



Millennium Villages Project Concept

In March 2004, the Millennium Villages Project (MVP) was conceived as a proof of concept that the poverty trap can be overcome and the Millennium Development Goals (MDGs) achieved by 2015 at the village-scale in rural Africa by applying the United Nations Millennium Project's recommended interventions in multiple sectors and community empowerment initiatives at the investment level of \$110 per capita per year sustained over a period of 5–10 years. With the involvement and participation of the local community, initiatives are undertaken in public health, food production, education, safe water access, and essential infrastructure as a single integrated project.

The Millennium Villages are situated in hunger hotspots where at least 20% of children under 5 are underweight¹ and all are rural farming communities who suffer from severe poverty. Each site is in a major agroecological zone that, together, represents the farming systems used by 90% of the agricultural population and 93% of the agricultural land area of sub-Saharan Africa^{2,3}. The sites range from slash-and-burn in rainforest margins to pastoralism in deserts and represent different situations of population density, soils, climate, water access, disease complexes and burdens, environmental degradation, nutritional deficiencies and food availability, market access, education levels, cultures, religions, and gender issues. It is hypothesized that malnutrition levels are high and crop and diet diversification is inadequate. The first village began in 2004 in Sauri, Kenya, followed by Koraro, Ethiopia in 2005. In 2006, the project expanded to ten additional villages in Rwanda, Ghana, Kenya, Malawi, Mali, Nigeria, Senegal, Tanzania, and Uganda. Collectively, the Millennium Villages consist of 78 villages that reach 400,000 people in ten sub-Saharan African countries.

Nutrition Sector of the Millennium Villages

The major nutrition and food initiatives in the Millennium Villages are to measure and understand the root causes of the prevalence of malnutrition specific to these communities, improve and integrate innovative nutrition education and practices, link nutrition programs with agriculture and water interventions, and, ultimately, provide a nutrition policy framework that will improve the health and promote development of communities. The nutrition interventions consists of evidence-based scientifically proven interventions complimented by rigorous research initiatives aimed to:

- Initiate community-based participatory nutrition education programs that promote improved food and nutrition security with particular emphasis on maternal and child nutrition, and other vulnerable populations;
- Implement food fortification, improve micronutrient supplementation programs, and promote and utilize indigenous diversified cropping systems of the African Green Revolution that impact nutrition and health long-term;
- Evaluate the impact of food security interventions on nutritional outcomes; and
- Utilize the MV nutrition interventions as a model to help inform and shape local, district, and national governmental agriculture and food policies.

Integrated Food-Based Approaches to Improve Malnutrition in the Millennium Villages

Combating general and hidden hunger through increased and diversified sustainable crop production is the long term thrust of the MVP's food and nutrition response. Increased crop production can promote increased energy and nutrient intakes and improved economic means for families; however the diversification of nutrient dense crops can address the significant deficits in micronutrients amongst the diets of the villagers and the particular nutrition needs of the community. In the MVs, the food-based approaches to combat undernourishment are as follows:

Link Agrobiodiversity to dietary diversity and improved health

- Support kitchen or homestead gardening with diverse nutritious foods including fruit trees, leafy green vegetables and iron and vita A rich sources

¹ UN Hunger Task Force, 2005.

² Dixon et al., 2001

³ Sanchez et al., 2007

- Promote underutilized and neglected nutritious traditional crops and edible species
- Cultivate single nutrient foods such as orange fleshed sweet potatoes and soya beans
- Rear small animals (chickens for meat and eggs), goats (meat and milk) and others
- Ensure school meals are nutritiously diverse and linked to school gardens
- Introduce food legumes to farming system to improve soil health through nitrogen fixation and increases protein and micronutrient intake in the diet
- Process small-scale level agriculture products such as honey, milk, eggs, specialty fruits
- Fortify traditional foods at the homestead

Engage rural communities to treat malnourishment through Community-Based Therapeutic Care (CTC)

- Emphasize maximizing coverage of vulnerable populations through active case-finding and rigorous follow-up care
- Promote nutritious ingredients for therapeutic food used in CTC program, such as groundnut and soybean, which can be sourced from smallholder farmers in the communities

Scale-up and promote homegrown school meals

The UN Millennium Project Task Force on Hunger identified school meals programs with locally produced foods as a quick win strategy to break the cycle of hunger and poverty³. The MVP began school meals in 2006. Since that time, the project has seen tremendous success, with nearly all sites offering a daily meal to all school children. In Sauri, Kenya for example, approximately 18,000 children in over 20 schools are fed daily in each site a meal of ugali, beans, and leafy greens. In total the program is feeding over 70,000 children daily. Although many children are receiving school meals, we have not yet reached 100% coverage. The goal is reach universal coverage providing a nutritious meal to all primary age school children using locally grown and purchased foods by the end of 2009.

Survey, characterize, utilize and improve on ecosystem and agrobiodiversity practices and measure their subsequent impact on diet diversity, nutritional status and human health

- Demonstrate improved nutrition and health in the sub-Saharan African MV communities
- Enhance the understanding of the relationship between agrobiodiversity and nutrition at the household and community level by:
 - Quantifying the impact measures that link agrobiodiversity to nutrition
 - Identifying socioeconomic factors that affect the relation between agrobiodiversity and nutrition
- Integrate agricultural diversity and nutrition outcomes into the African Green Revolution Initiative

³ UNMP, 2005