

Bridging Global Commitments with Local Action



The MDG Centre
EAST & SOUTHERN AFRICA

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Pastoralists market their livestock at Dertu Millennium Village in Kenya's North Eastern Province



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Women are the major producers and marketers of agricultural output in Africa

The MDG Centre, East and Southern Africa: Bridging global commitments with local action

At the Millennium Summit in September 2000, the largest gathering of world leaders in history adopted the UN Millennium Declaration, committing their nations to a new global partnership to reduce extreme poverty and setting out a series of time-bound targets, with a deadline of 2015, which have become known as the Millennium Development Goals (MDGs).

The MDGs are global targets for addressing extreme poverty in its many dimensions— income poverty, hunger, disease, lack of adequate shelter, and exclusion—while promoting gender equality, education, and environmental sustainability. They are also basic human rights—the rights of each person on the planet to food, health, education, shelter, and security. Those targets must be translated into local action.

By early 2004, concerns had been raised that most African nations were off-track to achieving the MDGs, so the Earth Institute at Columbia University, New York and the UN Millennium Project (UNMP) established the MDG Technical Support Centre in Nairobi in July of that year. The Centre, renamed The MDG Centre in 2006, initially focussed on national level policy support to selected pilot countries of the UNMP (Kenya, Ethiopia, Senegal, and Ghana).

With the successful completion of the UNMP in 2006, The MDG Centre broadened its scope of work to include advisory services and support to the Millennium Villages

Project (MVP) and to scale up MDG-related interventions to district and national levels. A second MDG Centre with a mandate for West and Central Africa was established in Bamako, Mali in 2006. This Inaugural Report highlights the work of The MDG Centre in East and Southern Africa.

The Centre's broad mission is to provide scientific, technical and policy support to governments and other stakeholders in its region to achieve the MDGs. While many other institutions contribute to such a mission, The MDG Centre fills a gap in the international development community by combining all of the following characteristics:

- A sharp focus on helping nations to meet the commitments of the Millennium Declaration and to achieve the MDGs;
- Ability and mandate to work at multiple scales: village, district, national and international;
- Provision of sound scientific and technical expertise to assist in the design of interventions, investments and policies at scale;
- Deployment of an integrated cross-sectoral approach that addresses and exploits the interdependencies across different disciplines and sectors;
- Capability to facilitate wider dialogue and practical contributions from diverse stakeholders, including the UN agencies, civil society and the private sector;

The Millennium Development Goals

- Goal 1: Eradicate extreme poverty and hunger
- Goal 2: Achieve universal primary education
- Goal 3: Promote gender equality and empower women
- Goal 4: Reduce child mortality
- Goal 5: Improve maternal health
- Goal 6: Combat HIV/AIDS, malaria and other diseases
- Goal 7: Ensure environmental sustainability
- Goal 8: Develop a global partnership for development

- Flexible operational and staffing procedures that ensure a rapid response capability;
- Primary emphasis on rural development in Africa, while facilitating south-south linkages with Asia and other regions.

The key to progress is the establishment and deployment of effective, result-oriented partnerships. The Centre's principal partners are:

- Governments: national ministries and local authorities.
- United Nations organizations: UNDP and the broader UN family, working mainly through UN Country Teams.
- Donors: both bilateral and international financial institutions (IFIs).
- Businesses: World Economic Forum, its members and other businesses.
- Civil Society: non-government organizations (NGOs) and community-based organizations at multiple levels.
- Scientific and academic institutions: the Consultative Group on International Agricultural Research, Columbia University and others

The effectiveness of The MDG Centre in achieving its mission relies on its ability to attract and retain a world-class, multi-sectoral team of professionals. These positions are staffed in several ways:

- Through unrestricted donor support, enabling the Centre to fill positions according to highest national demand and priorities;
- Through restricted donor support related to sectors, themes, or countries, based on priorities established by the donors that fit within the Centre's own priorities;
- Through mutually beneficial secondments from organizations that will gain from direct participation in the work of the Centre;
- Through targeted short-term consultancies or collaborative inputs.

The Centre delivers on its mission through the advisory and support services of a small interdisciplinary group of specialists and support staff organized into 7 thematic cluster teams:

- Agriculture and Environment
- Health and Population
- Water and Sanitation
- Gender and Education
- Infrastructure
- Integrated District Development
- Communications and Media Relations

The Centre also draws on the broader expertise pool of Columbia University, UNDP, UN specialized agencies, and other institutions and networks.

From its base in Nairobi, The MDG Centre operates in 7 countries in East and Southern Africa (Ethiopia, Kenya, Malawi, Mozambique, Rwanda, Tanzania, and Uganda) and has immediate plans to engage with at least two more countries in the region. The Centre also provides technical backstopping to the only Millennium Village (MV) in Asia: in Samlaut District of Cambodia.

In this Inaugural Report, we seek to illustrate the range of activities and impacts of The MDG Centre in East and Southern Africa. In all cases described here, the Centre has played an important hands-on role through mobilizing scientific and technical support in programme design and implementation. We aim to serve as a bridge between global commitments—the MDGs—and local action, including the MVs. The Report aims to demonstrate that strategic injections of technical support, capacity building and advocacy at national, district and village levels can inspire communities, governments, NGOs, businesses, international agencies, and donors to recommit to achieving the MDGs, to take actions, and to release the needed resources. With the potent combination of creativity, sound science, practical, proven interventions, bold ambition and already promised resources, the MDGs remain achievable in Africa.

Two Millennium Villages in Kenya: progress and challenges

The Millennium Villages Project (MVP) is aimed at empowering and working with impoverished communities in rural Africa to achieve the Millennium Development Goals. Millennium Villages (MVs) showcase a holistic package of site-specific interventions for 79 villages in 10 countries. A subset of research villages was selected to represent each of the 12 main agroecological zones and farming systems of Africa. The MV communities are partnered with local and national governments, the Earth Institute at Columbia University, UNDP, Millennium Promise, and other development groups.

Each village project is driven by the community itself and guided by the recommendations of the UN Millennium Project regarding the broad types of interventions to be carried out in agriculture, nutrition, health, education, energy, water, communications, and the environment.

Seven research MVs have been established in 6 countries covered by The MDG Centre. Having been launched at different times, being located in distinct agroecological zones, and facing varying farming, water and disease challenges, all are at different stages of development.

A close look at what has happened in two of the MVs—Sauri and Dertu in Kenya—illustrates some of the challenges faced and the progress made in attempting to overcome them. These two MVs are directly supported, administratively and technically, by The MDG Centre in Nairobi.

Sauri: major increase in food production, significant decrease in malaria

Sauri is located in Siaya District, in the western Kenya highlands, at an altitude of



The new school feeding programme at Sauri MV improves attendance and educational performance

1400-1500 metres above sea level, near to Lake Victoria, and close to the equator. It is classified as being in the subhumid tropics, with annual rainfall of about 1800 mm and daily temperatures ranging from 18-27°C.

The area is representative of a rainfed maize-based farming system, with secondary crops of beans, sweet potatoes, bananas, cassava, kale, tomatoes, and onions. The high rainfall and high temperatures allow for two cropping seasons although agriculture in the shorter of the two rainy seasons can be risky, and crop failures do occur.

Sauri is a sub-location of more than 5,000 people, but when 10 neighbouring sub-locations were added to the project at the end of 2005 to form the Sauri cluster, more than 55,000 were being reached by the project, which is combining practical technologies across several sectors in a targeted, holistic process. Midway through 2007, this has paid off in remarkable progress in food production, disease control, clean water, access to roads, and better communications.

In two years, thanks to receiving inputs of fertilizer and improved seed, production of maize, the staple food crop, has tripled—from 1.9 metric tons (MT) per hectare (ha) to 6.2. Farmers have also begun to diversify their crops, including vegetables, spices and sunflowers, in order to sell them at local markets. They have also introduced poultry and livestock for dairy production to their smallholdings.

People in Sauri are now healthier, the prevalence of malaria in the population having dropped from 55% to 13%. This significant decrease is due to two key factors—the project's distribution of long-lasting insecticide-treated nets to all villagers and improved clinics where malaria can now be diagnosed and treated.

Other health services—such as child immunization, laboratory services, access to antiretroviral drugs for HIV/AIDS sufferers, and family planning—have been greatly improved with the addition of 74 trained community health workers, the construction of a 32-bed sub-district hospital and the refurbishment and construction of additional village clinics.

Another weapon in the battle for better health is the community's de-worming service now being carried out at the cluster's primary schools, where an estimated 35,000 people have been treated.

Because of lack of food during the day, regular school attendance has been difficult to maintain for many children. Even for those who did attend, concentration, especially in the afternoons, was difficult and performance suffered. Now an MV school lunch programme is in full effect in all 28 primary schools in the Sauri cluster, providing meals to more than 17,500 children. This programme has not only contributed to increased school attendance and performance, it also provides a market for locally produced food.

The improvement of students' performance shows up clearly in the Siaya District schools evaluation exercise. Before the project started, the Bar Sauri primary school was listed as 195th out of the district's 385 primary schools in academic performance. Now it's one of the top performers, regularly ranked within the top 10.

Although Sauri receives ample rainfall, except in periods of regional drought, much of the rainwater quickly runs off the land with little benefit to the crops and causes serious erosion that can contaminate water sources. To offset such loss, the MV project has constructed more than 77km of soil conservation terraces.



Adolescent girls in Sauri receive the first distribution of sanitary napkins



It's now just a short distance to carry water home

Drinking and cooking with unsafe and unclean water results every year in millions of deaths and innumerable lost days of productive work in Africa. In Sauri, access to safe drinking water has been improved through the installation of roof-based rainwater harvesting systems in many households, and 70 top-priority water springs have been protected.

Transportation and connection with the outside world have been considerably improved. All village roads are now drivable year-round, and major roads have been improved with the help of a bulldozer and a grader. A community truck has been procured, along with a driver and two trainee mechanics to ensure it stays operational. A village phone has been installed.

Other areas of MV work in Sauri, such as gender-based interventions, strategies for lowering rural fertility rates, enterprise development and engagement with the private sector in the village and cluster, are reported on elsewhere in this Report, as is expanding the project to the district level.

Private-public partnerships in Siaya District where Sauri is located are helping to ensure long-term sustainable development. The Business Alliance Against Chronic Hunger, an alliance formed by company executives and public leaders, is working with the support of the World Economic Forum and The MDG Centre to create market-based initiatives.

The success of the MV project in the Sauri cluster has not only helped at the local level to improve the livelihoods of the villagers and lift them out of extreme poverty, it has also become the basis for recommendations for national policy. The Kenyan Ministry of Planning and National Development has begun mobilizing support and additional resources to develop plans for nine districts to become Millennium Districts. This ministry and other line ministries responsible for

agriculture and health are looking to Sauri for best practices in tackling poverty in Kenya.

In Kenya, a government district (which contains as many as 500,000 people) is the most important administrative unit between a village and the national government, and planners believe it is critical to expand MV projects to the district level in order to ensure long-term success and sustainability.

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Dertu, Kenya: addressing the challenges of pastoralists living with drought, disease and extreme poverty

Dertu Millennium Village is located in Garissa District of North Eastern Province (NEP), one of the driest parts of the country, 140 km from the border with Somalia, 95 km north of the provincial capital of Garissa, and 68 km to Dadaab (a base for some 170,000 Somali refugees). The village is home to an estimated population of 5,200 residents, predominantly Kenyan Auliyahan ethnic Somalis. Almost all Dertu residents are pastoralists herding camels, goats, sheep, cattle and donkeys.

Dertu is in a low-lying area at an altitude of 150-300m and is characterized by an arid climate with an average annual rainfall of about 350mm. The area's soils are sandy clay/loam. The natural vegetation is mainly bushland (*Acacia* and *Commiphora*) with annual grass cover. Rains are bimodal although, unlike in Sauri, the short rains are usually more reliable.

Before the October-December 2006 short rains, the area had not received sufficient rainfall since 1997, and in the three years immediately prior to October 2006, the rains had been so poor that a lot of livestock had died. Some pastoralists who lost all their livestock had to move to the Dertu centre, where they depended entirely on food relief.

The village experiences a vicious cycle of poverty, due to multiple and complex interwoven problems including acute food



Dertu's MV project leader (left) shares good news with a camel pastoralist

shortages as a result of recurrent droughts, unreliable and erratic rainfall, subsequent floods, outbreaks of pests and diseases, inappropriate and inadequate technical interventions and approaches, isolation from markets, and the uncertainty of such markets that do exist. Malnutrition, high mother and child mortality, illiteracy, overgrazing, and poor infrastructure are other major problems in the area.

The high poverty level of the village has resulted in a major dependency on food aid donated by the Kenya Government, the World Food Programme and the Red Cross.

The livelihood system in Dertu is based on nomadic pastoralism coupled with some small-scale businesses. The villagers' herds move from place to place in search of water and pasture. Animals graze in nearby pastures in rainy periods but move hundreds

of kilometres away in dry seasons. As the intensity of drought increases, the livestock population around the reliable water sources increases, causing overgrazing and environmental degradation. Due to limited rainfall there is minimal rainfed crop farming.

With livestock being the only viable livelihood activity, the main food products from the village are meat and milk, production of the latter being limited especially during dry seasons due to inadequate water, pasture and forage. This, coupled with a lack of vegetables and fruits, raises the overall malnutrition level in the village, which stands at 18%, necessitating a supplementary feeding programme for children under 5, lactating mothers, pregnant women and the elderly.

Food insecurity is also linked to high illiteracy, estimated to be more than 90%, as hungry children do not go to school. The inability to read also means that people in Dertu lack exposure to information on the benefits of good nutrition and appropriate childcare practices. This situation is made worse by the lack of electricity and telephone service.

Before the MVP began, the village had one primary school with four teachers and one early childhood development teacher, most of whom are not from the village. They shared poor office facilities and accommodation—two semi-permanent structures in bad condition—resulting in low morale. Enrolment of girls was low, and the overall dropout rate was high, especially among the children of pastoralists because of their mobile lifestyle.

There was only one health facility to serve the 5,200 people in Dertu, a government dispensary, inadequately staffed with one nurse and a community health worker. It operated only during normal government working hours, and not on public holidays. There was no piped water and the existing refrigerators, powered by kerosene and gas, were faulty so that no vaccines could be stored in them.

The dispensary lacked a maternity wing or observation ward so it was not possible to attend to patients during late hours and the

nurses were forced to make patient follow-up visits at their homes, scattered over a large area. The dispensary also lacked laboratory services, so diagnosis had to be based on clinical symptoms, a highly unsatisfactory arrangement.

Most of the births in the village are taken care of by traditional birth attendants (TBAs)—untrained women in the case of the scattered pastoralists, although trained TBAs are available for the sedentary community. There is no ambulance to take patients the 95 km to Garissa General Hospital. Radio communication is used to summon an ambulance from Garissa but sometimes none is available. This, plus the long distance and poor road conditions, results in a number of deaths of mothers and new-borns.

The major diseases in Dertu are malaria, pneumonia, diarrhoea, anaemia, sexually transmitted diseases, intestinal worms, and infections of ears, eyes, and the respiratory and urinary tracts. Others include skin diseases, dental disorders, rheumatism, dysentery and chicken pox. Malnutrition levels are high.

Just like the other parts of NEP, there is no exact data on the HIV/AIDS prevalence rate but it is estimated at 3% (2% for men, 4% for women), although it is slowly on the increase and therefore worrisome. Although some community members are aware of HIV/AIDS, knowledge about its prevention is still limited, especially for women, possibly due to the high illiteracy level. Few people have ever been tested for HIV/AIDS. The village also lacks youth-friendly reproductive health services that could supply information on family planning.

Water for the village is accessed at two boreholes, one of which had been badly damaged in flooding. These supply animal troughs and six water kiosks at Dertu centre—one each at the school and dispensary, and four within the trading centre. A fee is charged for domestic and livestock water. The borehole water is assumed to be of good quality and is used without any treatment. Other sources, however—earth dams, individually owned water pans, seasonal rivers, and depressions along roadsides—are

not protected and their water could be contaminated and polluted.

Firewood is the common source of energy used for cooking and it is predominantly collected by women and children. The collection distance is increasing due to depletion of trees and shrubs. There is also a high firewood demand from the nearby Dadaab refugee camp, to which Dertu supplies an estimated 800 tons annually.

Despite the great challenges posed by Dertu's relatively isolated location and difficult biophysical and socio-economic conditions, the project has recorded several achievements.

Upon its inception, the project became one of the local institutional decision-making organs at the district level. Because of its importance, a District Millennium Advisory Committee, chaired by the District Commissioner, was formed to technically guide and monitor its activities. A Village Millennium Advisory Committee (VMAC) was also formed as a coordinating body for all sector committees, to provide indigenous knowledge and act as a bridge between the community and the project. The VMAC was then trained in participatory integrated community development principles and came up with an action plan that acted as the backbone for the project's annual work plan.

When livestock are wiped out as a result of natural disasters such as drought, the pastoral



Dertu villagers examine a new insecticide-treated, mosquito-proof bed net

people crowd into Dertu centre and settle haphazardly. This causes congestion and greatly reduces accessibility by emergency services. To offset this, the project has put in place a physical plan for Dertu that includes all institutional lands and roads.

A demographic survey aimed at listing the total number of households, family size, population strata and other demographic details has been carried out. This necessitated the survey team travelling hundreds of kilometres from Dertu to trace some of the pastoralists who had gone in search of water and pasture during drought. A total of 859 households and 5,206 individuals were registered.

A malaria survey has been conducted, in collaboration with the Ministry of Health, to assess the current knowledge of malaria in the community, its occurrence and the modes of treatment used. The team covered 293 households, many of them in the pastoral bushland, and found that most of them did not have mosquito nets although there were many suspected cases of malaria. A total of 3,000 insecticide-treated bed nets have now been distributed to households and the project regularly supplements essential drugs for the dispensary. Random surveys and reported cases of malaria at the dispensary indicate that the incidence of malaria has been reduced, which could be a result of the outreach and net distribution (Fig. 1).

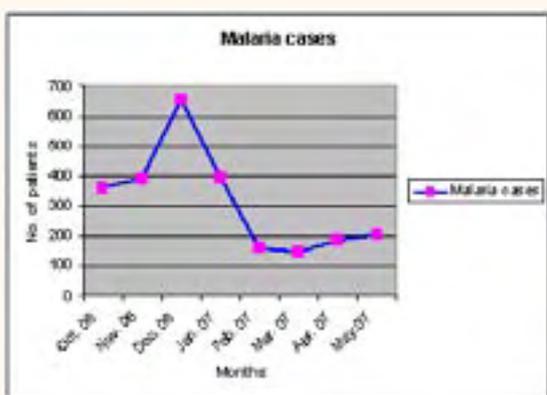


Fig.1 Reported cases of malaria at Dertu dispensary

The number of patients treated at the dispensary also increased five-fold since the project started to offer support to health activities (Fig. 2).

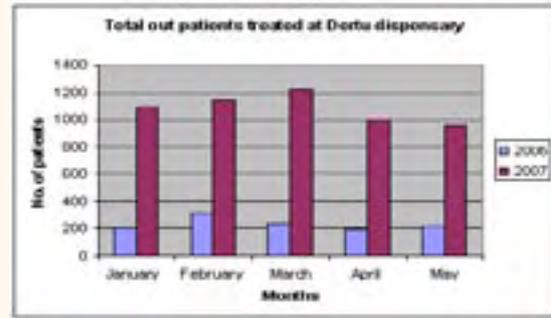


Fig. 2 Number of outpatients treated at Dertu dispensary

The project supports an average of 10 referrals (mostly maternity cases) to Garissa. It continuously creates awareness of, and trains the community on, HIV/AIDS, tuberculosis, female genital mutilation, reproductive health, and hygiene. A total of 345 blood samples were collected and taken to the Kenya Medical Research Institute, Nairobi for storage, and for analysis for malaria, parasites, anaemia and nutrient deficiencies.

A human nutrition survey was concluded, along with anthropometric (height and weight) measurements and stool sampling. Training was provided for enumerators and village health workers in survey tools and procedures. The Ministry of Health provided four nurses, one nutritionist and two medical laboratory personnel, and Sauri MV provided a lab expert with experience in using stool analysis kits. Additional kits were received from Ethiopia.

A generator has been acquired for the dispensary, to run microscopes, freezers and other facilities, greatly increasing the health services available in Dertu. A two-bed observation ward with a drip stand has been completed, and a vaccine storage refrigerator has been obtained for the dispensary.

Pastoralists received training on how to make hay from the immense amount of grass that appeared as a result of the October-December 2006 heavy rains and about 1,000 bales were prepared. The hay is enriched with already chopped and dried green twigs of an indigenous *Sesbania* species that is a nutritious fodder plant. The project has also trained the community in enterprise development and supported four groups with micro-financing.

Dertu's first livestock market for sheep, goats, cattle and camels has been officially established. A month after the market's inception, its activities were disrupted until April 2007 by an outbreak of Rift Valley Fever (RVF), but the project has revitalized it again through workshops and public meetings, and its development is on-going.

More than 36,000 livestock have been vaccinated and treated for diseases, parasites and wounds in collaboration with the District Veterinary Officer (DVO). The project also supported the DVO in carrying out vaccinations against an outbreak of Rift Valley Fever.

Two additional teachers have arrived at Dertu primary school, and construction of a dormitory for girls has been completed, with plans drawn up for another for boys. This is expected to reduce the number of children who drop out of school to leave the village with their nomadic parents in search of better pasture and water.

The project has also contributed to a school meal programme that is increasing attendance, and has provided school textbooks for all the classes plus balls for games. It has also wired and installed solar power in the three most senior classrooms to facilitate studies at night, and generally mobilized the community to increase school enrolment.

Another reason for interrupted school attendance is that, traditionally, adolescent girls have remained at home during their menstruation cycle. The project is now supplying packets of sanitary pads to the girls via the head teacher so that school attendance will no longer need to be interrupted.

The Ministry of Health has posted a second nurse to the dispensary and the Medical Officer of Health in Garissa has promised to backstop the project on a monthly basis with visits from a medical doctor, a clinical officer, a laboratory expert and a public health officer, with the project taking care of their travel and lodging. The project has also

recruited five village health outreach workers and is planning to train others to provide health services to the pastoral community.

Water-purifying chemicals have been supplied to the village and surrounding areas and the residents sensitized to the benefits and methods of use. Dertu's main borehole, which was damaged during flooding, has been repaired by acquiring an injector pump, and breakdowns are regularly attended to in order to keep the water flowing. The project also provided water tanks for community water kiosks, and an earth dam of about 17,000 cubic metres has been contracted with support from the Ministry of Water and Irrigation.

The few pit latrines that were available in the village were destroyed in heavy rains, but 29 pit latrines have now been constructed. All the materials and labour for construction of the latrine superstructures were provided by the project, and the community dug the pits. About 10-15 families share each latrine, and two more are to be placed at the school, and one at the mosque.

After sensitization by the project on the benefits of having a clean environment, a community youth group mobilized the villagers to ban the use of plastic bags at the Dertu trading centre. All the bags were bought from the shops and safely disposed of. The shopkeepers and market vendors agreed never again to bring bags to the centre. The poor access roads to the village and the lack of telephone, electricity and internet services are being addressed by the project and its partners, and a satellite phone has been acquired.

Within less than a year, Dertu has raised interest in government, NGO and donor circles. The early experience there can serve as an inspiration to other pastoralist communities in north-eastern Kenya and beyond.

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Empowering adolescent girls in two Millennium Villages

For four young girls in the Millennium Village (MV) of Sauri in Kenya, it looked as though their schooling was over for the rest of their lives.

Sarah Otieno had been admitted to the first-year class in the village primary school but had to drop out when her father died and she could not raise the school fees.

Emily Okelo was forced to leave the school in order to help her father, a widower who is ailing with HIV/AIDS. At home, she had to cope with domestic tasks, and also take care of her nine brothers and sisters.

Nancy Atieno, an orphan who fled her home when arsonists burned down her house, now lives with her aunt in Sauri, who has no money to pay for Nereah's secondary education.

Pauline Okoth dropped out of school when she became pregnant, and remained at home for two years while her father struggled in vain to raise enough money to pay her school fees.

Pauline never lost hope, believing that her pregnancy was not going to end her dreams to have a better life. And she was right, for she has now re-entered school while her family takes care of her young child.

The same turn of fortune has also benefited the other three girls. Sarah is back at school without causing hardship to her widowed mother; after a year out, Emily is a student once again, able to pay her own way; and Nancy is in secondary school, her fees paid.

The girls' return to education and the hope of a brighter future is the result of having been awarded scholarships from an MDG Centre partner, the Nike Foundation, a non-profit organization whose efforts are directly linked to two of the United Nation's Millennium Development Goals (MDGs)—poverty alleviation and gender equality.

A 3-year gender project in Sauri, and also in Koraro, Ethiopia, supported by the Centre, seeks to develop and implement integrated



Girls' empowerment clubs provide them with a 'safe' setting in which they can discuss their problems, share experiences and build confidence

action plans to empower adolescent girls and women in rural communities such as these.

The aim of the gender project is to work on two fronts: nationally, to influence policy changes and increase national allocation of resources to empower girls and women; and locally, to create an integrated programme of community-based activities centred on empowering adolescent girls aged 10-19 years. It is hoped that these combined actions will create the micro and macro synergies required to achieve the MDGs and help African communities escape from poverty.

Activities in the first year largely focussed on gathering relevant baseline data, building relationships, laying foundations for the project, and implementing local-level interventions that can be expanded to the national level in subsequent years. These have already had a direct impact on girls, and the lessons learned at the local level are informing the broader policy planning and interventions at the national level that the project will initiate in the second and third years.

The overall goal, the empowerment of adolescent girls and women, has led to the project's village and national level objectives. At the village level, these are:

1. Strengthen opportunities for post-primary education for girls while simultaneously meeting commitments to universal primary education.
2. Guarantee girls' sexual and reproductive health and rights, and protection from HIV/AIDS.
3. Invest in infrastructure to reduce girls' time burdens.
4. Strengthen opportunities for girls' and women's employment and access to micro-finance programmes.

At the national level, the objectives are:

1. Increase capacity to address issues of adolescent girls' and women's empowerment.
2. Create advocacy and awareness campaigns.
3. Scale-up community-level activities.

Significant progress has been made in the project's first year. A team of three—a gender specialist based at The MDG Centre and two gender advisors, each at one of the MVs—took charge of the project.

The specialist—with more than 10 years' experience in educational programming for girls, gender sensitization, social mobilization and capacity building—creates and manages implementation plans to increase the national capacity of the two countries to achieve female empowerment, and develops advocacy tools and national awareness campaigns. She also oversees the expansion of community-level activities, supervises the two advisors, and works in partnership with gender team members at the Earth Institute in New York.

A key partner, the International Center for Research on Women (ICRW), has collaborated with the specialist in needs assessment, developing tools and activities related to monitoring and evaluation. The specialist also coordinates with other local and international partners, and the gender adviser at the MV village of Potou, Senegal to ensure that lessons learned from Sauri and Koraro can be applied elsewhere.

The two gender advisors, with combined experience in awareness campaigns and training in health matters and girls' and women's rights, initiate and administer a variety of activities that implement the four village-level objectives.

To begin the project, the team conducted an assessment of critical needs, and looked for opportunities that would promote the empowerment of adolescent girls in Sauri and Koraro. Data collection tools and questioning strategies were devised in partnership with ICRW, and recommendations made by focus group respondents (girls and young women) had a direct impact on the implementation of innovative interventions carried out in both villages.

The gender assessment in both MVs concluded that girls' academic performances generally exceed that of boys in the lower grades. However, once girls progress to higher grades, their academic performances tend to worsen and quickly fall behind the



Young women at Koraro MV in Ethiopia learn how to use sanitary napkins

boys'. A meeting with adolescent girls came up with the following reasons:

- Demands of home and family for after-school work results in fatigue that contributes to underachievement.
- Early pregnancies compounded by poverty at home accounts for a high rate of drop-outs.
- Secondary school fees are too high for poor families to pay, and girls are often forced by circumstances to drop out of school and eventually get married.
- Monthly periods, and the lack of hygienic and protective sanitary materials, have a negative impact on school attendance, concentration and participation in class and outdoor activities.
- There is minimal teacher-parent interaction to discuss educational progress.

In Sauri, 132 people participated in focus group discussions, and in Koraro 120 took part; as a consequence, annual and monthly

work plans were developed based on the four village-level interventions mentioned above. In addition, the gender programme extended its reach into areas surrounding the two villages by identifying 'pilot schools' and other girls' groups outside the cluster villages, where interventions and the number of girls in school could be increased. A similar approach was applied in Koraro.

In November 2006, the project conducted an intensive, 5-day training course for 15 MV staff that included community development coordinators from Kenya, Ethiopia, Malawi, Rwanda, Tanzania Uganda and Senegal, to build skills and to enhance the ability of participants to advocate effectively for the needs and rights of girls and women. The MV gender advisors from Koraro, Sauri and Potou, Senegal also took part.

The establishment of partnerships with like-minded local organizations is a key factor in creating sustainable initiatives for the empowerment of girls, allowing for the sharing of vital information and resources and for dialogue about best practices and successful methodologies. Linkages have been made with the UN Gender Theme Group, the Donor Round Table (coordinated by the Canadian International Development Agency), Nairobi's Binti-Pamoja Centre, the Nairobi Youth Centre, and Kenya's Gender Commission.

Plans are also under way to initiate a partnership with the K-Rep Bank, Kenya's only commercial bank that caters specifically for low-income people and specializes in micro-financing for small enterprises. This will assist women's out-of-school groups with start-up loans for capacity building. A similar partnership is under way with the Ethiopian Women's Affairs Office and Women's Bureau, and a profile on potential gender-based partners within East and Southern Africa has been developed.

Local level advocacy tools were developed and used in the implementation of awareness campaigns in order to sensitize the Sauri and Koraro communities about issues related to adolescent girls. These interventions attracted the support of local community leaders as well as government departments.

Specific campaigns and tools at the MV level included:

- a sanitary towels campaign
- establishment of school-based girls' empowerment clubs
- a school re-entry programme for girls forced to leave school for financial or gender-related reasons
- living values education, a programme that promotes core values such as respect, responsibility and honesty, particularly as it relates to the lives and well being of girls and young women.

Although there are some differences between the Sauri and Koraro villages, the gender programmes have exposed the same needs and encouraged the same types of activities. Many adolescent girls miss many weeks of school annually because the lack of sanitary towels forces them to remain at home during menstruation, a taboo subject that is not openly discussed in the home.

The sanitary towel programmes began in the villages with the holding of advocacy days to sensitize the communities about menstruation, to demystify it, and to support girls in the use of sanitary towels. The events also encouraged a more open discourse about the issues and challenges that face adolescent girls, especially with regard to reproductive health.

Girls themselves were given the opportunity to play a central role in the planning and implementation of the events in order to foster their confidence and self worth. Schools were selected to pilot a programme aimed at training girls in the use, management and disposal of sanitary towels. Girls who could be instructed as trainers were also identified, in the hope that peer-learning would increase the transmission of accurate information.

Separate discussions were held with the boys in the schools in order to sensitize them to the biological changes that take place in young women and to encourage them to value and support their female colleagues.

Sanitary towels were distributed to 575 girls aged 12-16 in Sauri. Each girl now receives

one packet per month, which should have an effect on improving school attendance. The target is to reach 1,000 girls in the coming year. In Koraro, 200 girls received the pads and there are plans to expand the distribution to 800.

A number of girls' empowerment clubs and groups have been established in Sauri and Koraro. The aim of the clubs is to help develop a community of openness and support among adolescent girls and to provide them with a 'safe' setting in which they are able to discuss their problems, seek advice, share experiences and build confidence.

Activities in the clubs include the following: girls' forums to discuss issues affecting adolescent girls; mentoring; guidance and counselling; career guidance; and motivational talks. Living values education that focusses on 12 core universal values are also incorporated into the clubs' activities. While the clubs are school-based, the groups are mainly for married adolescent girls or those who have dropped out of school or have never been to school. The groups are designed to help the girls economically and to overcome literacy problems.

Forums will also be established so that adolescent girls from the MVs along with others from partner organizations can share experiences and build leadership skills.

Both Sauri and Koraro MVs have scholarship funds, awarded competitively, that support bright needy children to attend high school. A grant from the Nike Foundation provides additional support, specifically for girls deemed to meet the following criteria:

- Girls who dropped out of high school due to teenage pregnancy
- Girls who dropped out due to lack of school fees
- Girls rescued from early marriages
- Girls who are orphans and heading their families.

These were the criteria met by Sarah Otieno, Emily Okelo, Nancy Atieno and Pauline Okoth in Sauri. The scholarship includes

four years of secondary school fees, books and school supplies, and personal necessities such as bed and bedding, complete school uniforms, sanitary towels and other items. In addition to financial need, these girls all demonstrated hope, patience and the determination to succeed.

The poor educational situation in Koraro is compounded by the fact that the nearest high school is 38 km from the village. However, the project has managed to support 8 'pioneer' girls to continue high school education by renting a secure boarding facility for them in a town near the school.

In both villages, another negative gender factor is that the ability of girls to take part in productive and civic activities, and to empower themselves economically and politically, is often greatly limited by a division of household labour that assigns to women the bulk of everyday maintenance tasks such as collecting water and searching for firewood.

Raising awareness and sensitizing the community to this dynamic is a first step towards reversing it. A second one is creating awareness of the need to invest in infrastructure that will bring about change. For example, the gender project will work with the MV project's infrastructure sector to facilitate drilling to access safe water and thus reduce women's time spent fetching it, and to invest in energy-saving stoves that will reduce the time spent cooking and the amount of firewood to be collected. Another important task will entail joining with the education and water and sanitation sectors to ensure construction of separate toilets for boys and girls at school.

Note: The names of the 4 girls whose case histories feature in this article have been changed to ensure their privacy.

One economic strategy that can assist poor, landless girls and women to enter self-employment or start their own businesses are micro-finance programmes. Those that incorporate savings components have enabled girls and women to build assets to use as collateral and self-finance investments. Training girls and women in new village businesses, such as small-scale artisanship, will increase their incomes and standing in the community.

Now 11 adolescent girls in Sauri MV are being supported for vocational training in a youth polytechnic, undertaking a two-year course that includes computer training, secretarial, tailoring and dressmaking. This will equip girls with skills needed to engage in activities that will generate income and will enhance their employment opportunities in both the formal and informal sectors.

Thirty post-school-age girls and young women in the village were trained in gender roles and relations, and in business management, including basic bookkeeping. They have formed a group and will be awarded small grants to help them engage in business to improve their household income.

In Koraro, four groups have been formed and strengthened. One is made up of women living within the village shopping area, while another consists of married, out-of-school adolescents. The MV will partner with two more experienced Ethiopian women's organizations in advising the groups. This multi-targeted project—education, sexual and reproductive health (and rights), micro-financing for small enterprises, female empowerment—is a long overdue step forward toward fully addressing the needs of adolescent girls in the villages.

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Core principles for ensuring quality health care in Millennium Villages

Reducing poverty and improving community development in African villages depend heavily on ensuring people's good health. Where sickness abounds, people cannot work to earn money nor tend the gardens and agricultural plots where they grow their food and generate income.

When parents are ill, domestic responsibilities and caring of the very young fall on the shoulders of the families' older girls, keeping them from school and the education they need in order to live better lives. Improving people's health facilitates agricultural development, education, poverty reduction, gender equity, and economic growth.

These are among the reasons why health care is high on the agenda of the Millennium Villages Project (MVP) and aimed specifically at strengthening community-based systems designed to safeguard people's health and well-being. Three of the original Millennium

Development Goals (MDGs) are directly related to health:

- Goal 4 - Reduce child mortality
- Goal 5 - Improve maternal health
- Goal 6 - Combat HIV/AIDS, malaria, and other major diseases.

Among the integrated package of Millennium Village (MV) interventions are several that are directly or indirectly related to health care:

- Vitamin and mineral supplements to tackle under-nutrition and make children stronger;
- Essential health services to provide critical life-saving medicines and raise labour productivity;
- Free daily school lunches using locally produced food to support children's nutrition, learning capacity and school attendance;
- Anti-retroviral medicines for people with HIV/AIDS;



Improved clinics in the Millennium Villages help ensure improved health



Increased availability of medication at MVs' dispensaries

- Long-lasting, insecticide-treated bed nets to prevent malaria;
- Immunizations to prevent diseases and to lower the incidence of tuberculosis.

The MDG Centre currently coordinates scientific and technical support to MVs in 7 countries of East and Southern Africa. At a meeting of MVP national health coordinators at the Centre in May 2007, a number of core principles that have been guiding the project since its inception in 2005 were re-emphasized:

- Focus on primary health care interventions;



Treating children begins with basic body measurements

- Assured universal access to, and equitable distribution of, health care within a rights-based approach aimed at the poor, the marginalized, and the vulnerable;
- Community-based approaches, in order to encourage participation, build sustainability, and improve care;
- Strengthening existing district and national health systems.

A timeline of 5 years was suggested for the full implementation of the health programme in the MVs, with goals to be adapted to suit site realities and opportunities. Baseline surveys have already been completed in most villages for the vital activity of setting up, or improving, monthly data collection and reporting—on births, deaths, various diseases and other illnesses, and immunizations.

The health coordinators also underlined the need to recruit a cadre of community health workers to work at the village level, drawing attention to different models being used in different parts of the world: unpaid community volunteers; others who are also unpaid but are trained and officially credited by the national Ministry of Health; and paid and trained village members. Outreach workers trained in preventative health care have also been proposed by the MVP.

An important element of the village health programmes is the provision of quality services, which should include:

- Providing an appropriate welcome when people arrive, letting them know how long their wait might be, and having somewhere for them to sit;
- Ensuring that staff are present;
- Ensuring privacy and confidentiality;
- Health staff sensitized on gender issues;
- Motivated staff who understand MV principles;
- Making good use of collected data and patient records to improve care;
- Ensuring patients' safety from infection.

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Reproductive health services underpin achievement of the MDGs

In 1968, the International Conference on Human Rights in Tehran recognized “the rights of couples and individuals to decide freely and responsibly the number and spacing of their children and to have the information, education and means to do so”. Although almost 40 years have passed since then, there are still places in the world where these rights are not available to everyone, and far too many places in sub-Saharan Africa where the information and education about such rights, and the means of achieving them, do not exist. And this is impeding efforts to achieve and sustain the Millennium Development Goals (MDGs).

Lack of sexual and reproductive health (RH) information and care can have very serious consequences:

- Every year about 120 million unwanted pregnancies occur globally, 20 million ending up as unsafe abortions that can lead to maternal death and disease;
- Sexually transmitted infections and HIV/AIDS are on the rise in many developing countries;
- Nearly 2 million girls undergo genital mutilation annually;
- More than 7 million perinatal deaths are reported every year.

At the 1994 International Conference on Population and Development (ICPD), in the Millennium Declaration of 2000, and during other global summits of the last decade, decision makers and programme managers responsible for sexual and reproductive health asked how they could:

- improve access to, and the quality of, family planning and other sexual and reproductive health services;
- increase skilled attendance at birth and strengthen referral systems;
- reduce the recourse to abortion and improve the quality of existing abortion services;
- provide information and services that respond to young people’s needs;

- integrate the prevention and treatment of reproductive tract infections, including HIV/AIDS, with other sexual and reproductive health services.

To achieve all of the above and promote access to high quality RH services require a multidimensional approach, which includes: broadening the range of services; removing barriers to utilization of care; ensuring that providers are technically competent and that they respect human dignity and rights.

In the planning for and setting up of the Millennium Villages Project (MVP), all of these elements were taken into consideration. Reproductive health rights were enshrined from the beginning, and activities to include information, education and care in the MVP villages are actively supported by The MDG Centre.

The essential features of the MVP RH strategic approach unites concepts and practices from public health and the social and management sciences with the principles of the ICPD:

- a staged implementation process that links assessment, pilot testing, and scaling-up;
- a systems framework to highlight the relevant factors for decision making on appropriate services;
- a reproductive health philosophy of reproductive rights, gender equity, and empowerment;
- a focus on improving equitable access to, and quality of, care so that services are client-centred and responsive to community needs;
- a participatory process to consider the concerns of all relevant stakeholders;
- country ownership of the process and the results.

Reproductive health in the MVs is addressed within the broad developmental efforts to strengthen overall public policy aimed at poverty reduction, and integrates population concerns into all the socio-economic



Educating boys, as well as girls, about the reproductive system of the female body is a key component of the RH programme

activities being carried out. This broad-based approach also pays attention to the cultural and social dimensions and is not restricted to only the medical aspects.

Education plays a key role. In countries where RH education has been given priority, there have been major benefits in delayed marriages, improved information gathering and contraception practice. There is also the potential to uplift the status of women economically and socially.

Special attention is given in the MVP to supplying adolescents with information to help them avoid infections and teenage pregnancy. Boys and girls will be involved in designing information, education and communication activities so that the services provided will be those they most require. It is hoped that a component that creates awareness about the RH situation of girls will lead to more understanding and responsible behaviour by boys.

Similarly men, who are the decision makers in most village households, are also being informed about RH issues, so that they know their responsibilities and can ensure that they and their spouses get care and attention as required. Identifying men's needs in this area has shown that when services are appropriate and of good quality, men come forward to utilize them and are also willing to pay for them.

Villagers participating in RH and family planning (FP) activities will need to be made fully aware of the factors that lead to HIV/AIDS. Sexually transmitted infections (STI) and reproductive tract infections (RTI), besides causing infertility, increase the likelihood of acquiring HIV. Those who already have HIV/AIDS will require FP counselling and services as well as treatment.

MVP staff are being trained in the use of a symptomatic approach and risk assessment in treating STIs, and to ensure privacy and confidentiality during STI/RTI consultations. Village clients are encouraged to not only notify their partners about the treatment, but to bring them for consultations. Prevention counselling, especially on the use of condoms, is essential.

A major component of the RH and FP services being provided is a list of 'client rights' that practitioners must embrace. These rights are highly detailed under the headings of:

1. Information
2. Access to services
3. Informed choice
4. Safe services
5. Privacy and confidentiality
6. Continuity of care
7. Dignity, comfort and expression of opinion.

For instance, under the last-mentioned heading, project staff and national counterparts are told: “All clients have the right to be treated with respect and consideration. Service providers need to ensure that clients are as comfortable as possible during procedures. Clients should be encouraged to express their views freely, even when their views differ from those of service providers.”

Client rights is just one of 9 components of a draft manual prepared by The MDG Centre with Earth Institute colleagues that provides service providers with comprehensive guidance for RH and FP activities in the MVs. This is of particular importance in family planning, as non-clinicians can be involved in the provision of FP advice, information and services, provided they have received the necessary training and instruction.

The manual is part of a package of reproductive health activities to be implemented in a coordinated manner by appropriately trained staff in the MVs, with the systematic participation of each local community, and in accordance with the socio-cultural context of each village.

The package of services seeks to reduce neonatal and maternal morbidity and mortality, reduce HIV transmission, prevent and manage the consequences of sexual violence, promote health education and contribute to the empowerment of women and girls, and integrate essential RH across the spectrum of health services to maximize access for all. It also includes planning for provision of comprehensive RH services integrated into the primary health care, as the situation in each village permits.

National governments have obligations to respect, protect and fulfil their people’s rights. In the case of reproductive health the rights-based approach (RBA) offers many benefits:

- It helps to frame a health problem such as maternal mortality as a social injustice, raises its visibility and can make it an urgent policy concern.
- It puts pressure on governments to provide adequate health care and confront violence against women.

- It forms the ethical framework for health practitioners.
- Reproductive rights education can empower clients and communities and instil a sense of entitlement.
- Implementation of RBA leads to improvement in policies, programmes.
- Respecting rights improves the effectiveness of health care.

Care has been taken to ensure that governments are involved in FP/RH activities. The MDG Centre has initiated ‘Quick Impact Initiatives’ for reduction in family size with the Ministry of Health’s Department of Reproductive Health (or equivalent) in each country where there are MVs. The quick impact is achieved by revitalizing plans to address the major barriers to new and continued use of longer-term contraceptives. The district hospitals are the venues of surgical contraceptive procedures and also serve as referral bases for emergency obstetric care.

This is done by expanding current efforts in:

- 1) training and technical support for service providers;
- 2) direct client education and demand creation through community work;
- 3) advocacy among key policy makers for both family planning in general and longer-term methods in particular; and
- 4) utilization of community-based workers.

The MVP is working with the communities in each village to provide the full range of health interventions needed to achieve the MDGs—including family planning, emergency obstetrical care and other reproductive health interventions—and rigorously documenting their impact on RH outcomes among the 400,000 people living in the Millennium Villages in Africa.

It is expected that this initiative will demonstrate and underscore the feasibility of providing such life-saving interventions at a modest price, and that this activity at the village level will increase and strengthen the momentum to scale up RH interventions and underpin achievement of the MDGs in Africa.

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What makes the Millennium Villages different from IRD?

The Millennium Villages (MVs) in Africa, by adapting new technologies for health and agriculture to development strategies for 10 different agro-economic zones across the continent, have demonstrated over the past 3 years the successes that can be experienced with aid funds when they are directed towards practical, quantifiable improvements in the lives of the rural poor. They offer models of tailored, integrated packages of technologies and approaches for achieving the Millennium Development Goals (MDGs) across Sub-Saharan Africa.

Food security has been enhanced by helping farmers use improved agricultural techniques. Child nutrition and school performance have been improved through school meals programmes. Malaria has been reduced by the provision of medicines and the distribution of insecticide-treated bed nets. And exposure to other diseases has been lessened due to increased access to clean drinking water.

Despite these successes, some development professionals have criticized the MV approach as being much the same as the integrated rural development (IRD) projects of the 1970s and 1980s, which some critics labelled as failures. A comparison of the two systems, however, highlights both similarities and differences in their approach to improving Africa's rural households.

The broad criticisms of IRD in the literature include poor design, unsustainable expense, benefits going only to the targeted area, non-participatory approaches, management problems, and difficulties in working with national institutions. In addition, IRD was described as being top-down and not being pro-poor. A study of IRD and MV approaches by The MDG Centre examines these criticisms from the viewpoints of both systems and is summarized here.

The study points out that both the MVs and IRD share some important features. Both emerged as reactions to failures of market approaches to include the poorest people. In

the late 1960s it was realized that economic growth had failed to trickle down and that government action was required to create change in developing countries. This situation gave birth to IRD. Since the 1980s, efforts to improve development outcomes through structural adjustment, market liberalization and good governance have had little impact on the lives of the poor.

The broad profile of the MVs and IRD is similar. Both are holistic—focusing on simultaneous, complementary interventions. The sectors targeted are also largely the same. IRD focused on increased agricultural productivity as do the MVs, disseminating improved inputs and farming techniques to increase subsistence and commercial production. IRD projects also introduced and expanded agro-processing and other related commercial activities, which is an aim of the MVs. In terms of social sectors, IRD focused on improving indicators for health, nutrition, education, and family planning. The MVs also focus on these, adding gender and environment. Both approaches are multi-sectoral and combine an integrated set of interventions.

It is in the areas of design and implementation that the differences between MVs and IRD stand out clearly. IRD varied, sometimes noticeably, across projects, countries and duration, whereas the methodology of MVs is more consistent, being implemented in various locations through a partnership between the Earth Institute (EI) at New York's Columbia University, the United Nations Development Programme (UNDP) and Millennium Promise.

By 1989 there had already been more than 100 quite diverse, major IRD projects in various developing countries. There were some model villages, which were perhaps most similar to the MVs, but they remained isolated, and improvements tended not to survive far past the length of the project. The specific purpose of the initial MVs is to provide a model for cost-effective



The community facilitator (right) at the Mwandama MV in Malawi discusses the benefits of crop diversification

interventions that could be taken to district or national levels when funding increases.

The initial 12 MVs are sites of research, implemented by a coordinating team and expanding to cover surrounding areas through second-generation MVs with the aim of scaling up to cover whole districts (MDs) and eventually becoming a common feature of national strategies. Although the approach is flexible and interventions sometimes vary by location, they are closely monitored and their outcomes analyzed so that the MVs offer a consistent and coordinated framework. MVs also benefit from being able to draw upon 30 years of development experience since the 1970s.

IRD projects tended to be poorly designed for their locations and badly adapted to local conditions. Projects were variously described as being too short in duration, haphazard, ad hoc, too complex, too ambitious, and poorly prepared, with technologies not successfully adapted to areas and situations to which they were to be applied. Many were said to be too rigid in design and too bureaucratic

in implementation. They often consisted of a blueprinted, top-down approach with an over-reliance on centrally provided personnel and equipment. That they were devised by outsiders and therefore bureaucratic by nature often led to failure in adjusting to local conditions.

Not enough attention was paid to local requirements. Projects often had insufficient local data, especially of cropping systems. New farming technologies introduced had generally not been tested for smallholders, so predictions of the benefits to be derived from using these were largely theoretical. Technologies and approaches tended not to be suitable to the size and types of farms in projects.

A comprehensive study of World Bank IRD projects produced three choices that were considered suitable for tackling the problem of development project design:

1. Use resources intensively to perfect project design for specific location and context.

2. Adopt a learning-by-doing approach with less ambitious objectives.
3. Combine the first two approaches and plan for a flexible approach that involves local people in design.

The MVs are tackling this problem relatively successfully with an approach comparable to the third option above. The design of the MVs is the product of years of research and policy advice from development experts at the UN, national governments, NGOs, the private sector, and academia—particularly scientists from the EI. At the same time research has been carried out in the MVs to find out what people in different agroecological zones need most, what works best and how much it costs. Intervention packages are necessarily different for nomadic pastoralists in Garrissa District in Kenya than they are for maize smallholders in Malawi.

A second criticism, of both IRD and the MVs, is that they are too expensive and as such are unsustainable. A major cause for the failure of IRD was said to be because its projects were too costly and had to be abandoned. In Nigeria in 1978, there was general agreement that the 5 major IRD projects, costing annually in total around \$30 million, could not be sustained without a high level of financial support and could not be replicated without a similar financial commitment. They also tended to require large increases in recurring national government expenditure as well as in farmer labour, expenses that were too heavy for government budgets. Although some projects did have a short-term impact, few achieved long-term results.

Are the MVs any different? Many critics claim they are also too expensive. Requiring roughly \$110 per person per year, based on an estimate by the UN Millennium Project assessment, they cost \$550,000 per year for a village of 1000 households or \$55,000,000 for districts of 500,000 people. The MVs are not designed to demonstrate what can be done with existing development resources, but rather are meant to show what can be done if aid is scaled up to achieve MDGs.

In very poor countries, such as Malawi, with a gross national income (GNI) of around \$160 per capita, these figures are likely to

be outside of existing budgets. As such, the role of the MVs is that of a model, to show what can be done in a 5-year period if recommended funding is made available and to identify best-bet interventions that could be scaled up to a national level.

Another important difference between the MVs and IRD regarding sustainability is that the former are built on a principle of cost sharing. Of the per capita expenditure, \$40 is meant to be raised locally—\$30 from local and national government budgets (e.g. MPs' constituency development funds) and \$10 from the villages themselves, generally in the form of in-kind contributions. The other \$70 comes from the donor community.

In the MVs the reality is so far somewhat different—most have been going on for less than 2 years and typically the level of spending is not quite this high. Based on their experience, other donor projects already in place contribute roughly \$20, MV project funding around \$50, and community/government contributions vary from \$15-\$40, and more in different areas. Government contributions include expenditure on roads, electricity, health, water, and human resources. Community contributions are typically in the form of volunteer labour, bricks and agricultural produce. Cost sharing at the government and community level is a fundamental part of MV design and should have positive affects on longer-term sustainability.

Another criticism of IRD is that the benefits of projects were unique to the targeted areas and farmers outside those areas received little help, often less than before the projects were initiated. This contributed towards an increase in inter-regional inequality.

This is not the case with the MVs. Good infrastructure in one MV tends to be a shared resource among villages within commuting distance. Though some aspects, such as agricultural input subsidies, do exclude farmers outside of the scope of the project, health clinics and schools are less likely to.

The MVs have also come under criticism for being exclusive pockets of development but this overlooks the non-exclusivity of many

of the interventions and also the plans for expansion. Many of the original research villages have already expanded activities to surrounding villages and plans to scale up to Millennium Districts are well along. MVs are also designed to produce a replicable set of interventions that could be applied to national policy. As such, the benefits of the MVs are not unique to the targeted area.

IRD projects were also criticized for avoiding the poorest areas and failing to reach the poorest people. Because the projects aimed to have good outcomes, they tended to be located in areas that were already doing well, or at least better than other areas.

The MVs, on the other hand, are largely pro-poor in both site selection and design of interventions. Like IRD projects, the MVs are typically based in areas with a reasonable chance of success—i.e. in countries where the government is committed to achieving MDGs, there is no ongoing conflict, and development partners have had projects before. However, they do not shy away from poor areas. All of the research villages are located in 'hunger hotspots', areas where more than 20% of pre-school children are underweight. Also, the poorest are included in the interventions in the villages because everyone in the village is served equally.

The agricultural input provision in Malawi, for example, is designed to meet the needs of farmers with 0.4 hectares (ha). Farmers with 5 ha get the same amount as do those who have less than 0.4 ha. This means that a farmer with 0.3 ha can farm a small plot more intensively and that the farmer with 5 ha is given a relatively small boost. Because the MVs focus, especially in the first years, on meeting basic needs (food security, primary health care, etc.) they are by design pro-poor.

An important problem with the IRD approach was that it was often non-participatory. The consensus among writers on IRD projects is that they could have been significantly improved by gearing them towards meeting local needs. To do this it is necessary to ask people what they want and to determine what impacts interventions are having on their lives. This level of stakeholder participation in needs assessments and decision-making appears to have been quite low. Other studies show that the most successful IRD projects were the ones with a high level of such participation

The MVs use participatory rural appraisal (PRA) methods, which place an emphasis on local knowledge and engaging local people in appraisals, analysis and plans. MVs work with local groups (i.e. village



Millennium Village women formally celebrate a successful harvest with song and dance

development committees) in designing projects, communicating project goals, and in executing interventions, right up to the point where it is possible to hand over the project to be run by communities with the support of local and national governments.

Ignoring existing institutions and institutional weaknesses has been the cause of failure for many projects, especially those operating in Africa. Many IRD projects worked with existing corrupt or inadequate governance structures without adequately focussing on the importance of institutional development and capacity building to encourage well functioning governance structures in project implementation.

IRD projects frequently created new parallel structures, setting up their own implementing agency to bypass and work around weak local institutions, thus undermining them. This meant that capacity to sustain projects beyond project length was often very poor. Existing governance structures, though they may be deficient, are at least more reliable in the long term because their existence does not depend on the presence of the project. Bypassing them tends to create poor outcomes in terms of project continuity.

The MVs work with local institutions, from village subcommittees to local and national government, along with other stakeholders. In most communities there are existing committees responsible for managing different aspects of village life. The MVs aim to empower these (both in terms of mandate and financially) to implement and support interventions. The general MV strategy is to improve and augment existing structures.

Where some structures are missing, the MVs do seek to create these. In Sauri, Kenya, for example, the gender specialist from The MDG Centre is currently assessing the extent to which the needs of adolescent girls are being addressed and to what extent they could be better addressed through forming a committee exclusive to themselves.

Finally, when the conditions on the ground in the 1970s and 1980s are considered, many of them not conducive to good outcomes, they would have contributed to some of the

failures of IRD. Since then there have been some important changes in technology and in the implementing environment. Thus, besides the MVs' advantages over IRD in terms of participation, design, and suitability to local conditions, they also are taking place in very different circumstances.

Decentralization, greater accountability, improved local capacity, adoption of participatory approaches, availability of better technology, and increased donor commitments are all important developments that may mean that integrated approaches would be more likely to succeed today.

There have been advances in agriculture, which are now leading to the beginnings of an African Green Revolution. However, 20 or 30 years ago, investments in agricultural research relevant to African crops were much more limited than today and there was not the same technological basis for a Green Revolution. Development of drought-resistant, high-yielding seeds, for instance, offers potential for much higher farm yields for many African smallholders.

There have also been major advances in the kind of health care that is relevant to MVs. Developments in primary care, in both treatment and prevention, have produced a number of low-cost solutions to many of the health problems common to the villages: insecticide-treated bed nets, effective treatment for malaria and tuberculosis, and more advanced knowledge of sanitation and water purification. Extension workers with eight weeks of training can vaccinate and deworm children, issue rehydration salts to combat diarrhea, instruct people on how to use and care for bed nets, and teach people how to make sure water is safe to drink.

In conclusion, MVs have overcome some of the design problems that undermined many IRD projects. They are participatory. They manage to work in very poor areas and include very poor people. The MVs are working with existing structures, only creating new ones where necessary. They also benefit from decentralization, better technology, and more community-driven approaches.

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Malawi's agricultural turnaround

Malawi is a small, landlocked and densely populated country of 13 million people, heavily dependent on agriculture, which makes up 35-40% of the gross domestic product (GDP), accounts for 78% of the national labour force, and provides about 80% of all exports.

Nearly 90% of the population is involved in farming, 78% being smallholders. The smallholder sub-sector comprises 2.4 million households with an average farm size of 1.2 ha, of which about 1 ha is cultivated. In the more densely populated southern Malawi, 54% of smallholders farm less than 1 ha. Another 1.2 million ha are commercial estates producing tobacco, tea, sugar and coffee, mainly for export.

Maize is grown by 97% of smallholder households, occupies 90% of all farmed land, and provides 60% of total calorie consumption (more than 75% for the poorest fifth of Malawi's population). Other smallholder crops include groundnuts, beans, pigeon peas, rice and cassava. Almost all maize is grown under rainfed conditions and

is subject to variations in rainfall that result in irregular variations in crop yields and food availability.

Smallholder maize productivity has declined over decades of intensive cultivation and very little fertilizer use. More than half of the farming households have traditionally existed below subsistence level, with only 20% of them being able to sell their maize. To cope with this shortage, families reduce their daily food intake, increase consumption of alternative food, such as cassava, sell what they can, for example livestock, and seek work on commercial estates or in towns.

Studies have shown that food insecurity also leads to unsafe sexual practices, which can result in a higher incidence of HIV/AIDS and other sexually transmitted diseases, teenage pregnancies, and abortions. Food shortages also lead to reduced school attendance and an increase in violence.

Even by Malawi's standard low production, the 2004/5 maize season was the worst in a decade. The rains were erratic and



A farmer sees the result of crop diversification, with healthy plots of groundnuts and maize side by side



The end result of a good harvest, shelling the maize grains from the cobs

inadequate, with none for a whole month in many parts of the country during the growing season. Crops suffered drought stress at critical stages of growth, with a devastating effect on yields. Total production, including commercial estate production, was just 1.22 million metric tons (MT), 29% below the previous year, and 42% less than the estimated national requirement of 2.1 million MT.

In May 2005, normally the peak month of the maize harvest, the Malawi Vulnerability Assessment Committee (MVAC) concluded that between 4.2 million and 4.6 million Malawians needed food aid, an emergency food requirement of anywhere from 272,000-423,000 MT of maize, depending on the expected market price. A major humanitarian relief operation began. By November 2005, as the maize prices in local markets continued to rise, the estimate went up to 5 million Malawians—38% of the population—in need of food aid.

In August 2005, the UN issued a 'Flash Appeal' for \$51 million in donor funds to support humanitarian assistance in food aid, health, education and protection against sexual and other exploitation. Then, with the support of the UN Millennium Project and The MDG Centre, the Appeal sought a second line of support (\$37 million) for improving agricultural production for the 2005/6 season. This was aimed at reducing the prospect of another poor maize harvest in 2006.

Response to the humanitarian appeal was reasonably good, but few donors supported the production inputs. The UN responded and assisted with resource mobilization and communications.

The World Food Programme and the UK's Department for International Development (DFID) provided the bulk of the food aid. Food and cash-for-work programmes supported by the Government of Malawi, the World Bank, the European Union and DFID helped ease the crisis. But the government knew this was only temporary relief and they had to come up with something more permanent in scope.

They succeeded, but only after heated parliamentary debate and strong objections from some major donors. Their initial move was to introduce a national agricultural input subsidy programme (NISP) to encourage the use of fertilizer for maize and tobacco production. The government imported 147,000 MT of fertilizer, 70,000 from private sector importers and 77,000 via a government parastatal. They also subsidized 6,000 MT of open-pollinated variety (OPV) maize seed.

The total production of maize for the 2005/6 season was estimated at 2.61 million MT, more than double the 2004/5 harvest and about 500,000 MT above the aggregate national maize requirement. For comparative purposes, the smallholder summer maize crop yield was 1.61 MT/ha compared to 0.73 MT/ha in 2004/5. The total area planted to maize (smallholder summer and winter crops, and estate crops) expanded by 7% to 1.62 million ha in 2005/6 in response to better growing conditions and increased fertilizer and seed availability.

Encouraged by its success, the Malawi government decided to continue the subsidy programme in 2006/7 and donors provided strong arguments to increase the role of the private sector this time, especially the emerging agro-dealer network. While recognizing the benefits of this, the government also expressed concerns in the event of unsold government stocks, the variable quality of seed and other inputs, and the fact that the more remote areas of the country were not well served by the private sector.

A compromise was reached, through technical and financial support from DFID, that buffered the government against possible unsold stocks, supported input distribution with a professional logistics unit, and monitored seed and fertilizer quality. An expanded role for agro-dealers was agreed to, in areas previously ignored by the private sector.

In 2005/6, the fact that the private sector played no role in distributing subsidized fertilizer and seed had strengthened the argument against agricultural subsidies among donors and business groups, despite the acknowledged benefits to the rural poor and to national food security. In the 2006/7 NISP, the private sector distributed 28% of fertilizer and all of the seed—a development to which donors have responded positively—and more than 70% of farmers have opted for the higher-yielding hybrids over OPVs.

The 2006/7 national harvest was estimated at 3.4 million MT, 800,000 more than the 2005/6 all-time record for Malawi, and 1.3 million MT above aggregate national requirements. It is expected that Malawi will export 400,000 MT to Zimbabwe in 2007, generating income for its smallholder farmers and contributing to regional food security.

For 2007/8, the government has announced a slight reduction in the price of subsidized fertilizer, but there remains room for improvement in some operational aspects of the programme. Public awareness of plans and progress, including the broader vision of rural economic transformation, needs to be communicated, along with more advanced planning and decision making. A mechanism at the national level needs to be installed to ensure greater transparency and predictability, and improvements made in coupon allocation, distribution, and redemption procedures. There should be more dealers to support the distribution of seed and fertilizer and the input subsidy itself should be broadened to promote crop diversification, for both income and nutrition purposes.

Also, for the foreseeable future, agricultural production and livelihoods of smallholder farmers in Malawi will remain subject to the vagaries of weather. To reduce the risks, a greater stability of crop production should be aimed for, to avoid or reduce the impact of drought. This might include adopting—in rainfed areas—technologies such as water harvesting, conservation tillage, contour farming, strip farming, and others that show considerable potential but are yet to be implemented on a large scale.

Greater investment is also required to ensure safe storage of grain at national, regional, community, and household levels, thus reducing post-harvest losses and ensuring year-to-year protection against the effects of weather-related production short-falls.

The potential for national crop insurance schemes needs to be fully explored as, even with the potential stabilizing effects mentioned above, significant swings in national crop production are inevitable in Malawi. The negative impact of this could be reduced through investing in weather-related crop insurance and related schemes, including future procurement options.

Malawi has achieved the first stage of a process that should lead to a rural economic transformation, greatly improving food security in just two years. The sale of surpluses in the short term will likely contribute to higher incomes, improved health, and improved school attendance. But more is needed.

Perhaps most critical is a firm 10-15 year multi-stakeholder commitment. The Malawi Growth and Development Strategy incorporates the fundamentals of this transformation. It is essential that the government and donors achieve a consensus on direction and steadfastness of financial commitments. The UN, with the support of The MDG Centre, can play an important role in mediating and sustaining this consensus.

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Lessons learned from Malawi's national input subsidy programme

Several lessons have been learned from Malawi's experience, some uniquely related to Malawi, while others may have broader relevance to African agriculture.

- 1. Logistically, a programme of national scope is feasible, even under an urgent time scale.** Despite the country's enormous human resource capacity challenges, the government, with support from the UN and a few committed donors, was able to improve food security in one million households, more than half the rural population, over two consecutive years.
- 2. The knowledge exists to improve smallholder maize production and sharply reduce food insecurity.** The 'package' that was advocated in 2005/6 and 2006/7 was a relatively straightforward combination of production inputs (seed and fertilizer) and management practices (correct plant spacing and weeding) that had been developed by Malawian researchers and their international partners.
- 3. It makes economic sense to support an inputs subsidy rather than rely on food aid.** Smallholders in Malawi demonstrated that *in situ* production of maize is a better economic proposition than food aid. The MVP results showed that the provision of \$53 of inputs generates an extra 0.8 to 1.6 metric tons of maize on 0.4 hectares, worth \$240 to \$320 0.4 hectare.
- 4. The cost of achieving food security is fiscally manageable and responsible.** The national budgetary allocation of \$58 million in 2005/6 and \$62 million in 2006/7, representing less than \$5/person/year, supplemented by modest donor support, is a remarkably small price to pay to improve food security at national and household levels.
- 5. Pro-poor 'smart' input subsidies work.** A key design feature of the national input subsidy programme (NISP) and a core principle of the MVP is the concept of a fixed subsidy amount: interventions that benefit the poorest in the community, but do not distort the market for large farmers who buy more than the subsidized amount.
- 6. Public-private partnerships have improved programme effectiveness.** The 2006/7 programme benefited from a more active role by the private sector in planning and implementation. The agri-product dealers played an important role in the distribution of inputs in more accessible areas where they had already established commercial markets, while government parastatals were more critical in those areas not served by the private sector. The lesson learned is that this partnership of government and the business community is to their mutual benefit.
- 7. There are important spillover benefits to maize consumers.** The benefits to most farm households from these dramatic improvements in food security are abundantly clear. However, there are also important benefits to the urban poor and to the most vulnerable rural poor who remain net food consumers.
- 8. Donors are starting to reconsider their development paradigms.** During the past two decades, there has been a pervasive anti-subsidy bias among many of the larger and most influential donors, including those that continue to heavily subsidize their own agricultural sectors. There are also widely held views that small-scale farming is not economic and should not be encouraged. This meant that, at the outset, there was little donor support for the inputs subsidy and an overwhelming emphasis placed on the reasons why it would not succeed. After initial reluctance, however, several of these donors have begun to work with the government to support and improve the effectiveness of the NISP.

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Mwandama Millennium Village farmers triple maize yields

Three months after Malawi introduced the national agricultural input subsidy programme to avoid a repetition of the 2004/5 maize crop failure, the government joined with the Millennium Villages Project (MVP) to establish the country's first Millennium Village (MV). From the outset it was agreed that the first priority would be to prepare for the 2005/6 rainy season.

The Ministry of Agriculture and Food Security, supported by the UN and The MDG Centre, coordinated a site selection process focussing on rural areas that were the hardest hit by food shortages and suffering the most from poverty. The selected village was Mwandama in Zomba District, southern Malawi.

Consultations with the Mwandama community revealed major concerns regarding the ability to recover from the 2004/5 crop failures. Food aid was required immediately for the worst affected households but farmers stressed the importance of supplies of seed and fertilizer.

It also became apparent that most of the farmers could not take advantage of the government's subsidy as they had no cash to buy fertilizer, even at the greatly reduced rate. Cash-for-work programmes were operational in some parts of the district, but these were inadequate for the majority of the households faced with hunger, and most of those who did obtain work said that, out of desperation, they preferred to buy food rather than fertilizer.

The project began in a cluster of villages around Mwandama, reaching a total of about 55,000 people in 11,000 households, with funds and in-kind support from the governments of Malawi and Japan, UNDP and public and private organizations. Additional satellite villages, of 1,000 households each, were supported in two other districts in central and northern Malawi.

Each household received seed and fertilizer representing recommended inputs for a typical smallholder Mwandama farm of 0.4 ha and farmers were trained in the Sasakawa planting method of closer ridge spacing and single seeds for each hill. Intensive extension support was provided by the Ministry of Agriculture and Food Security.

Each household was required to repay 100 kg of maize at harvest. This was earmarked for the school meals programme, a core MV component.

Farmers responded with great enthusiasm to the intervention package of seed, fertilizer and good extension support. Aided by a relatively good rainy season, 1,000 farmers in Mwandama got an average yield of 6.50 metric tons per hectare (MT/ha), three times what was shown in a sampling from non-intervention areas of 2.21 MT/ha. In 2004/5, the year of the drought, yields in Mwandama averaged less than 1 MT/ha.

Yield advantages of 2-4 MT/ha mean an extra 16 to 32 bags of maize, each one weighing 50kg, for a smallholder farmer on 0.4 ha—a significant surplus above normal consumption needs. In Mwandama and other communities covered by the project, older farmers reported that they had never before seen smallholder maize crops like these. The results improved local food security and provided a platform for a longer-term transformation to more productive and diversified farming in the area.

While the project's focus during 2005/6 was to boost food production and achieve household food security, work began on complementary investments in health, education and water supply.

Long-lasting, insecticide-treated bed nets were distributed during 2006, and recipients reported fewer malaria sufferers during the 2006/7 rainy season. School attendance has increased, due to recently introduced school meal programmes. Surveys to locate boreholes and improve springs for clean drinking water are under way. Post-harvest drying and storage structures have also been established and farmers trained in operating them.

The agricultural inputs interventions were repeated for the 2006/7 season, with the inclusion of seed for non-maize crops such as groundnuts and pigeon pea. The project was expanded to include a village in the central region identified by the Ministry of Local Government and Rural Development. A bumper crop is again indicated for all MV areas.

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Rainwater harvesting: how Zanzibar can solve its water shortage problem

Satellite maps and climatic information on eastern and southern Africa give the impression of a land mass well served by water. Large lakes, long rivers and, barring drought years, adequate and often heavy rainfall suggest that water supply for agricultural and domestic use would not be a major problem. The reality is somewhat different, a major reason being that much of the rain that falls is allowed to escape before it can be utilized, the result of poor and sometimes non-existent rainwater harvesting.

At the end of 2006, a report on a four-year programme by the Global Water Partnership (GWP) to create awareness and promote policy research and capacity-building activities in rainwater harvesting pointed to problems that were still outstanding in the region:

- Poor access to, and availability of, water due to inadequate water harvesting infrastructure;
- Low agricultural production—rice yields of less than 1 metric ton (MT) per hectare due to intra-seasonal dry spells and drought that could have been mitigated by supplementary irrigation and ground water recharge (GWR) through rainwater harvesting;

- Poor management of rainwater—resulting in flooding, erosion and pollution.

Zanzibar consists of two main islands, Unguja and Pemba, as well as some smaller ones, all of which experience heavy rainfall. The annual volume of water that falls on Unguja has been measured at 2446 million cubic metres (mcm) and, on Pemba, 1525 mcm. Yet many parts of the islands suffer from severe shortages during the year.

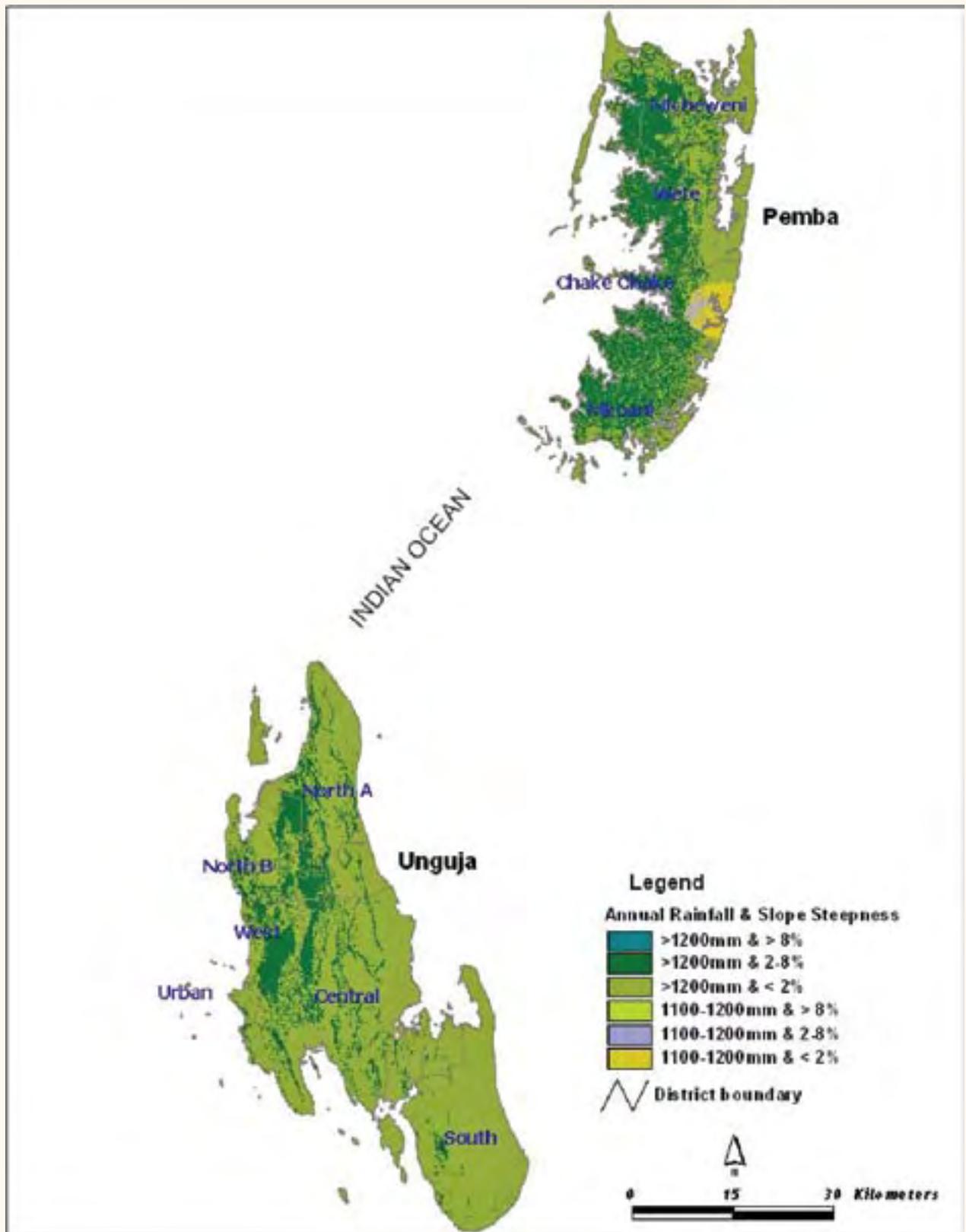
In January, 2007, Zanzibar President Amani Abeid Karume asked Prof. Jeffrey Sachs, Director of the Earth Institute at Columbia University, to facilitate technical support in improving water resources management in Zanzibar's agriculture sector. Under Prof. Sachs' overall direction, The MDG Centre commissioned an assessment of the potential for water harvesting in Zanzibar. They were joined in the project by the United Nations Development Programme (UNDP) Tanzania and the World Agroforestry Centre (ICRAF), Kenya.

The assessment was completed in July 2007, pointing to the same problems as outlined in the earlier GWP regional report. Of Unguja's annual 2446 mcm of rainfall, only 33 mcm (1.3%) become available for domestic water supply and irrigation. About 24% goes into underground aquifers for essential groundwater recharge but another 24% runs off into the Indian Ocean. On Pemba, only 7.7% ends up in the aquifers and more than half the rainfall (52.3%) disappears into the sea unused. About 40% of the rainfall on both islands is lost through evapotranspiration—the sum of evaporation from soil, tree canopies and bodies of water—and transpiration from plants. The result is that current water utilization in Zanzibar stands at just 1% of what is available.

Despite these gloomy statistics, The MDG Centre's assessment is highly positive in that it finds both major Zanzibar islands to be well placed to put into practice rainwater harvesting technologies that would be



River diversion for surface irrigation in Pemba



Development domains for run-off catchment systems show the potential for rainwater harvesting in Zanzibar

effective, simple to build and operate, and not costly. They include the capture and storage of rain from roof and ground catchments, the collection of surface run-off in reservoirs, and the introduction of run-off to recharge groundwater in aquifers, which will revive dried-out springs and shallow wells.

The benefits of rainwater harvesting are multiple. It increases food production and minimizes the risk of crop failure during droughts or floods. It reduces women's burden of water collection for the home and, allowing mothers more time for other household activities, it could provide increased opportunities for female children to attend school. Because it is a relatively clean source of drinking water it would decrease the likelihood of water-borne diseases and, as rainwater harvesting is a decentralized system, it encourages community participation and self-reliance. There is also a variety of methods, which means they can be built to suit the ecological characteristics of different localities.

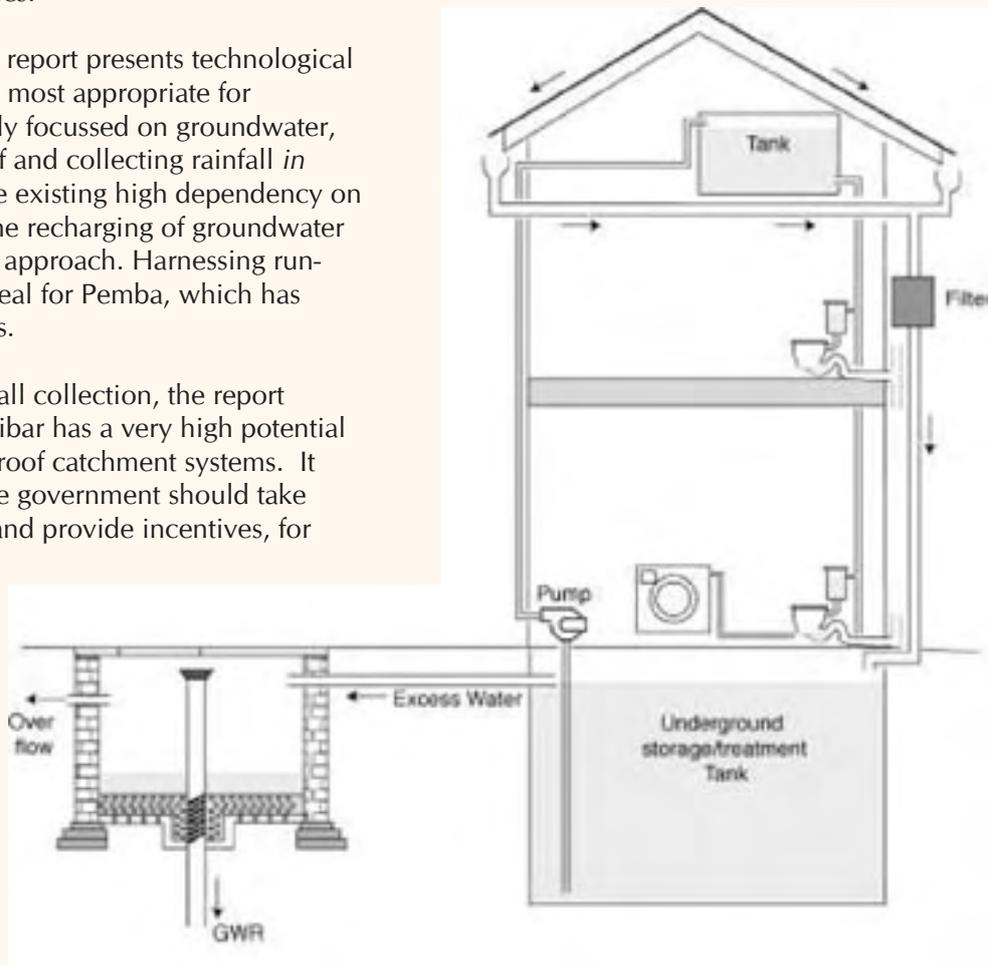
The assessment report presents technological options that are most appropriate for Zanzibar, mainly focussed on groundwater, capturing runoff and collecting rainfall *in situ*. Due to the existing high dependency on groundwater, the recharging of groundwater storage is a key approach. Harnessing runoff would be ideal for Pemba, which has numerous rivers.

Regarding rainfall collection, the report notes that Zanzibar has a very high potential for developing roof catchment systems. It suggests that the government should take responsibility, and provide incentives, for

ensuring that both new and old buildings are fitted with gutters, down pipes, water storage and facilities for groundwater recharge.

The importance of such water harvesting initiatives is made clear in the report, which estimates that the volume of water that falls on the two islands each year could support a population of 2.6 million people living in an industrialized country with a GDP/capita/year of over US\$20,000. With only 1 million inhabitants, if most of this water could be harnessed for use, Zanzibar could greatly reduce the burden of water collection, decrease water-borne diseases and expand its agriculture to a point where all of its food requirements could be met locally.

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Roof attachment with underground storage and overflow for groundwater recharge

Improving the income of smallholders through market-driven approaches

A market-oriented programme that empowers smallholder farmers to become knowledgeable and actively engaged in the production, processing and handling, marketing and eventually consumption of agricultural products has been introduced to the Sauri village cluster in Western Kenya with the support of The MDG Centre. The Enterprise Development (ED) programme of the Millennium Villages Project (MVP) is geared towards improving the incomes of smallholder farmers and entrepreneurs through market-driven approaches. The overarching goal of this programme is to promote enterprises in all sectors (agriculture, industry and services), increase employment in those enterprises, promote

the commercialization of economic activity and support the development of local capital markets.

ED is a collection of activities encompassing the entire spectrum of on-farm and off-farm activities, from the production to the commercialization of agricultural and non-agricultural products, such as input markets, post-harvest handling, processing, marketing, and related commercial activities and services. These include examining the entire value chain, as well as the enterprises, institutions and activities that develop and deliver agricultural and non-agricultural inputs to the farming and off-farming sector, produce commodities, and handle, process,



Brick-making is a typical micro-enterprise that can be undertaken at village level

transport, market and distribute products and services to consumers.

Since the majority of activities at the village level revolve around agriculture as a source of livelihood, establishing well-functioning agri-business activities lies at the centre of the ED programme. For the majority of the poor, market accessibility (commodity, capital, labour markets) and the terms on which the poor participate in markets are critical to helping farmers move beyond subsistence into commercialized farming activities.

Initial activities are focussing on overcoming these barriers, including: linking farmers to markets; reducing post-harvest losses; addressing food safety and standards compliance; improving access to market information; developing agro-entrepreneurial skills; examining micro-processing and fortification opportunities; marketing and diversifying into high-value products (including horticulture, wood products, textiles); promoting investment and improved access to financial services; and contract farming and outgrower schemes. In the latter schemes, agri-business has considerable control over the smallholder production process, providing a large number of services such as input credits, tillage, spraying and harvesting where required. The smallholder provides land and labour in return for this comprehensive extension and inputs package.

At the same time, the ED project is examining potential links to off-farm rural activities, including services essential to supporting these activities, such as retail trade, information-based services and important linkages with urban markets and consumers. Linkages between non-farm and farm activities are important in contributing to the output, profitability, productivity and sustainability of the agri-business subsector. The MDG Centre anticipates that focussing on these growth sectors will achieve the following outcomes: (i) economic growth, increased and diversified incomes; (ii) widespread employment and entrepreneurial opportunities in the rural areas; (iii) more reliable food production and diversification that will reduce food costs and supply uncertainties and improve the diets of the

rural and urban poor; (iv) productivity gains of smallholder farmers and the poor, integrated more fully into local, regional, national and international markets; (v) increased off-farm activities and access to financial services, and (vi) strengthened links to urban centres.

Case example: Sauri Cluster and HoneyCare Africa

In Kenya, the Sauri Millennium Village (MV) cluster has started a new partnership with HoneyCare Africa (HCA), a private company based in Nairobi that works with groups of beekeepers throughout Kenya, Tanzania and Uganda. The company collects, processes and packages honey for Kenya's leading supermarkets and is looking to expand its business to Europe and North America.

Two hundred farmers in Sauri were trained in bee-keeping to ensure that the hives are properly managed to achieve maximum honey production. The farmers were given 5 hives each and were divided into 20-25 farmer producer groups. The MVP helped organize the farmers and assisted with funding for this initiative.

The farmers who participated in this project needed to apply for loans to purchase the beehives; the MVP and HCA therefore worked with local micro-credit institutions to supply the farmers with the requisite capital.

The MVP and HCA have also set up a collection centre in Sauri that serves both as a central system for the bee collection and as a storage area for equipment. The first harvest of the honey began in July 2007.

Case example: Soya Processing and Utilization

Diversification and agro-processing can bring multiple benefits to a community. For example, in addition to the other virtues of soybeans—with the highest protein content (40%) of all foods, a great cash crop, increasing maize production through fixing nitrogen in the soil—they are an important and cost-effective nutritional supplement to HIV/AIDS medication.

Soybean processing and utilization can also be used: (i) as an entry point to solving nutrition and health problems of poor farmer households and vulnerable groups; (ii) for conserving the natural resource base and improving crop yields; and (iii) for increasing cash incomes for poor farmers by linking them to markets.

With the support of the Tropical Soil Biology and Fertility Institute (TSBF) of the International Center for Tropical Agriculture (CIAT) and others, the farmers in Sauri received 5 metric tons (MT) of seeds for the 2006 planting season. With roughly 5,000 farmers planting soybeans, this could lead to commercial-scale processing. TSBF-CIAT trained some farmers to be trainers themselves, who will then disseminate information on processing and marketing. The training covered basic business management and money matters, nutrition and HIV/AIDS, hygiene and sanitation, issues in soybean processing, vegetable preserve production, packaging, and nutritional labelling.

Women were primary targets for this training, since most of the processing is at the household level and nutrition and hygiene are important elements.

Case example: Creating Agro-dealers

Across most of rural Africa poor farmers have difficulty finding and affording the appropriate seeds and fertilizers. Improving the access and affordability of farm inputs is a key starting point on the road to improved farm incomes. Farm inputs are usually distributed through a network of suppliers, called distributors, stockists or agro-dealers. Some are seasonal, with salesmen open for business only during the planting season; others have well established, permanent locations throughout the local area.

Supporting these distributors is a network of stockists, many of whom can be found along major roads, who retail inputs to farmers directly. These outlets have the potential to provide a range of other services to the farmers, such as extension advice and the distribution of new and

emerging technologies. For their part, the manufacturers and suppliers targeting farmers can use these outlets to publicize their services. Programmes that can generate increased demand for inputs, improve the efficiency of the input supply chain or reduce the risk of credit provision could substantially improve the access to and use of inputs, with ensuing gains in farmer productivity, income and food security.

The MDG Centre began working with the Agricultural Marketing Development Trust (AGMARK), a Kenyan not-for-profit body affiliated with the Citizens Network for Foreign Affairs (CNFA), a global NGO based in Washington DC, USA, to support the development of markets for agricultural inputs, outputs and services for smallholder farmers in Kenya in order to help them increase their agricultural productivity, food security and incomes.

To increase the number of input suppliers in the cluster, AGMARK was commissioned to help make agricultural inputs available to farmers through stockists. Activities included business management training, credit guarantees and demand-creation activities.

More specifically, AGMARK's role is to help identify potential entrepreneurs, help selected stockists to establish their businesses and train them in business management skills, so that they would effectively serve the smallholder farmers. At the end of the training these stockists qualified as certified agro-dealers, supervised by AGMARK to ensure that there is ethical trading and that appropriate technical skills are passed on to the farmers.

The agro-dealers are also linked with the commercial input supply companies and wholesalers, both to ensure adequate inputs to farmers and to work with companies to provide technical training for the stockists. AGMARK also works with the companies and micro-finance institutions to provide credit guarantees that enable stockists to receive the capital necessary to purchase their stock and lower the marketing risks.

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Millennium Districts: the Millennium Villages go to scale

The Millennium Villages (MVs), launched in 2004, are designed to demonstrate how the Millennium Development Goals (MDGs) can be met in rural Africa through community-led development in village clusters of 5,000 to 55,000 people. The MV project works directly with the villages, non-governmental organizations (NGOs) and national governments to show how rural African communities can lift themselves out of poverty.

The next step is providing more people with the opportunity of meeting these goals in districts of 300,000-500,000 people, the eventual size depending on local government structures and resource availability. A 'district', which may go by a different name in different countries (e.g., *woreda* in Ethiopia, *circle* in Mali), is usually the most important administrative unit between the village and the national government.

The MDG Centre, in partnership with SNV Netherlands and UNDP, is working with the Government of Kenya to design and implement district-level plans to achieve the MDGs: Millennium Districts (MDs).

At the district level, there is a need for both private and public investment, with the role of the private sector greater than in the MVs (see Table). More attention will also be paid in the MDs to the physical and policy environments in which private investment can flourish.

Eventually, MDs will connect the villages with Millennium Cities (MCs), mid-size secondary urban areas located near MV clusters, thus developing core rural-urban economic links that are essential to launching long-term economic transformation in Africa. In the areas selected to be MCs, efforts are already under way to identify promising opportunities for both local and foreign investors, to carry out needs assessments in business and social sectors, and to help the cities devise integrated development strategies that will assist them in achieving the MDGs.

Creating successful MDs is essential, as the eventual aim of effecting countrywide goals cannot be achieved unless a nation's districts are capable of carrying them out. This is particularly important in countries working toward decentralizing public institutions and decision-making.

In the MD, each village still requires its basic package of MV-type interventions, but these have to be set up with links to a broader economic development strategy that provides villages with new market outlets and economic opportunities. Just as an MV aims to help put communities on a reliable path out of extreme poverty within 5-10 years, an MD aims to place a region on a path of self-sustaining economic growth within the same time frame.

The activities envisioned for a Millennium District fall into six main categories:

1. Implementing the MV strategy throughout all villages in the district.
2. Supporting district-level infrastructure projects, e.g., major roads, a power grid, and a telecommunications node.
3. Supporting district-level services, e.g., district hospitals, agricultural extension, secondary schools, polytechnics (vocational secondary schools), and adult training programmes.
4. Supporting district management capacities to link district-level services to village-level and national-level services (e.g., health referral systems).
5. Supporting business development programmes within districts (e.g., farm cooperatives, cereal banks, agro-dealerships, rural-urban market information systems, micro-enterprises).
6. Linking with urban development strategies and larger-scale regional or national business development programmes, (e.g., investment promotion programmes; regulatory reviews; large-scale infrastructure upgrades in railways, airports, and

information and communication technology) to help cities tackle poverty and become effective agro-processing, manufacturing, marketing and export centres.

Where some of the activities proposed by the MD project are already under way in many regions through the efforts of national and private sector interventions, the project's aim will be to expand existing village initiatives, first to district-wide coverage and then to integrate them with activities already in place.

The MD initiatives are being organized in a broad public-private partnership between host country governments, private sector firms (domestic and international), donor governments, NGOs, and science and technical providers. Elements of this partnership include:

- In Kenya, as will be the case in other countries, the national government is leading this process, with district-specific modalities suited to national administrative and policy processes.
- Local governments will lead in general planning and system management.
- A supporting implementation body may need to be created in some instances, and in others existing structures mandated to manage MDG district-level programmes.
- A district-level structure will coordinate relevant activities such as infrastructure planning, investment promotion, and information management.
- Private firms will coordinate their supporting business development efforts—an example of this is in Kenya where the Business Alliance Against Chronic Hunger, supported by the World Economic Forum and The MDG Centre, has taken up the challenge of private agricultural investment in Siaya.

The first MDs are being launched in areas where MV initiatives now under way are more advanced, and where interest has been expressed from officials in district, city and national governments.

Initial steps have been taken in Kenya, with the Ministry of Planning and National

Development taking the lead, with MDG needs assessment of 9 pilot MDs identified in 2006. These include Siaya and Garissa, in which Sauri and Dertu are located.

Entry points for The MDG Centre's MD initiative have been identified, the MD concept has been shared with prospective partners and senior district government heads, and discussions on engagement with civil society organizations are ongoing. A rapid MDG needs assessment is under way, and has been completed by 4 of the 9 MDs, resulting in a list of priority activities that can be implemented quickly.

Some other locations suggested as candidates for MD establishment are: Hawzien Valley, Ethiopia; Segou Circle, Mali; and Bugesera District, Rwanda. All are located in countries that have been supported by the UN Millennium Project because of their demonstrated commitment to achieving the Millennium Development Goals.

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Types of MDG public and private investment by administrative level

Scale	Public	Private
National	Ports, railroads, airports, industrial zones, agricultural research, universities, internet structures, public institutions.	Large-scale manufacturing, supply chains, telephone and internet services.
District & City	Regional road, electricity and information technology networks, health systems, agricultural extension, secondary schools, vocational colleges.	Agricultural processing plants, regional shipping services.
Village	Health clinics, schools, feeder roads, water and sanitation.	Farmers, small-scale business development, micro-credit, agricultural input supply.



"Who slept under a bed net last night?"

Our Investors

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- David and Lucile Packard Foundation
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- Earth Institute at Columbia University
- Food and Agricultural Organisation of the United Nations
- Government of Austria
- Government of Canada
- Government of Ireland
- Government of Japan
- Hunter Foundation
- John D. and Catherine T. MacArthur Foundation
- Millennium Promise Alliance
- Nike Foundation
- Open Society Institute
- SNV, Netherlands
- United Nations Development Programme
- United Nations Industrial Development Organization
- World Bank
- World Food Programme
- World Health Organization





The MDG Centre

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