

International Commission Calls for 'Paradigm Shift' in Agriculture

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by [Ben Block](#) on April 18, 2008

Photo courtesy of U.S. Department of Agriculture

Agriculture has degraded 35 percent of the world's severely degraded land, and it will only get worse unless there's a long-term shift to sustainable agriculture, a new study says.

A commission of international agriculture experts [unveiled a series of reports](#) on Wednesday calling for an end to "business-as-usual" farming practices to avoid widespread environmental degradation and increasing food scarcity.



The group of more than 400 experts, known as the [International Assessment of Agricultural Knowledge, Science and Technology for Development](#) (IAASTD), concluded through its global and regional studies that governments and industries need to discontinue environmentally damaging farming methods. Farmers should have greater access to agricultural technology and science, especially in the developing world, to ensure productivity increases without further environmental degradation, the reports say.

The commission's conclusions come during one of the most severe food crises since the productivity boom of the [Green Revolution](#). Rising prices for basic commodities such as rice, wheat, and corn have led to violent protests around the world, from Haiti to Egypt to the Philippines. Widespread environmental degradation and uneven distribution policies are contributing to shortages, especially in the developing world, the reports say.

The reports are the largest international collaboration to date to advocate more sustainable farming practices such as crop diversification, use of organic fertilizers, and the adoption of labeling and certification schemes. More controversially, the commission suggests policy options that include "ending subsidies that encourage unsustainable practices." The reports also stress the ineffectiveness of genetically modified crops in aiding food productivity in some developing regions.

Global society must undertake a "paradigm shift" in agriculture, the authors said at a press briefing. And without more sustainable practices, the problems will only worsen. "These are long-term trends that we really need to take into account," said Shelley Feldman, a [Cornell University](#) sociology professor and report co-author. "We're going to continue to work with less labor; less water; less arable land; increasing land policy conflicts; the loss of biodiversity, genetic species, and ecosystems; increasing levels of pollution; and as we all know, climate change."

Because many farmers lack knowledge about sustainable practices, governments should increase their financial support for research and programs that encourage less-damaging techniques, the reports say. In North America and Europe, large transnational corporations currently dominate the funding for agricultural R&D, considerably influencing research priorities, they note.

"We have to think more about linking researchers and stakeholders in new and innovative ways.... We have to make sure our agriculture production systems have ecological benefits," said Mary Hendrickson, director of [University of Missouri](#)'s agriculture extension networking

project and another co-author. "Even here where there are significant investments in science and technology...we need to redirect funding."

The studies' more controversial findings splintered the commission, which formed with original ambitions of a multilateral consensus on the need to increase food availability, especially for the poor. But the biotechnology industry, including representatives of Sygenta and Monsanto, [pulled out in March](#), saying [the study was biased](#) against genetically modified crops. "Our input was not being taken appropriately. We were looking to see references to plant science technology and the potential role it can contribute," Denise Dewar, executive director of industry trade group [CropLife International](#), told press at the time.

Biotechnology is described in the reports as offering tremendous possibility for improving productivity with products such as water-resistance crops. But concentrated ownership has restricted access to genetically modified crops in developing nations. Such concentration drives up costs, inhibits independent research, and undermines local farming practices, the reports say. "The products of bioengineering are not really useful for developing countries because [the crops] are not adapted varieties. They're not the crops people grow there," said Hans Herren, an IAASTD co-chair.

Herren said industry scientists failed to attend meetings on time and attempted to edit the reports at the last minute. Despite the industry's complaints, Herren said the reports received overwhelming support from the 64 governments who voted on the commission at a meeting in Johannesburg, South Africa, last week. At the meeting he told the attendees, "The real losers are the people who are not here right now."

The United States, Canada, Australia, and the United Kingdom had the strongest reservations about the commission's stance on agricultural subsidies and trade. The reports note that developing-country farm markets are often opened to international competition prematurely, which can depress developing agricultural industries and worsen poverty. Herren said the commission was originally instructed not to discuss trade due to [political sensitivity](#), but he said the topic could not be avoided.

"We feel that trade liberalization, open markets, do have a lot of benefits, but only if the playing field is leveled out ahead of time," said Herren, who is president of the [Millennium Institute](#) in Arlington, Virginia. "We felt that this is something that's important to look at."

The reports are the result of a three-year, \$12 million effort by the [World Bank](#) and the [United Nations Food and Agriculture Organization](#). Launched in 2002 at the [World Summit on Sustainable Development](#) in Johannesburg, South Africa, the IAASTD, led by former [Intergovernmental Panel on Climate Change](#) chair Robert Watson, coordinated the more than 400 experts from the world's universities, think tanks, governments, and industries.

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