152	10	228
Tanzania	6,000	9	240
Uganda	3,800	20	35

Site	Lead Farmer per Extension Officer Ratio	Farmer per Lead Farmer Ration	Farmer per Extension Officer Ratio
Ethiopia	44	26	1,136
Kenya	42	33	1,379
Malawi	23	31	716
Tanzania	27	25	667
Uganda	2	108	190

The success of the Lead Farmer approach has already had a powerful and beneficial ripple effect. Before the scheme began, all farmers in the Villages relied on government workers called agricultural extension officers to give them ideas about better ways to farm. But the number of these officers is falling, and many have complained of overwork as they struggle to reach tens of thousands of individual farmers. Now, in the Millennium Villages, each Lead Farmer works one-on-one with an extension officer, and then shares the knowledge gained with the rest of his Follower Farmers. In this way, the reach of the government officers is greatly magnified. For example in Sauri, Kenya, and Koraro, Ethiopia, each agricultural extension agent was on average responsible for between 1,100 and 1,400 individual farmers. Now, they need only liaise with an average 43 Lead Farmers, leaving them more time to plan and monitor the overall agricultural developments in the Villages.

We are confident that our Lead Farmers approach can be a model policy that African governments can adopt as a cost-effective and innovative way to provide extension services to help rural farmers upgrade their farming practices.

In Mwandama, Malawi, we introduced farmers to organic “Mbeya Manure” as an alternative to traditional fertilizers, which were proving too expensive. As the Project phases out paying subsidies for farm inputs, using local organic alternatives is a way to ensure food security after 2015. Mbeya manure is made up of 10kg of mineral fertilizer combined with about 40kg of maize husks, chicken or pig manure, ash and water. The mixture is allowed to decompose within 21 days in an air tight plastic bag, and is then dried away from direct sunlight before finally being applied to growing crops. It improves the structure of existing soils, and already we have found that crop yields have been as high as when farmers used chemical fertilizers.

In Sauri, Kenya, greenhouse farming has taken off since it was introduced in 2009, and has become a source of rural employment for the Village’s younger members who would otherwise likely head to towns to look for work. Farmers continue to grow horticultural crops all year long using drip irrigation, with tomatoes the preferred number one choice. Through Sauri’s Gem Horticulture Cooperative Society, farmers are helped with loans for materials to get started, including plastic sheeting, water tanks and irrigation pipes.

After only his first harvest, George Odhiambo Marenya, 33, earned roughly \$1,000, which he used to repay his loan, buy food for his family and iron roofing sheets for his mother’s house, and purchase a dairy cow that is now expecting a calf. “Tomatoes are more profitable than other crops” he said. He plans to put up a second greenhouse in 2014, and is looking forward to investing his own profit back into his new businesses. “Now that I have known the goodness of this greenhouse technology, I want to be a dedicated self-employed and prominent farmer, and I would like to buy a pump and sink a borehole to continue with drip irrigation” he said.

## The Millennium Villages’ Lead Farmers



Name: Mary Akong'o Owiti,  
Village: Sauri

“ I grow groundnuts and beans. Even though I am 67, that has not stopped me from being a role model. I teach my 10 Follower Farmers how to plant beans and groundnuts because during the short rains season, the conditions are not good for maize. Besides, one 4.4lb tin of groundnuts fetches \$4, which is a good price.”

Name: Pauline Mukanganizi  
Village: Mayange



“ Before, farmers worked individually, but we created a network to help them. After the trainings and support we received from the Project, we share experiences, innovation and good practices, and advocate for appropriate investment. This has helped farmers to improve their practices, for example, the transportation of manure is now much easier thanks to wheel barrows. All of us are happy with the agricultural tools received from the MVP.”

Name: Keshi Gebresilasie Teka  
Village: Koraro



“ Before I had no experience in horticultural crop production but now, thanks to the training and technology provided by the MVP, I am producing tomato, onion and cabbage, and citrus and guava fruits to earn money. I paid for my children to go school and built a house in Hawzien town worth \$10,000. I also have \$3100 in my account, two oxen for ploughing and two cows for dairy”.

## SCALING UP

### Passing on the baton: new partners taking over



*Rwanda's Minister for Local Government, James Musoni, opens the MVP annual meeting in 2013. Rwanda is committed to scaling up the Project throughout the country.*

The Millennium Villages Project uses a scalable, interconnected package of interventions to accelerate development that is designed to be adapted to other parts of rural Africa to reduce poverty and achieve the Millennium Development Goals. This premise is perhaps the defining feature of the Project's view to the future, and one on which our success will be evaluated long after 2015 as others take up our approach to achieve similar results.

Already, we are working with governments, the private sector and civil society to bring essential services in health, infrastructure, and food security to more and more communities beyond the original eight Villages in the region, and to transfer ownership of development efforts ahead of the 2015 project deadline.

#### **MORE VILLAGES, MORE IMPROVEMENTS**

As part of this, The Islamic Development Bank (IDB) extended more than \$100 million in financing this year to help nine African nations reduce extreme poverty, improve public health and achieve more sustainable development. The Project team will provide technical, operational and scientific guidance to the countries involved. The combined \$100 million will finance three major programs:

- The IDB's flagship Sustainable Villages Program (SVP) in Chad, Mozambique, and Sudan
- Scaling-up Millennium Villages Project ideas to other areas, in Mali, Senegal and Uganda
- Implementation of the Drylands Initiative in Somalia and Uganda

Thanks to the \$9.75 million it received from the IDB, Uganda's government began expanding the Project's approach to other villages, following the long-standing results we have achieved in Ruhira Village.

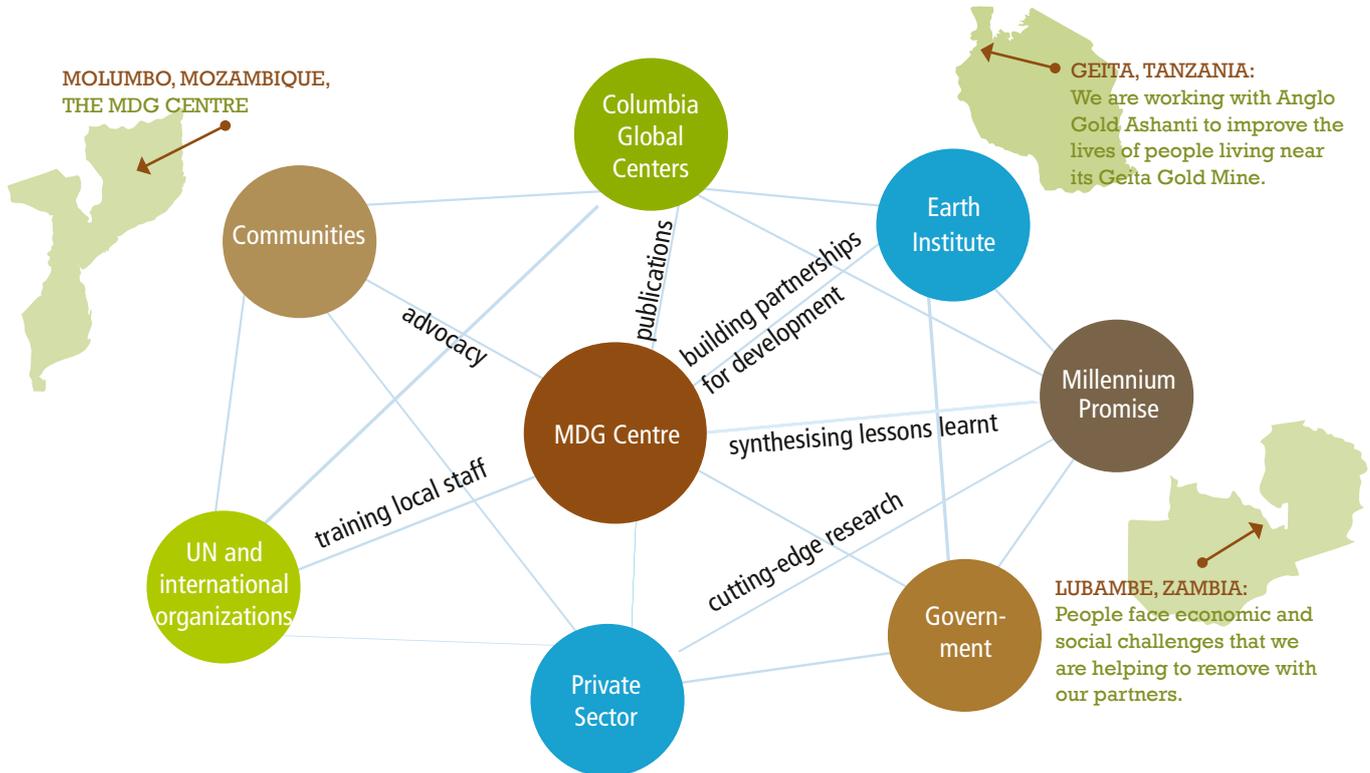
*“Since 2006, Ruhira has demonstrated the success of an integrated approach to sustainable rural development. The key virtues are a holistic approach to tackling poverty. The evaluation of the Project in phase one showed landmark achievements whilst demonstrating growth in target locations, for example in the elimination of hunger, improved livelihoods, and full attendance at primary schools.”*

**Adolf Mwesigye, Uganda's Minister for Local Government.**

The IDB money will help Uganda provide social services and business development in Ruhira and will expand activities to five other districts in the region. The package of interventions totals \$11.5 million, thanks to other contributions from Uganda's government, NGOs and the communities themselves. Community ownership of the Project is equally important to ensure its momentum is maintained after 2015.

“Even though these communities are classed as poor, you will be surprised by how much they can now bring to the table. Working with people from the beginning to define their needs and to develop and run projects that meet these needs is the key to long term success,” said David Siriri, team leader in Ruhira.

The Government of Rwanda hosted the Project's annual retreat this year, and in December confirmed new funding for national development efforts in a fresh push to scale-up our work to other parts of the country. A national needs assessment will be carried out early next year as a base for planning development interventions.



### NEW WAYS OUR APPROACH IS WORKING

In 2013, we have also seen renewed efforts to apply the Project model in new countries, with encouraging support from respective governments. We are particularly excited about working with the IDB's Sustainable Village Project, which builds on our experience over the past seven years in the Millennium Villages. It is beginning in Mozambique, Sudan and Chad in Africa, and Kyrgyzstan in Central Asia, with our teams providing technical and operational advice. Both Projects include an integrated package of science-based services and technologies to help rural communities improve public health, agriculture, education, and therefore their standards of living.

In Mozambique, The MDG Centre has engaged in preparatory activities to support the SVP since 2011, in partnership with the mining industry. For example, Molumbo village faces serious challenges, and because it is remote from major towns or highways, few development organizations are present. The government however is now looking at investing in upgrading nearby roads, and we hope this will open up the area to both the private sector and NGO support.

Besides the SVP, other development projects similar to the Millennium Villages are gaining ground around Geita in northern Tanzania and Zambia's copper-belt. In Tanzania, we are working with Anglo Gold Ashanti to improve the lives of people living near its Geita Gold Mine (GGM), the company's largest open-pit mine in Africa. Geita town's 150,000-strong population is growing at roughly 3.5% a year, and current infrastructure cannot support this. To help everyone earn a living, we are focusing on

encouraging alternative livelihoods for communities surrounding the concession. Similarly, in Zambia, the villages clustered around Lubambe copper mine sit on soil rich in resources, yet people still face economic and social challenges that we are working to help remove.

In each of these new countries and locations, our technical teams have used the same initial approach of gathering data and creating connections to national governments. First, rapid site assessments were carried out, focused on indicators on agriculture, water, environment, health and sanitation, education, gender, infrastructure and ICT. Interviews with the community, health and education managers, and district leaders enabled us to target interventions where people said they were most needed, thereby instilling a sense of local ownership of the activities from the very beginning. Secondly, we carried out baseline surveys, which included training locally-recruited staff to help collect data, which were then verified and analyzed. Importantly, alongside the work in the villages themselves, we have held meetings with senior governmental staff to ensure that our ideas are in line with national planning and can be scaled out to other parts of each country. This helps make clear from the start what The MDG Centre and its partners including the Earth Institute at Columbia University will provide in terms of technical expertise, and which functions remain with district authorities. Where we are working with mining companies, we have encouraged proactive government partnership with the private sector to maximize access to corporate social responsibility resources. The two villages at Geita and Lubambe can serve as models for similar partnerships where the private sector – especially extractive industries – can learn how best they can work with NGOs and governments to reduce poverty.

# MILLENNIUM CITIES INITIATIVE

## Showcasing investment opportunities



*Successful CHW programs like those in Sauri inform similar efforts in urban areas.*

The Millennium Cities Initiative, a sister project to the Millennium Villages, was set up to bring a version of our integrated model of interventions to boost economic growth in a series of under-resourced urban areas. During 2013, the Initiative worked to identify commercially viable investment opportunities in Mekelle, Ethiopia and Tabora, Tanzania. With the Regional Partnership to promote trade and investment in Sub-Saharan Africa, the Initiative's team of experts identified sectors in which the two cities have comparative advantage in local, regional or international markets. The results of that research were detailed in city profiles presented to the Tabora and Mekelle Investment Forums held in July and October in Dar Es Salaam and Addis Ababa respectively.

Training materials, tools and resources were developed to help the cities' leaders create the best possible bids to attract both domestic and international private sector investment. The Initiative created a website for Tabora, [www.investintabora.com](http://www.investintabora.com), under the Regional Partnership scheme, and a website for another of the Millennium Cities, Blantyre in Malawi. Promotional brochures for Tabora and Mekelle were also designed and printed and distributed to partners and potential investors.

More than 140 people attended the Tabora Investment Forum, which featured speakers including Tanzania's vice president, the regional commissioner for Tabora, and representatives of the Finnish Government, international accountancy firm KPMG and Millennium Cities Initiative staff. Investment opportunities presented included in honey and beeswax, dairy, meat, sunflowers, tropical fruits, and tourism. Already there have been 30 separate inquiries from interested companies about doing business in the area.

Fifty different companies took part in the Mekelle Investment Forum. Beyene Mekru, the Vice President of Tigray

Regional State, officially launched the event and Teweldebrhan Tesfalem, the Mayor of Mekelle City, delivered the welcome speech. He said:

*"We are dedicated to making Mekelle an economic hub, not only in northern Ethiopia, but in the Horn of Africa".*

Investment Profiles showcased during Mekelle's forum included beekeeping, animal feed manufacture, a pharmaceutical plant, and the production of essential oils.

The Forums were a milestone in the two-year collaboration between the Regional Partnership and the Initiative. Separately, key individuals from both cities attended a seminar in New York in October. This concluded a series of activities including training on attracting productive private sector involvement, ways to target investors and highlight opportunities, and tips for running investment seminars, organizing field visits, and ensuring follow-up engagement to cement new deals. Part of the seminar was given over to discussions on ways to overcome barriers that reduce competitiveness and limit commercial effectiveness, and on how to select investments that will maximize benefits to the community in the cities.



*A honey producer displays modern beehives in Sauri.*

## Honey sweetens the links between Cities and Villages



**Modern honey harvesting techniques and technologies can forge linkages between producers and cities for mutual advantage.**

The Millennium Cities Initiative is lobbying investors to build honey processing plants in the Tabora region of western Tanzania, which would add value to the honey produced by farmers in Mbola Millennium Village. This area is the country's largest honey producer, thanks to its famous dark brown honey produced by bees from the Miombo woodlands. The climate and terrain conditions result in delicious, high quality honey that is popular both nationally and internationally. As a result, many local farmers in Mbola harvest honey from traditional beehives, but until recently the equipment and

techniques used have kept production volumes far below their potential. Added to that, a lack of market access and business knowledge has hindered the development of beekeeping as a commercial activity. The Project has therefore stepped in to assist farmers to modernize and commercialize honey production, in an effort to guarantee both sustainable livelihoods and food security in the largely subsistence, agrarian economy. Output using these new techniques could increase harvests tenfold, from the 13lb per hive per year using traditional means, to as much as 130lb.

### TRAINING OF URBAN COMMUNITY HEALTH WORKERS

As part of the One Million Community Health Workers Campaign, the Initiative trained a group of urban CHWs in an informal settlement in downtown Kisumu, Kenya, called Manyatta. The training program was organized with the Kisumu City Council's Department of Health and the community itself, and has since become a key plank of the neighborhood's public health monitoring and management plan.

With this pilot project, the Initiative aimed to demonstrate the benefits of community-based models to improve basic health services in low-income urban areas. High population densities – often viewed in a negative light – can actually help increase access to health care, widen awareness and boost mutual respect between people. The trust and friendships built between residents of informal settlements and community health workers can be invaluable in building faith in the entire public health system. That, in turn, makes the wider health services run more smoothly and reach more people, helping to prevent disease, ensure timely treatments and referrals, and expand health and hygiene education.

## PARTNERSHIPS

The key connections that help ensure success



*The Government of Rwanda supports scale up efforts across the country based on the success of Mayange village.*

The Millennium Villages work hand in hand with communities, governments, other NGOs and international organizations. From the outset, the Project's contained timeframe and its end date have been factored in to all our efforts to ensure that our partners are empowered to take over and maintain the momentum after 2015.

As a partner, the **communities** we work with come first. They have been intimately involved in every aspect of the Project's development, setting out their needs and priorities, and giving us their ideas on how best to bring about change that is consistent with local knowledge and cultural values. As we near the end of the Project, it is encouraging to see people in the Villages now running many of the activities themselves, clearly indicating that the development gains will continue independently in the future.

Mwandama's Grain Bank is a good example. There, the management committee used its profits to invest in a grain mill, build a general store and buy a truck this year, creating jobs and opening up new revenue for farmers. Rising earnings and better access to financing have encouraged individual entrepreneurs, who have opened shops, tailoring businesses, or hairdressing salons, to name a few. Increasingly, people are spending their increased income on social goods like education and health, laying a strong foundation for an independent and prosperous future.

The **World Food Programme** is a strong supporter of the Grain Bank, as part of its Purchase for Progress initiative. The organization has also been closely involved with the Village at Dertu, Kenya, under its Food for Assets scheme. Our joint efforts focus on integrated water management, dryland agriculture, and boosting communities' resilience, and we hope these efforts will be widened out to other Villages. Australia's **The Charitable Foundation** has provided overarching support for Dertu since 2010, funding health, water and sanitation. It specifically aims to halve maternal mortality from 1,300 deaths per 100,000 people to 650, child mortality of under-fives from 163 per 1,000

children to 54, and HIV infection rates from 2% to less than 1%. Alongside these goals, the Project aims to more than double the percentage of people in Dertu with access to sustainable water from 35% to 75%, helping an estimated 20,000 people by 2015.



*Mwandama's Grain Bank has launched a host of sustainable, independent businesses, including a shop and community truck.*

We continue to work closely with United Nations agencies, particularly in the health sector. **UNAIDS** funds and works with us on the highly-successful HIV 'Mother-to-Child Transmission-free Zones' program in all the Villages.

**“UNAIDS decided to partner with the Project because it represented things that we could not see elsewhere, namely a community-based approach and the flexibility and willingness to innovate to get results. Applying technical expertise on the ground and finding a partner that's willing to try different approaches to development is the key to a long term sustainable response.”**

**Maya Harper, Kenya Country Coordinator, UNAIDS**



*Our partnership with Unilever celebrated during Global Handwashing Day.*

**UNICEF**, the UN's children's agency, and **UNFPA**, the UN Population Fund, provide essential commodities for maternal and child health services. Also in the health sector, we work closely with the **One Million Community Health Workers** campaign, spreading the benefits of our village health workers projects to country programs in Sub-Saharan Africa and beyond. **GlaxoSmithKline** sends volunteers every year to support our work with their unique skills, and Millennium Village country programs collaborate closely with the **Elizabeth Glaser Pediatric AIDS Foundation**, **Marie Stopes**, **CARE** and **Dignitas**.

Education sector partnerships include membership of the **Elimu Yetu Coalition** and the **Women Educational Researchers of Kenya**. We also collaborate with **Uwezo**, a regional initiative to improve childhood literacy and numeracy in Kenya, Tanzania and Uganda, and with the **Kenya National Library Service** to instill a reading culture among primary school children in Sauri, Kenya. In Mbola, Tanzania, a partnership with **Mwenge University College** of Education supports teacher training. The **Rwanda Education NGO Coordination Platform** is our key partner in Mayange, and plans are advancing in Mwandama, Malawi, for a partnership with **Save the Children** on learning assessments and teacher training. The singer **John Legend** has sponsored ten scholarships for girls in Sauri, and provided funding for school water, sanitation and hygiene facilities in Mwandama. **Millennium Promise Japan** funds 32 secondary education scholarships for girls in Ruhira, Uganda, and a delegation met with scholarship recipients earlier this year. The organization also paid to build eight classrooms and funded fish farming and irrigation schemes.

On the business front, the New Yala Dairy Cooperative in Sauri this year received the first of the new loans coming from the **Soros Economic Development Fund**. The \$750,000 loan will help 300 farmers purchase high-grade cows to boost their dairy business. Already, 34 cows have been bought, and the cooperative's members plan to



*Professor Jeffrey Sachs meets cooperatives in Mayange.*

upgrade their processing facility to increase volumes and diversify into specialized products such as yoghurt. **Agrium**, a Canadian agricultural products company, is our lead partner in the innovative agricultural extension worker program across all the Villages.

In Mayange, the **United States African Development Foundation** is giving \$250,000 over three years to supply farmers with the highly-productive Kotka cassava plant, and to upgrade facilities and increase production. In Mwandama, **Yara**, a Norwegian fertilizer company, built two large chicken coops for the new poultry cooperative, whilst **AGRA**, which helps improve Africa's agriculture, funded integrated soil fertility improvement. **The International Potato Centre** works with us to encourage people to plant and eat Orange-Fleshed Sweet Potato, to improve nutrition and provide extra income. **Monsanto** and **Pioneer Seeds** give Mwandama's farmers improved maize seeds for demonstration plots as part of their corporate social responsibility. **KPMG**, an international accountancy firm, provides much needed support to the village of Pemba, Tanzania. This year, **Action Aid Tanzania**, the community and the government joined together to finish building three new classrooms.

In Sauri, the **Diageo Foundation** sponsored the protection of 54 natural water springs, helping more than 7,000 people. The **Global Hunger Foundation**, directed by Eric Bost, a former US undersecretary of state, helped children and staff at Nyamnia Primary School to grow crops and raise livestock, while **Table for Two** is helping 12 schools set up nutrition gardens and trained them on agriculture and nutrition education. **IITA**, the International Institute of Tropical Agriculture, headquartered in Nigeria, researches and assesses non-responsive soils.

Other key partners include **Airtel**, the **Tommy Hilfiger Foundation**, and the **Korea International Cooperation Agency**. As we step up the pace of our efforts to achieve the Millennium Development Goals in the next two years, we are encouraged by the continued confidence and support of our partners.

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To read the listed articles, please go to our website: [www.mdgcentre.org](http://www.mdgcentre.org)

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# THE COLUMBIA GLOBAL CENTERS | AFRICA STAFF

(31 December 2013)

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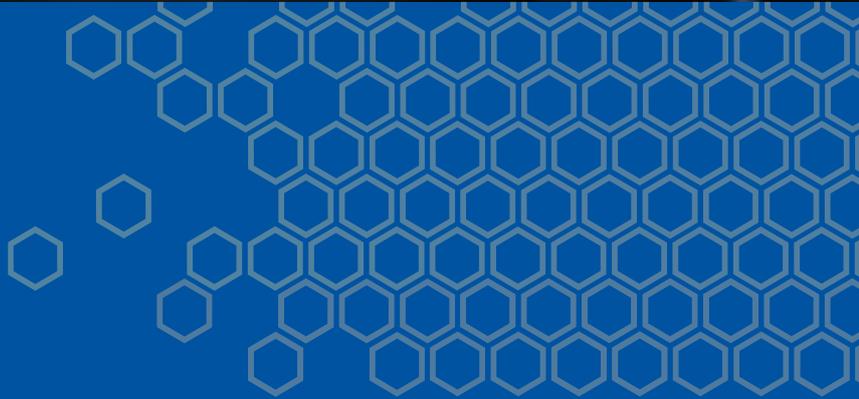
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