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# GLOBALIZATION OF FOOD AND AGRICULTURE AND THE POOR

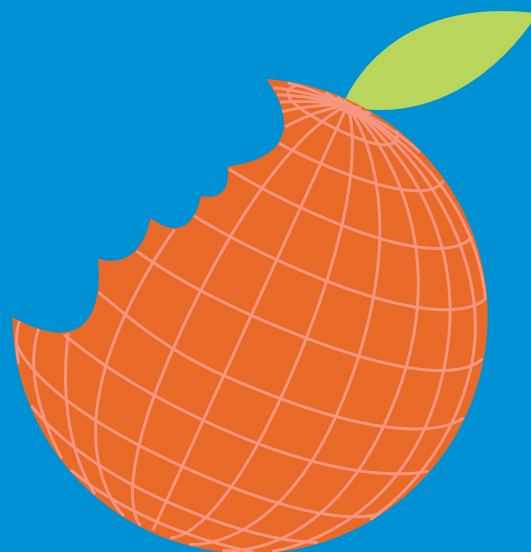
Joachim von Braun and Eugenio Díaz-Bonilla

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**T**he world agrifood system is becoming increasingly globalized. As the majority of the world moves into cities, and as rural inhabitants who are connected to infrastructure adopt more urbanized lifestyles, food consumption is becoming both more varied and more similar around the world. The food processing and retail industries have become global players, and farmers are increasingly specializing their production, leading to changes in inputs such as water, seeds, feeds, and technical equipment and, ultimately, to new organizational arrangements in the food system.

## GLOBALIZATION OF FOOD AND AGRICULTURE AND THE POOR

Edited by Joachim von Braun  
and Eugenio Díaz-Bonilla



OXFORD

# DEFINING GLOBALIZATION OF AGRIFOOD SYSTEMS

There are three main definitions of globalization: 1) the multiplication and intensification of economic, political, social, and cultural linkages among people, organizations, and countries at the world level; 2) the tendency toward the universal application of economic, institutional, legal, political, and cultural practices; and 3) the emergence of significant spillovers from the behavior of individuals and societies to the rest of the world. Our definition of globalization of agriculture and the food system is fairly broad. We believe the agrifood system becomes globalized

- when internationally traded foods—either in the form of raw materials or processed goods—increase as a proportion of production;
- when traded agricultural inputs and transborder investments expand across countries;
- when the science, knowledge, and information contents of the agrifood system become goods that are more international in scope;
- when standardization and the related regulatory institutions increasingly reach across borders—whether in the case of corporate organizations such as multinational companies or public organizations such as the World Trade Organization;
- when consumers' tastes, and the industries attending to them, show growing similarities across nations and regions;
- when the health and environmental externalities related to agrifood systems have transnational or global impacts; and
- when social policies related to hunger and poverty reduction become global.

Therefore, the globalization of agrifood systems is not easily quantifiable because of the diversity of the processes involved, and also because these processes do not always occur concurrently or lead in the same direction.

## GLOBAL TRADE IN AGRICULTURAL PRODUCTS

Historically, the exchange of food and agricultural products has been a key driver of globalization, as was the case with salt, spices, and sugar in earlier centuries. Today, the globalization of the agrifood system is far different in nature: it is more pervasive and deeper, less driven by raw materials, more service- and technology-intensive, and more integral to economic and societal change. Food retailers (as well as restaurants and home producers) serve a world population of more than 6.5 billion and are supplied by the food processing and trading industries, which procure from the farm sector, which is supplied by agricultural input industries. Transactions and trade occur between all these segments, and each becomes more integrated at a global scale,

with big players in each of the industries. Table 1 shows the evolution of the globalization of agriculture as represented by agricultural trade relative to domestic production, using the ratios of trade over agricultural production—the import penetration ratio (IPR) and the export orientation ratio (EOR)—for all agricultural products from 1961 to 2002 for different developing-country groupings.

Production for domestic use constitutes the largest component of agriculture in developing countries as a whole; that is, most of the agricultural production of developing countries is directed to their own markets. However, different developing regions exhibit different levels of and trends in import and export ratios. For example, Sub-Saharan Africa (SSA) had the highest initial export orientation (EOR percentage) during the 1960s, but then experienced the deepest retraction from world

**Table 1 Agricultural trade in percent of production**

Export/Production (EOR)	1960s	1970s	1980s	1990s	2000–02
LAC	23.6	24.7	24.5	26.7	31.4
SSA <sup>a</sup>	28.5	23.0	17.2	15.3	13.2
Asia Developing	5.4	5.7	6.4	6.4	6.4
All Three Regions	12.1	11.8	11.3	11.0	11.6
Import/Production (IPR)	1960s	1970s	1980s	1990s	2000–02
LAC	6.7	8.6	11.2	14.0	15.7
SSA <sup>a</sup>	8.1	9.4	12.6	12.3	13.5
Asia Developing	7.1	7.7	9.2	8.9	8.8
All Three Regions	7.1	8.0	10.0	10.1	10.5

Source: Calculations based on FAOSTAT 2006.

<sup>a</sup> Does not include South Africa.

export markets, with its EOR value dropping by more than half by 2000–02. Its IPR, on the other hand, climbed from 8 percent in the 1960s to almost 14 percent between 2000 and 2002. Asia has the lowest export and import ratios, and both were trending upward very slowly until the 1980s, but the region's integration in world markets has since stopped or reversed. Latin America and the Caribbean (LAC), on the other hand, has become the most integrated region in world markets and has surpassed SSA in terms of both export and import ratios.

These simple quantity indicators demonstrate that while agricultural integration in world markets—in other words, globalization—appears to have increased for some developing regions and periods, the process has not been homogeneous, with declines in international integration in some cases (such as export ratios in SSA for the whole period and current import ratios in Asia compared to the 1980s). This more nuanced view of the extent and pace of the globalization of agriculture in developing countries seems to challenge the common perception of dramatic across-the-board increases in world integration.

However, these quantity indicators may not capture the full extent of integration between domestic and world markets, which may be better assessed by price indicators. There are three main ways of comparing the relationship between domestic and world prices. The strongest determinant of integration/globalization involves

calculating the ratio of these prices as an indicator of protection and subsidization or taxation (a ratio approaching 1—properly adjusted by quality and transportation costs—indicates that agriculture is becoming more globalized). A second method involves determining whether trend values for domestic and world prices are correlated, and the third method (the weakest of the three) involves examining whether volatility in both types of prices is correlated. In most cases, the evidence is inconclusive: some studies show that certain countries and commodities experienced greater integration with world markets in one or more of these dimensions, particularly after the policy reforms of the 1980s, but others find that the reverse was also true, even in the same country but for different commodities.

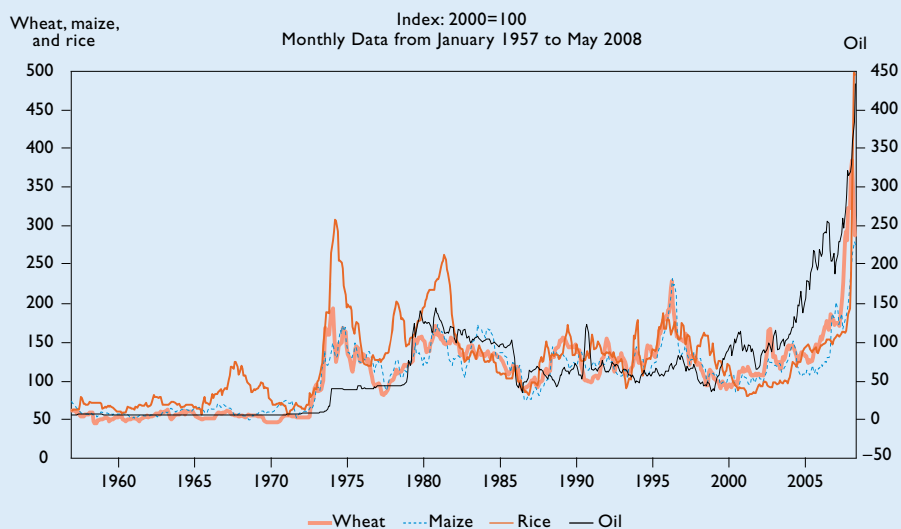
In addition to examining price and quantity indicators, it is also relevant to look at capital flows and investments. Though traditional cross-border investments in agribusiness (from food processing to inputs and machinery) have continued, there has also been a clear acceleration in the past decade or so in capital flows linked to the expansion of supermarkets and related activities. This has led some analysts to argue that globalization linked to capital flows, rather than trade, is what is currently defining the nature of the global food system.

## RIISING FOOD PRICES

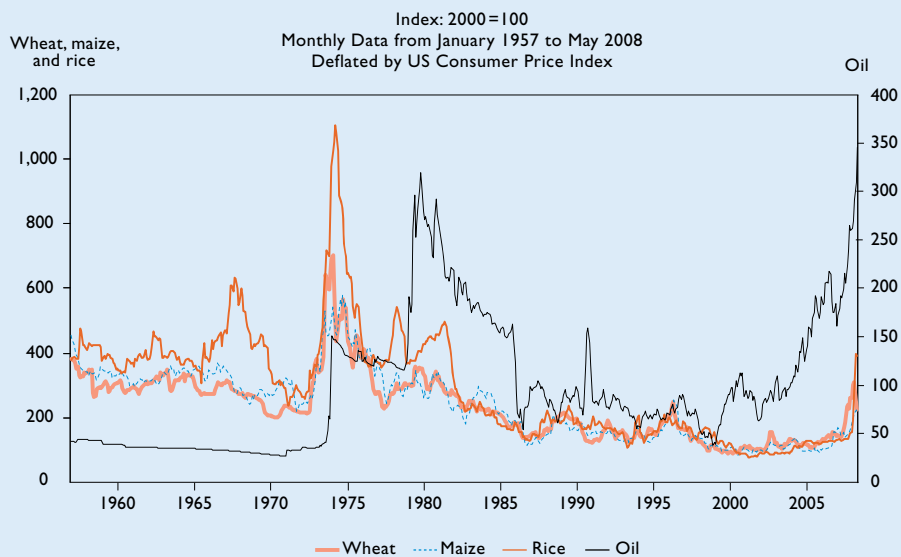
Though past trends provide significant insight into the future of agricultural globalization, the sharp increase in food prices in 2007 and 2008 (see Figures 1 and 2) has introduced a new element into the equation—one not fully captured in the book, *Globalization of Food and Agriculture and the Poor*, which examines earlier trends.\* In some ways, the current increase resembles the price spikes that occurred in the mid-to-late 1970s and early 1980s, although in real terms the prices of agricultural commodities (apart from oil) are generally lower than those of the 1970s. Today, however, the world food system is more globalized, income distribution is more unequal, and many more poor households in rural areas are net buyers of food, all of which makes food-price changes more relevant for billions of people.

\*This brief is based on *Globalization of Food and Agriculture and the Poor*, edited by Joachim von Braun and Eugenio Díaz-Bonilla and published by Oxford University Press for IFPRI. The book examines the specific factors that are driving change, with a focus on the globalization of agrifood systems, the actual and potential impacts on the poor, and the implications for food and nutrition security in developing countries. Selected quotes from some of the contributors are featured throughout this brief. More information on the book can be found at [www.ifpri.org/pubs/otherpubs/globalpoor.asp](http://www.ifpri.org/pubs/otherpubs/globalpoor.asp).

**Figure 1 Nominal prices of oil and food items**



**Figure 2 Real prices of oil and food items**



Source: IMF, International Financial Statistics.

National governments and international actors are currently taking various steps to try to minimize the effects of higher international prices on domestic prices and to mitigate impacts on particular groups. Some of these actions are likely to help stabilize and reduce food prices, whereas others may help certain groups at the expense of others or actually make food prices more volatile in the long run and seriously distort trade.

This combination of new and ongoing forces is driving the world food situation and, in turn, the prices of food commodities. Among the causes of rising food prices are biofuel production and increasing agricultural production, transportation and processing costs due to high energy prices, strong demand for food and feed, long-term low investment in agriculture, weather-related events, the macroeconomic impact of expansionary

*Technology and trade can become powerful allies in the movement for social and gender equity only if ethical principles underpin the international agreements relevant to bridging the growing rich–poor divide.*

—M.S. Swaminathan, chairperson,  
M.S. Swaminathan Research Foundation

monetary policies, a weak dollar, and shifting financial investments aimed at hedging from inflationary pressures. Whether rising food prices reflect a cyclical phenomenon or are part of a more permanent trend, and what will be the impact of increased prices on the global food system are crucial questions that require further research.

## GLOBALIZATION AND THE WORLD AGRIFOOD SYSTEM

As a result of globalization processes, the world food system has undergone a significant transformation since the 1980s:

- the private sector and civil society have become more engaged in agricultural research and development (R&D), leading to increased innovation
- small farmers are being immersed in more commercialized agrifood systems, nationally and globally
- consumers in industrialized and developing countries are becoming a driving force for changes in the global food system.

### **A Changing Environment for Innovation and Information.**

Two trends related to innovation in agriculture—the growing level of involvement of the private sector in industrialized nations in agricultural R&D, and the increasingly proprietary and competitive research environment—have been driven by the introduction of intellectual property right (IPR) protection for plant varieties and biotechnology products. A third trend is the slowing down of public-sector research expenditure in both developed and developing countries.

These changes may not only increase corporate control over seed production and distribution, potentially creating monopolistic market structures, but also, in the context of falling public investment in agricultural R&D in developing countries, widen the already large knowledge gap between industrialized and developing countries. In addition, because of the shifting views of industrialized-country consumers regarding food safety and environmental issues, agricultural R&D in industrialized countries is tackling these topics from that perspective, meaning

that much agricultural R&D may become less pertinent to the requirements of developing countries. International research priorities should be revisited, and participatory approaches to research, involving national, regional, and international research institutions as well as the private sector and farmers themselves, should be implemented. The rules that govern intellectual property may also need to be revised to improve equity, benefit the primary conservators of genetic resources and holders of traditional knowledge, and encourage scientists to share their inventions for the public good. Differentiated IPR rules may be needed within the WTO at least in the short to medium run, to allow developing countries to set up the legal infrastructure needed to implement well-functioning IPR systems.

Global market integration processes would be impossible without the revolution in information and communication technologies (ICTs), manifested especially in the exponential increase of cellular telephone penetration in poor countries. Access to these technologies is uneven both between and within countries, but where they are available, ICTs have benefited rural households by allowing for economies of scale that stimulate network building, promoting greater inclusion of individuals within networks, facilitating faster, more efficient, and, ultimately, better decisionmaking in all fields of endeavor.

**Increasing Commercialization of Small Producers.** Technological progress, improvements in infrastructure, and the creation of markets are facilitating the commercialization of traditional agriculture, but globalization—and trade liberalization in particular—produces both winners and losers among smallholders. The winners have been smallholders who have either vertically integrated with agribusinesses or have devised institutional mechanisms (such as cooperatives) for collective action. Also, smallholders who have access to better physical infrastructure and credit and who have benefited from capacity-building activities implemented by the public sector, private industry, or international cooperation have managed to integrate successfully. The losers have been farmers who are poorly endowed in terms of natural resources, assets, and infrastructure; who lack access to markets for outputs,

*There is a long way to go to make globalization an instrument to end poverty. It is time to begin.*

—Sophia Murphy, senior adviser on trade policy,  
Institute for Agriculture and Trade Policy

inputs, and land, as well as credit and insurance; and who have limited alternatives for off-farm employment. When new markets and products emerge, it will be important to monitor the land-tenure situation of traditional occupants and local communities; they may end up being displaced against their will by larger operators if their ownership rights are not protected.

**Consumer-Driven Agrifood Systems.** Consumers across the globe have benefited from the highly competitive supermarket supply chain, but farm producers are feeling increased pressure to supply larger volumes of higher-quality goods at lower prices. Nonetheless, this pressure has not meant the widespread exclusion

of small farmers. Although supporting export markets remains a key policy objective, orienting development programs toward supermarkets is becoming increasingly vital as in many cases the supermarket market is growing faster than the export market.

The global change in agrifood systems was until recently largely driven by middle- to high-income consumers in high-income countries, but in recent years consumers in low-income countries have joined the driving forces of change. The growing consumer influence in the agrifood chain has led producers to go beyond their traditional focus on increasing output to respond to consumer demands for food quality and safety, leading to standards stricter than legal ones in several cases. In addition, globalization of food markets may also shape consumers' habits in developing countries, with implications for health and nutrition. The increased differentiation brought about by globalization has led to a bifurcation of consumption habits, where poor diets among low-income groups predominate (based on mass consumption of low-quality vegetable oils, fats, and sweeteners), but a small niche market of healthy food products exists. Upstream changes in the global marketplace, aimed at widespread improvement in diet quality, would go beyond the health food sector and require stronger policy responses than just consumer education programs.

## ADDRESSING POVERTY AND HUNGER IN A CONTEXT OF GLOBALIZATION

In general, it is difficult to make definitive statements about whether globalization has helped to reduce poverty or not because winner–loser patterns are complex between and within countries. Indeed, because both globalization and poverty are multidimensional concepts, their linkages and influences are also multidimensional. As such, globalization may affect the poor in developing countries in different ways; thus, it is not surprising that assessments of the relationship between globalization and poverty vary dramatically, ranging from very negative to very positive. These different assessments fuel the already intense debate on globalization's effects on poverty.

The structural asymmetries of globalization may give cause for worry about the prospects of the poor under globalization. These asymmetries are related not only to market imperfections and failures, as in the case of global financial markets, where volatility can lead to major crises that devastate the poor and the incipient middle class in emerging markets, but also to the proper operation of markets, which rewards those who already have productive assets (financial and human capital) and often leaves the poor, who lack those assets, behind.

Beyond the integration of poor countries within the world economy and fairer trade and financial rules, concerted international action—with strong leadership and resources provided by industrialized countries—is needed to tackle the issue of structural asymmetries. Various ethical approaches emphasize the importance of considering the needs of the poor, and such values influence judgments about whether globalization is helping to reduce poverty.

**Helping the Poor to Benefit: Domestic Policies and Conditions in Developing Countries.** One of the important causes of poverty in some low-income countries is military and social conflict; thus, peace and security are essential for growth, poverty reduction, and food security. National policy actions and

*Globalization is a powerful and irreversible phenomenon that is offering new opportunities to countries at the upper end of the competitive ladder but is also creating enormous difficulties for many low-income countries because they are unable to face competition in an unequal world.*

—Sartaj Aziz, former agriculture minister, finance minister, and foreign minister, Pakistan

sustained international diplomatic and political engagement and financial support are therefore crucial to bringing peace and reconciliation to countries affected by conflict and to sustain fragile political transitions.

Furthermore, a strong macroeconomic foundation and prudent macroeconomic policies are necessary to promote growth and accelerate poverty reduction, as vulnerable populations tend to suffer disproportionately from increased volatility and macroeconomic crises. And although growth is a precondition for tackling poverty and hunger, it is not always enough to bring about poverty reduction. At the least, pro-poor economic growth must be distribution-neutral and must improve the incomes of the poor (ideally, their incomes would increase more quickly than the incomes of non-poor groups, improving income distribution) by supporting those sectors in which they earn their livelihoods (such as agriculture in many low-income countries) and expanding the demand for factors of production they possess. In effect, because three-quarters of the world's poor depend directly or indirectly on agriculture (as small farmers, artisans, small entrepreneurs, and landless rural workers), broad-based rural development requires special attention. This effort should include investment in public goods—especially roads, transportation, communications (including ICTs), marketing institutions, and information—to reduce transaction costs, facilitate employment, and generate investments in rural areas, particularly in the rural nonfarm sector. The issue of land tenure for small farmers and traditional communities may also need special attention and protection. Additionally, particular policies targeting small farmers are needed to enable them to cope with the rapidly changing agrifood supply system and its value chains.

Furthermore, implementing market-oriented reform policies that facilitate smallholder investment and avoid differential subsidies to large-scale operations is important. And market-oriented reforms must ensure competition along the agrifood chain, where recent trends in mergers, at both national and international levels, call for particular attention to problems with oligopolies and oligopsonies in key input and output markets.

However, pro-poor, stable growth and a focus on rural development may not be enough. Other horizontal and targeted

interventions, such as health care, education, and social protection programs, are needed to help the poor deal with change in the short to medium run.

*It is very important for developing countries as a group to strengthen multilateral institutions and actively participate in multilateral discussions and negotiations, at the same time preparing their economies for global competitiveness [and adopting] domestic policies that make growth pro-poor.”*

—Isher Judge Ahluwalia, chairperson, Board of Governors, Indian Council for Research on International Economic Relations

**Helping the Poor to Benefit: International Policies and Institutions.** Developing countries cannot confront the challenges of building a more developed and inclusive society with internal policies only. Even when they implement the best policies, some issues are global in nature and cannot be resolved until industrialized countries are more committed to building a pro-poor world economy. This requirement applies to world agriculture in particular. Thus, a number of global policy issues require attention:

- *Global governance architecture of the food system.* The roles and structures of global organizations that address food, agriculture, and related health issues require rethinking and adjustment. The traditional roles of the WTO and global public investment agencies such as the World Bank and regional development banks also need consideration in this context.
- *Global trade policy reform in the interest of developing countries.* Trade negotiations must reduce the combination of agricultural protectionism and high subsidies in industrialized countries that has limited agricultural growth in the developing world and weakened food security in vulnerable countries by competing with domestic production. Trade barriers between and within developing countries must be reduced as well. At the same time, there is a need for time-bound and properly targeted instruments that offer relief to vulnerable producers and consumers faced with unusual market conditions. In these situations, more rather than less globalization is necessary, provided there are appropriate safety nets.
- *International capital and aid.* Although developing countries must reduce their vulnerability to global financial crises through better macroeconomic and financial policies, these may not be enough if the main industrialized countries do not foster world financial stability through adequate

macroeconomic policies and help establish a more equitable international system to cope with financial crises and better manage macroeconomic imbalances. The governance of the world financial system requires a profound rethinking to cope with the new challenges of coordination across economies. International financial institutions should also increase funding for rural and agricultural development; poverty alleviation; and health, nutrition, and education interventions.

- *Employment and social policy.* Efficient and effective national policies should be supported by global actions, especially transnational learning about social protection policies that reach the poor and hungry in rural areas.
- *Global agricultural innovation and technology and environmental policy serving the poor.* Expanding adaptive research for productivity-enhancing agricultural technology that is focused on the needs of poor farmers and consumers in developing countries can contribute to enhanced food security, nutrition, and health. Industrialized countries should provide scientific and financial support for technology development in poor countries and in Africa in particular. Similar arguments apply to research on health issues that overwhelmingly affect the world's poor.

*In short, for the developing world's poor, more globalization and fairer rules are not enough. Structural asymmetries also need to be addressed.*

—Nancy Birdsall, president, Center for Global Development

## CONCLUSION

The construction of a better world calls for a value-based approach. Economic analyses of the realities of poverty and food insecurity must be coupled with ethical reflections on current social and economic structures. Globalization has generated levels of wealth never seen before, making possible—and therefore, morally inescapable—the previously utopian task of eliminating poverty and hunger on the planet. This is now more urgent than ever: while rising food prices are threatening the already precarious livelihoods of many of the world's most vulnerable people in the short term and this requires concerted action; proper global governance structures and institutions related to the four interrelated issues of food, energy, climate change, and natural resource management will be crucial for the poor and the hungry—and, indeed, for all humanity—in the medium and long terms.

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