

## Editorial

# Agriculture and development: A brief review of the literature

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## Introduction

After 20 years of neglect by international donors, agriculture is now again in the headlines because high food prices are increasing food insecurity and poverty. In the coming years, it will be essential to increase food productivity and production in developing countries, especially in Sub-Saharan Africa and with smallholders. This, however, requires finding viable solutions to a number of complex technical, institutional, and policy issues, including land markets, research on seeds and inputs, agricultural extension, credit, rural infrastructure, connection to markets, rural non-farm employment, trade policy and food price stabilization. It discusses in turn the role played by agriculture in the development process and the interactions between agriculture and other economic sectors, the determinants of the Green Revolution and the foundations of agricultural growth, issues of income diversification by farmers, approaches to rural development, and issues of international trade policy and food security, which have been at the root of the crisis in agricultural commodity volatility in recent years.

Agriculture could be an engine of growth and provide employment opportunities for the rural nonfarm economy because of its linkages with small cities and rural areas. Rural development and community-driven development could assist in this process. Governments will need to play an important role for many of the tasks suggested in this paper. They should not, however, be the only purveyor. The private sector will be the main source of investment funds and a supplier of services. Donors, nongovernmental organizations, and civil society organizations (that benefit from local and external private expertise when implementing projects) will also play a key role. Identifying the right mix of these actors and establishing effective cooperation among them will be important. New approaches to increase productivity in these countries have to be found. The possibility of further land expansion to increase agricultural output will soon be exhausted and intensification will be the only way to increase productivity in the future. For its Green Revolution, Africa therefore needs high-yielding varieties that are adapted to local conditions. In addition, to guarantee adoption of such crop varieties and integrate small farmers into modern value chains, existing barriers—such as low education, missing infrastructure, lack of credit, and insurance markets—and insecure property rights have to be addressed. Also, new methods of disseminating information and learning, such as the use of communications technology in extension services, could foster adoption and profitable cultivation among farmers. Increasing productivity among smallholders in developing countries would also be an instrument to guarantee food security in the long run. The literature on the role of agriculture in development has evolved considerably since the days of the Lewis model. Over the past 60 years,



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countries that we still call “developing” by convention have experienced a huge transformation: China, Brazil, India, and Turkey. Agriculture in developing countries today, for the most part, rests on much sounder macroeconomic fundamentals than before; it has benefitted from important innovations (from new technology to new financial and insurance markets); it is more profitable in both low and high-value product markets; and, as a sector, it is more integrated both within the domestic economy and on a global scale. However, in spite of massive rural-urban migration (and in some cases, mineral export-led growth), in some parts of the world—mainly in Africa—land productivity remains stagnant, resource scarcity and degradation have worsened, and the structural transformation of the economy has stalled. At times, the literature has been helpful in pointing out the complexities of the process of structural transformation of the economy and in highlighting the major institutional and policy stumbling blocks. In our view, two “scientific revolutions” have helped policymakers: the Green Revolution and the recognition that traditional agriculture responds to incentives. Price and trade policies adopted in the vast majority of developing countries have represented an enormous tax on the sector and were ultimately counterproductive for development. It must also be stressed that the (relatively recent) emphasis on empirical analysis has greatly helped to better measure and gauge the impact of certain policies on agriculture. Overall, as stated by Byerlee et al. “the agriculture-for-development mission remains substantially incomplete.” There are still major gaps in the research. In our view, economists should focus as a priority on the most pressing issues, which include property rights, agricultural extension, rural infrastructure, and food price stabilization. The most pressing issue at present is to make progress on food security and put in place effective coping mechanisms for poor people. Economists and policymakers have been unable to find adequate policy instruments to limit food price volatility. Macroeconomic approaches to stabilize prices in national markets are not promising. Social safety nets, which help the poor to cope with income shocks, have the potential to mitigate adverse effects and prevent households from falling into chronic poverty, but they require good targeting mechanisms and a stable institutional environment. Beggar-thy-neighbor trade policies to stabilize prices and guarantee national food security have been counterproductive: they have harmed poor populations and reversed some past gains. The best instrument to protect small farmers from income shocks is to increase agricultural productivity—but that is the most scientifically and institutionally difficult challenge

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