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www.popcouncil.org*Commentary***Food and Population: The Return of Malthus?**

The recent sharp rise in global food prices has led to riots and raised concern about how to meet the needs of poor countries, where much of consumer income is already spent on food. Although this price spike is in part due to short-term factors—drought in Australia, speculative investing, low reserves, and hoarding—food prices will likely remain high for several reasons.

First, by 2030 food demand is expected to increase by 50 percent because of population growth and higher incomes. As developing countries climb out of poverty, diets become more calorie- and protein-rich, and consumption of animal products grows. Next are environmental constraints on expanding production. In much of the world the most productive land is already used for agriculture or covered by man-made structures; the best river sites have been dammed; and the benefits of the green revolution have been largely exploited. In many densely populated countries water shortages are acute. The newest threat to food production comes from steeply rising energy prices. Energy is an integral part of every step in the food production system—cultivation, harvesting, transportation, refrigeration, packaging, and distribution—and prices of hydrocarbon-based fertilizer and pesticides have

skyrocketed. Another important driver of food prices is the recent diversion of crops to the production of bio-fuels.

The most widely discussed solutions to this food crisis focus on supply-side measures such as cultivating more land, investing in agricultural infrastructure and technology, and subsidizing farming inputs such as fertilizer, pesticides, and water. Such measures, together with higher prices, will no doubt stimulate agricultural production. But this outcome is not sustainable because of high environmental costs, including deforestation, exhaustion of fresh water resources, soil erosion, and water, soil, and air pollution.

It is time to consider measures to dampen the growth of demand for food. This should not involve harming the billions of people who are malnourished and badly in need of better diets. The focus should be on overconsumption in many rich countries. The high consumption of factory-farmed meat and dairy products is particularly problematic because the production of a pound of meat requires several pounds of cereals for animal feed. Meat eating is the environmental equivalent of driving a gas-guzzling SUV. Both satisfy the consumer but damage the environment and reduce the well-being of

others. They should be priced to recognize these effects. At the very least, subsidies for the production of animal-based foods should be eliminated. Taxes on animal products make sense for the same reason as carbon taxes: they protect the environment and benefit the community. Massive subsidies for the production of bio-fuels from food crops should also be eliminated.

The other driver of long-term demand for food is population growth. World population is expected to increase by 2.5 billion, reaching 9.2 billion in 2050. Nearly all these additions will be in the poorest regions of the world. For example, despite the AIDS epidemic, sub-Saharan Africa is expected to add more than a billion to its current population of 770 million. Unfortunately, the AIDS epidemic resulted in a reduction of the investment in family planning. This was a mistake, in particular because many women are bearing more children than they want since they lack access to contraception.

Prospects are grimmest for the poorest countries (most of them in sub-Saharan Africa) with limited natural resources and extremely rapid population growth. For example, by 2050 Niger's population is projected to quadruple in size—from 13 million to 53 million—even though the little available arable land is threatened by desertification and the current population lives on the edge of famine. If left unaided, most of the poorest countries face a Malthusian future. Only massive food aid could stave off this prospect. Reducing population growth—by investing in family planning programs and by improving education, especially of girls—is essential. Poor countries that have followed this strategy have lowered their population growth, e.g., Sri Lanka and the states of Kerala and Tamil Nadu in India. Without such investments, hundreds of millions will face famine and environmental destruction.

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The information in this commentary is also available as a Population Council fact sheet:
www.popcouncil.org/pdfs/factsheets/Council_PopulationFood.pdf