



# The Role of Emerging Countries in Global Food Security

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**G**lobal food insecurity remains a serious problem. In 2010, more than 900 million people are still hungry, and progress toward reaching the first Millennium Development Goal of halving the world's proportion of malnourished people is off track by a wide margin. But the global environment within which food insecurity persists is changing in important ways. Emerging countries such as Brazil, China, and India, which have experienced rapid growth and increased integration with the global economy in recent years, have significant potential to contribute to global food security—not only by alleviating hunger among their own citizens, but also by increasing trade and financial linkages as well as technology and knowledge exchanges with developing countries.

## The Rise of the Emerging Economies

Although a number of other countries can be classified as emerging, Brazil, China and India have not only become powerhouses in terms of population, food production, and economic strength, but have had a larger impact on the development and food security of other developing countries—through their engagement in international trade, aid, and investment—than have other emerging countries.

Even though these three countries have followed three significantly different development pathways, all have experienced noteworthy growth and development in recent years. China adopted a gradual “firing-from-the-bottom” approach toward reforms that started in the agricultural sector and later moved to manufacturing and services, spurring private investments and rural nonfarm growth and employment. With its accession into the World Trade Organization, China introduced a more open and export-oriented trade system that included reduced agricultural protection policies. In contrast, India employed a top-down reform process that started with macroeconomic policies and the services sector and then moved to manufacturing. Partial policy changes related to agriculture focused primarily on agricultural trade liberalization, with the sector retaining many distortions. As a result, the service and manufacturing sectors are performing much better than the agricultural sector, with poverty reduction driven largely through trickle-down effects. Brazil implemented policies promoting

budgetary restraint, market deregulation, and an increasingly export-oriented economy. These reforms benefited Brazil's large-scale commercial farms, largely leaving small-scale farms behind. Economic liberalization policies have thus been accompanied by expanded and better-targeted social protection programs to tackle food insecurity and extreme poverty.

Strong economic growth in these three countries has translated into more dominant positions in the world economy. In fact, the three countries have been among the top 10 largest economies in the world since the 1990s, and their share of global gross domestic product (GDP) is predicted to increase in the coming years, with China edging ever closer to the dominant position held by the United States.

The three countries' performance in reducing poverty and hunger has been mixed, however. China has made remarkable progress in reducing poverty, cutting the share of people living on less than \$1.25 a day from 84 percent of the population in 1981 to 16 percent in 2005 and reducing the number of poor people from 835 million to 208 million.<sup>1</sup> Yet poverty reduction has been uneven over time and across China's regions and has been accompanied by a steep rise in inequality. In India, despite a significant reduction in the proportion of people living in poverty (from approximately 60 percent to 42 percent between 1981 and 2005), the number of people living on less than \$1.25 a day increased from 420 million to 456 million between 1981 and 2005. Brazil reduced the number of poor from 21 to 15 million (from 17 percent to 7 percent of the total population) between 1981 and 2005.

All three countries have experienced decreases in the proportion of their population that suffers from undernourishment. The share of undernourished people in China fell from approximately 15 percent to 10 percent of the population between 1990–92 and 2004–06, or from 178 million to 127 million undernourished people. Similarly, Brazil experienced a decline in the rate of undernourishment from 10 percent to 6 percent (16 million to 6 million undernourished) during the same period. In India, however, despite a modest drop in the proportion of undernourished (from 24 to 22 percent), the number of hungry increased from 210 million to 252 million during the same time period. Moreover, India accounts for 42 percent of the world's undernourished children.

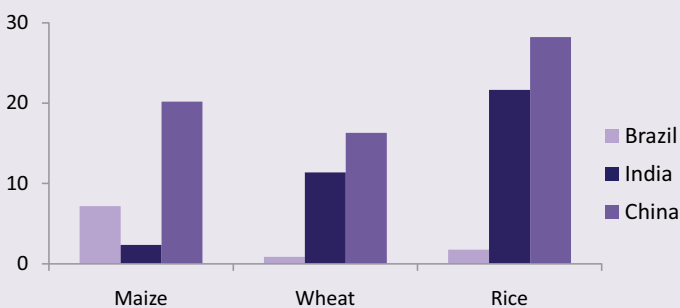
## The Role of Emerging Economies in Global Food Security

Emerging countries can play a twofold role in combating global food insecurity. First, given the large share of the world's undernourished living in India, and to some extent China, policies and initiatives to combat hunger and increase global food security are especially pertinent within these emerging countries. Second, emerging countries increasingly affect growth and development prospects in developing countries directly, through aid, trade, and foreign direct investment (FDI), and indirectly, through commodity prices and competition in third markets.

### Agricultural production and productivity growth

China and India, as well as Brazil, play a dominant role in the global production of food products, including staple crops such as wheat, maize, and rice (Figure 1). China and India are the world's largest producers of wheat and rice and, along with Brazil, were among the top five producers of maize in 2008. Their production and productivity growth have a critical impact on global food security.

Figure 1—Share of global crop production (%), 2008



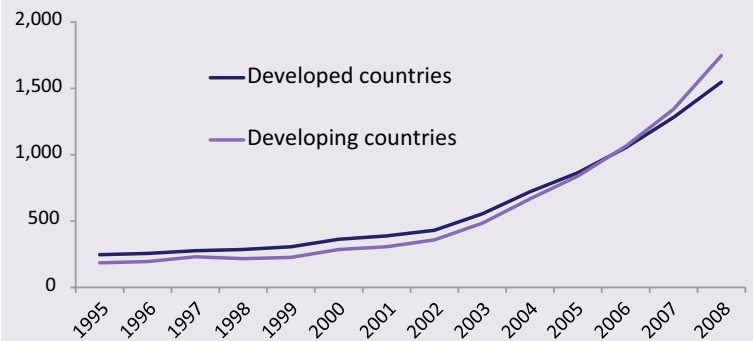
Source: Food and Agriculture Organization of the United Nations (FAO), FAOSTAT database (Rome, 2010).

The three emerging countries, particularly Brazil and China, have experienced robust and sustained productivity growth in the agricultural sector since the 1970s, with technological change and agricultural research (alongside macroeconomic stability and institutional reforms) playing important roles. All three emerging countries have increased their agricultural spending in absolute terms since the 1980s and have invested heavily in their public agricultural research systems. As a result, they accounted for 41 percent of the developing world's public agricultural research and 19 percent of global agricultural research and development (R&D) spending in 2000, the last year for which global comparisons are available.<sup>2</sup> The technologies and know-how from these emerging economies have the potential to spill over to other developing countries. China has already set up many demonstration stations in Africa, and Brazil has introduced several initiatives to transfer Brazilian technologies to Africa.

## Rising role in international trade

Trade flows between emerging and developing countries have been on the increase, surpassing levels of trade between emerging and developed countries in recent years (Figure 2). Trade relations with emerging countries have a significant food security dimension. The three countries are among the major exporters of a number of major food crops, and as a result their export and production policies have a significant effect on food prices and supplies in many developing countries.

Figure 2—Value of emerging countries' total trade with developed and developing countries (US\$ billion), 1995–2008



Note: Value of trade includes both imports and exports.

Source: UNCTAD (United Nations Conference on Trade and Development), UNCTAD handbook of statistics 2009 (Geneva, 2009).

Increasing trade with emerging countries offers developing countries the opportunity to expand markets for exports and to obtain cheaper imports. It also, however, poses the risk of displacing domestic producers by perpetuating old North-South patterns of trade that increase the dependence of developing countries on exports of primary commodities rather than promoting the development of more value-added exports or manufacturing activities. Given the growing demand for natural resources among emerging countries, there is a broad consensus that the main developing-country "winners" from trade with emerging countries (especially China) have been producers and exporters of primary commodities, while the "losers" have been countries and producers involved in labor-intensive manufacturing and commodity chains.

The emerging powers have increasingly demanded a greater say within the global trade system and have become major players in the recent Doha Round negotiations on agricultural liberalization: while Brazil has played a more conciliatory role during the negotiation process, China and India's unwavering support for emergency tariffs (in direct opposition to the United States and the European Union) has been cited as a contributing factor in the breakdown of trade talks in 2008.

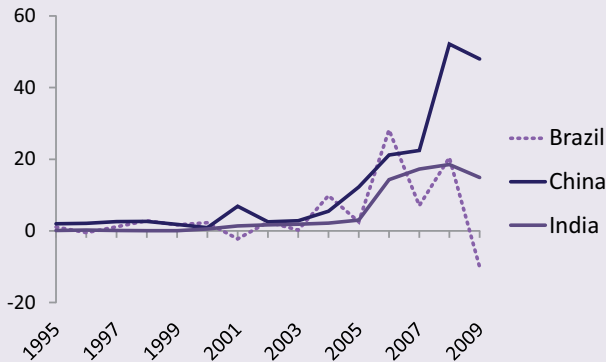
The 2007–2008 food price crisis illustrated the impact of trade policies on food security. Export restrictions, together with panic purchases, accounted for most of the increase in world food prices at that time. For example, in response to rapid

increases in domestic food prices, India (typically the third-largest rice-exporting country) imposed a series of control policies—taxes, minimum price, and bans—on rice exports, thereby exacerbating world price volatility in order to stabilize domestic prices and inflation.

### Investment and aid from emerging economies to developing countries

Foreign direct investments (FDI) from Brazil, China, and India have been on the rise, especially during the past decade (Figure 3). The vast majority of Chinese and Indian FDI flows to developing countries take the form of resource- and market-seeking investments. For example, many Chinese investments in Africa have followed the “resources for projects and credit” model of cooperation. Chinese investments in Africa topped US\$32.3 billion as of mid-2010. China is also experimenting

**Figure 3—Outward FDI flows from Brazil, China, and India (US\$ billion), 1995–2009**



Note: In response to recent global financial instability, Brazil experienced negative FDI outflows in 2009, primarily because of an increase in loans from Brazilian overseas subsidiaries to their parent companies (net foreign disinvestment).

Source: UNCTAD, UNCTADstat database (Geneva, 2010).

with innovative approaches modeled on its own success, such as investing in the development of special economic and trade cooperation zones in other developing countries.

Development assistance from emerging countries to developing countries is also increasing. In agriculture, Chinese aid has moved away from large-scale, state-owned farms toward support for smallholder farmers in Africa, combining aid and economic cooperation through joint ventures, cooperation contracts, and public-private partnerships. Overall aid from China to Africa is estimated to have almost quadrupled from US\$684 million in 2001 to US\$2,476 million in 2009.<sup>3</sup> India's aid to developing countries has also been on the rise, growing at an annual rate of 22 percent between 1998 and 2008, with aid-related activities in Africa totaling approximately US\$547 million in 2008.<sup>4</sup> Brazil's South-South development aid in fiscal year 2009/10 was estimated at approximately US\$38 million—nearly triple its size in 2004—with most activities focusing on

technical assistance in agriculture, education, and health in Lusophone African countries and, more recently, other Sub-Saharan countries.<sup>5</sup>

### Policy Recommendations for Moving Ahead

To address current and future threats to food security, a comprehensive agenda is needed that incorporates the important roles played by emerging countries both internally by strengthening their own food security and externally by promoting trade, investment, and aid linkages alongside knowledge exchanges.

#### Strengthen the food security of emerging economies

To improve their own food security, emerging countries need to implement a threefold strategy:

- Prioritize public spending on agricultural R&D, rural roads, and education, and reduce input and output subsidies. Recent IFPRI studies have found that public spending on agriculture—especially agricultural R&D—followed by education and rural infrastructure, is the most direct way of promoting agricultural growth and poverty reduction in a number of developing countries, including China and India. Emerging countries should also invest in productivity-enhancing public goods, striking a balance between high- and low-potential areas.
- Improve access to input and output markets for smallholder farmers. Connecting farmers to markets through rural feeder roads, credit institutions, information and communication technologies, and vertical coordination along the food supply chain is essential to reducing farmers' risks and marketing costs. The private sector, supported by friendly government policies, can play a leading role in investments in value chains.
- Scale up productive social safety nets and improve their targeting mechanisms to offset the impact of shocks, secure basic livelihoods, and protect the poor from risk and vulnerability.

#### Promote pro-poor linkages between emerging economies and other developing countries

Linkages between emerging and other developing countries should be designed to enhance the long-term, pro-poor benefits of trade, investment, and technological cooperation for both sides. In order to ensure that some of the benefits of increased trade and investment flows reach the poor, emerging countries should do the following:

- Maximize the benefits of foreign investments in developing countries by increasing local content in production, developing local infrastructure, building the skills of the local workforce (especially smallholders), and promoting adoption of higher environmental standards. Governments in emerging and developing countries should also reduce harmful trade restrictions.

- Promote productivity growth of smallholder agriculture in developing countries by investing in rural infrastructure and building up agricultural research and extension systems. Furthermore, emerging countries should help strengthen developing countries' capacity to adapt productivity-enhancing technologies to country-specific needs and conditions.

### Promote mutual learning about development experiences

The experiences of countries such as Brazil, China, and India can provide alternative views about development, and these experiences may at times be more relevant than the pathways advocated by developed countries. Emerging countries should develop databases, information systems, and platforms to improve information sharing between emerging and developing countries. Development lessons from emerging countries should, however, take into account the differences between countries and be tailored to country-specific conditions.

- China's reform process highlights the importance of a sound investment and institutional climate and support for agricultural and rural development. China's reforms were implemented through a pragmatic trial-and-error approach that entailed testing pilot programs, evaluating results, and scaling up successful ideas.
- India's experience with subsidy policies shows that public spending allocation choices and impacts need to be viewed as dynamic rather than universal and permanent. Another lesson comes from India's experience with increasing the targeting and efficiency of rural public works programs through extensive participation of village councils and civil society.
- Developing countries can also learn from Brazil's social protection policy experience with conditional cash transfer programs, which achieved more efficient targeting through more reliable systems of information gathering and more rigorous evaluations. Brazil's experience has also shown, however, that agricultural growth can bypass smallholders and the landless, highlighting the need to complement social protection policies with productivity-enhancing interventions for smallholders.

### Improve coordination between emerging economies and other donors

Platforms for constructive dialogue among all donors need to be established and strengthened to maximize the benefits of aid flows and avoid duplication. Traditional donors should enable emerging countries to play a pivotal role in setting standards and structures in the aid system rather than just following a "Northern" aid paradigm. South-South cooperation should be seen as a complement to, and not a substitute for, relations between developing countries and "more-established" donor partners. Traditional donors can share information on what has and has not worked in their own aid systems, enabling emerging donors to save precious resources. The point is not to absorb aid from emerging countries into existing aid mechanisms, but to minimize repetition and maximize available information and capacity—on both sides—through cooperation on multilateral, regional, and sectoral levels.

### Conclusion

Global efforts to achieve the Millennium Development Goals will need to take into account the rapidly changing global landscape, including the new and larger role played by Brazil, China, and India. These three countries are home to nearly half the world's hungry, are among the world's largest agricultural producers, and are emerging powerhouses in the global economy. Analyses show that these three countries and their above-average growth helped low-income countries overcome the worst effects of the recent financial crisis. Now, given the ongoing risks to global food security, it is crucial to take advantage of their capacity to play a growing role in addressing food security problems, both internally and within other developing countries.

<sup>1</sup> S. Chen and M. Ravallion, The developing world is poorer than we thought, but no less successful in the fight against poverty, Policy Research Paper 4703 (Washington, D.C.: World Bank, 2008).

<sup>2</sup> N. Beintema and G. Stads, Public agricultural R&D investments and capacities in developing countries: Recent evidence for 2000 and beyond, ASTI Background Note (Rome: International Food Policy Research Institute, 2010).

<sup>3</sup> D. Brautigam, The dragon's gift: The real story of China in Africa (Oxford: Oxford University Press, 2009).

<sup>4</sup> D. Chanana, India as an emerging donor, Economic and Political Weekly 44, no. 12 (2009): 11–14.

<sup>5</sup> P. Kragelund, The potential role of non-traditional donors' aid in Africa, Issue Paper No. 11 (Geneva: International Centre for Trade and Sustainable Development, 2010).

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