



IFPRI PERSPECTIVES

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did you know?

Soil fertility studies from both Latin America and Sub-Saharan Africa have shown that each year an average of around 50 kilograms of soil nutrients—nitrogen, phosphorus, and potassium—are lost from each hectare of agricultural land. Such nutrient “mining” (extraction in excess of replacement) threatens the long-term viability of many agroecosystems, particularly those managed by poor farmers.

—From *Pilot Analysis of Global Ecosystems: Agroecosystems*, by Stanley Wood, Kate Sebastian, and Sara J. Scherr (Washington, DC: IFPRI and World Resources Institute, 2000).



INTERNATIONAL
FOOD
POLICY
RESEARCH
INSTITUTE

IFPRI

2033 K Street, NW
Washington, DC 20006-1002 USA
Telephone: +1-202-862-5600
Fax: +1-202-467-4439
Email: ifpri@cgiar.org
Web: www.ifpri.org

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Thinking through Globalization

As IFPRI begins a synthesis study on globalization, it is a good time to think about what this widely used term means. What is globalization and what are its effects?

The phenomenon of globalization has attracted enormous interest during the last decade. It is at the center of a heated worldwide debate about its possible benefits and costs, particularly for the more vulnerable populations. “Part of the problem in assessing the pros and cons is that globalization means different things to different people,” says Eugenio Diaz-Bonilla, an IFPRI research fellow.

For some, globalization refers to the multiplication and intensification of economic, political, social, and cultural linkages among people, organizations, and countries at the global level. For others, it means a tendency toward universal application of economic, political, social, cultural, institutional, and legal practices. “Many of us applaud the spread of democracy at the political level, while, on a different dimension, we cannot ignore growing concerns about cultural homogenization,” says Diaz-Bonilla.

A third notion is that globalization means the increasing importance of significant worldwide effects caused by the behavior of individuals and societies. These effects include global warming, financial crises, and the spread of HIV/AIDS.

One of the most obvious manifestations of globalization is that growth in world trade has outpaced growth in world output during the entire postwar period. This trend results from



Philippe Berry/IFPRI

Children selling goods in urban Viet Nam

- trade liberalization as a result of negotiations in the General Agreement on Tariffs and Trade and the World Trade Organization
- an increase in the number of regional trade agreements
- economic reforms that have liberalized markets in both developed and developing countries.

But technology has been the key force behind globalization. Since World War Two, rapid technological change and increasing investment in transportation, communications, and information technologies have facilitated and partly driven the geographic dispersal of production processes across countries. Technological change has also led to the growing integration of world capital markets, greatly increasing the international flows of short- and long-term private financial

capital. However, these flows have largely left the poorest countries untouched.

Other globalization trends during the last 20 years include

- greater integration of labor markets worldwide, with expanded migration of labor ranging from unskilled to highly skilled;
- environmental, natural resource, and climate changes that have worldwide implications in ways that were not so clear before;
- health problems that have taken on global dimensions, such as AIDS; and
- greater democratization and decentralization in the developing world.

Globalization has affected the poor and rich differently. But the quality of the analytical work on the effects of globalization is uneven. This is due partly to the prominent role ideology has played in the debate, to globalization's multifaceted and hard-to-define nature, and to the need for a sustained research effort that draws on a number of economic,

social, and political science approaches.

Even so, the body of literature on globalization has expanded. Over the years, researchers have studied the impact of different dimensions of globalization such as expanded international capital and trade flows, more integrated labor markets, growing foreign direct investment, and a larger presence of multinational corporations. Researchers have also focused on how globalization interacts with legal and regulatory frameworks, politics and governance, the environment, culture, society, conflict, war, and peace. But scholars have not necessarily focused on the links between those global changes and poverty and food security from the perspective of the developing countries. IFPRI's work on globalization is focusing on these links.

Some of the key questions driving the research include

- What is the best way to define and measure globalization from a poverty

perspective?

- Is globalization increasing or decreasing the income gap between rich and poor countries?
- Is globalization increasing or decreasing poverty and inequality?
- Is globalization increasing or decreasing exposure to shocks and the ability of the poor to cope with them?
- How is globalization affecting food security and sustainable production?
- Can globalization be influenced by policy, regulatory, and institutional reform in order to reduce vulnerability to negative shocks, accelerate poverty reduction, and enhance food security in the developing world?

IFPRI will review the theoretical and empirical literature on the links between globalization and poverty, conduct quantitative analysis, draw implications for policy, and identify knowledge gaps that need to be filled. ■

For more information, contact Eugenio Diaz-Bonilla at e.diaz-bonilla@cgiar.org

Mapping the World's Agricultural Land

The unprecedented scale of agricultural expansion and intensification to meet the food and fiber needs of a rapidly growing world population raises two principal concerns. First, the productive capacity of many agroecosystems is under threat. Second, intensified agricultural production often causes broader environmental harm. A new global assessment from IFPRI shows just how serious these problems have become.

While farmers with access to appropriate information, inputs, and new technologies may succeed in overcoming the pressures on agricultural land for the foreseeable future, the challenge of meeting human needs may grow ever more difficult over longer periods of time.

To determine the extent of agricultural land use worldwide and assess the status of key goods and services provided by agroecosystems on a global basis, IFPRI scientists led the most comprehensive mapping to date of global agriculture in partnership with World Resources Institute (WRI). A report is now available entitled *Pilot Analysis of Global Ecosystems: Agroecosystems*. Based on

analyses of satellite-derived data, digital maps, and tabular data sets, the report is part of a pilot analysis for a larger international initiative, the Millennium Ecosystem Assessment, a comprehensive 10-year scientific assessment that begins in 2001.

"We hope this report will be informative for policymakers and natural resource specialists seeking a global perspective on agroecosystems," says Stanley Wood, an IFPRI scientist. "It provides an indication of the present status of agroecosystems internationally and makes some suggestions on how to better understand and monitor changes in the capacity of these systems to provide environmental as well as agricultural goods and services."





Livestock at oasis watering hole in Mauritania


Alison Slack/IFPRI


RECENT IFPRI PUBLICATIONS


 *Food Policy Reforms in Central Asia: Setting the Research Priorities*, edited by Suresh Babu and Alisher Tashmatov. 220 pages.

 *Governing the GM Crop Revolution: Policy Choices for Developing Countries*, 2020 Discussion Paper 33, by Robert L. Paarlberg. (Two-page brief with the same title also available.)

 *Pilot Analysis of Global Ecosystems: Agroecosystems*, by Stanley Wood, Kate Sebastian, and Sara J. Scherr. Published jointly by IFPRI and World Resources Institute. 94 pages.

 *Promoting Sustainable Development of Less-Favored Areas*, 2020 Focus 4, edited by John Pender and Peter Hazell (a set of 9 briefs).

 *Rice Market Liberalization and Poverty in Viet Nam*, Research Report 114, by Nicholas Minot and Francesco Goletti. 113 pages. (Two-page abstract with the same title also available.)

 *Wheat Policy Reform in Egypt: Adjustment of Local Markets and Options for Future Reforms*, Research Report 115, by Mylène Kherallah, Hans Löfgren, Peter Gruhn, and Meyra M. Reeder. 170 pages. (Two-page abstract with the same title also available.)

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Published in December 2000 by WRI and IFPRI, the report will be officially released on February 14 at an IFPRI/World Bank launching chaired by Ian Johnson, World Bank Vice President for Special Programs and chairman of the Consultative Group on International Agricultural Research (CGIAR). The report is one of five in-depth ecosystem studies supporting findings that are highlighted in WRI's recently released *World Resources 2000-2001, People and Ecosystems: The Fraying Web of Life*.

Among the main findings in *Agroecosystems* are the following:

- Crop production can still grow significantly on a global scale over the next several decades, but the underlying conditions of many of the world's agroecosystems, particularly those in developing countries, are already poor and could deteriorate further.
- Soil degradation, including nutrient depletion and erosion, appears to be undermining the long-term capacity of many agricultural systems.
- Most global agricultural production, with the exception of dairy and perishable vegetable production, still derives from intensively managed irrigated and rainfed crop fields located away from major concentrations of population.

- While the net global expansion of agricultural area has been modest in recent decades, intensification has been rapid.
- Significant segments of the populations in the poorest countries cannot afford to purchase additional food. Thus the vast majority of new staple food supplies will need to come from domestic production in developing countries facing high population growth rates and increased threats to agricultural ecosystems.

The analysis draws particular attention to the need for significant improvements in the quantity and quality of environmental information related to agriculture. There is an urgent need for greater emphasis on monitoring land cover, biodiversity, soil degradation, water quality, and other indicators in order to better understand changes in agroecosystems and their relationship to agricultural production. The report concludes that policymakers will find it increasingly difficult to exempt agriculture from contributing more environmental goods and services. This will place increasing pressure on agricultural researchers to look for the "win-win" solutions that can improve both agricultural output and environmental conditions and to explore the trade offs involved. ■

For additional information, contact Stanley Wood (s.wood@cgiar.org) or Kate Sebastian (k.sebastian@cgiar.org).

Climbing out of Poverty in South Africa

Almost a decade after all apartheid laws were repealed in South Africa, one in five households in KwaZulu-Natal province are caught in a poverty trap, according to IFPRI research findings presented to 50 national policymakers and researchers in Pretoria in October. To assist policymakers in reducing poverty in South Africa, IFPRI is looking at why some households in the province remain in poverty.

The IFPRI study in KwaZulu-Natal surveyed nearly 1,200 African and Indian households in 1993 and returned to the same households again in 1998 to examine how their fortunes had changed in the years since the first democratic elections open to all races were held in April 1994. One of nine South African provinces, KwaZulu-Natal is the home of approximately 9 million people, or 20 percent of the country's 44 million residents.

The study categorizes KwaZulu-Natal sample households into three groups: "chronic poor" (those below the poverty line in both 1993 and 1998); "transitory poor" (those who either climbed above or fell below the poverty line during the period); and "never poor" (those consistently above the poverty line). Twenty-three percent of the households in 1993 and 1998 were chronic poor, 29 percent were transitory poor—11 percent climbed above and 18 percent fell below the poverty line during the study period—and 48 percent were never poor.

The findings highlight how the chronic poor and more than half the transitory poor were unable to accumulate enough assets to climb out of poverty during the study's five-year span. "IFPRI's work shows that policymakers need to design policies and programs that take into account the three different types of households, because their development requirements may differ," says John Maluccio, a research fellow at IFPRI.

In addition to examining the role of standard household assets such as physi-

cal and human capital, the study also took into consideration social capital, which refers in part to the networks people belong to. The thinking is that the poor are able to use these networks both to avoid falling behind and to get ahead. One measure of the networks at the household level is the extent to which household members participate in various types of associations such as financial and social groups within the community.

IFPRI's findings indicate that a doubling of KwaZulu-Natal's household membership in such groups increases income by

almost 10 percent, about one-third of the gain that doubling education would have produced in 1998. Furthermore, social capital as measured here appears to be much more important in 1998 than in 1993, when there was both less of it and its apparent value to households was lower. Social capital may prove to be an important asset in escaping poverty in contemporary South Africa.

The study is the result of a four-year collaboration between IFPRI, the School of Development Studies at the University of Natal, South Africa, and the University

of Wisconsin-Madison in the United States. Funding was provided by a number of donors, including the U.S. Agency for International Development, the Ford Foundation, and the Development Bank of Southern Africa. The team continues work under a MacArthur Foundation grant to identify more specifically the constraints that keep KwaZulu-Natal residents from escaping poverty. ■

For further information, contact Bonnie McClafferty at IFPRI (b.mcclafferty@cgiar.org).

The Road Half Traveled

During the past 20 years, most countries in Sub-Saharan Africa undertook extensive economic reforms designed to spark their economies by reducing the government's role and increasing that of the private sector. Because the majority of Africans remain dependent on agriculture for their livelihoods, agricultural market reforms occupied a central place at the table. Have these reforms been effective?

In *The Road Half Traveled: Agricultural Market Reforms in Sub-Saharan Africa*, the latest IFPRI Food Policy Report, researchers found that agricultural market reforms not only have had mixed results, but many have not been fully implemented. "The reforms focused on eliminating government control and increasing the producer price of tradable agricultural commodities but placed little emphasis on developing the institutions needed to support private sector activity," says Mylène Kherallah, an IFPRI research fellow and lead author of the report.

In the late 1970s many African countries faced serious economic crises. Failing industrial sectors, stagnating agricultural sectors, declining commodity prices, and climbing trade deficits had severely compromised the potential for economic growth. The crisis forced many countries to accept much-needed structural adjustment and stabilization programs designed by the International Monetary Fund and World Bank.

The intent of the agricultural reforms was fourfold: to eliminate government control over input and output prices, to reduce exchange rate overvaluation, to eliminate regulatory controls over input and output markets, and to restructure

public enterprises and reduce marketing board involvement in agricultural pricing and distribution. The theory behind these reforms was that improving price incentives for farmers and reducing government intervention in the agricultural sector would generate a sizable supply response and allow well-functioning markets to emerge quickly.

Almost 20 years later, the general consensus is that the reform programs in Sub-Saharan Africa have not met expectations. Average annual growth rates of per capita gross domestic product and agricultural valued-added have been negative throughout the 1980s and 1990s. And the region's economic performance has trailed well behind other developing regions.

Well-functioning and efficient agricultural markets continue to be key to improving Sub-Saharan Africa's economic health. Although the reform experience has differed from country to country, the report says eight themes are key for completing the agricultural reform process in the region:

- Fully implement market liberalization.
- Find institutional solutions to provide input credit to farmers.

- Develop a legislative infrastructure to facilitate market exchange.
- Promote smallholder production of high-value crops.
- Invest in transportation, research, extension, and communications infrastructure.
- Promote effective governance and monitor market development.
- Provide safety nets to support vulnerable groups.
- Maintain credible and sustainable macroeconomic policies.

The report contends that further progress in developing well-functioning agricultural markets in Sub-Saharan Africa will require not only further liberalization, but also a more concerted effort to go beyond the withdrawal of the public sector from agricultural marketing. "The state must assume a new, supportive role as market facilitator," says Kherallah. ■

For more information, contact Mylène Kherallah at m.kherallah@cgiar.org, or download the full report at www.ifpri.org/pubs.htm#fpr.