

BOOK SUMMARY | AUGUST 2020

Agricultural Transformation in Nepal

Trends, Prospects, and Policy Options



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Agriculture is a vital sector of Nepal's economy for food security, employment generation, and poverty reduction, but the sector's performance over the past two and a half decades has been weak. Domestic food production has failed to keep pace with rising food demand, and the country has become a net importer of food, both staples and high-value commodities. The agriculture sector faces both structural and new challenges. Farmers, particularly smallholders, have poor access to technology, inputs, and credit. Improving farm incomes and livelihoods will require increasing smallholders' participation in the production of high-value commodities, such as vegetables, fruits, dairy products, meat, and eggs. It will also require measures to address the emerging challenge of climate change, given the high vulnerability of smallholders to floods, droughts, and other extreme weather events.

Despite these challenges, several new opportunities have emerged that could boost agricultural production and productivity sustainably and help ensure the inclusion of smallholders in high-value agricultural production. There is potential to significantly increase investment of growing remittance flows to rural areas in agriculture and other rural enterprises. In addition, many technological and institutional innovations are now available that could enhance agricultural productivity and

help smallholders benefit from high-value agriculture and adapt to the effects of climate change.

Although scattered research has been conducted on the challenges and opportunities in Nepal's agriculture sector, there is a lack of comprehensive and analytical research that can provide evidence-based policy direction to the government and other stakeholders in formulating and implementing appropriate policies,

programmes, and projects. This book aims to fill that gap. *Agriculture Transformation in Nepal: Trends, Prospects, and Policy Options* analyses important issues and tries to answer questions surrounding new developments and emerging challenges in Nepal's agriculture sector. Some of the strategic questions addressed include:

1. How does the role of agriculture change with economic growth and structural transformation?
2. How is the current investment level constraining growth of the agriculture sector?
3. What role can agriculture play in reducing poverty in the country?
4. How can improved nutrition outcomes be ensured through greater agricultural productivity and sustainable food imports?
5. What impacts will climate change have on agriculture and what mitigation and adaptation measures can be taken to address these effects?
6. What policy measures can be taken to improve the delivery of critical production inputs (seeds, fertilizer, etc.) and services (credit, insurance services, etc.) to farmers?
7. How can the participation of smallholders in high-value product chains be ensured?
8. How can the increasing remittance flows into the country be invested in the agriculture sector?
9. How can more balanced agricultural trade be achieved for sustainable food security?
10. How can access of the landless, marginal farmers, women, and indigenous peoples to land and associated infrastructure and support services be improved?
11. What impacts will the new federal system and governance structure have on the delivery of agricultural technology and services?

To address these questions, the book is divided into five parts. Part I discusses macro-level issues in the agriculture sector. It analyses the pattern of structural transformation in the Nepalese economy; trends in investments in agriculture; linkages between accelerated growth and

poverty reduction; dynamics of food and nutrition security in terms of availability, accessibility, and absorption; and the impact of climate change on agricultural production, food security, livelihoods, and the economy.

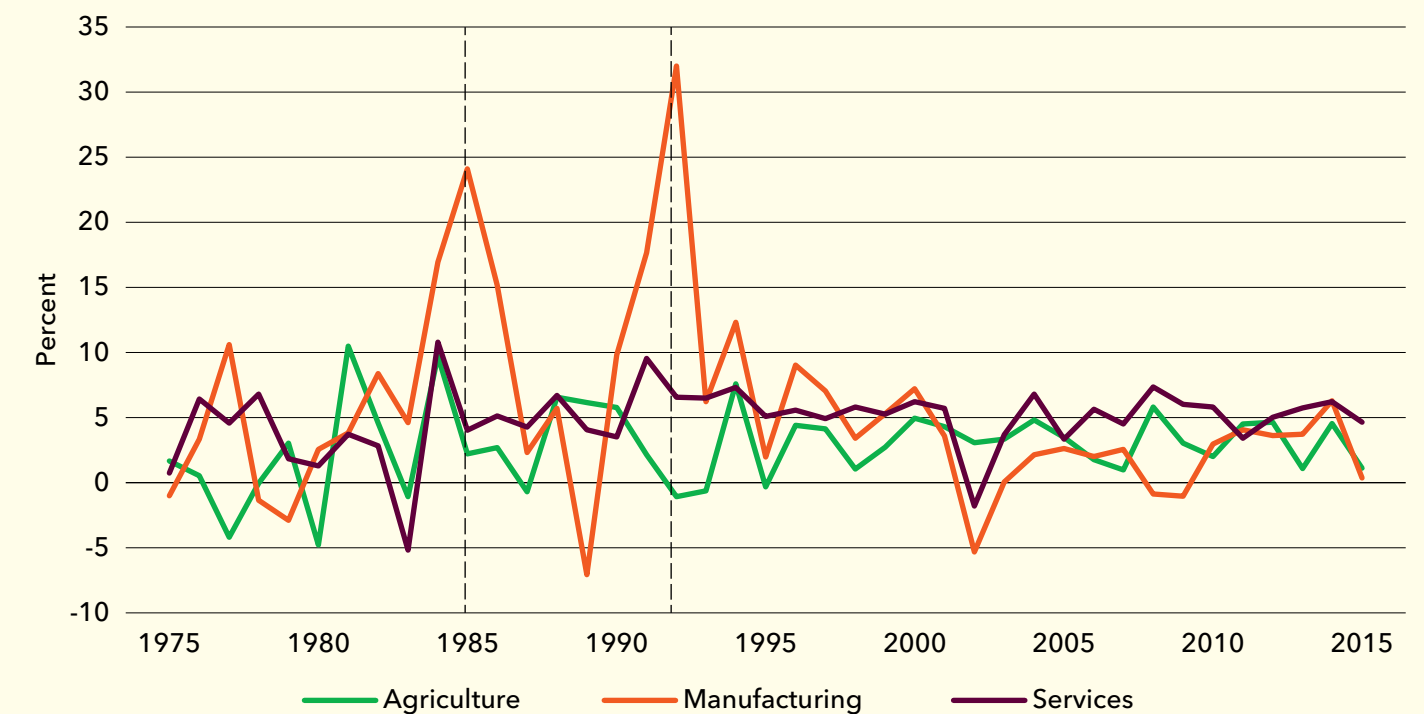
Part II focuses on agricultural productivity growth and its main drivers. These include the long-term trends in food consumption and nutrient intake of Nepalese households; food demand and supply projections for long-term trends in food and non-food inflation, and relative contributions of various food products to overall food inflation; key issues, trends, and constraints to improvements in seed, fertilizer, and agricultural machineries' use; and characteristics of the agricultural research and extension system in Nepal.

Part III explores diversification in the agriculture and non-agriculture sectors by farmers and other rural people for livelihood improvement. It highlights the expanding production of high-value agricultural products; analyzes the main drivers of agricultural diversification and constraints to and opportunities for diversification; and identifies policy recommendations to spur faster agricultural diversification. This section also reviews the impact of migration and remittances on crop yields, labour use in agriculture, and land use, as well as macro-level impacts.

Part IV covers agricultural trade and marketing issues, including the trends and structure of agricultural trade in general and with India in particular, and discusses the drivers of recent trends in agricultural trade. It also reviews the existing government policies and programmes for development of high-value product chains and, through a case study, demonstrates how value chains can benefit various stakeholders of agri-food systems.

Part V focuses on the institutions and governance issues that are vital for agricultural development. The analysis examines issues related to access to land, review of existing laws and policies on land and land rights, and land reform in the context of smallholder agriculture, as well as land administration. This section also reviews government policies on agricultural credit and insurance services and assesses their coverage level in the country. In addition, it considers the implications of Nepal's new constitution, particularly federalism, on broad agricultural policy planning as well as on agricultural research and extension. It evaluates how constitutional reforms will shape the three broad issues in governing the agriculture sector—authority, autonomy, and accountability.

FIGURE 1 Growth of sectoral value added, 1974–2015



Source: World Development Indicators, accessed Dec. 12, 2016. <http://data.worldbank.org>

Agricultural and structural transformation in Nepal

Five aspects of agricultural and structural transformation are found to stand out in Nepal. First, agriculture's share in GDP is declining faster than its share of employment, much like the experience of other developing Asian countries. Today, agriculture is the largest employer but not the largest sector of Nepal's economy. Second, labour productivity in the agriculture sector, measured as value added per worker, remains stagnant. This stands in contrast with other developing Asian countries, where labour productivity has grown faster. Third, the yield of Nepal's main cereal crops grew by only about 2 percent per year between 2001 and 2015. Fourth, technological change in agriculture since the 1960s has led to only modest improvements in yields of traditional crops. This slow growth in cereal productivity reflects slow rates of technical change and of improvement in technical efficiency. Fifth, there has nevertheless been significant agricultural diversification from cereals into high-value commodities because of income increases, urbanization, globalization, and life-style changes.

Because the agriculture sector is the largest employer in Nepal, growth in agricultural productivity is crucial for both overall GDP growth and poverty reduction. However, growth in agricultural value-added over the

past two decades has been low and highly volatile from year to year (Figure 1). Many factors have contributed to the poor performance of agriculture, including inadequate delivery of technologies and support services to farmers, armed conflict, labour shortages in rural areas, political instability, and limited investment in agriculture from both public and private sectors. As a result, the agriculture sector has become less competitive in domestic and export markets.

Addressing Nepal's food and nutrition security challenge

To address Nepal's long-term food and nutrition security challenge, and to benefit from its comparative advantages, the book recommends that the country adopt a two-pronged approach.

The first prong of the strategy is to increase the growth rate of domestic cereals production to slow increasing dependence on imports. To ensure that food production can meet growing demand, greater public investment in infrastructure (irrigation, rural roads, electrification, etc.) and in the rapid diffusion of modern technology for improved food production practices is needed. To sustainably enhance Nepal's capacity to deliver demand-driven agricultural technologies and extension services, the government's commitment to

TABLE 1 Food basket in Nepal: the changing trends

Food commodities	1995	2011	1995-2011
	Share in total food expenditure (%)		Change (%)
Cereals	44.5	28.9	-35.2
Pulses	4.8	6.0	25.7
Milk	7.1	7.1	-0.3
Edible oils	8.3	8.9	7.4
Vegetables	7.0	8.7	23.4
Fruits	2.0	3.7	83.2
Meat, fish, and eggs	8.0	13.3	65.3
Sugar	1.8	2.1	16.8
Beverages & others	16.5	21.5	29.9

Source: Nepal Living Standards Survey (1995, 2005, and 2011), Central Bureau of Statistics, Government of Nepal.

promoting pluralism in the agricultural research and extension system—through enabling policies, funding, and capacity building—is vital. Provincial governments should promote private extension service providers through capacity building and incentives to contribute to areas of commercial agriculture, input supply, agribusiness, and industries where the clientele is willing to share the cost of services as well.

The second prong of the strategy is to promote agricultural diversification through the production of high-value commodities—such as horticultural, dairy, and livestock products—with the dual objectives of nutritional security

and increasing farmers' incomes. In recent years, food consumption patterns in Nepal have shifted toward these commodities in response to increasing incomes, urbanization, health consciousness, and a changing occupation profile (Table 1). This growing dietary diversity is contributing to positive nutritional outcomes such as reductions in stunting, wasting, and underweight among children. Increasing demand for high-value commodities is also creating income-enhancing opportunities for farmers, including smallholders. For some of these commodities, the value chain approach to agri-food industry development could be critical for enhancing opportunities and nutrition security in Nepal.

This synopsis is based on G. Thapa, A. Kumar, and P.K. Joshi, eds. *Agricultural Transformation in Nepal: Trends, Prospects, and Policy Options*. Springer: 2019. This book has not undergone IFPRI's standard peer-review process.

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