

# Rising Number of Farm Animals Poses Environmental and Public Health Risks

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The global population of farm animals increased 23 percent between 1980 and 2010, from 3.5 billion to 4.3 billion, according to research by the Worldwatch Institute for its [Vital Signs Online publication](#). These figures continue a trend of rising farm animal populations, with harmful effects on the environment, public health and global development.

Both production and consumption of animal products are increasingly concentrated in developing countries. In contrast, due in part to a growing awareness of the health consequences of high meat consumption, the appetite for animal products is stagnating or declining in many industrial countries.

The demand for meat, eggs, and dairy products in developing countries has increased at a staggering rate in recent decades, according to the report. Although industrialized countries still consume the most animal products, urbanization and rising incomes in developing countries are spurring shifts to more meat-heavy diets.

Farm-animal production provides a safety net for millions of the world's most vulnerable people, but given the industry's rapid and often poorly regulated growth, the biggest challenge in the coming decades will be to produce meat and other animal products in environmentally and socially sustainable ways.

Concentrated animal feeding operations (CAFOs), or factory farms, are the most rapidly growing system of farm animal production. The United Nations Food and Agriculture Organization (FAO) [estimates](#) that 80 percent of growth in the livestock sector now comes from these industrial production systems. CAFOs now account for 72 percent of poultry production, 43 percent of egg production, and 55 percent of pork production worldwide.

But CAFOs produce high levels of waste, use huge amounts of water and land for feed production, contribute to the spread of human and animal diseases, and play a role in biodiversity loss. Farm animal production also contributes to climate change: the industry accounts for an estimated 18 percent of the world's greenhouse gas emissions, including 9 percent of the carbon dioxide, nearly 40 percent of the methane (a greenhouse gas 25 times more potent than carbon dioxide), and 65 percent of the nitrous oxide (300 times more potent as carbon dioxide).

The environment is not all that is at stake with this rapidly shifting means of food production; factory farms pose a serious threat to public health as well. Diets high in animal fat and meat -- particularly red meat and processed meats, such as hot dogs, bacon, and sausage -- have been linked to [obesity](#), [diabetes](#), [cardiovascular disease](#), and certain types of [cancer](#).

Although CAFOs originated in Europe and North America, they are becoming increasingly prevalent in developing regions like East and Southeast Asia, where environmental, animal-welfare, public health, and labor standards are

often not as well-established as in industrialized regions. The report stresses that to prevent serious human and environmental costs, policymakers will need to strengthen production regulations around the world.

**Further highlights from the report:**

- Between 1980 and 2005, per capita milk consumption in developing countries almost doubled, meat consumption more than tripled, and egg consumption increased fivefold.
- Approximately 75 percent of the new diseases that affected humans from 1999 to 2009 originated in animals or animal products.
- Because CAFOs rely on a narrow range of commercial breeds selected for their high productivity and low input needs, less-popular indigenous livestock breeds are rapidly falling out of use: in 2010, the FAO reported that at least 21 percent of the world's livestock breeds are at risk of extinction.
- Livestock production is a major driver of deforestation: cattle enterprises have been responsible for 65-80 percent of the deforestation of the Amazon, and countries in South America are clearing large swaths of forest and other land to grow animal feed crops like maize and soybean.