

The New York Times

Experts Worry as Population and Hunger Grow

By NEIL MacFARQUHAR
Published: October 21, 2009

ROME — Scientists and development experts across the globe are racing to increase food production by 50 percent over the next two decades to feed the world's growing population, yet many doubt their chances despite a broad consensus that enough land, water and expertise exist.

[Enlarge This Image](#)



Jose Cendon/Agence France-Presse — Getty Images

A feeding center in Ethiopia last year. Experts say the green revolution's concentration on wheat and rice will not work in Africa.

[Enlarge This Image](#)



Andrew Biraj/Reuters

Women spreading wet rice to dry in Bangladesh after record rains in July. South Asia is among the regions that need new food production the most.

[Enlarge This Image](#)



Jayanta Shaw/Reuters

Farmers work in a rice field in eastern India.

The number of hungry people in the world rose to 1.02 billion this year, or nearly one in seven people, according to the United Nations Food and Agriculture Organization, despite a 12-year concentrated effort to cut the number.

The global financial recession added at least 100 million people by depriving them of the means to buy enough food, but the numbers were inching up even before the crisis, the United Nations noted in a report last week.

“The way we manage the global agriculture and food security system doesn’t work,” said Kostas G. Stamoulis, a senior economist at the organization. “There is this paradox of increasing global food production, even in developing countries, yet there is hunger.”

Agronomists and development experts who gathered in Rome last week generally agreed that the resources and technical knowledge were available to increase food production by 50 percent in 2030 and by 70 percent in 2050 — the amounts needed to feed a population expected to grow to 9.1 billion in 40 years.

But the conundrum is whether the food can be grown in the developing world where the hungry can actually get it, at prices they can afford. Poverty and difficult growing conditions plague the places that need new production most, namely sub-Saharan Africa and South Asia.

A straw poll of the experts in Rome on whether the world will be able to feed its population in 40 years underscored the uncertainty surrounding that question: 73 said yes, 49 said no and 15 abstained.

The track record of failing to feed the hungry haunts the effort. But other important uncertainties also give pause. The effect [climate change](#) will have on weather and crops remains an open question. The so-called green revolution of the 1960s and '70s ended the specter of mass famines then, but the environmental cost of chemical fertilizers and heavy irrigation has spurred a bitter divide over the right ingredients for a second one.

In addition, the demand for biofuels may use up crop land. And as scores of food riots in 2008 showed, oil prices and other income shocks can quickly drive millions more people into hunger, sending ripples of instability around the world.

A summit meeting of world leaders in Rome on Nov. 16 is expected to address the future food demands. Since July, the richest countries have ostensibly committed more than \$22 billion to the effort over the next three years.

[The final meeting of Group of 8 leaders that month in L'Aquila, Italy](#), started with \$15 billion already on the table. Then [President Obama](#) gave a speech evoking the Kenyan village where his father herded goats as a child. In countless villages like it, millions of people face hunger daily, Mr. Obama said, and after he finished speaking, [the pledges jumped by \\$5 billion](#), according to several officials present.

Yet those pledges remain murky. Senior diplomats estimate that less than a third to slightly more than half of the money represents new commitments that had not already been made, with the rest being repackaged existing aid.

Washington and its European allies have also jostled over putting the money in a [World Bank](#) account, the American preference, or working through United Nations or domestic aid agencies, an approach the

Europeans favor. An initial American proposal of one unified fund was largely rejected. How policy and priorities will be established on a worldwide scale is also a central negotiating hurdle.

“The good news is that the political class considers this important and wants to do something about it,” said one financial official involved in the talks who was not authorized to speak publicly. “But nobody has 20 billion and spare change in their sock drawer.”

The United States, with the largest pledge, \$3.5 billion, organized a conference in Washington along with Italy last month in an unsuccessful attempt to nail down the pledges so that Secretary of State [Hillary Rodham Clinton](#) could announce the results during the United Nations [General Assembly](#).

“It is a little bit difficult — I cannot give you a precise figure per country,” said Renzo Rosso, a senior Italian aid official. “But the most difficult part will be to make them all work together.”

Mrs. Clinton often calls agriculture aid a critical issue, saying the administration supports domestic efforts in developing nations and improvements in production by small farmers, particularly women. Philip J. Crowley, a department spokesman, said, “We are trying to shift away from emergency aid toward agricultural development.”

Agriculture was once a pillar of international aid programs, with World Bank figures showing that it constituted 17 percent of all foreign assistance in 1980, said Christopher Delgado, the bank’s agriculture adviser. But the emphasis declined as the number of hungry people dropped to its lowest recent level, 825 million people, around 1996. By 2000, agriculture aid had shrunk to 4 percent, he said, although it has since ticked up slowly.

World leaders often evoke the green revolution of the 1960s and ’70s as an inspiration for future progress. The original revolution employed new seeds, fertilizers and irrigation in Asia and Latin America to stave off famines affecting millions.

But the green revolution's concentration on wheat and rice would be impossible to copy in parts of Asia and in Africa, experts say, noting that Africa has seven or eight staple crops, wildly varied growing conditions and only an estimated 7 percent of farmland irrigated.

Then there is the question of genetically modified crops. No issue provokes such an emotional division among agronomists, who debate whether they constitute the building blocks of a second green revolution or a health menace.

“Who is steering this fear and global paranoia about the G.M. cotton and all these G.M. crops?” said Hans P. Binswanger-Mkhize, a South African agriculture consultant. “Show us where the corpses are — the corpses of earthworms, the corpses of bees, the corpses of antelopes and the corpses of humans. Nobody has yet ever shown us a corpse.”

Opponents respond that organic farming is critical to producing healthy food and reducing global warming. Widespread use of nitrogen fertilizers has contributed heavily to greenhouse gases, and the vast water resources required for irrigation are not sustainable, they contend.

“We have a billion hungry people today, so we can't say the green revolution solved the problem,” said Markus Arbenz, the executive director of the International Federation of Organic Agriculture Movements. “We can't just cut and paste the solution from the 1960s with G.M. crops.”