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China's Ongoing Agricultural Modernization Challenges Remain After 30 Years of Reform

**Bryan Lohmar, Fred Gale, Francis Tuan,
and Jim Hansen**



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A Report from the Economic Research Service

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China's Ongoing Agricultural Modernization

Challenges Remain After 30 Years of Reform

**Bryan Lohmar, Fred Gale,
Francis Tuan, and Jim Hansen**

Abstract

Thirty years ago, China began implementing a series of reforms to improve efficiency in agricultural production. These, and subsequent, reforms reshaped China's position in the world economy. China's rapid economic development and transformation from a planned to a market-oriented economy, however, has reached a stage where further efficiency gains in agricultural production will likely hinge on the development of modern market-supporting institutions. The development of market-supporting institutions in China will bring about long-term and sustainable benefits to producers and consumers in China and the global agricultural economy. This report provides an overview of current issues in China's agricultural development, policy responses to these issues, and the effects of these policies on China's growing role in international markets.

Keywords: China, economic reform, economic development, agricultural production, agricultural trade

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Summary

China is the world's largest agricultural economy, producing and consuming a wide range of agricultural products. This report summarizes China's agricultural development over the past 30 years, the challenges facing China's agricultural economy, the role policy plays in addressing the needs of this developing agricultural system, and how economics and policies interact to affect trade in agricultural products.

What Is the Issue?

As the world's largest agricultural economy and an important player in world agricultural markets, China's role in international agricultural trade has implications for agricultural producers, consumers, and policymakers in the United States. While the establishment of markets for agricultural inputs and outputs has helped China raise agricultural production over the last 30 years, the country faces several issues that will be more difficult to resolve. China is currently struggling to manage stressed land and water resources, to develop modern marketing institutions and infrastructure, to boost rural incomes to keep pace with urban incomes, and to develop or adapt agricultural technologies.

What Did the Study Find?

Since adopting market-based reforms 30 years ago, China's ability to meet its food and agricultural needs has exceeded the expectations of most observers. Domestic production has satisfied most of the growing food demands of China's increasingly affluent population. As China established and developed markets, farmers diversified into livestock, aquaculture, and fruit and vegetable production while simultaneously increasing production of staple grains. In addition, millions of rural workers shifted out of agriculture to provide manpower for China's broader economic resurgence.

The enormous across-the-board increases in production suggest that China was far below its production potential before it adopted market reforms. Allowing farmers to produce according to market incentives and relaxing production quotas and restraints on inter-regional trade enabled China's farmers to use resources more efficiently, to raise productivity, and to reduce waste. Today, nearly all farm commodities and inputs are traded at market prices.

Agricultural productivity growth in China has slowed in recent years, suggesting that China's potential for achieving efficiency gains from market-based reforms is diminishing. Chinese agriculture also faces stiff challenges in allocating scarce natural resources and integrating small farms, which still largely use hand-held tools, into modern, global agricultural markets. Many of these challenges stem from carryovers of the collective period, such as collective land ownership, interventionist Government policies, or underdeveloped institutions to enforce property rights and settle land disputes.

China has the potential to achieve further efficiency gains; to do so, however, it must navigate another round of reforms addressing issues such as:

Land Tenure: Collective ownership of farmland and its allocation by village officials has led to tiny plots that increase the cost of production, increase the cost of establishing modern marketing institutions and traceability, and diminish incentives to adopt modern technologies. Collective management, along with poorly defined and enforced rights to farmland, also diminishes incentives to engage in conservation practices and reduces farmers' share of the wealth generated by economic development.

Marketing Practices: It is difficult to regulate or monitor China's fragmented and scattered farms, wholesalers, and input suppliers. Small-scale production and marketing also impede China's ability to improve food safety and quality (features in high demand in China's wealthier urban areas) in its rapidly growing food processing industries and in its expanding export markets.

Rural Income Growth: While rural incomes in China were the first to benefit from reforms, they have lagged behind urban income growth since the early 1990s. China has established many policies to increase rural incomes and promote rural development, including eliminating agricultural taxes and fees, establishing direct subsidies, input subsidies, and price supports, and reforming rural credit institutions with a focus on rural lending.

Agricultural Technology Development and Adoption: Productivity growth in China over the last 30 years benefited greatly from advances in plant and animal breeding, but there is still ample capacity to improve yields and other crop characteristics through continued research and extension. China's research system is dominated by public research institutions. Domestic private seed companies—most of them small scale—have limited capacity to engage in private research. Weak enforcement of intellectual property rights reduces private incentives to develop and market new seed varieties.

Future Role in International Markets: The extent and nature of China's agricultural trade will depend on fundamental economic forces and how effectively China addresses land tenure, marketing practices, rural income, and agricultural technology issues. As income growth and urbanization reduce demand growth for food grains, potential rice and wheat productivity increases may help China maintain near self-sufficiency. China will continue to increase production of fruit, vegetable, and livestock products, with most of this production consumed by the more prosperous consumers in China—so long as they can be assured of its safety and quality. Exports of these products will also grow if China effectively addresses those same safety, quality, and consistency issues. China will continue to be a major importer of oilseeds to meet the growing domestic demand for high-quality vegetable oils and high-protein livestock feed additives and may also become an importer of corn as domestic demand for livestock products grows. Demand for cotton and hide imports has boomed as China's exports of textiles, clothing, and shoes have expanded, but future export growth may be dampened by appreciation of China's currency, rising labor costs, and slower growth in world demand.

How Was the Study Conducted?

This report is a synthesis of past research findings from studies conducted by the U.S. Department of Agriculture's Economic Research Service and other research organizations. It builds upon the various findings by providing a common theme to understand China's current state of economic development, the role of agriculture, and the nature of policies and institutions affecting China's production, consumption, and trade.