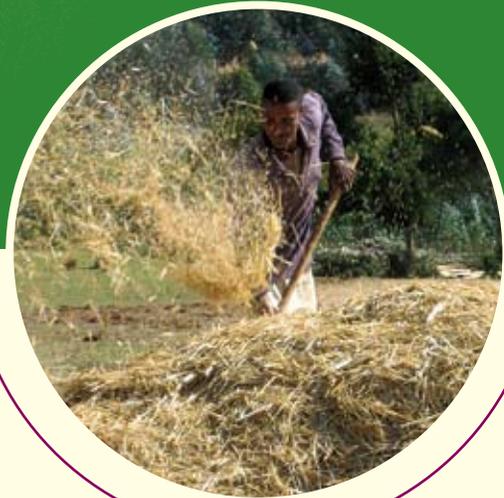


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on population, environment, and security



The Missing Links: Poverty, Population, and the Environment in Ethiopia

By **Mogues Worku**

Over the past several decades, Ethiopia's potent combination of high population growth, unsustainable land use, and ambiguous land ownership policies has led to the rapid loss of biomass cover, increased soil erosion, and creeping desertification. Climate change has intensified these environmental problems by altering the region's rainfall patterns. As a result, recurring drought and famine have led to the displacement or death of millions of Ethiopian citizens.

The hardship and poverty that the vast majority of Ethiopians endure testify to the suffering caused by these environmental disasters. But a new approach to development that integrates population and environment programs may help improve their lives.

Issue 14 October 2007

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The Ethiopian government, donor agencies, community-based organizations, and national and international NGOs are making significant efforts to eradicate poverty and ensure food security. But many development practitioners do not recognize the interdependence of population and environmental issues, so they have taken mostly single-sector approaches, with some focusing on food security, others on natural resource conservation, and still others on reproductive health and family planning. Unfortunately, integrated approaches remain uncommon.

Twenty-nine Ethiopian professionals founded The Environment and Development Society of Ethiopia (LEM Ethiopia) in March 1992 to increase awareness of the interconnectedness of poverty, health, and the environment. A citizens' movement inspired by the concept of sustainable development, LEM Ethiopia seeks to establish and strengthen environmental education and promote appropriate technologies for improving people's livelihoods. This article describes the link between population and the environment in Ethiopia, outlines LEM Ethiopia's efforts to bring attention to this connec-

tion, and recommends ways to improve programs seeking to help the country's people.

Population and Environment: Ethiopia's Dual Challenges

Ethiopia's wide range of ecosystems—desert in the east, rainforest in the west, and high altitude Afro-alpine vegetation in the central, southeastern, and northern highlands—offers diverse biological resources. For most of the country's history, the majority of its citizens have relied on climate-dependent agriculture for their livelihoods. Over the last 100 years, however, increasing population growth—currently 2.7 percent a year, according to the country's Central Statistics Agency (CSA; 2007)—has accelerated land degradation at an alarming rate, as forests are converted to farms and growing numbers of households use unsustainable agricultural methods to eke out a living on marginal land.

In 1900, the population of Ethiopia was 11.2 million. Today, there are 77.1 million Ethiopians, 42 percent of whom are under 14 years of age (CSA, 2007). The UN Population Division (2006) predicts the population will reach 100 million by 2015, and double by 2040. This burgeoning population places an enormous strain on Ethiopia's natural resources; the fact that such a large percentage of the population is young means the pressure on the environment will only increase over the next several decades.

As in most other parts of the developing world, geography largely determines the distribution of Ethiopia's population. Most of the country's lowlands are not suitable for human settlement due to malaria, other human and animal diseases, and lack of access to water. Thus, about 80 percent of the population, and about 70 percent of the livestock, live in the ecologically fragile highlands, which constitute only 45 percent of the country's land (Ministry of Water Resources, 2001). While the highlands have been farmed for thousands of years, the number of households involved in non-pastoral agriculture has increased recently. Vegetative cover has dwindled and soil fertility and productivity have declined. In some parts of northern Ethiopia, the land has been completely degraded and is no longer

Mogues Worku, right, and a village elder discuss apple trees as a livelihood diversification strategy. © Geoff Dabelko





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For more information on LEM Ethiopia, please visit www.lemethiopia.org.et

Ethiopia has one of the largest livestock populations in Africa, which includes more than 40 million head of cattle.
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Increasing family size—especially in rural areas—and the unsustainable use of key resources are causing the land holdings of each household to decrease, which reduces productivity. This challenge cannot be ignored.

capable of supporting human habitation, yet the population continues to increase at breakneck speed. Deforestation—currently estimated at between 150,000-200,000 hectares annually—could denude the country completely in under 20 years (Teketay, Fetene, & Abate, 2003).

Ethiopia has made some progress on reproductive health in recent decades: Data from the 2005 Demographic and Health Survey indicate that fertility has declined from 6.4 births per woman in 1990 to 5.4 births per woman in 2005, and that the percentage of currently married women using any contraceptive method has increased from 4.8 percent in 1990 to 14.7 percent in 2005 (CSA & ORC Macro, 2006). However, there is still a long way to go in the struggle to check Ethiopia’s population growth, and numerous obstacles remain. Despite the high population growth rate and demand by women for contraception, the Ethiopian government allocates very little funding for family planning efforts, leading to

discontinuities in service and leaving international agencies and a few local NGOs to tackle this massive problem. In addition, it is not only lack of knowledge about contraceptives that prevents women from having smaller families, but also their limited power to decide how many children to have.

Land: The Crucial Resource

More than 80 percent of Ethiopia’s population is rural and depends on subsistence agriculture (CSA, 2007). Land is of paramount importance: A saying among northern Ethiopian farmers, “There are no jokes in wife and land,” reveals how seriously they regard the linked issues of family and livelihood. Increasing family size—especially in rural areas—and the unsustainable use of key resources are causing the land holdings of each household to decrease, which reduces productivity (CSA, 2007). This challenge cannot be ignored.

Subsistence agriculture is relatively inefficient, and therefore large areas of land are needed to meet each household’s needs. In most parts of the country, farmers do not use effective soil conservation methods; plots are continuously tilled without necessary fallow periods to replenish nutrients. The resulting severe soil erosion leads to declining production and food insecurity. As the numbers of large extended families and new households rise, and decreasing soil fertility reduces the amount of arable land, farmers are often forced to share a single piece of land, which increases the pressure on the land and other natural resources such as water.

Table 1 shows that while the number of agricultural families is increasing, plot size remains the same. Seeking new farmland, some families may deforest reserves, farm on mountains or hillsides, or move to lowlands and other new settlement areas. Yet these methods create new problems. Clearing forests and farming on steep slopes encourage erosion, which quickly depletes soil of its nutrients, reducing productivity and, ultimately, increasing food insecurity. Deforestation forces women and children to travel farther and farther to collect fuelwood. Lowlands and other less-desirable areas have limited amounts of water, and host malaria and other diseases.

TABLE 1	2003-2004	2004-2005	2005-2006
Number of non-pastoral agricultural households	10.4 million	10.9 million	11.5 million
Percent with 4-9 members and land holdings of 0-1 hectares	70.09%	70.13%	72.18%

Source: CSA, 2007.

Land ownership in Ethiopia is contentious. Currently, the government owns all land, but this system is being debated by the ruling and opposition political parties. The Ethiopian government has declared that in rural areas, farmers have the right to use and inherit land, but they cannot sell it. Most scholars argue that such a system deters long-term investment due to fear that the government will one day seize the land, and thus discourages sustainable development practices.

The increase in family size and the lack of arable land affects family relationships in rural areas. An old man in North Shoa Zone who has a hectare of land, a wife, and five grown children told me that three of his children are currently living at home without jobs. They would be happy, he said, if their father died soon so that they could inherit the land. Without land of their own, it is difficult for young men to marry; thus, they must share their relatives' existing land in order to form their own families.



The Rural-Urban Relationship

As population and environmental stresses increase in the highlands, more and more Ethiopians are migrating to the country's cities. The overall population growth rate declined from 2.87 percent in July 2001/2002 to 2.74 percent in July 2006/2007, and the rural population growth rate declined from 2.62 percent to 2.45 percent during the same period (CSA, 2007). In contrast, the urban population growth rate increased from 4.26 percent in July 2001/2002 to 5.89 percent in July 2006/2007 (CSA, 2007). Therefore, high population growth in Ethiopia's cities, where access to health care and family planning services is much better than in rural areas, is due primarily to rural-urban migration rather than natural increase. This migration is creating numerous problems in urban and semi-urban centers, including unplanned settlements, crowded living conditions, poor provision of social services (although still better than in rural areas), higher HIV/AIDS prevalence, and early marriage for young female migrants.

Population growth and landlessness (or near-landlessness) creates pressure for poor people to

exploit increasingly marginal rural and urban areas for survival, which, out of desperation, they tend to do in an unsustainable manner, leading to resource degradation. This, in turn, creates more poverty and jeopardizes long-term survival. It is a vicious cycle.

LEM Ethiopia

Since its inception in 1992, LEM Ethiopia has attempted to break this cycle by partnering with communities, schools, national and international NGOs, government institutions, and donor agencies such as the Packard Foundation, the Embassy of Finland, and the Swedish International Development Agency. Together with its partners, LEM Ethiopia promotes environmental conservation and the dissemination of alternative technologies to translate the ideas of sustainable development and livelihood security into everyday results.

LEM Ethiopia attempts to integrate environment, population, and development issues into all its programs. It holds workshops for schoolchildren, teachers, farmers, extension workers, and

A village elder displays information on family planning and contraception at a community building that LEM Ethiopia helped construct.
© Heather D'Agnes



LEM Ethiopia has worked with the members of this farmers' collective on sustainable livelihood projects. © Heather D'Agnes

local policymakers to raise awareness of Ethiopia's high population growth rate and the importance of family planning and sustainable resource use. These workshops also connect Ethiopians with national and international organizations involved in family planning services and other development activities.

LEM Ethiopia promotes the use of technologies that can improve people's livelihoods by demonstrating them in target areas and training beneficiaries on their use. Such technologies include: energy-saving mud stoves; biogas digesters that use household waste and human excreta; agroforestry (growing trees on the same land as agricultural crops and/or livestock) and multi-purpose tree planting; composting household waste to make natural fertilizer; solar electricity to provide light and supply potable water; and modern mud houses. To encourage practical implementation of knowledge and experience gained from our workshops and demonstrations, LEM Ethiopia provides farm tools and tree seeds to schools and communities. All of these initiatives are designed to simultaneously improve the health of natural resources and communities' quality of life.

Looking Forward

Ethiopia has made admirable official commitments to improving the lives of its people, but it has not yet completely fulfilled those promises. For example, the government has signed international conventions and declarations that state that all people have the right to live in a healthy and clean environment. The Ethiopian Civil Code also recognizes these rights. Furthermore, Ethiopia's policies recognize the issues of environment, population, and development and affirm the need to improve the living conditions of women and children in particular, as well as the society at large.

Yet Ethiopia's exemplary policies are of little use unless they are actually implemented. In addition to the hurdles that poverty poses to their implementation, there are also structural obstacles. Most policymakers and practitioners on the front lines are not aware of, or do not give adequate attention to, the links connecting environmentally sustainable development, population growth, and poverty reduction. These connections need far more attention from government organizations, NGOs, community-based organizations, and local communities. To this end, I recommend the following steps:

- The Ethiopian government must commit to effectively implementing its stated policies at all levels. It must be willing to give as much attention to issues of environment, population, and development as it does to sensitive political issues;
- International funding agencies and foundations must shift their focus from short-term interventions in "hot spots" to long-term development partnerships that integrate environment and population concerns;
- Local and international NGOs and community-based organizations must integrate the issues of environment, population, and development into their programs. This integration will accelerate the realization of sustainable development in Ethiopia by building the capacity of program beneficiaries to use local resources to solve their problems, rather than relying on NGOs and donor organizations for assistance; and
- NGOs involved in rural development should provide basic information on the impacts of

high population growth and large family size on health, services, and resource use, as well as provide training and materials for government institutions and health posts offering family planning services.

Institutions and organizations may believe that they lack the resources to address the complex issues facing Ethiopia today. Yet partnerships between organizations, careful planning, and creativity go a long way toward developing effective, integrated interventions. If Ethiopia is to escape from poverty, all actors must consider how environmental conservation and family planning initiatives can increase the success of development efforts. Only then will we be able to guarantee a peaceful, healthy, and prosperous future for the coming generations.

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This report is made possible by the generous support of the American people through the United States Agency for International Development's (USAID) Office of Population and Reproductive Health. The contents are the responsibility of Woodrow Wilson International Center for Scholars and do not necessarily reflect the views of USAID or the United States Government. Views expressed in this report are not necessarily those of the Center's staff, fellows, trustees, advisory groups, or any individuals or programs that provide assistance to the Center.

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A man threshes hay in the Ethiopian highlands.
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