



MILLENNIUM VILLAGES PROJECT

Background

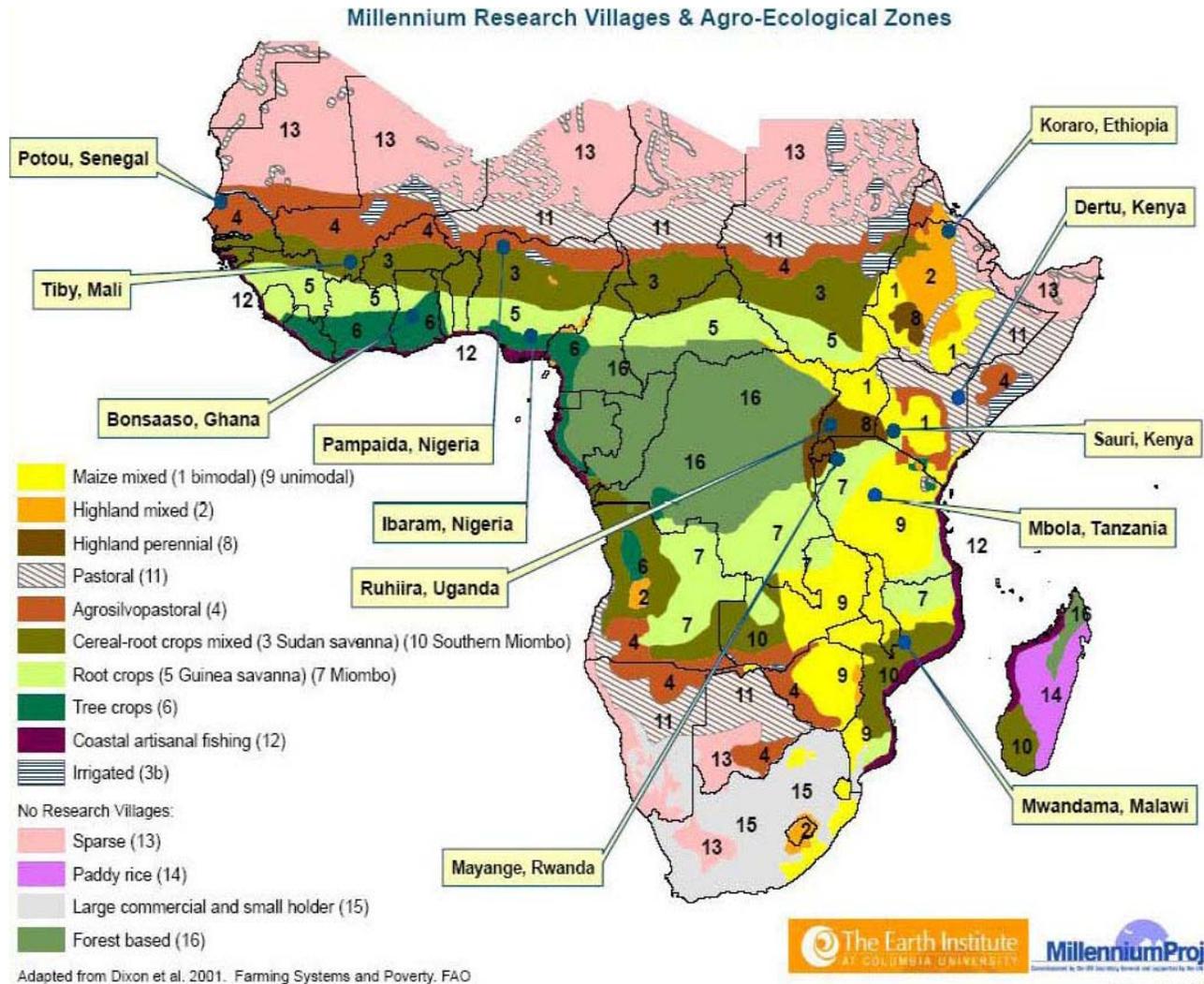
The Millennium Villages project aims to establish a foundation of evidence that rural Africa can be on the path towards achieving the MDGs using science-based, proven and practical interventions over a five-year timeframe. The project empowers African communities through the implementation of comprehensive, community-based, low-cost, integrated rural development strategies.

This project, a partnership between the Earth Institute at Columbia University, UNDP, Millennium Promise and national and local governments, is the product of five years of intensive research and policy advice by hundreds of scientists and development experts from across the UN system, governments, NGOs, the private sector, and academia.

Millennium Villages are explicitly based on achieving the Millennium Development Goals and are anchored by three interconnected components: (i) the principles of community participation and leadership, (ii) science-based innovations and local knowledge, and (iii) a costed, national action-plan for reaching the time-bound and targeted objectives of the MDGs.

The implementation of the Millennium Villages as an integrated program across Africa is critical to generating greater momentum towards achieving the MDGs in the region. By reaching hundreds of thousands of people across ten countries, situated in the major agro-ecological zones of the continent, the Millennium Villages project is providing convincing evidence that (i) the combination of regionally specific, science-based interventions and local ownership is an effective means of alleviating extreme poverty regardless of agro-ecological or political conditions, and (ii) reaching the benchmarks proposed in the MDGs is achievable and within the cost estimates.

The Millennium Villages project works in 78 villages located in 10 countries in sub-Saharan Africa. The sites were selected to represent different agro-ecological zones, which represent 93 percent of the

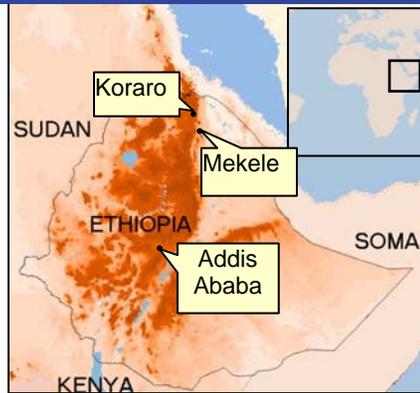


agricultural land area in sub-Saharan Africa and the homes of 90 percent of the agriculture population. These villages are located in reasonably well-governed and stable countries and in hunger

hotspots—areas with the highest rates of rural poverty and hunger as defined by the UN Millennium Projects

THE KORARO CLUSTER VILLAGES , ETHIOPIA

In February 2005, a team of Earth Institute scientists and government officials met with the entire population of a small village in the Northern Ethiopia to launch the first Millennium Research Village in Ethiopia and the second in Africa, Koraro. A year later, the Millennium Villages Project scaled up to include 10 nearby villages, which constitute the Koraro Cluster of Millennium Villages. The village Koraro itself is designated as the Millennium Research Village.



Background

Koraro, the furthest among these villages is 16 Km from a secondary road and about 54 Km from the main road, 95 km from the regional capital, Mekele. The new villages in the cluster namely: Megab, Freweyni, Dugum, Debreberhan, Selam, Suluh, Hayelom, Gra Ares, Tsenkanet and Hatset; are surrounding the district capital, with five of them having access to a secondary road connecting Wukro - Hawzien - Senkata towns. The villages have a total surface area of 371 sq. km and. A total of 59,340 people reside in 12570 households with an average household size of 4.7.

Administrative structure: The villages are sub-divided into 3-4 sub-villages (*kushets*), with each having smaller neighborhoods called 'gots' (100-150 households). Each village is administered by an executive committee comprising of a chair-person, vice-chair person, a public organizer and a security coordinator; Head of Agriculture and Natural Resources sector, and Head of Capacity Building sector.

Climate: The area is semiarid with only one rainy season, which usually begins on the third week of June and ends in the beginning of September every average year. With an average of 500mm annual rainfall, the villages frequently experience shortage of rain, characterized by late onset, early withdrawal of rainfall or both.

Socioeconomic Status: Predominantly dependant on rain-fed agriculture, with livestock having limited share. Female Headed households constitute 36% of the households. The average household land holding size is 0.8 Ha (Koraro village has the biggest holding size, 1.5 Ha). Poverty in the villages is highly associated with high soil degradation and shortage of rainfall, which has resulted in poor agricultural harvest.



Agriculture: The villages have a total of 10,128 Ha of agricultural land, of which 281Ha is irrigated. 2911Ha of land has been set aside for livestock grazing and browsing, and another 132 Ha conserved through closure.

The major cereal crops planted include barley, wheat, 'Teff', sorghum, maize and millet. Koraro village has slightly different cropping pattern with part of it growing 'Teff', millet, Haricot bean, sesame on sandy soil; and the other part growing maize, sorghum, barley, flux growing area on sandy-silt soil.

MAJOR CHALLENGES

The communities in all villages, with the help of Millennium Village Project staff have identified priority areas of intervention and major challenges to be met:

1. **Soil degradation and erosion-** The agricultural land has lost much of its nutrients through erosion and due to poor conservation practices.
2. **Moisture stress** – low rainfall coupled with scarce surface run off and lowering water table is treating the agricultural production and productivity of the village.
3. **Crop diversification and productivity:** Selection of crops not done in view of their current market values and productivity but long sustained traditions. Soil fertility needs to be boosted using organic and inorganic fertilizers.
4. **Domestic water:** Water supply is very poor with many relying on unprotected spring waters, river beds and ponds for their day to day requirements.
5. **Health:** Two clinics and nine health posts in the villages are understaffed, poorly equipped and lack adequate supplies of essential drugs. Patients travel to towns 50km away to get services such as laboratory diagnosis, treatment of malaria, respiratory, and other diseases. Women with complications during labor and delivery bear the highest risk. Intestinal parasites, malaria, skin diseases, diarrhea and acute respiratory diseases are among the major health problems in the villages.
6. **Education:** There are 15 schools with grades 1 to 8 and another 9 with grades 1 to 4, serving a total of 8919 male and 8655 female students. Low enrollment rate has been a problem primarily due to lack of classrooms, distance to schools (especially for younger children) and due to preference for children to look after livestock than sending to school. Many students were attending class under tree shades.
7. **Transportation:** Koraro is isolated, about 16 Km from a secondary road; the 16 km road is not usable during the rainy season. Although the cluster villages have better accessibility than Koraro, they still require a lot in terms of having roads with better condition. Only five villages are crossed by all weather road.
8. **Energy:** Firewood and dung are the main source of energy for cooking in Koraro and the cluster villages respectively. Lack of grinding mills has been one problem shouldered by women in Koraro village, who go through tiresome crushing using pieces of stone.
9. **Lack of skilled labor:** Farmers need to be equipped with in on and off-farm skills to increase the quantity and diversify their income.

BASELINE SURVEY

Baseline data collection has been conducted in order to document the pre-intervention situation of the villages. The survey had three major components which included several modules:

Health component: 1) *Malaria* 2) *AIDS and other Sexually Transmitted Diseases* 3) *Women Health* 4) *Men and Women Health* 5) *Men's Fertility Preferences* 6) *Human Nutrition* 7) *Anthropometric measurements* 8) *5-18 Years old Orphans* 9) *Under 5 years old Orphans* 10) *Entomological survey*

Socioeconomic component: 1) *Demography, Income, Assets and Expenditure* 2) *Agriculture*

Water, Transport and Energy component: 1) *Water and sanitation* 2) *Energy, Transport and Communications*.

The data is currently under analysis, while a draft report has been produced for the Health component of the survey in Koraro village.

MAJOR ACTIVITIES CARRIED OUT

1. Integrated Watershed Management

This component aims at tackling the problem of mismanagement of natural resources, increasing productivity of resources (water, soil, forest, etc), and rehabilitating the degraded environment and thereby improve ecology of the area. The project with the help of WFP and the government has carried out the following:

- Treatment and plantation of useful tree in 50 hectares of sub watershed with high runoff in Koraro.
- WFP's in-kind and cash support has enable the MVP to continue gully treatment and hillside terracing in Koraro in 2007.
- Planting of 215,000 multipurpose tree seedlings covering about 850 hectares of hillside.

2. Small scale irrigation

The project is gearing towards promotion of small scale irrigation through water saving mechanisms such as family drip irrigation, household drip irrigation and pot drip irrigation systems. The following have been accomplished to date:

- Supply of pot drip irrigation systems¹ to 535 households.
- Supply of single-line drip irrigation systems² to 50 households
- Supply subsidized treadle pumps to 465 households.
- Construction of three dams for irrigation and domestic animals use completed.

3. Improved seed and fertilizer supply

Varieties of improved seeds appropriate for the agro-ecology of the villages have been identified and distributed to farmers with all farmers in the villages benefiting.

¹ A locally made 20 liters clay pot and three small openings located 3-4 cm above the bottom directed to the plant. This system is designed for watering fruit trees.

² This is very small portable drip system introduced for households who do not have water access and/or settled in a place where they are far away from water points. It is very cheap (55Birr) and manageable. It has one long tube (15m length) with 25 emitters located at 60 cm interval, and takes 45 minutes on average to consume 15 liters of water.

The following table shows the quantity of inputs distributed in the three agricultural seasons.

Input distributed	Quantity (tones)	No. Beneficiary HHs
Fertilizer (DAP and UREA)	4,017	12,570
Improved cereal varieties	312	10,473

- The varieties of seeds in the last three agricultural seasons were HAR, Tavos *tripicale* wheat, Cr-37 'teff', QPM and zama maize, gobiye sorghum.
- 25 tones of high value field crops seeds including lentils, fenugreek, haricot bean, chickpea, sunflower and sesame were distributed to a total of 2962 households.

4. Fruit seedlings, spice & vegetable seeds

- 88,500 fruit seedlings distributed benefiting 4500 households. Grafted fruit seedlings include orange, papaya, banana, guava, mango, citron, apple, avocado, hops and coffee.
- 1,500kg of different vegetable seeds and 3,300 kg potato tuber seeds distributed benefiting more than 2,370 households. The vegetable seeds include onion, tomato, pepper, carrot, cabbage, Swiss chard, lettuce, and beetroot.
- 2,000kg of different spice seeds distributed benefiting more than 3,800 households. The spice seeds include black cumin, white cumin, coriander, cumin, ginger and hot pepper.



5. Livestock resource management

The project is working to shift towards high productivity breeds of livestock, and is planning to distribute improved breeds to selected households. The following activities have been carried out to date

- 324 dairy goats (22 male) and 472 other breed goats distributed to 386 female head households in Koraro
- Improved breeds of poultry distributed to 760 female headed households (a cocker with two hens to each of 700 households and 10 chickens to each of 60 households)

6. Domestic water supply

The project has undertaken assessments of the water supply situation, identification of water points requiring rehabilitation and new sites for construction of water points. The following activities have been carried out to date:

- Construction of 28 hand-dug wells, 6 shallow wells and 5 spring development projects completed. Construction of 7 spring development projects underway.
- Rehabilitation of five non-functional shallow wells in Koraro
- Extension of spring water by 1.5 km to supply Koraro clinic and school
- Two primary schools have gained access to clean water

7. Health

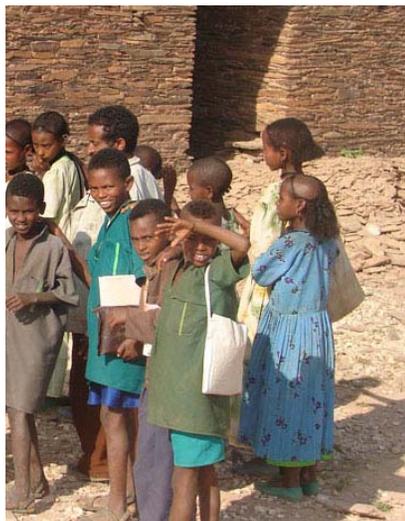
The clinic at Koraro has undergone major upgrading. Moreover, all health facilities in the cluster villages have had significant upgrading. The following activities have been carried out to date:

- Construction and installation of surgical facilities and laboratory equipment for the Koraro clinic
- Hiring of 1 health officer, 1 clinical nurse and 1 laboratory technician at Koraro; hiring of 10 nurses in the cluster villages
- Services at Koraro now include: adult & pediatric OP; MCH including ANC, family planning & EPI; DOTS treatment for tuberculosis patients; laboratory service, health education, and emergency obstetric services.
- 33,000 long lasting insecticide treated mosquito nets distributed to households including to those in adjacent villages.
- Mass de-worming of children in all villages
- Training of community health agents in cluster villages on malaria control, environmental sanitation, vaccination and HIV and STI prevention.
- Three VCT centers established
- Various medical equipments and essential drugs to all health facilities
- Diagnostic laboratory facility established in five health facilities.
- Upgrading of the Hawzien referral Health Center including construction and equipment for operation-theater, X-ray, ultrasound and hiring professional medical team.

8. Education

The project is involved in encouraging girl's participation in schools. The activities carried out include:

- Provision of cement corrugated iron sheet for construction of class rooms at Koraro school
- Setting aside in kind contribution of the community (US\$ 7778) for Koraro school feeding program
- School material such as exercise books, pen, pencil and rubber to 8376 girls in the cluster schools
- Provision of 2,800 desks to 24 primary schools.
- Provision of reusable sanitary towels to 400 adolescent girls.



9. Transportation

- A truck (5 tone capacity) procured for use by Koraro community to transport goods from the village to market and inputs from district town to the village. The truck also serves during emergency health problems.
- 30 motorcycles, 5 pick-ups and one station wagon vehicles procured for use by various sectors.
- The truck is managed by elected community members; bank account has been established for better management of the income generated.

10. Energy

- Supply of 450 energy saving stoves to all households in Koraro and 250 selected households in the cluster villages.
- Two flour mills procured and installed in Koraro serving at affordably charges.
- 10,000 local acacia tree seedlings planted to be used as fuel.
- One diesel generator supplied to Koraro clinic.
- The flour mills are being managed by elected women community members and they have established a bank account.

11. Gender

Gender inequality has been a characteristic of the community in the villages and the project is working towards creating more economic and social space for women. The following have been carried out in this regard:

- A gender advisor stationed at the project office in Hawzien has worked with women in one village to rearrange the gender composition of the village water committee. The exercise is being introduced in the other villages.
- Scholarship support for eight high school girls from Koraro including accommodation, food and tutor.

12. Capacity building

Training has been given to farmers on various improved agricultural practices:

Type of training	No. trained	Type of training	No. trained
Fertilizer application	12,754	Agronomic practices and natural resource management	200
Pot drip irrigation	535		
Single line drip systems	63		
Treadle pump use	465	Small ruminants (goats)	350
Poultry	747	Compost preparation	48
Apiculture	120	Miscellaneous	650
Nursery practices/ techniques	243		

13. Community Development

Community development activities are being carried out to give impetus to the development works underway:

- Several village level community sensitization activities carried out
- 418 community leaders, key informants and informal leaders trained on community development and gender.
- 847 farmers trained on horticulture active community involvement
- Different committees and clubs established including water, small scale business group, adolescence girls and millennium development committees.

14. Micro-enterprise Development

The project is currently shifting focus towards developing entrepreneurship among the villagers with the aim of engaging them in creating micro-enterprises with a potential of grow to small scale industries. The immediate focus will be on honey production and agro-processing. An effective and reliable loan system will be in place to support such endeavors. To this effect, the project has done the following major task:

- Two micro-enterprise coordinators (one for Koraro and another for the 10 new-villages) have been hired to manage these activities.

INTERIM MILESTONES

Crop productivity

- In the 2006/2007 season alone, agricultural production in the villages showed an increased of 116% from pre-MVP levels. This is believed to be primarily due to the interventions by MVP in providing fertilizers and improved cereal varieties.

Integrated Watershed Management

- Water runoff and soil loss significantly reduce in Koraro as a result treatment of a major sub watershed. This has also reduced risk of flooding for people living downstream.

Domestic Water supply

- A total of 8505 people have access to clean water due to interventions. This has raised the coverage of clean water supply from the pre MVP of 41.8% to 55.4%.

Health

- Number of antenatal care clients in the third quarter of 2007 showed an increase of 241% from the previous year as a result of delivery of the service.
- Percentage of health professional or TTBA attended births increased from 45% in 2006 to 68% in the 2007.
- Monthly average number of adult OPD patients at Koraro clinic increased to 467 in 2007 from 113 in 2005 (pre-MVP).
- 166 persons went to the VCT center at the Koraro clinic since September 2006, 8 were HIV positive. Service seeking behavior has significantly increased due to the promotion activities by HEWs and nurses deployed in each village.

Education

- Students who used to come late and/or be absent from school were coming on time after the start of the school feeding program. 1207 students in Koraro village are benefiting from the school feeding program, while another 16367 will benefit with the launch in the other 10 villages soon.

Gender

- Women have taken over the chairmanship, cashier and accountant posts of a village water committee as a result of advocacy by the MVP Gender advisor.

PER CAPITA PROJECT CONTRIBUTIONS (US\$ 110 PER CAPITA)

Community	\$10
Local and National Governments	\$30
Partner organizations (e.g. NGOs, corporate)	\$20
Millennium Village Project	\$50

MILLENNIUM CITIES - THE NEXT STEP

The Millennium Cities Project is being launched in several African countries. The project will have similar aim to those of the Millennium Villages Project: lifting the urban poor out of the poverty trap and achieving the Millennium Development Goals in five years time. Accordingly, the team in Ethiopia has been working on the necessary preparations to launch the first Millennium City in Ethiopia.

- A needs assessment is planned for February 2008, with special focus on gender, health and urban planning.

ORGANIZATION STRUCTURE

