Policy Brief #3

Brighter Green

Climate, Food Security, & Growth

Ethiopia's Complex Relationship with Livestock

ETHIOPIA

LANDLOCKED IN THE Horn of Africa, Ethiopia is anything but a fast-food nation. No McDonald's or other international quick-serve chain yet operates here, and most domestic animals are still raised by small-scale farmers or pastoralists, not modern commercial operations. The average Ethiopian eats 8.3 kilograms of meat a year (18 pounds), one-tenth the levels in the United States.

But Ethiopia is home to Africa's largest livestock population, and is the continent's top livestock producer and exporter. As of 2008, Ethiopia had 49 million cattle, almost 50 million sheep and goats, and 35 million chickens. Although domestic demand for animal products in Ethiopia is increasing—driven by the urban middle and upper-classes—export potential is the key force encouraging expansion and intensification of livestock production.

Development Challenges, Climate Changing

Similar to many countries in Africa and the Middle East, Ethiopia's population of 85 million is young—nearly half is fourteen or under—and growing by 3.2 percent a year, one of the world's fastest rates. By 2050, Ethiopia's population is expected to reach 150–170 million. Development needs remain immense: nearly 40 percent of the population lives below the poverty line, and Ethiopians experience significant deficits in access to education, availability of health care and clean water, and overall life expectancy. Nearly two-thirds of adults are illiterate and 38 percent of children aged five or younger are underweight.

Moreover, more than 80 percent of Ethiopia's people are rural, and heavily reliant on natural resources. Large numbers of Ethiopians scramble to gain access to good soils, grazing land, and sufficient water.

In addition, the effects of global warming are increasingly felt. Higher temperatures and more frequent and persistent droughts now bedevil Ethiopia's farmers. In 2008, the specter of famine again stalked the country after seasonal rains failed for the third year in a row, a phenomenon attributed at least in part

to climate change. Thousands of livestock died in the ensuing drought and widespread human deaths were prevented only by an influx of emergency food aid. Twenty-five years after a devastating national famine, food security remains a huge national challenge.

Agricultural Economy, Agribusiness

Agriculture is a mainstay of Ethiopia's economy. Agricultural products comprise 60 percent of Ethiopia's exports, and almost half of its GDP. In addition to livestock, primary exports include coffee, beans, molasses, oilseeds, and cotton. More than 95 percent of Ethiopia's farmers operate near subsistence level, dependant on rainfall rather than irrigation, and three-quarters of the country's livestock are raised by small-scale farmers in mixed crop-livestock systems.

The government, private investors, and some development agencies are looking to an industrialized livestock sector to boost production for export. In 2007, Ethiopia produced 38,000 metric tons of eggs and 48,000 metric tons of poultry meat. At least twenty large-scale, commercial poultry farms with populations of between 2,500 and 50,000 birds each operate in and around Addis Ababa.

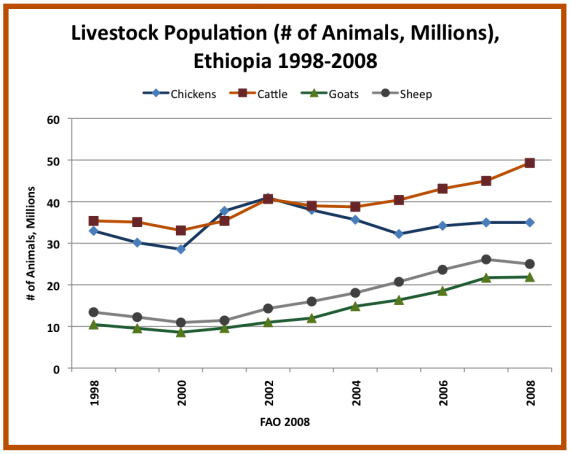
ELFORA Agro-Industries, Ethiopia's largest livestock producer, operates modern ranches, factory farms for meat chickens and laying hens, grain mills, feedlots, and slaughterhouses around the Ethiopia, supplying the country's supermarkets, hotels, and airlines, as well as export markets. The U.S. Agency for International Development (USAID) and U.S. dairy giant Land O'Lakes launched a project in 2005 to

introduce high-yielding crossbred cattle and training. Between 1998 and 2008, Ethiopia's cattle population rose by 39.37 percent, sheep by 86.3 percent, and goats by 109.2 percent.

Food Security Constrained?

The industrialization of Ethiopia's livestock sector will have far-reaching implications for food security. While most of Ethiopia's cattle, sheep, and goats are still fed on pasture or crop residues, as production intensifies, including for poultry and eggs, more grain is being allocated for consumption by animals, not people.

Between 1993 and 2003, the United Nations Food and Agriculture Organization (FAO) estimated a 4 percent annual rise in the amount of cereals used per "livestock unit" in Ethiopia. If Ethiopia uses more domestically produced wheat bran, sorghum, and maize to its livestock sector, the prices of each will likely rise, making it harder for the average Ethiopian to access key dietary staples.



In coming years, Ethiopia may face a stark choice: use available water and land resources to grow food for human consumption, or grain for cattle raised in feedlots or chickens in broiler and layer sheds. While Ethiopia does not import grain specifically to feed domestic animals, its growing meat, milk, and egg industries have attracted the attention of foreign grain producers, including the U.S. Grains Council, eager to get in on the ground floor of a potentially lucrative market.

Resources Strained

Ethiopia's land, water, and forests, and their capacity to support crops and livestock, are under pressure—even without the advent of industrial animal agriculture on a large scale. Farmers living in Ethiopia's semi-arid and arid lowlands who have less diversified assets and are heavily reliant on rain-fed agriculture are, along with their livestock, particularly vulnerable to climate change. The lack of land is a prime obstacle to farmers in Ethiopia adapting to global warming, according to a recent study by the International Food Policy Research Institute.

Total arable and permanent cropland is only 10.7 percent of Ethiopia's landmass. Ethiopia has one of the highest rates of soil erosion in the world: losing an estimated two billion metric tons of soil each year. As of 2002, only 2.7 percent of Ethiopia's land remained forested, a huge reduction from the 40 percent forest cover estimated in the 1960s.

Policy Recommendations

Can Ethiopia create a more sustainable, equitable agricultural economy that avoids the nightmare of future famine and ensures food security and resilience as global warming hits harder?:

The Ethiopian government should adopt a long-term plan for achieving food security that puts a priority on meeting current and anticipated needs for varied, nutritious foods for human consumption produced in ecologically sustainable ways. The government, together with civil society groups, donor agencies, and international NGOs, should develop a comprehensive plan to expand domestic capacity to produce vegetables, fruits, pulses, and cereals.

The government should re-assess the country's heavy reliance on livestock, the use of natural resources by the livestock sector, and the ethical, economic, and ecological implications of the allocation, or potential import, of grain for livestock feed. It should end policies, official or unofficial, that encourage the further industrialization of the livestock sector, given the risks to food security, the environment, livelihoods, and equity.

The government, donor partners, and civil society should address, on a basis of urgency, the need for new means for rural Ethiopians to store wealth apart from livestock, and work toward a consensus on the destocking of ruminant herds—before climate change becomes more intense.

The government, donor agencies, and civil society ought to collaborate on implementation of large-scale ecosystem restoration projects, to revitalize Ethiopia's over-grazed and over-harvested lands to expand food production, and re-growth of forests and other vegetation essential for stable rainfall and greater resilience to the effects of global warming. ■

Photo courtesy of Andrew Heavens, Flickr

This policy brief is based on Brighter Green's policy paper, *Climate, Food Security, & Growth: Ethiopia's Complex Relationship Challenge with Livestock* (PDF) by Mia MacDonald and Justine Simon, and is published as part of Brighter Green's Food Policy and Equity Program. Additional policy papers in the series on climate change and industrial animal agriculture in Brazil, China, and India, plus short documentary videos for each and resources on the glo balization of factory farming, are available on Brighter Green's website: www.brightergreen.org