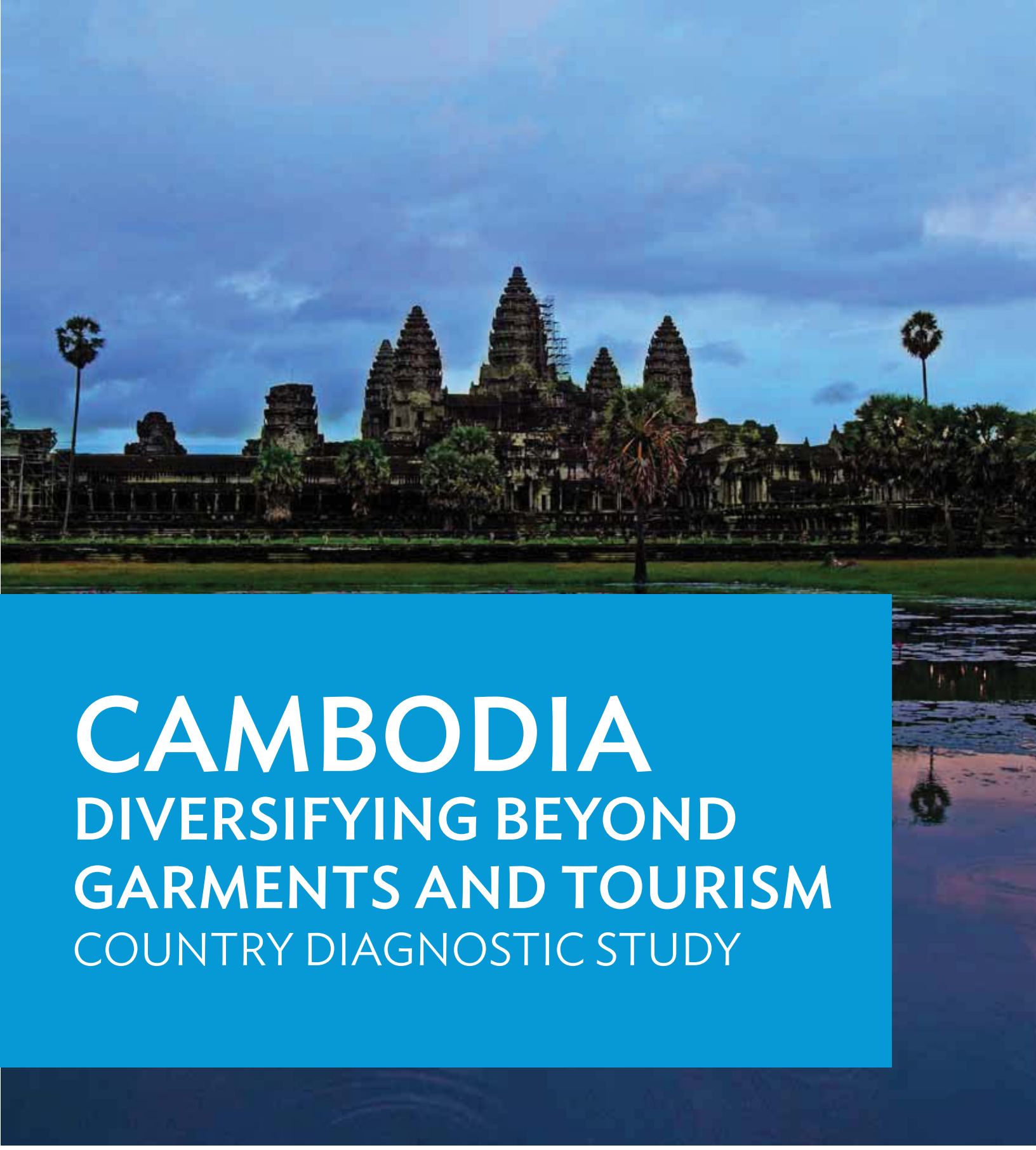

CAMBODIA
DIVERSIFYING BEYOND GARMENTS AND TOURISM
COUNTRY DIAGNOSTIC STUDY

ASIAN DEVELOPMENT BANK

ADB

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Economics and Research Department
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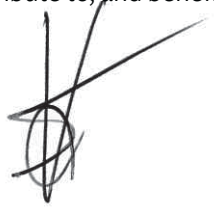
FOREWORD

Cambodia's economy has grown rapidly for more than 2 decades. The catalysts of growth have been strong performances in the key sectors of garments, agriculture, and tourism. Rising foreign investment, deeper integration in global value chains, and a stable macroeconomy have contributed to this performance.

The Royal Government of Cambodia continues to implement reforms to sustain and build on these gains. And we are continuing to find ways to improve economic management, support job creation, enhance rural development, improve gender equality, and promote good governance. These are all geared toward achieving development which supports equity and efficiency. As a result, the gains from the economic expansion have been shared through higher household incomes and reduced poverty. We recognize that much has been achieved, but that much more is possible.

We welcome this report and its key findings. It identifies the critical constraints to development as the need for better infrastructure, especially in the energy sector and rural areas; a shift up in the level of skills and education; and improvements in governance to enhance the business environment. We also appreciate the need to increase the collection of fiscal resources and improve the allocation of these resources to economic and social investments. We will review the report's findings on the need to diversify and upgrade the economy's productive activities as we develop our industrial strategy.

The Royal Government of Cambodia is grateful for the timely conduct of the study. The ideas and findings in this report will certainly be useful in providing inputs to support and operationalize the Rectangular Strategy for Growth, Employment, Equity, and Efficiency, and our longer-term vision for the economy and society. We seek an agenda that enables Cambodia to continue to grow, reduce poverty, and allow all members of society to participate in, contribute to, and benefit from the growth progress.



H.E. Dr. Aun Pornmoniroth
Minister of Economy and Finance
Chairman of the Supreme National Economic Council
Royal Government of Cambodia

PREFACE

Cambodia is in the challenging process of economic transition as it seeks to move beyond low-skill, low-value activities and expand its industrial base to generate broad-based inclusive growth. As the Government of Cambodia continues to build on strong growth and address emerging challenges, this study supports Cambodia's efforts to sustain growth and make it more inclusive. The study identifies the critical constraints to development: namely, the need for better infrastructure, especially in the energy sector and rural transport; higher skills and educational levels; and improved governance to enhance the business and investment environment. The study also recognizes the need for better collection and allocation of fiscal resources to meet growing demand for economic and social investment. A special section highlights the need to diversify and upgrade the economy's productive activities as the country develops and transitions toward higher-value activities in global value chains.

The study was conducted by a team from the Economic Analysis and Operations Support Division, under the direction of Cyn-Young Park, Assistant Chief Economist, Economics and Research Department, Asian Development Bank (ADB). Background papers were prepared by Michael Smiddy on industrial policy and Partha Banerjee on energy. The study team included Paul Vandenberg, Kee-Yung Nam, Maria Rowena Cham, Paulo Rodelio Halili, Lilibeth Poot, Emmanuel San Andres, Rhina Ricci Lopez-Tolentino, and Maria Melissa Gregorio. Contributing ADB consultants included Ma. Concepcion Latoja, Regina Baroma, Arlene Evangelio, Amador Foronda, Roger Mercado, Ronaldo Ico, Lyndree Malang, and Lotis Quiao. The study was edited by Jill Gale de Villa, Eric Van Zant, and Alastair McIndoe. Michael Cortes provided layout, cover design, and typesetting.

In conducting the study, ADB consulted with representatives from government, the private sector, development partners, and research institutions on the approach and findings. The study team is grateful for the support provided by the Government of Cambodia. Special thanks go to Dr. Hang Chuon Naron, who, as Vice-Chair of the Supreme National Economic Council and Secretary of State, Ministry of Economy and Finance, helped initiate the study; and H.E. Ros Seilava, Under Secretary of State, Ministry of Economy and Finance and a member of the council. ADB is committed to continued partnership and dialogue with the government to support its efforts to reduce poverty and achieve inclusive growth. To this end, the work of ADB's Cambodia Resident Mission is much appreciated for fostering collaboration with the government and other stakeholders. Peter Brimble, formerly Senior Country Economist, played an important role in this regard under the direction of Putu Kamayana, former Country Director, and his successor, Eric Sidgwick.

The study team also thanks the speakers at consultation workshops in 2012 and 2013, including, along with those already mentioned, Enrique Aldaz-Carroll, Alessandra D'Amico, Senaka Fernando, Saing Chan Hang, H.E. Hunleng Hay, Muhammad Ehsan Khan, Srinivasa Madhur, Gordon Peters, Vathana Roth, and H.E. Sok Siphana. Briefings were held at ADB headquarters with colleagues from the Southeast Asia Department and the Economics and Research Department, including former Chief Economist Changyong Rhee and Deputy Chief Economist Juzhong Zhuang. Makiko Matsumoto, Sophorn Tun, and Sukti Dasgupta from the International Labour Organization contributed to the study through a parallel and joint study on employment in Cambodia. The feedback during these consultations provided valuable inputs to the analysis and recommendations. Special thanks go to ADB's Rehan Kausar and Michael White, who provided comments on the energy and urban development sections, respectively.

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ABBREVIATIONS AND ACRONYMS

ADB	—	Asian Development Bank
ASEAN	—	Association of Southeast Asian Nations
CAMFEBA	—	Cambodia Federation of Employers and Business Associations
CDC	—	Council for the Development of Cambodia
CIB	—	Cambodian Investment Board
CSES	—	Cambodia Socio-Economic Survey
DGH	—	Directorate General for Health
FDI	—	foreign direct investment
GDP	—	gross domestic product
GMAC	—	Garments Manufacturers Association of Cambodia
ICT	—	information and communication technology
IFC	—	International Finance Corporation
IMF	—	International Monetary Fund
Lao PDR	—	Lao People's Democratic Republic
MDG	—	Millennium Development Goal
MOEYS	—	Ministry of Education, Youth, and Sports
MPWT	—	Ministry of Public Works and Transport
NBC	—	National Bank of Cambodia
NGO	—	nongovernment organization
NIS	—	National Institute of Statistics
NPL	—	nonperforming loan
PPP	—	public–private partnership
PRC	—	People's Republic of China
QIP	—	Qualified Investment Project
R&D	—	research and development
RCA	—	revealed comparative advantage
RGC	—	Royal Government of Cambodia
SARS	—	severe acute respiratory syndrome
SDBS	—	Statistical Database System
SEZ	—	special economic zone
SMEs	—	small and medium-sized enterprises
SPS	—	sanitary and phytosanitary
TEU	—	twenty-foot equivalent unit
TVET	—	technical and vocational education and training
UN	—	United Nations
UNESCO	—	United Nations Educational, Scientific, and Cultural Organization
US	—	United States
WDI	—	World Development Indicators
WEF	—	World Economic Forum
WHO	—	World Health Organization

WEIGHTS AND MEASURES

km	—	kilometer
MW	—	megawatt

CAMBODIA FAST FACTS 2013

ECONOMY

$15.3 billion current GDP
GDP per capita of **$1,008**
2000-2013 Average Sector Shares in GDP

TOURISM

4.2 million tourist arrivals
International tourism receipts of **$2.5 billion** (**16.7%** of GDP)

SOCIAL INDICATORS

1 in 5 people considered poor
87.1% adult literacy
71.4 years of life expectancy
Infant mortality of **34** per 1,000 live births
Only **1** doctor serving more than 4,500 people
71.3% access to safe water
36.8% access to sanitation facilities
51% electrification rate

TRADE

Exports: **$10.0 billion** (**65.6%** of GDP)
Imports: **$9.2 billion** (**60.5%** of GDP)
Top 3 exports: garments, bicycles, and rice
Top 3 imports: textiles, printed matter, and road vehicles
Top 3 trading partners: United States; Hong Kong, China; and United Kingdom

PEOPLE

15 million population
90% ethnic Khmer
95% Buddhist

Population (% of total)

RESOURCES

Land area of **181,035** square kilometers (**32%** agricultural land)
10,000 megawatts of hydropower potential
Potential oil and gas reserves
Potential iron ore deposits
55.7% forest area

EXECUTIVE SUMMARY

During the last 2 decades, Cambodia achieved remarkable economic growth and development—its gross domestic product (GDP) has expanded at an average 7.6% a year since 1995. The country seized growth opportunities from its rich natural resources and the evolving dynamics of the regional and global economy. It effectively leveraged its land and water resources to steadily boost agricultural production, particularly rice, making Cambodia the world's eight-largest rice producer. Cambodia is also Asia's 10th largest garment exporter, a position it was able to reach by taking advantage of a global quota regime and the search by garment producers for new low-cost production sites. In addition, Cambodia's unique cultural heritage has helped it make its mark as a tourism destination in Southeast Asia.

Rapid economic expansion brought important gains in national income and poverty reduction. Even so, Cambodia remains one of Asia's eight low-income countries and the second-poorest country in Southeast Asia. It also faces considerable challenges in building a modern, sophisticated, and vibrant economy, and to raise living standards to the levels of its more developed neighbors. To sustain its strong economic performance, several growth-supporting factors must be strengthened—infrastructure remains inadequate and unreliable, education attainment and skills are subpar, governance is weak, and savings rates are still low.

This study suggests that Cambodia needs to address these highly interrelated weaknesses to avoid getting trapped in low-wage, low-value-added production, and to maintain a stable political environment that is conducive to investment and commerce. Moving into higher-value-added production and climbing the global value chain will require sustained improvements in infrastructure, human capital, governance, and other economic factors.

Although strong growth is pivotal for improving living standards, creating decent jobs and providing healthy returns for farmers and small businesses will play a critical role in making growth more inclusive. This will require firm government commitment and well-designed interventions to boost access to economic opportunities and improve social protection. Adequate public investment in education, health, and basic social services to enhance human capacity—especially for the disadvantaged—is a prerequisite. At the same time, market and institutional failures, and social exclusion, must be addressed to broaden access to productive assets, such as infrastructure, credit, and land.

This study identifies the major constraints to inclusive growth in Cambodia, using a diagnostic framework based on the inclusive growth concept developed by the Asian Development Bank. Although the factors affecting economic growth and social development are complex and interrelated, this framework allows a systemic assessment of the key elements for inclusive growth, among them: infrastructure, especially energy and rural transport; skills and education; governance; fiscal spending; decent employment; social infrastructure and services, including education and health care; and access to public services and social protection. These constraints are summarized in the following text.

Human Capital and Decent Employment

Both the low levels of human capital and limited access to decent employment must be addressed before Cambodia will be able to provide higher-value products and services. Human capital development covers "cradle-to-grave" measures that ensure early childhood health and nutrition, education and training, and lifelong learning. Research shows the effects of early childhood development—especially the nutrition a child receives during the 1,000 days from conception through age 2—has significant impact on later life. The prevalence of stunting, wasting, and underweight children in Cambodia is among the highest in Southeast Asia—about 15% of the population was undernourished during 2011–2013, compared with the 11% average for the rest of the region. The country needs a good quality health care system that provides broad and affordable access as a foundation for human development.

Low secondary school completion rates undermine marked gains in primary education. Parents and young people in Cambodia tend to underestimate the value of education, and enrollment is low even in technical and vocational education and training (TVET). Basic learning materials and equipment are scarce, curricula weak, and mathematics scores low.

Increased resources could greatly strengthen human capital development if appropriately used. Government expenditure on education is among the lowest in the region, at less than 2% of GDP during 1995–2013. Although considerable resources have targeted primary education, the emphasis on secondary and tertiary education has declined. A comprehensive education and training plan and strategy would provide clear direction for human capital development and resource allocation. The United Nations Development Programme's recent study, *Human Capital Implications of Future Economic Growth in Cambodia: Elements of a Suggested Roadmap,* could be particularly useful.

The current labor market shows evidence of glaring skill mismatches and other gaps. Upgrading technical skills would benefit all aspects of Cambodia's economy, but is urgently needed in farming, manufacturing, services, and public administration. Training institutions must be better aligned with labor market demand.

Infrastructure: Electricity, Rural Roads, Water, and Sanitation

Reliable infrastructure is essential to support growth and economic inclusion. Despite notable improvements since 1995, more is needed to reduce the costs of doing business and maximize Cambodia's growth potential. The private sector consistently ranks inadequate infrastructure among the top five constraints to doing business there.

The lack of long-term power planning during the early stages of Cambodia's reconstruction led to a major deficit in providing electricity. Not only is access to electricity among the lowest in Southeast Asia—just 51% of households are served—but access levels vary widely across provinces. Furthermore, electricity tariffs are among the highest in the region, caused in part by high import, transmission, and distribution costs. These access and cost factors deter investment in energy-intensive industries.

Current power supply depends heavily on traditional, unsophisticated, and imported energy sources—the latter exposing the country to international energy price volatility. Petroleum accounts for 60% of total electricity generation with oil-fired power plants accounting for 55% of total installed capacity. Because the electricity supply is unreliable, many firms resort to using costly diesel generators to supplement the supply. About 40% of businesses surveyed for the 2012 Investment Climate Assessment cited the unreliability of electricity supply among their top three business concerns.

Transport infrastructure is improving—especially roads, which account for over 90% of passenger and freight traffic. Although the main roads are developed, rural roads—74% of the network—desperately need upgrading. The 2007 Strategic Plan for Rural Roads underscores the link between rural road development, livelihood promotion, economic growth, and poverty reduction. Nearly all rural roads remain unpaved, adding significant cost and time to travel.

Cambodia's rail system is being rehabilitated after the damage incurred by years of conflict and neglect, limited replacement of rolling stock, and insufficient maintenance. Once completed, rail service will compete with road transport, reducing business costs.

Cambodia has the lowest rate of rural access to sanitation facilities in Southeast Asia and the second lowest in rural access to good quality water. Destruction from civil conflict, inadequate budgets, and unclear institutional structures for rehabilitation severely limit water and sanitation infrastructure outside Phnom Penh. About 90% of the population has access to improved water sources in the capital, but this falls to 67% in other cities and 42% in rural areas. The situation is similar for sanitation.

Governance

There has been marked improvement in the rule of law, public administration and finance, and regulation of market activity during the last 2 decades. The improved governance framework enhanced property rights and transaction security, both vital for business. Despite these gains, continuing to strengthen governance will be crucial in speeding the country's economic transition to higher-income status.

The informal payments often needed to obtain government licenses, permits, and access to basic services are a major weakness in governance. The business community agrees: the World Economic Forum's Global Competitiveness Report 2013–2014 says corruption and inefficient government bureaucracy are major barriers to doing business in Cambodia. Reforms that combat corruption—such as the enactment of the Anti-Corruption Law in 2010 and measures under the Public Financial Management Reform Program—resulted in a slight decline in perceptions of corruption in recent years. Yet informal payments for government services are still common, raising investment, production, and logistics costs. They can also deter foreign direct investment, especially from countries with strict anticorruption laws.

Fiscal Resources

Cambodia's vast development needs require long-term and recurrent financing for hard and soft infrastructure. However, a narrow tax base and weak tax administration constrain the government's ability to generate revenue to advance its development agenda. Revenue collection averaged just 14% of GDP in 2010–2013, predominantly through indirect taxes. On the positive side, Cambodia continues to enjoy a peace dividend after decades of civil conflict ended in the late 1990s, reallocating government spending away from defense toward public services.

The government relies heavily on concessional loans and grants from development partners to meet its expenditure program. Over time, it must reduce this reliance and increase domestic resource mobilization through taxation and other forms of revenue generation, while improving management of existing revenues.

Access to Public Services and Social Protection

As mentioned earlier, marked regional disparities and income inequalities limit social service provision. Poor access to safe water and sanitation often leads to gastroenteric and diarrheal diseases in rural communities, damaging children's health in particular.

Access to social protection is also very limited due to the nascent development stage of the country's social protection schemes. The government has increased spending on social protection and has attempted to widen coverage, but progress has been slow. As the economy rapidly industrializes and urbanizes, a modern social protection system will be needed to replace the variety of traditional and informal means of providing social protection.

Special Challenge: Diversification and Upgrading

Cambodia faces the special challenge of diversifying and upgrading productive capabilities to improve both economic resilience and growth potential. Currently, economic output rests on four pillars: garments, rice, tourism, and construction. Although this provides some diversity among economic sectors, the mix is nonetheless limited and exposes the economy to demand disruptions and price shocks. The global financial crisis cut into garment production and exports, exposing the country's vulnerability to its narrow industrial focus. Moreover, about 80% of merchandise exports go to slow-growing markets in Canada, Europe, and the United States; only 15% of merchandise exports go to Asia.

Cambodia's export basket is rudimentary and has not changed much during the last decade. Diversifying into higher-value products and services will help the country avoid being caught in a low-wage, low-technology equilibrium. But it is equally important that diversification and upgrading be developed so they contribute to upgrading skills and creating good quality jobs.

Policy Recommendations

The constraints analysis used in this report leads to a series of key recommendations for policymakers (see Chapter 5 for the full list).

Human Development

Key Priorities

- Expand health care and encourage improved nutrition.
- Improve the quality of secondary education and raise completion rates.
- Provide an accreditation and certification framework for TVET.

Specific recommendations

- Increase the number of physicians and other health care professionals and expand health care coverage and access. Ensure effective implementation and financial management of the new health insurance program under the National Social Security Fund.
- Ensure that the first 1,000 days of life are well supported through nutrition and health care. Strengthen prenatal and postnatal care provided by primary health centers and provide support and funding for reproductive, maternal, newborn, and child health services.

- Strengthen public awareness of the importance of good nutrition. Provide adequate resources to expand school-based midday meal programs in poor areas to improve nutrition and encourage parents to send their children to school.
- Decrease the number of students per teacher, which is currently over 40 in many schools, to a maximum of 30 in primary schools and 25 in secondary schools. This will increase the time teachers can devote to each student and improve learning outcomes. Additional teachers will be required to meet these targets.
- Reduce the share of secondary school teachers who have not completed upper secondary education, from the current 20% to 10% by 2017 and to zero by 2022. Provide appropriate in-service and distance learning opportunities for teachers to upgrade their credentials.
- Improve the quality of pre- and in-service teacher training for better quality of instruction and learning outcomes. Review the curriculum and pedagogy to ensure that education and skills provided in secondary schools meet the needs of the job market or entry to higher education.
- Improve the quality and relevance of TVET to satisfy labor market demand. The National Employment Agency should provide better and more detailed information to the National Training Board and employers on current and future skills required.
- Promote private sector involvement in education policy in designing training programs, setting education standards, assessing TVET, and accrediting training institutes. Attract and secure private sector participation and investment in establishing sector-specific centers of excellence.

Infrastructure Development

Key Priorities

- Complete electricity generation expansion and reduce energy imports.
- Strengthen rural electricity enterprises and offer incentives to expand coverage.
- Expand the network of paved rural roads.
- Improve water and sanitation in rural towns and villages.

Specific Recommendations

- Integrate regional grids into a national network, which will be critical for supplying countrywide electricity and distributing generating capacity coming on stream in the next few years.
- Prioritize electricity provision to all villages by 2020 through combined improvement in generation, transmission, and distribution.
- Provide the government support necessary to ensure scheduled power generation capacity is on stream by 2020. This new capacity should reduce imported electricity from its current 64% share to below 30% by 2020 and help satisfy the expected increase in electricity demand.
- With increased generating capacity, a national grid, and improved rural energy supply, tariffs can be lowered and the large gap between rural and urban electricity prices reduced.
- Designate the Rural Electrification Fund as the central coordination agency for pooling funds from development partners for rural electrification. Ensure regular consultations with development partners to plan strategy and implementation. This approach could be modeled on programs where rural electrification has been successful, such as those of the central coordination agencies in Bangladesh and India.
- Ensure the Ministry of Public Works and Transport has sufficient funds for road development projects. Target a significant increase in road density and the share of paved roads, from the current 23% to 40% by 2025.
- Finish rehabilitating the railways to allow a greater share of bulk goods to be transported by rail and thus reduce heavy wear and tear on roads. Ensure rail connectivity with ports in Cambodia and Thailand.

- Upgrade, expand, and maintain urban and rural sewerage and drainage infrastructure outside the capital to fight disease and expand social inclusion.
- Enhance household sewage disposal through improved toilets and connections to sewerage systems and septic tanks. Campaign to reduce open defecation in rural areas from the nearly two-thirds of households today, targeting much lower levels by 2020.

Improved Governance

Key Priorities

- Strengthen the Anti-Corruption Unit and enforce the 2010 Anti-Corruption Law.
- Work with development partners to improve public sector administration and financial management.
- Improve legal capacity to settle commercial disputes.

Specific Recommendations

- Continue strengthening the Anti-Corruption Unit and ensure full implementation of the 2010 Anti-Corruption Law through education on corruption, measures to prevent corruption, and law enforcement. Violators should be prosecuted with sufficient penalties to deter corrupt practices.
- Publicize fees for processing public permits and licenses in offices and on government websites to increase transparency. This should include fees jointly published in late 2012 by the Ministry of Economy and Finance and the Council for the Development of Cambodia, and the fees announced early in 2013 by the Ministry of Commerce. Encourage other ministries to follow suit.
- Support reforms that combat corruption and strengthen the legal framework, such as the Anti-Corruption Law, the Public Finance System Law, and the Public Financial Management Reform Program. Promote civil society involvement in public contracts by introducing and institutionalizing digitized processes for bidding, procurement, and contract disclosure at both national and local government levels.
- With development partner support, continue to advance the four main reform programs in public sector management—the National Program for Administrative Reform, the Legal and Judicial Reform Program, the Decentralization and Deconcentration Reform Program, and the Public Financial Management Reform Program.

Fiscal Resource Management

Key Priorities

- Enhance revenue mobilization to meet public investment and social service demand.
- Strengthen government tax collection and administration.
- Increase the revenue share from direct taxes and explore other sources of revenue generation and savings.

Specific Recommendations

- Prioritize measures to improve revenue generation from the current 15% of GDP to 17% by 2018. Concentrate on taxpayer compliance measures and improve governance of tax collection agencies.

- Target a reduction in tax arrears through a focused strategy and a dedicated arrears collection team. Assess the effectiveness of the profit-tax exemption for attracting new investment to make the incentive less generous and more focused on attracting investment in nontraditional products and services.
- Widen the direct tax base by including more individuals and small firms while continuing the important work of the Large Taxpayers Department. Reduce exemptions on electricity, financial services, and petroleum. Generate additional revenue through broader application and, in some cases, higher rates for excise taxes on tobacco and diesel.
- Improve tax administration productivity through the greater use of information technology and more effective human resource recruitment and management. Offer a broader range of tax payment options through information technology and electronic banking.
- Prepare for increased social services spending and wider coverage of social protection over the medium term as fiscal constraints have aggravated the dilemma between meeting short-term growth targets and long-run social protection goals. Consolidate ad-hoc social programs and systematically implement social safety nets under a comprehensive national social protection system with sustainable long-term goals and plans.

1. DEVELOPMENT PERFORMANCE

Cambodia covers a land area of 181,035 square kilometers and has 15 million people. It ranks eighth in land area and seventh in population among the 10 member countries of the Association of Southeast Asian Nations (ASEAN). The vast majority of Cambodians are ethnic Khmer and Buddhist, thus avoiding the ethnic and religious tensions that have bedeviled other countries in the region (National Institute of Statistics [NIS], Cambodia Socio-Economic Survey [CSES] Tables).

The country borders three emerging economies—the Lao People's Democratic Republic (Lao PDR), Thailand, and Viet Nam—and has a vital link to the sea through its coast on the Gulf of Thailand. Plains in the Tonle Sap Basin and the Mekong Lowlands comprise about three-quarters of the country's topography. Upland areas are suitable for plantations, mainly for rainfed rice. The Mekong River enters Cambodia from the north before making its way to the sea through Viet Nam in the southeast. The flat, well-watered terrain is conducive to food production.

Agriculture (including fisheries) is a mainstay of the economy, employing over 70% of the workforce and contributing 37% of national value added. Large parts of the country are forested, although forestry is not a significant industry. Oil and natural gas deposits lie offshore and are being explored, but have yet to be exploited.

The economy has grown rapidly, with real per capita income doubling in the 12 years to 2013. Human development has improved, marked by a significant decline in poverty and gains across a range of socioeconomic variables. The key sectors of the economy have gone from strength to strength, with Cambodia now the world's 8th largest rice exporter and Asia's 10th largest garment producer. The tourism industry is riding on a wave of interest in the Angkor Wat temple complex, a world heritage site. Cambodia attracted 4.2 million international visitors in 2013 and generated $2.5 billion in tourism receipts (Ministry of Tourism [MOT] website).

These developments are nothing short of remarkable when set against the country's troubled past. Cambodia suffered grave internal conflict during the 1975–1979 Khmer Rouge regime, which ruptured the economy, caused widespread loss of infrastructure, and was a major setback in the country's human capital development. Viet Nam invaded in 1978 and occupied the country in the 1980s, and the government grappled with rebel groups into the 1990s. A peace accord was signed with rebel groups in 1991, but the last vestiges of armed opposition were only controlled in the late 1990s. Restored political stability provided a foundation for investment and a greater focus on economic priorities.

Despite significant socioeconomic progress since political stability was restored, Cambodia remains a low-income country. It is the second poorest country in the ASEAN, only just ahead of Myanmar. In 2009, about half of Cambodia's population lived on less than $2 per day. Sustained high growth will be essential for poverty reduction. Greater regional integration under the ASEAN Economic Community will provide new opportunities for growth, but also new competitive challenges for the country's productive sectors.

1.1. Maximizing Natural Growth Opportunities

Cambodia's strong growth performance resulted from its ability to capitalize on several natural growth opportunities. In agriculture, expanded

cultivation of fertile land, supported by ample water and a large rural labor force, led to major increases in rice production. In manufacturing, the country developed a vibrant garment and footwear sector, placing it on the first rung of the industrialization ladder. The manufacturing sector blossomed when investors sought new low-wage production sites with quota-free access to advanced markets. Garment and textile exports totaled $36 billion during 2001–2013 (Garment Manufacturers' Association of Cambodia [GMAC] website). And, as noted earlier, tourism is performing well.

Even so, key growth-supporting factors show weaknesses. The education and skills level of the workforce is low, despite recent efforts to increase enrollment. Energy costs are among the highest in Asia and supply is unreliable. Transport infrastructure, although improving, remains weak in key areas. Governance in government institutions is improving, but corruption remains a significant problem. Widespread use of the US dollar as currency in Cambodia ("dollarization") has removed currency risk, but poses a challenge to conducting effective monetary policy (Box 1.1).

Box 1.1. Managing Dedollarization

The US dollar is used extensively in payments and deposits in Cambodia. The share of dollars in circulation is difficult to estimate, but the ratio of foreign currency deposits, predominantly dollars, to broad money increased from 60% in the late 1990s to 80% in 2010.

Cambodia is heavily dollarized due to events of its recent economic history. During the Khmer Rouge period, the financial system was destroyed and the riel abolished. The riel was reinstated in the 1980s, but businesses and households were wary of the currency, mindful that it had been abolished, and put their trust in the dollar instead. Moreover, the presence of United Nations peacekeepers and election monitors in the early 1990s resulted in large inflows of dollars.

In other countries, expanded use of the dollar has been associated with macroeconomic instability; for example, in Chile, Colombia, and Peru. In Cambodia, the economy has been stable for the last 2 decades and growth has been strong. However, the use of the dollar has persisted and indeed increased. This is explained by the legacy of the dollar's use (that is, path dependence or what economists call hysteresis), the heavy inflow of dollars from garments exports and tourism, and an underdeveloped financial system.

A strong and widely used national currency is a symbol of pride and national sovereignty. Cambodia's main economic benefits are from seigniorage and the use of monetary policy instruments. Many countries have sought to reduce the level of dollarization, but drastic attempts to do this have more often than not produced negative results, as in the Lao People's Democratic Republic. Current thinking is that a gradual process of dedollarization is the best strategy. At a broad level, continued macroeconomic stability and a deepening of the financial system will provide the best conditions for raising confidence in the riel.

Higher reserve requirements are now being imposed on foreign currency deposits than on riel deposits. Other specific policies for Cambodia could include (1) devising a deposit insurance scheme with higher coverage on riel deposits, (2) requiring that prices be denominated in the riel, (3) requiring that official accounting and financial reporting use the riel, (4) making it easier and less costly to clear checks in the riel than the dollar, (5) encouraging the payment of wages in the riel in the private sector and among international organizations (to follow current practice in the public sector), and (6) setting the minimum wage in the riel instead of in the dollar.

Sources: Duma (2011); Menon (2008).

A narrow production base concentrated in rice, garments, tourism, and construction is also a challenge for enhancing and sustaining economic growth and poverty reduction. To secure a successful transition from a low-income to a middle-income country, Cambodia needs to improve its key growth-supporting factors and build competitive advantage in current sectors while expanding into new ones. All of this will require raising farm productivity, increasing value through agro-processing, indigenizing garment-making capabilities, adding new areas of light manufacturing, and expanding tourism options. The government is already focused on these challenges.

1.2. Economic Development Plans

Cambodia's economic strategy has evolved considerably over the last 4 decades. In the 1960s, the country developed a socialist economy that combined private enterprise with considerable state control and ownership in both rural and urban activities. A radical communist economic model was imposed during the Khmer Rouge period. The socialist model was resumed in the early 1980s, with a gradual move to a more market-oriented approach from the early 1990s. This transition followed the path taken by communist countries in the region at about the same time: the People's Republic of China initiated cautious market reforms in 1978 that gathered momentum by the early 1990s and Viet Nam began its market reforms in 1986. Both countries grew rapidly as a result of market reform, foreign investment, and capable economic leadership. Cambodia has followed a similar process.

Cambodia's economic direction is provided by a series of national economic plans and socioeconomic goals. The First Five-Year Program of Socioeconomic Restoration and Development, 1986–1990, prioritized the agriculture sector, infrastructure, and reconstruction. This was followed by the 1994 National Program to Rehabilitate and Develop Cambodia. This was the first full-fledged comprehensive national program that provided a long-term development vision and it became the framework for subsequent national plans (Box 1.2).

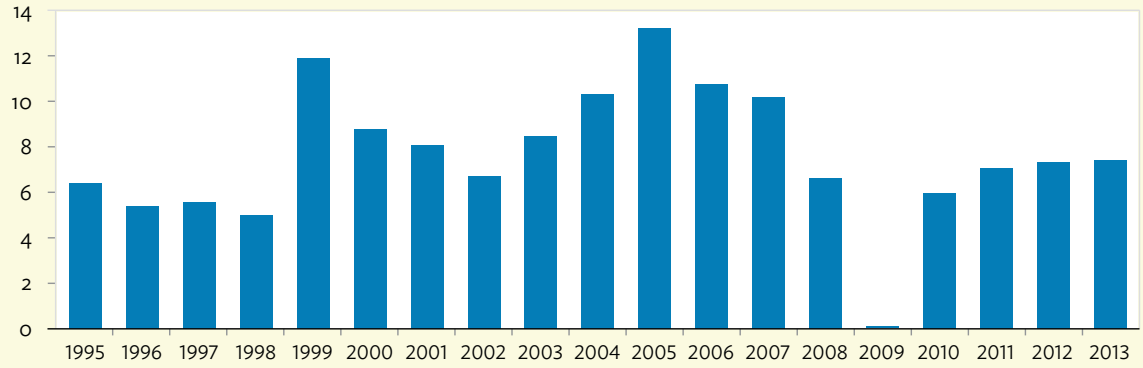
Next came the Socio-Economic Development Plan in 1996, which was supported by the Public Investment Program, a 3-year rolling investment program. In 2000, the United Nations Millennium Summit adopted the Millennium Development Goals (MDGs), which the government supported by setting specific MDGs. In late 2002, the government adopted the National Poverty Reduction Strategy. Trade agreements, accession to the World Trade Organization in 2004, and the significant flow of foreign direct investment (FDI) helped boost the industry sector, particularly manufacturing. Since 2004, national strategic development plans have been pursued using the Rectangular Strategy for Growth, Employment, Equity, and Efficiency adopted by the government in that year. The current National Strategic Development Plan emphasizes good governance; achievement of macroeconomic balances in trade, budget, and inflation; and the promotion of growth and diversification. The plan aims to ensure a better quality of life for Cambodians in a democratic, rules-based society.

A significant element in the country's growth strategy is integration with regional and global economies. This is seen most clearly in an open regime for FDI, greater involvement in international trade, and heightened participation in regional integration bodies and development vehicles. The creation of the ASEAN Economic Community in 2015 will provide additional support to the growth process. Recent estimates suggest that, among ASEAN's 10 member countries, Cambodia will reap the greatest gains from economic community (Itakura 2012). Benefits will accrue from tariff reductions, liberalization of services, and improvements in trade facilitation. Cambodia also stands to gain from the ASEAN+ initiatives in which the bloc negotiates free trade and comprehensive economic agreements with countries in Asia and beyond.

Box 1.2. Socioeconomic Development Plans and GDP Growth

Economic Development Plans in Cambodia since 1996	Rectangular Strategy for Growth, Employment, Equity, and Efficiency in Cambodia The overarching economic development strategy of the government adopted in 2004 based on the fundamentals of sustaining peace and order, broad-based long-term economic growth, equitable distribution of opportunities and income, and environmental sustainability.			
Socioeconomic Development Plan (SEDP) I 1996–2000	**SEDP II 2001–2005**	**National Strategic Development Plan (NSDP)**	**NSDP Update 2009–2013**	**NSDP 2014–2018**
Promotion of macroeconomic stability through employment, social reconstruction, and development of rural areas	Implementation of the Triangle Strategy based on peace and stability, integration into the international community, and promoting social and economic development	Execution of the government's development vision as articulated in the Rectangular Strategy, emphasizing good governance, macroeconomic balance, growth, and diversification in a democratic society.		

Figure B1.2. Gross Domestic Product Growth, 1996–2013 (%)



GDP = gross domestic product.
Sources: World Bank, World Development Indicators (WDI), accessed July 2014; Ministry of Planning (MOP) (2009).

1.3. Macroeconomic Performance

Cambodia's gross domestic product (GDP) expanded at an average annual rate of 7.6% in 1995–2013 (Table 1.1). Growth did not fall below 5% during that period, except in 2009, and the economy achieved double-digit growth for 4 consecutive years in the mid-2000s, fueled by significant garment exports and good farm yields.

Cambodia weathered the Asian financial crisis in 1997–1998 and the global financial crisis in 2008–2009. Its GDP grew by 5.7% in 1997 and 5.0% in 1998, when countries with open capital accounts (including Indonesia and Thailand) recorded low or negative growth. During the 2000s, with accession to the World Trade Organization, Cambodia became much more integrated with the global economy. This generated considerable benefit, but also increased the country's vulnerability to shocks. Because of its close trade links with Europe and the United States, Cambodia's GDP fell to below 1% in 2009 amid the global financial crisis, although it also rebounded quickly. GDP expanded by 7.5% in 2013 (Table 1.1), and projections suggest that the growth could continue to expand by as much as 7.0% or more annually into the 2020s (International Monetary Fund [IMF] 2014).

Continued growth has resulted in a large expansion in output. The economy in 2013 was 3.8 times its size in 1995 and 1.7 times its size in 2005, measured in constant 2005 dollars. Other economies in the region expanded at lower rates in 1995–2013, including the Philippines (2.3 times), Indonesia (2.1 times), and Thailand (1.7 times). The Lao PDR and Viet Nam expanded at a similar but slightly lower rate—3.4 and 3.1 times, respectively (World Bank, World Development Indicators [WDI] database).

Despite robust economic expansion, Cambodia is among Asia's poorest countries, with per capita GDP of $1,008 in 2013, a level comparable to Afghanistan, Bangladesh, Myanmar, Nepal, and Tajikistan (Table 1.2). What is more, Cambodia's neighbors have also grown rapidly in recent years. Per capita income in the Lao PDR and Viet Nam are above $1,500 and both are now classified as middle-income countries. And other ASEAN countries are considerably more affluent, including Indonesia at $3,557 and Thailand at $5,480 (Table 1.2).

Table 1.1. Broad Indicators of Socioeconomic Growth, 1995–2013

	1995	2005	2008	2009	2010	2011	2012	2013
Current GDP ($ million)	3,441	6,293	10,332	10,402	11,242	12,830	14,054	15,250
GDP Growth Rate (%)	6.5	13.3	6.7	0.1	6.0	7.1	7.3	7.5
Inflation Rate (%)	7.8	5.8	19.7	-0.7	4.0	5.4	2.9	2.9
Current Account Balance (% of GDP)	−3.1	−3.6	−7.9	−7.5	−6.9	−5.5	−8.6	−8.5
Fiscal Balance (% of GDP)	−7.2	−0.7	−0.1	−6.3	−3.1	−4.3	−2.3	−5.3
Total Reserves minus Gold ($ million)	192	953	2,292	2,851	3,255	3,450	4,267	4,516
Exchange Rate (KR/$)	2,451	4,093	4,054	4,139	4,185	4,059	4,033	4027
Poverty Incidence	50.2 (2004)		34.0	23.9	22.1	20.5	...	...
GINI Coefficient	41.9 (2004)		37.9	36	...	...	...	...

... = data not available, GDP = gross domestic product, KR = Cambodia riel.
Sources: Asian Development Bank (ADB), Statistical Database System (SDBS) website; World Bank, WDI; both accessed July 2014; National Bank of Cambodia (NBC) (2013) for fourth quarter 2013; and Ministry of Economy and Finance (2014) for December 2013.

Table 1.2. Per Capita Income in Selected Asian Countries, 1995–2013

	GDP per Capita (current $)				
Country	**1995**	**2000**	**2005**	**2012**	**2013**
Afghanistan	...	...	252	688	678
Nepal	214	237	321	690	694
Bangladesh	317	356	421	752	829
Cambodia	**320**	**299**	**471**	**946**	**1,008**
Tajikistan	213	139	340	953	1,037
Pakistan	479	514	694	1,260	1,299
Lao PDR	362	321	472	1,417	1,646
Viet Nam	288	433	699	1,755	1,911
Sri Lanka	718	855	1,242	2,923	3,280
Indonesia	1,041	790	1,273	3,557	3,475
Thailand	2,849	1,969	2,690	5,480	5,779

... = data not available, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.
Source: World Bank, WDI database, accessed July 2014.

1.4. Economic Growth by Major Expenditure Component

Cambodia's economy exhibits a fair degree of structural balance between the four main expenditure components—consumption, investment, government spending, and net exports. The main weakness is investment, which remains lower than desirable for a country trying to maintain rapid growth. As a share of GDP, investment increased steadily from an average of 15% in 1995–1999 to over 20% in the last few years (Figure 1.1). All the same, the investment ratio is lower than that in surrounding countries, including the Lao PDR and Viet Nam, which are at a similar or slightly more advanced stage of development. The high rate of output growth, given the relatively modest investment ratio suggests high social returns to capital. Given the development needs of capital-scarce Cambodia, the general upward trend in investment's share of GDP is welcome.

Average investment spending grew 13% annually during 1995–2011, with large variations in some years (World Bank, WDI database). For example, investment fell 23% in 1998 before increasing to 57% in 1999. Similarly, investment rose 16% in 2008 before falling 8% in 2010. Since 2007, investment has been growing less rapidly than in the earlier part of the decade. Growth in investment accounted for 23% of GDP growth on average during 1995–2011 (Figure 1.2).[1]

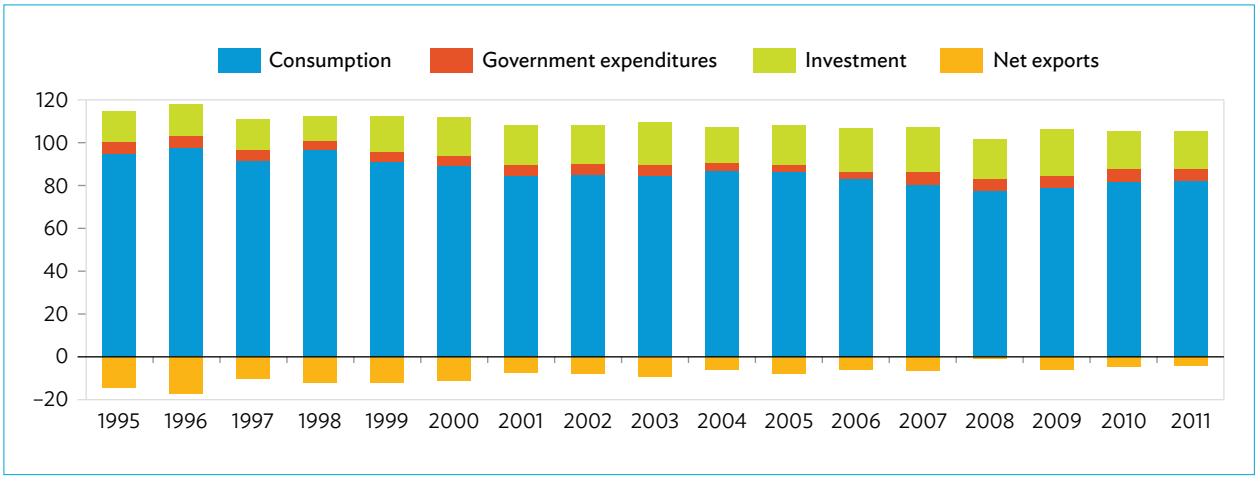
Although the bulk of aggregate demand is accounted for by private consumption, its share of GDP has fallen steadily, from 91% in 1999 to just over 80% currently. The decline is accounted for by a rising share of investment. Overall, consumption expanded 7% annually on average in 1995–2012.

Government expenditure has been fairly constant since 1995, at 4%–6% of GDP, although fiscal stimulus to counter the 2008 global financial crisis sent it higher than 7% of GDP during 2009–2012. Government expenditure contributed 0.35 percentage points on average to GDP growth during 1995–2012.[2]

[1] This average figure excludes 2009 data because the impact of the 2008 global financial crisis was reflected in 2009 statistics. Including the 2009 figure could significantly alter the computed average annual contribution of investment to GDP growth.

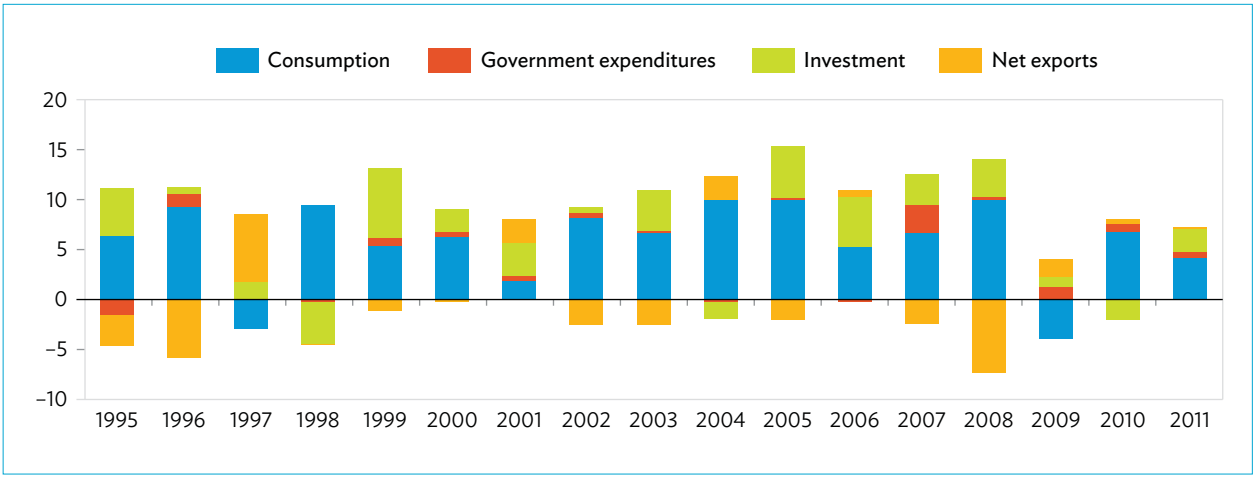
[2] The average excludes 2009 when the government undertook a large stimulus program; using 2009 data would distort the average for 1995–2012.

Figure 1.1. Shares of Major Expenditure Components in GDP, 1995–2011 (%)



GDP = gross domestic product.
Source: World Bank, WDI database, accessed October 2014.

Figure 1.2. Contribution of Major Expenditure Components to GDP Growth, 1995–2011 (%)

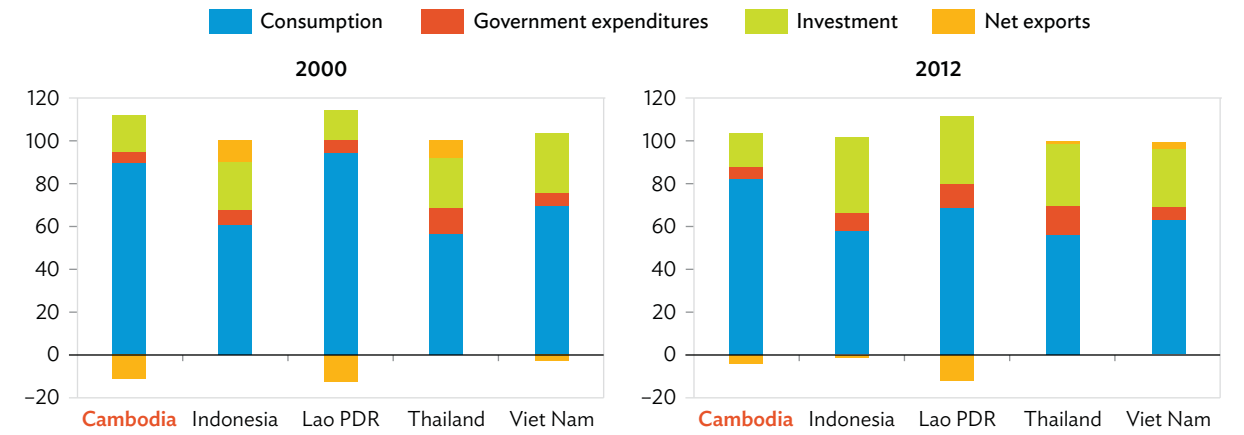


GDP = gross domestic product.
Source: Calculations using data from World Bank, WDI database, accessed October 2014.

Exports have grown rapidly, supported, as noted earlier, by rising garment and tourism receipts. Overall, the trade balance is negative although the extent is not large and is offset by positive capital inflows. Cambodia's export sector has played a vital role in the country's emergence. In 1995–2012, exports were equal to 59% of GDP, with an annual growth rate of 15%. Imports were higher—67% of GDP—and grew at a slightly slower pace of 13% a year. The contribution of net exports to growth averaged only 0.50 percentage points in 2010–2012 and was mostly negative in earlier periods.

Consumption's share of expenditure in GDP in Cambodia is higher and investment's share is lower than in neighboring countries (Figure 1.3). The average consumption share was 88% during 2000–2012, comparable to the Lao PDR's 85%, a country closer to Cambodia's income level, and much higher than Indonesia's 69%, Thailand's 68%, and Viet Nam's 74%. In the same period, Cambodia's investment share averaged 19%, below the rates for the Lao PDR (24%) and Viet Nam (33%)—its comparator countries—as well as more developed countries in the region.

Figure 1.3. Major Expenditure Components in Selected Asian Countries, 2000 and 2012 (% of GDP)



GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.
Sources: ADB (2013b); World Bank, WDI database, accessed January 2014.

1.5. Monetary Policy and Financial Sector Management

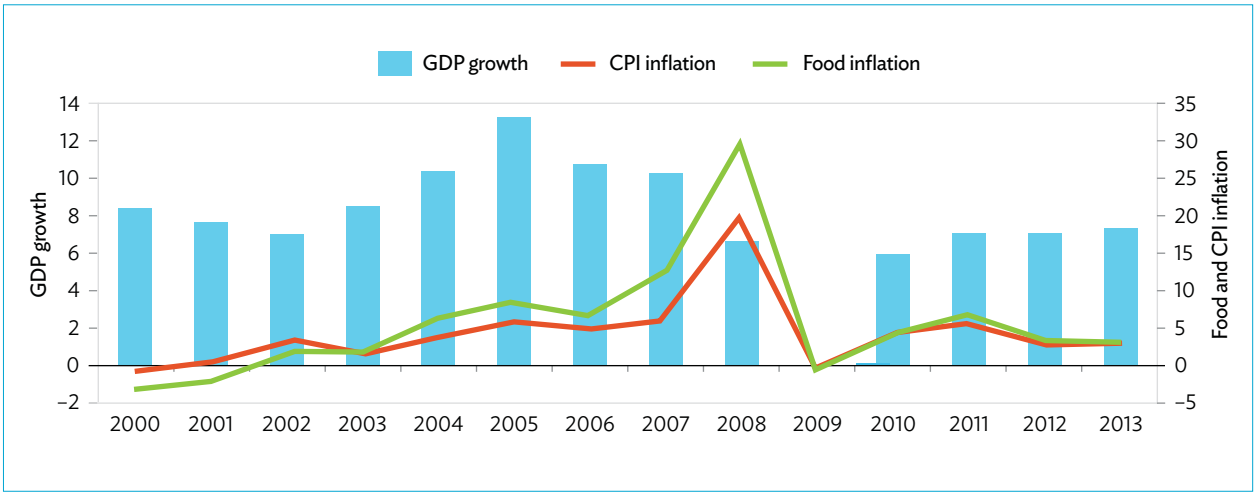
Monetary policy in Cambodia is determined and implemented by the National Bank of Cambodia (NBC), the country's monetary authority. The NBC's primary mission is to maintain price stability and develop and maintain a stable financial sector to support sustainable economic growth through efficient resource mobilization, private sector development, employment generation, and FDI (Chantana 2007). The NBC's Policy Committee formulates monetary policy with assistance from the Economics Research and International Cooperation Department.

The main tools the NBC uses to contain inflation are reserve requirement and foreign exchange management. In general, inflation has stayed within manageable levels, averaging 3.3% annually between 2001 and 2013 (if the 19.7% spike in 2008 is excluded). From very low levels in the early 2000s, inflation began escalating after 2003 on economic recovery and rising food and oil prices (Figure 1.4). In response, the NBC tightened monetary policy. During 2008's spike in inflation, the reserve requirement was raised from 8% to 16% to reduce money supply. The NBC also put a cap of 15% on bank lending to the real estate sector in June 2008 to contain rapid credit growth and prevent an asset price bubble from forming.

Because of a highly dollarized and cash-based monetary system, the NBC has limited capacity to conduct effective monetary policy. Monetary policy objectives are mostly met by using the reserve requirement and limiting monetary financing of the budget deficit to control base money and minimize pressure on the exchange rate and general price levels. During the early 2000s, when the market was still shallow and structural banking reforms were just beginning to gain traction, high levels of growth in the monetary base coincided with periods of widening fiscal deficits. More recently, the NBC has been better able to keep growth of the monetary base in check despite higher fiscal deficits, and particularly a sharp rise in 2009 caused by expanded fiscal spending to counter the impact of the global financial crisis (Figure 1.5). With economic expansion becoming more robust since the recovery in 2010, the NBC has gradually raised the reserve requirement (IMF 2013).

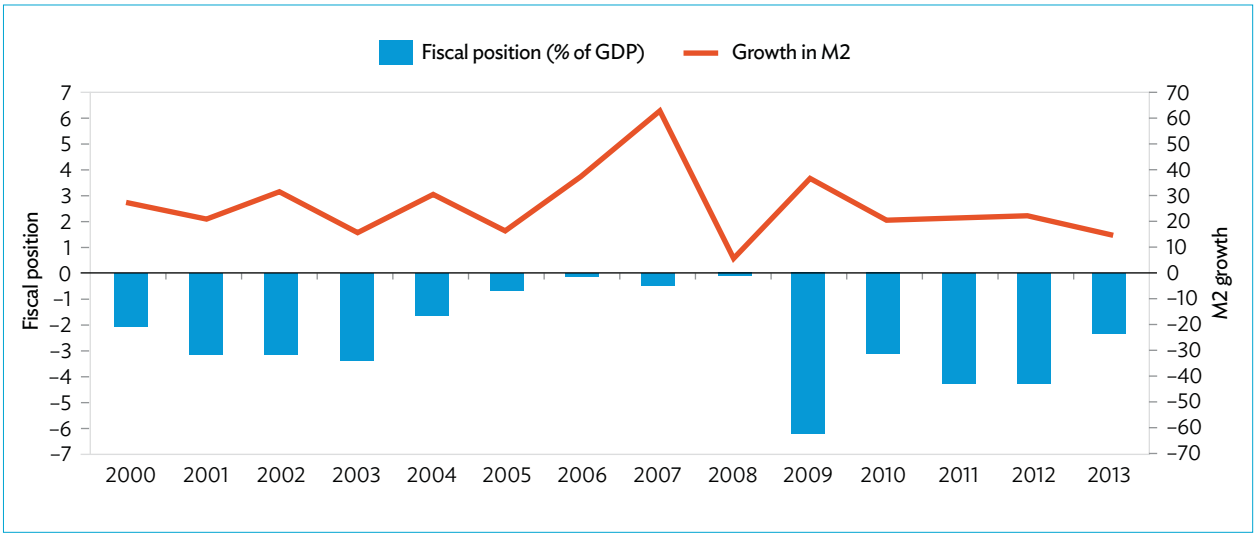
The foreign exchange rate mechanism is also a critical instrument for the NBC. Cambodia has had a managed floating exchange rate regime since

Figure 1.4. GDP Growth and Inflation, 2000–2013 (%)



CPI = consumer price index, GDP = gross domestic product.
Source: ADB (2014a).

Figure 1.5. Growth of Money Supply and Fiscal Balance, 2000–2013 (%)

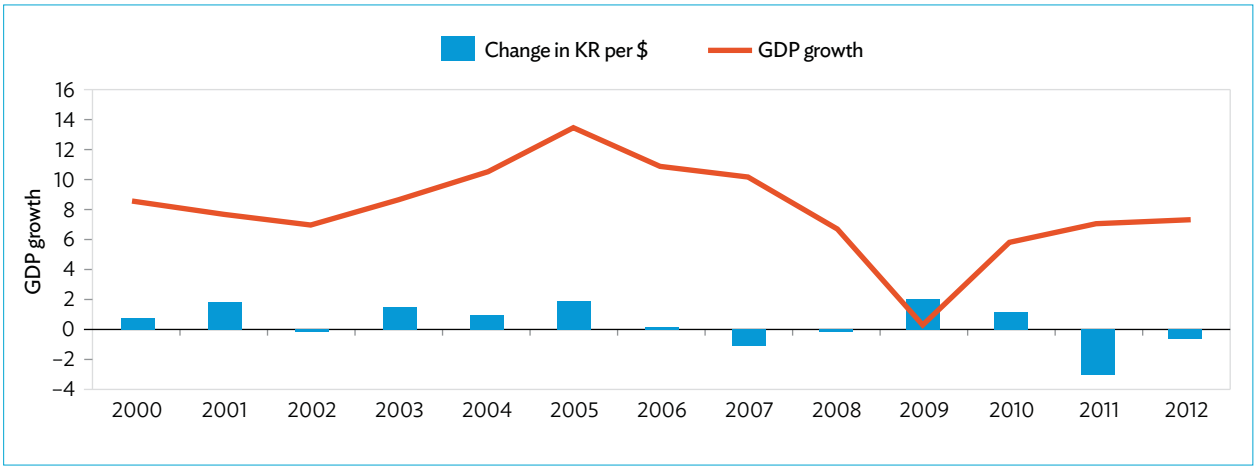


GDP = gross domestic product.
Source: ADB (2014a).

1992, with the NBC intervening when necessary to keep the exchange rate stable. The riel depreciated sharply against the dollar in the early 1990s. But as the economy developed, the depreciation has steadied, averaging 8.4% annually from 1995 to 1999. Since 2000, the exchange rate has become more stable, with average annual depreciation of 0.4% during 2000–2012 (Figure 1.6). The riel depreciated by more than 2% in 2009, reflecting the impact of the global financial crisis, but quickly recovered its value as the growth has picked up.

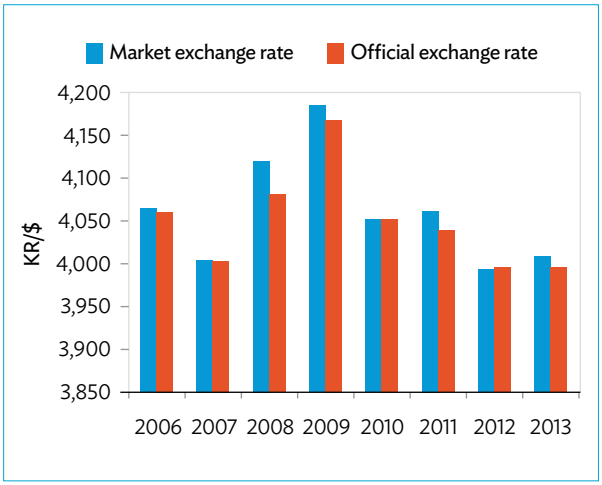
The Foreign Exchange Law (1997) allows unrestricted money transfers out of the country. The official exchange rate reflects the foreign currency demand and supply dynamics between the NBC, the government, and the public sector. A parallel market rate determined by a freely floating mechanism governs all private sector transactions, but the government has been successful in keeping the differential between the official and market rates very low; that is, within a 1% range (Figure 1.7).

Figure 1.6. GDP Growth and Change in the Exchange Rate, 2000–2012 (%)



GDP = gross domestic product, KR = riel.
Note: Positive changes in the exchange rate represent a depreciation of the riel against the dollar.
Source: ADB (2013b).

Figure 1.7. Official and Market KR/$ Exchange Rates, 2006–2013



KR = riel.
Source: NBC, Economic and Monetary Statistics, various issues.

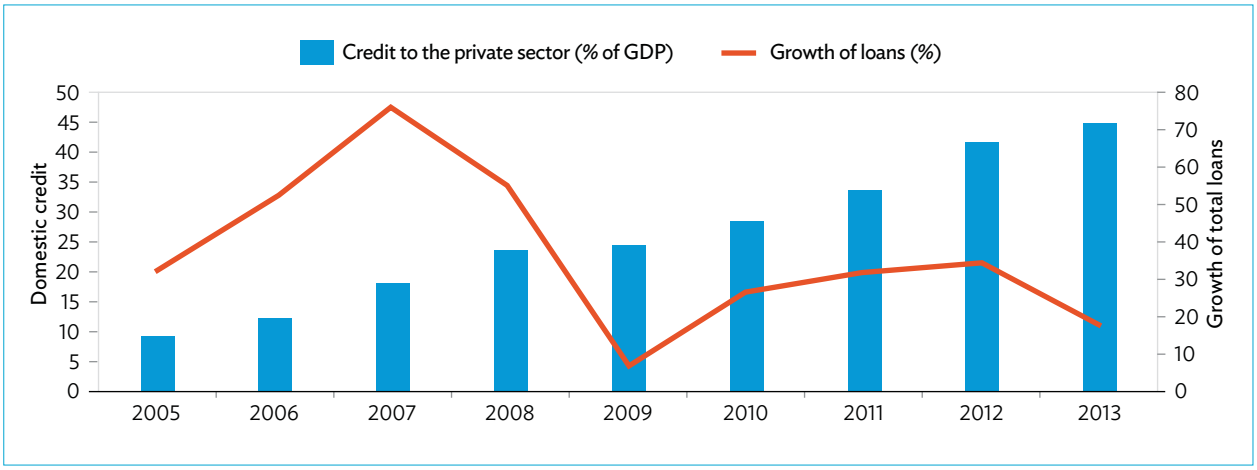
Cambodia has taken steps to develop an interbank market and make its monetary policy operations more market based. In 2008, the NBC introduced a liquidity shortage resolution scheme to allow banks to request temporary overdraft facilities (NBC 2009). This was bolstered in January 2009 with the issuance of a government proclamation (known as a *prakas*) to assist eligible financial institutions with their liquidity requirements.[3] In 2013, the NBC introduced the negotiable certificates of deposits in line with the Financial Sector Development Strategy 2011–2020.

The government has sought to develop the legal framework for a stable, efficient, and transparent financial sector, a process that began with the Law on Banking and Financial Institutions (1999). Additional laws on Negotiable Instruments and Payments Transactions (2005) and Anti-Money Laundering and Combating Financing of Terrorism (2007) were passed. A Law on Financial Lease has been drafted.

The Financial Sector Blueprint 2001–2010 and the Revised Blueprint 2006–2015 have been instrumental in providing strategic guidelines for financial sector development, supervision, and policy making. In November 2011, the government adopted the Financial Sector Development Strategy 2011–2020 for medium-term financial sector development.

[3] A *prakas* is a proclamation of a ministerial or an interministerial decision signed by the relevant minister. For the financial sector, a *prakas* may be signed by the finance minister or the NBC's governor.

Figure 1.8. Domestic Credit Provided by Banks and Growth of Total Loans, 2005–2013



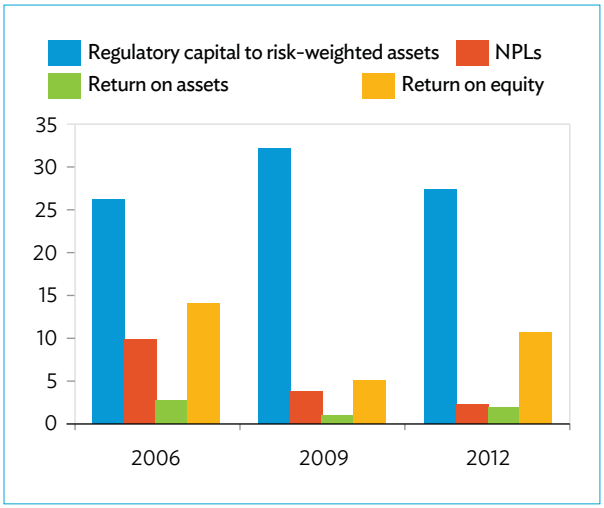
GDP = gross domestic product.
Source: ADB (2014a).

Cambodia's financial landscape is changing rapidly as a result of government reforms and the growth of bank operations. Between 2006 and 2012, bank assets grew at an average of 33% per year. Total loans grew by 71% in 1996–1999, by 134% during 2000–2005, and by 661% during 2006–2013, reflecting the development of both the financial sector and the real economy. Credit provided to the economy equaled 45% of GDP in 2013, up from just 9% in 2005 (Figure 1.8).

The banking system is now stable and well capitalized (Figure 1.9). The capital adequacy ratio—the ratio of regulatory capital to risk-weighted assets—has been considerably above the regulatory minimum of 15% since 2004. The share of nonperforming loans to total loans has declined from 9.9% in 2006 to 2.3% in 2012. Return on assets and return on equity were at 2.0% and 10.7%, respectively, in 2012, and have recovered from depressed levels of 1.0% and 4.9% in 2009, underscoring the renewed vigor of financial institutions.

Strengthened supervisory capacity is helping safeguard financial stability. In 2006, the NBC introduced the Cambodian Off-Site Bank Reporting for Prompt Corrective Action, a computerized monitoring tool to enhance banking supervision. With this and other capacity-building efforts, the ratio of nonperforming loans to total loans (and

Figure 1.9. Health of the Banking Sector, 2006–2012 (%)

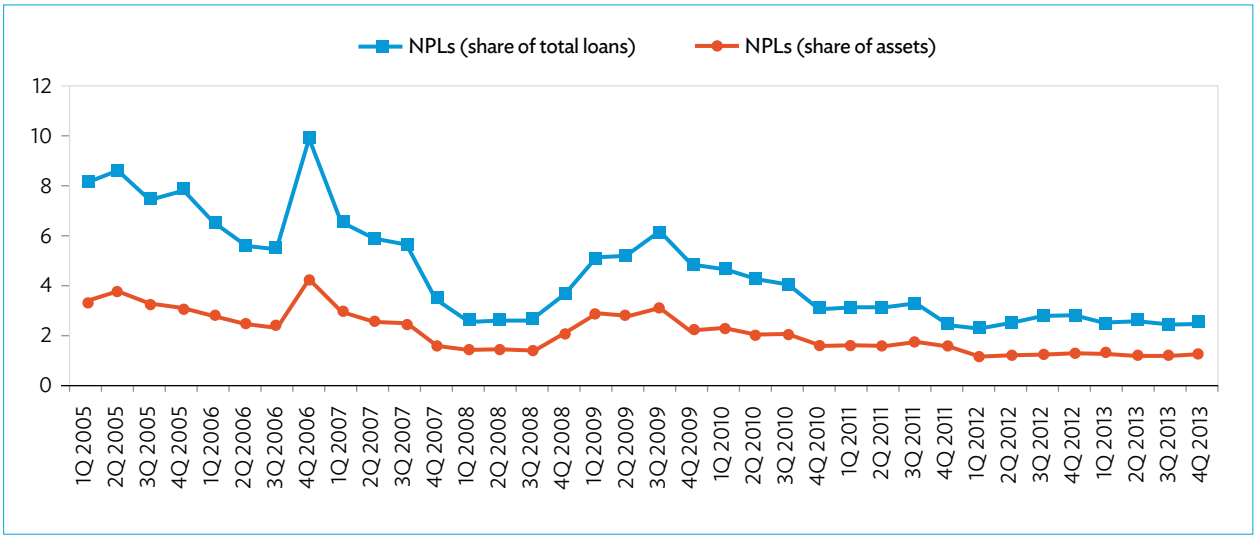


NPL = nonperforming loan.
Sources: International Monetary Fund (IMF) (2009, 2012, 2014).

total assets) has declined since the mid-2000s (Figure 1.10).

The NBC continues to work to strengthen and deepen the financial sector through the Financial Sector Development Strategy 2011–2020 (ADB 2012b). Institutional support for modernizing the financial system—such as establishing the Cambodia Stock Exchange and Cambodia Credit Bureau—has increased in recent years. A moratorium on

Figure 1.10. Nonperforming Loans, 2005–2013 (%)



NPL = nonperforming loan.
Source: CEIC Global Database, accessed July 2014.

issuing bank licenses is being considered to trim overbanking.[4] Technical preparations are under way for the securitization of central bank deposits, which will be crucial for establishing an interbank market to manage riel and dollar liquidity more efficiently and, eventually, these changes should enable the NBC to manage monetary policy better. The NBC is also seeking to increase financial access for low-income groups and promote greater use of the riel.

1.6. Fiscal Policy

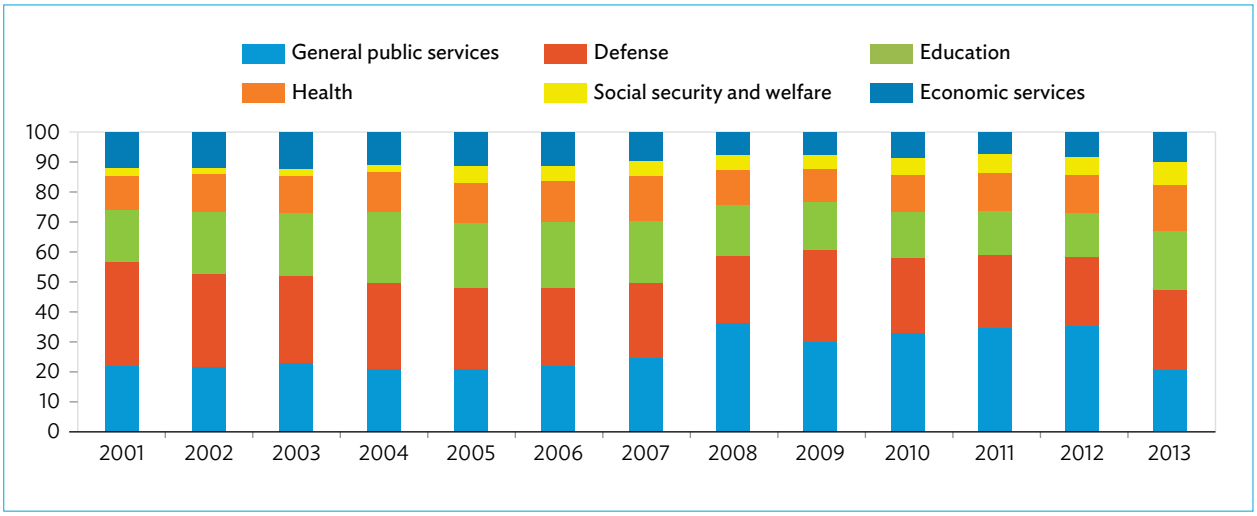
Because the economy's highly dollarized structure limits the use of traditional monetary policy, fiscal policy has been a key tool for promoting economic growth, reducing poverty, and providing short-term demand stimulus. Public spending needs for infrastructure and social services are enormous, yet funds are limited by the low revenue base. The government balanced these pressures and maintained a low fiscal deficit prior to 2008, but then engaged in fiscal expansion to cushion the economy from global financial crisis. The government has since tried to reduce the fiscal deficit to create fiscal space to counter future shocks. It has also worked to increase and better manage its revenues to provide necessary funding for development expenditures.

On the expenditure side, the focus has been supporting economic growth and social spending to protect vulnerable members of society. Over the last decade, spending on social security and welfare, health, and education, along with general public services, has been increased to help achieve MDG targets and reduce poverty. The share of government spending on social security and welfare services tripled during 2001–2013. Health and education were also given priority in the overall government budget, with shares rising substantially from 2001 to 2007. Health spending's share rose from 11% to 14% and education from 17% to 20% in that period. Despite the adverse budgetary impact of the global financial crisis during 2008–2012, the shares of health and education spending in 2013 stood at 16% and 19% of total government expenditure respectively (Figure 1.11). Overall, fiscal expenditure as a share of GDP rose from 8% in 2000 to 11% in 2013.

The fiscal deficit rose to 6% of GDP in 2009, mainly as a result of stimulus spending to counter the effects of the global financial crisis (Figure 1.12). The

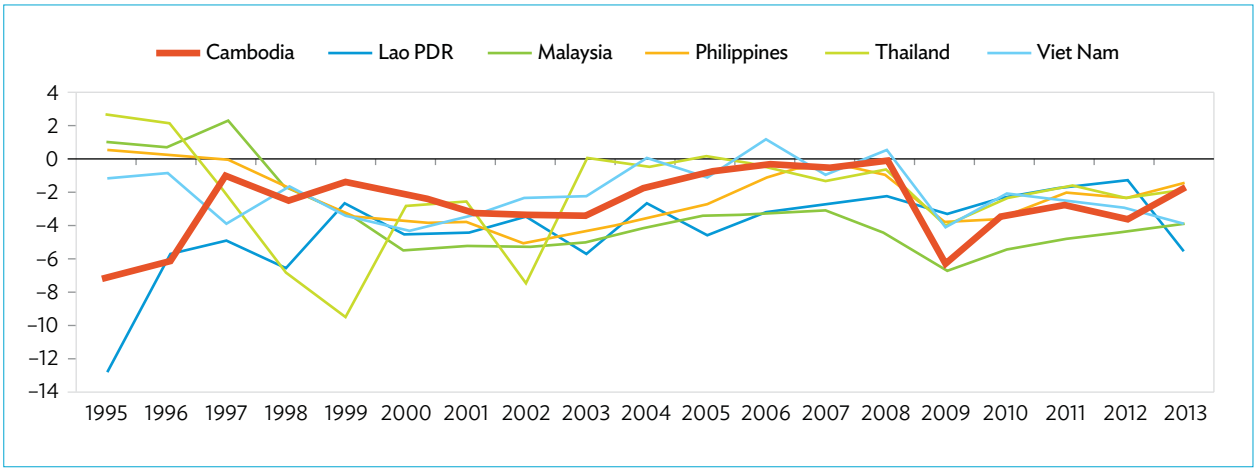
[4] "Overbanking" refers to a situation in which there are too many banks for the total market size to sustainably support.

Figure 1.11. Government Expenditure by Function, 2001–2013 (% of total)



Source: ADB (2014a).

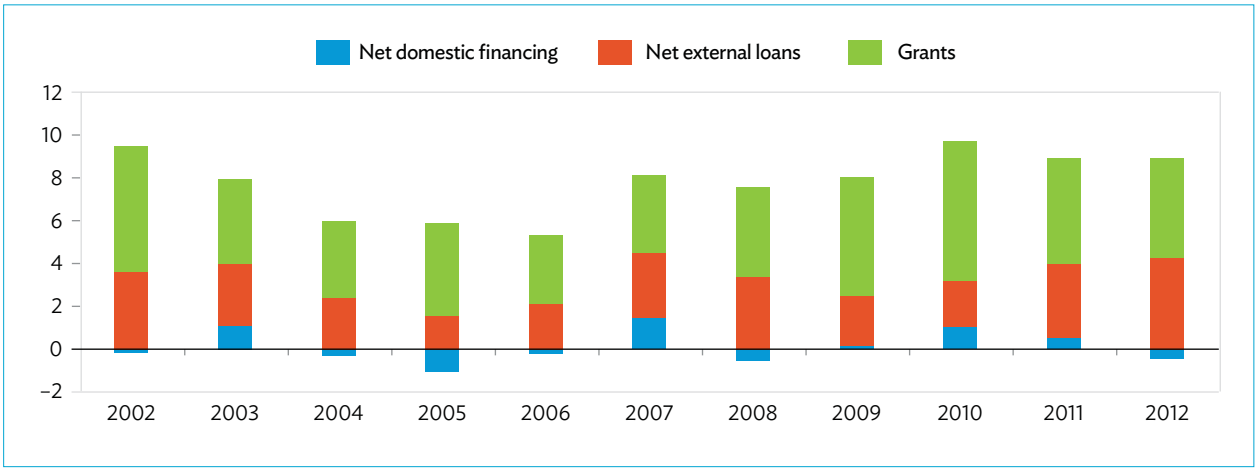
Figure 1.12. Overall Fiscal Balance in Selected Asian Countries, 1995–2013 (% of GDP)



GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.
Source: ADB, SDBS, accessed October 2014.

deficit has since been reduced, to about 2% by 2013, similar to levels of other ASEAN countries. The government is trying to avoid domestic financing of the budget deficit to dispel inflationary pressures and keep the macro economy stable. More importantly, prudent fiscal policymaking is essential to maintaining fiscal credibility, a factor that makes the business environment attractive, particularly to foreign investors. The share of external financing in GDP varied during the last decade and was 4.3% in 2012 (Figure 1.13). Grants have been most useful in patching budgetary deficiencies, especially in light of fiscal consolidation efforts in recent years. The share of grants in total revenue and in GDP averaged 25.4% and 3.3%, respectively, in 2009–2012.

Figure 1.13. Fiscal Deficit Financing, 2002–2012 (% of GDP)



GDP = gross domestic product.
Sources: World Bank, WDI database, accessed October 2014.

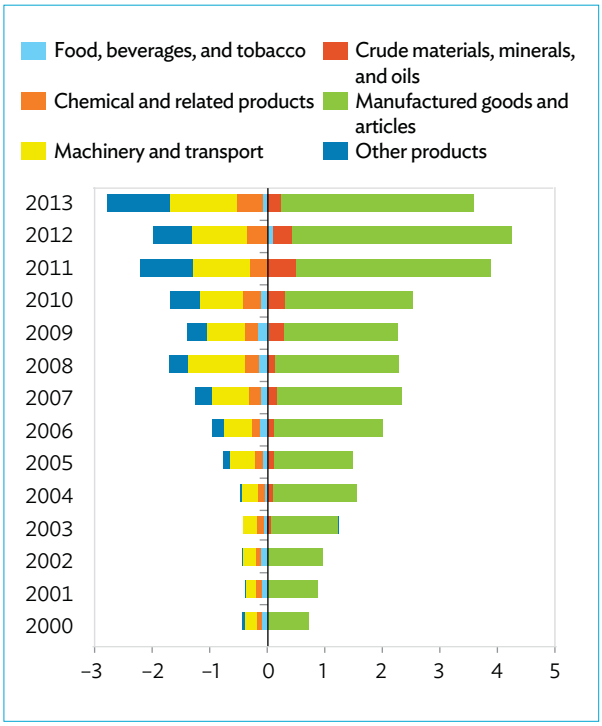
1.7. Balance of Payments

Cambodia runs a balance-of-payments surplus with investment inflows and foreign aid offsetting a persistent current account deficit, allowing foreign exchange reserves to increase steadily. A positive trade balance in manufactured goods has helped cover negative balances in nearly all other goods, including food, chemicals, and machinery (Figure 1.14).

The current account deficit increased in 2011–2013 and was supported by increased investment and aid flows. The deficit widened to 10.5% of GDP in 2013, much higher than the usual range of 3%–5% and exceeding the previous high of 7.9% in 2008 (Figure 1.15). A narrow export base and undiversified manufacturing sector leave the economy vulnerable to slower growth in key export markets.

Political and macroeconomic stability together with a liberalized and export-oriented development policy attracted significant FDI into key sectors such as garments, construction, tourism, and agriculture. In 2012, FDI at $1.5 billion was almost twice its level prior to the global financial crisis (ADB, SDBS). Foreign aid as a share of GDP rose 50% during 2010–2012. Gross official reserves rose from just under

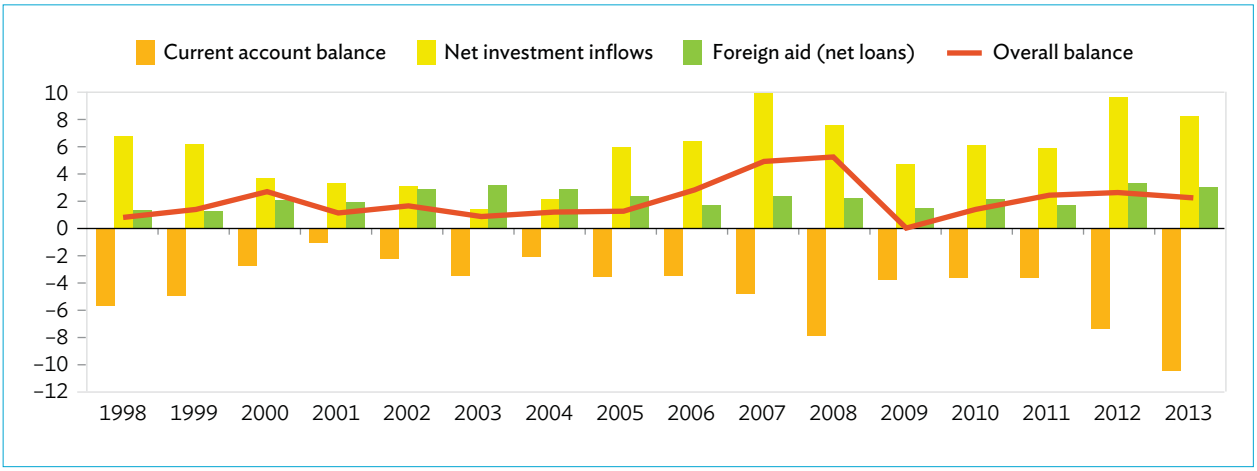
Figure 1.14. Net Exports, 2000–2013 ($ billion)



Source: UN Comtrade database, accessed October 2014.

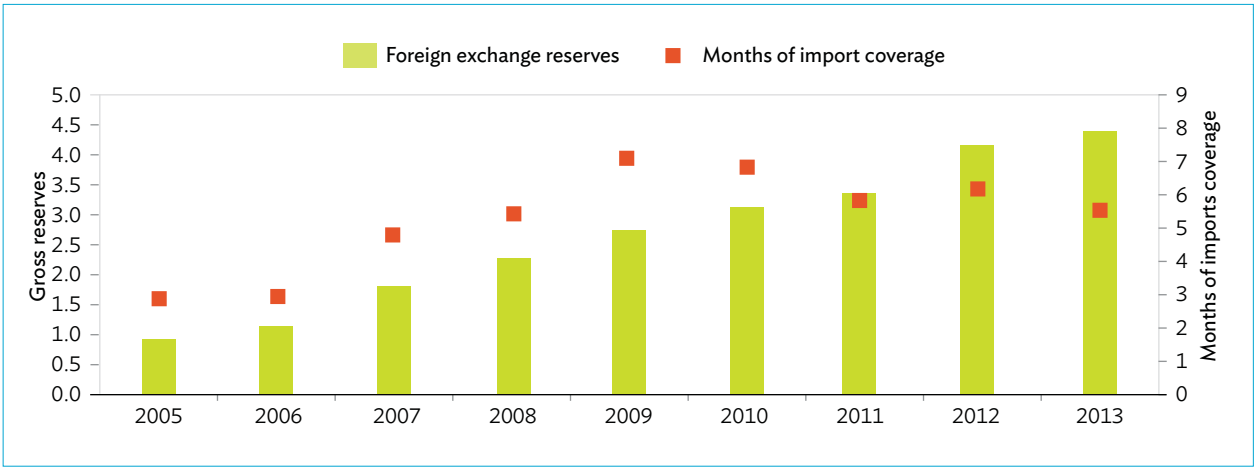
$1.0 billion in 2005 to $4.4 billion at the end of 2013, providing coverage for 5.5 months' worth of imports (Figure 1.16).

Figure 1.15. Balance of Payments, 1998–2012 (% of GDP)



GDP = gross domestic product.
Source: ADB, SDBS; IMF elibrary; both accessed January 2014.

Figure 1.16. Gross Reserves and Months of Import Coverage, 2005–2013 ($ billion)



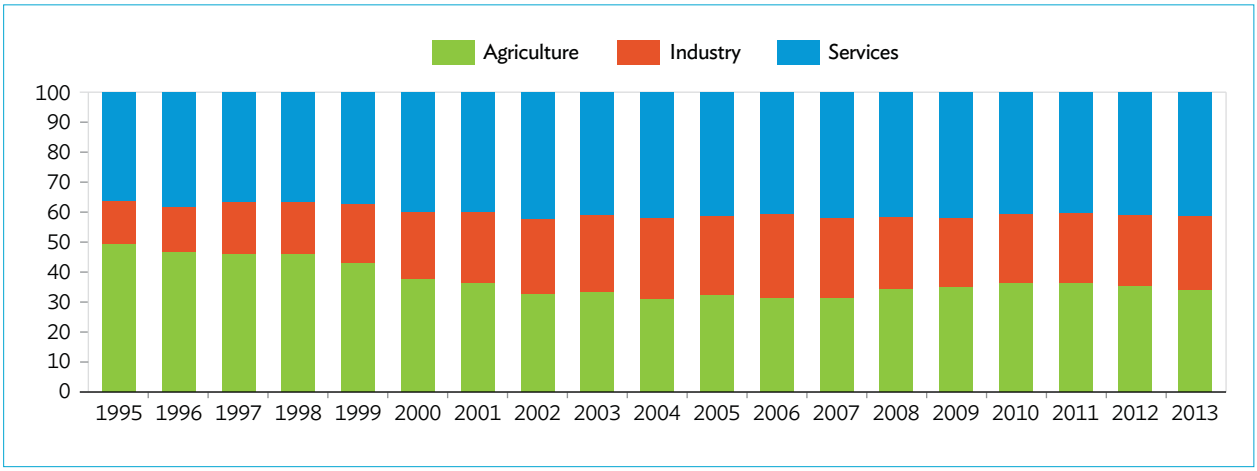
Source: Calculations using data from ADB (2014a).

1.8. Sources of Economic Growth, by Production Sector

Cambodia's production structure is balanced between agriculture, industry, and services. Agriculture's share of national output has declined, falling from almost half of national output in 1995 to 34% in 2013. During the same period, industry's share rose from 15% to 26% and that of services from 36% to 41%. This pattern is typical of a fast-growing, low-income country involved in a process of structural transformation (Figure 1.17).

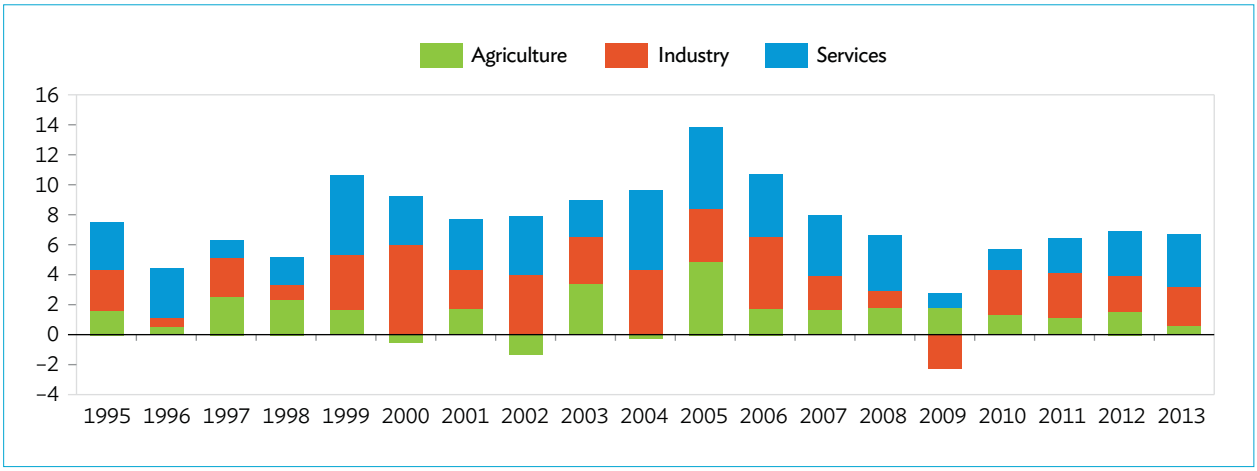
All three sectors have contributed to growth during the last 2 decades (Figure 1.18). Industry and services made more substantial contributions, as part of the process of structural transformation away from farming. Industry's proportional contribution to GDP growth averaged 37% annually during 1995–2008 and accelerated to 41% in 2010–2013. Agriculture remains an important economic sector, and efforts to increase its output further are critical to inclusive growth, because a large proportion of the workforce is engaged in the sector. The services sector, which grew year-on-year for nearly 2 straight decades (with the exception of 2008), contributed

Figure 1.17. Shares of Major Production Sectors in GDP, 1995–2013 (%)



GDP = gross domestic product.
Source: ADB, SDBS, accessed October 2014.

Figure 1.18. Contribution to Total Output Growth by Major Production Sector, 1995–2013 (percentage points)



Source: Calculations using data from CEIC Global Database, accessed January 2014.

an average 42% to annual GDP growth during 1995–2013.

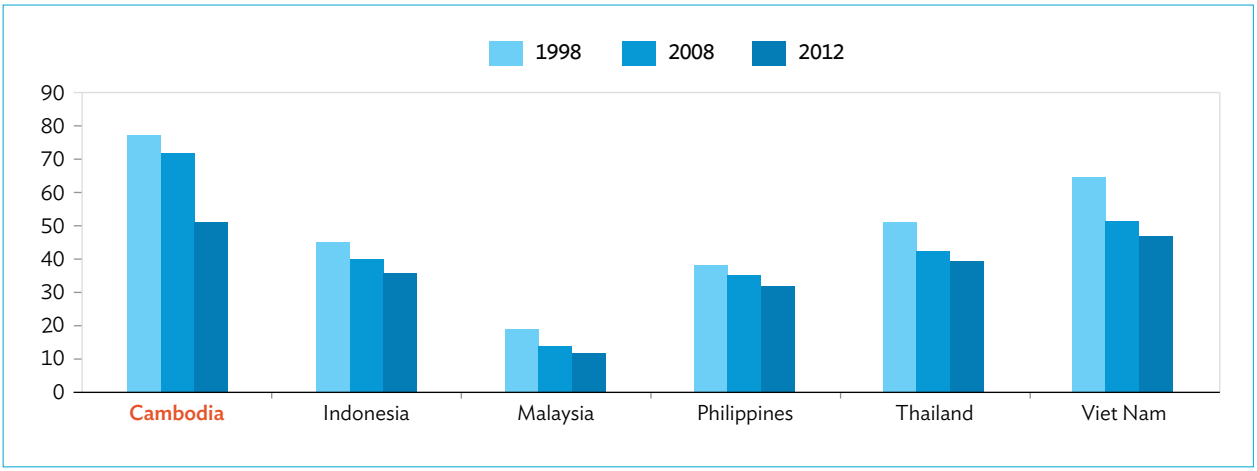
Within the three major sectors, however, growth is highly concentrated in specific subsectors while others remain underdeveloped. In manufacturing, for example, the concentration of production has shifted to garments and away from food processing. In agriculture, the share of farming expanded over time, while the share of forestry and logging contracted. A key challenge is the extent to which additional growth can be squeezed from a limited number of subsectors. Additional foreign garment factories engaged in "cut-make-trim" production, increased production of unprocessed rice, and more short tourism trips to key temple sites will support growth to an extent, but the potential growth from these sources is limited. Diversification toward higher value and more technologically advanced products and services is a key challenge for medium- and long-term growth.

1.8.1. Agriculture

As a key economic sector, the development of agriculture is one of four areas targeted by the Rectangular Strategy for Growth, Employment, Equity, and Efficiency. Modernizing and increasing productivity in agriculture is also a key to promoting broad-based economic growth in the National Strategic Development Plan Update 2009–2013.

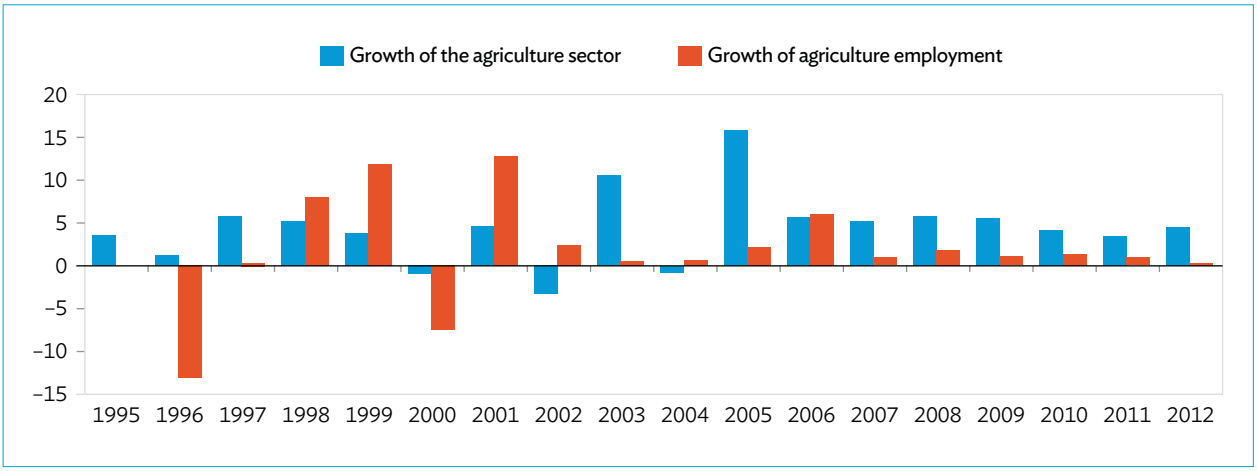
With Cambodia's generally flat terrain and vast water resources, agriculture continues to hold considerable potential for development. The sector is important to enhance domestic food security, increase export earnings, and contribute to inclusive growth by raising household income and reducing rural poverty. This employment–poverty nexus is especially relevant in the context of female agriculture workers. As a less-developed Asian country still undergoing structural transformation, a higher share of Cambodia's employment is in agriculture than is the case in its Asian neighbors. In 1998, agriculture accounted for 78% of the country's total employment, compared with an average of 44% in the selected ASEAN countries in Figure 1.19. A decade later, agricultural employment declined slightly to 72% of the total, while the Asian average dropped to 37%. Employment in the sector has grown by less than 2% since 2007 (Figure 1.20).

Figure 1.19. Agriculture Employment in Selected Asian Countries, 1998–2012 (% of total employment)



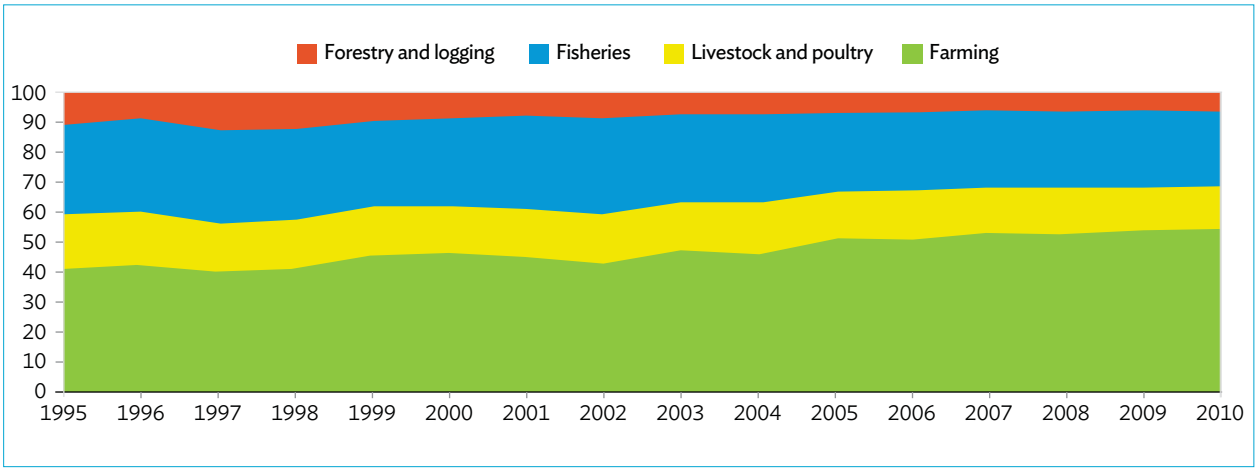
Source: World Bank, WDI database, accessed October 2014.

Figure 1.20. Agriculture Output and Employment Growth, 1995–2012 (%)



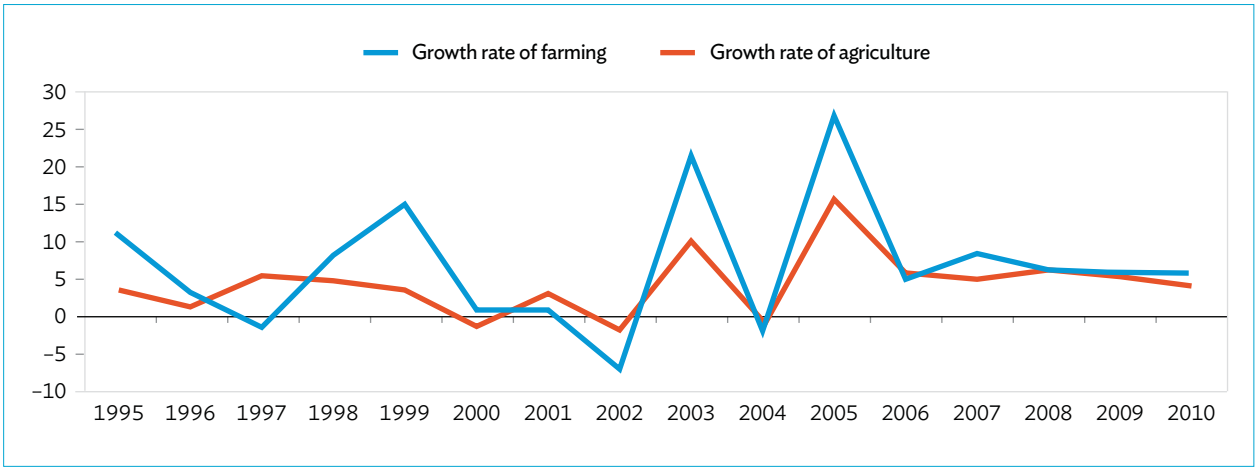
Source: World Bank, WDI database, accessed October 2014.

Figure 1.21. Agriculture Subsectors, 1995–2010 (% of total agriculture output)



Sources: Calculations using data from CEIC Global Database, accessed January 2014; ADB (2013b).

Figure 1.22. Farming Subsector and Agriculture Growth, 1995–2010 (%)



Source: Calculations using data from CEIC Global Database, accessed January 2014.

Within agriculture, the main subsectors are farming and fisheries (Figure 1.21). Livestock and poultry, and forestry and logging are less significant contributors to agricultural output.

Farming. The subsector's main crop is rice, which is generally sold as paddy (unmilled rice) and is a key export crop. In 2013, 3.05 million hectares yielded 9.4 million tons of rice. Cambodia's system of rice cultivation is rain-reliant, with wet-season production accounting for 86% of the total yield. Farm output grew 6.6% annually from 1995 to 2005. Bolstered by improved irrigation and increased use of farm inputs, the farming subsector has continued to grow, albeit slightly slower at 6.3% annually in 2006–2010 (Figure 1.22). The government's 2010 Policy Document on the Promotion of Paddy Production and the Export of Milled Rice (Royal Government of Cambodia [RGC] n.d.a) set the target of producing 4 million tons of paddy and exporting 1 million tons of milled rice by 2015.[5] The "rice policy," as it is known, also sets out a policy framework to reach these ambitious goals by increasing productivity, diversification, and commercialization in the subsector.

[5] Cambodia exported 209,000 tons of rice in 2012, based on UN Comtrade data.

A number of factors restrain the growth potential of farming. The small-scale production set-up of rural farms, with low capital intensity and limited use of ancillary farm technology, makes economies of scale impossible to achieve for household operations. Land productivity is affected by fragmentation problems resulting in declining landholding size, and by land degradation aggravated by drought, flooding, and soil erosion. Most farming is subsistence-centered, using only small amounts of improved farm inputs, with modern farming tools beyond the means of the average farmer. Smallholders use few pesticides, insecticides, and herbicides; the overwhelming majority of commercial vegetable farmers use pesticides (ADB 2011a).

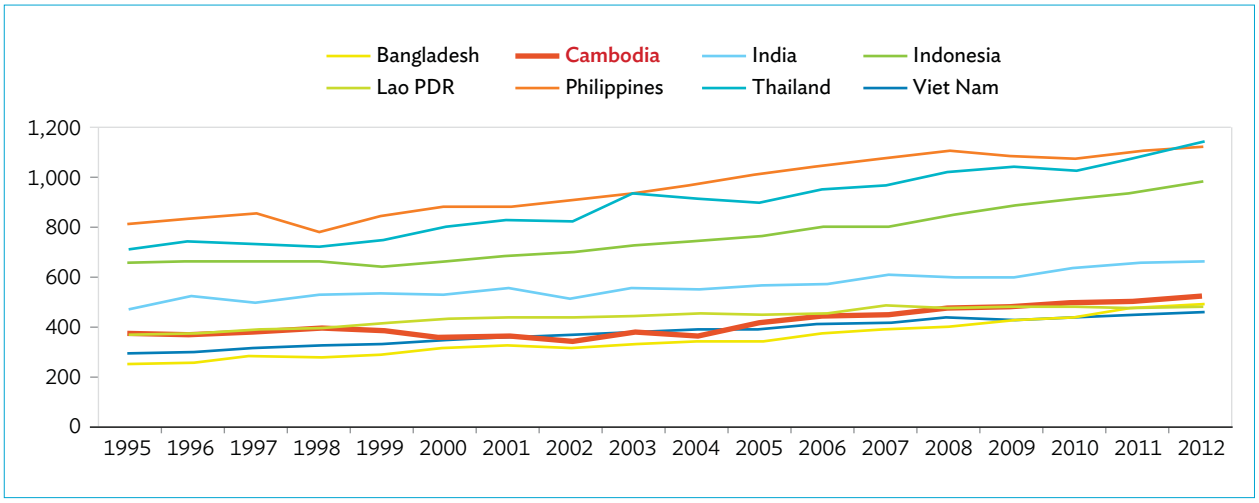
The farm sector is prone to sudden climatic shifts. It suffered severe setbacks in 2000, when heavy floods resulted in a contraction in agriculture output, and in 2003, when drought reduced production of both dry- and wet-season rice crops. The average annual growth of agricultural output was near 10% during 2005–2010, but in 2011 the country was hit by the most severe flooding in more than a decade.

Both farmers and millers have limited access to capital and, although funding from microfinance and development finance institutions is helping address the financing gap, the issue of access to capital funds has yet to be resolved (Cunningham 2011). Partly as a result, Cambodia's agriculture productivity indicators are low relative to those of other Asian countries, although agriculture value added per worker and cereal yield per hectare started to inch up after 2005 (Figures 1.23 and 1.24).

Despite these challenges, farming contributes the most to agriculture sector growth—69% in 2001–2005 and 65% in 2006–2010 (Figure 1.25). Higher production rates since 2005 for crops other than rice suggest these have good potential and improved marketability, which could be avenues for diversifying agriculture and exports. The production of cassava, corn, sweet potato, vegetables, and soybean has increased (Figure 1.26). Cassava production in 2013 was 15 times its 2005 level, corn production had almost doubled, and vegetable production almost tripled.

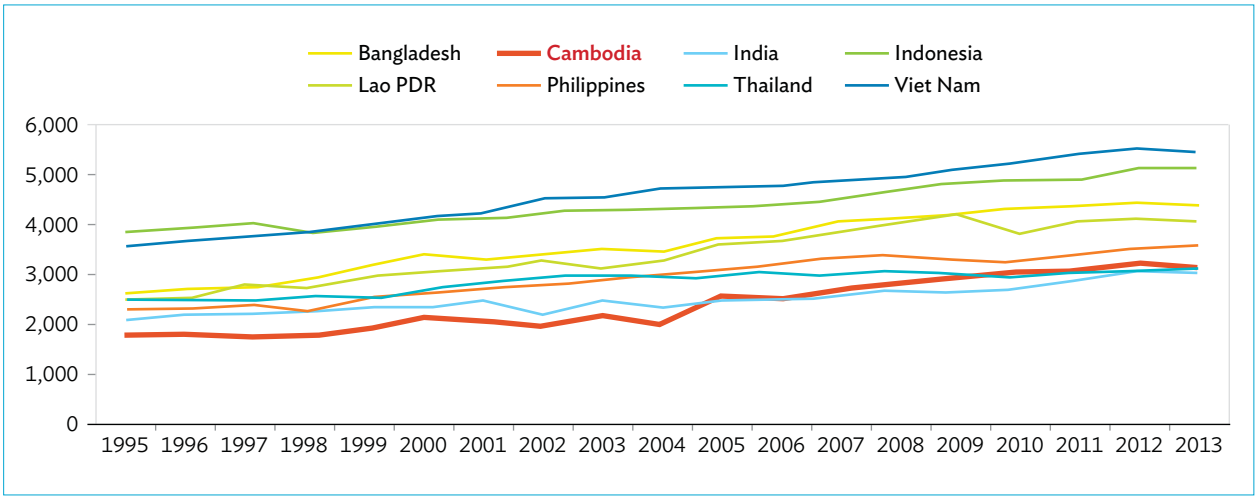
Fisheries. With a 435-kilometer continental coastline and 4,520 square kilometers of freshwater, abundant water resources make the fisheries subsector a key player in Cambodia's food security and nutrition, and in output and employment generation. On average, fisheries accounted for 28% of agricultural output and contributed

Figure 1.23. Agriculture Value Added per Worker, 1995–2012 (constant 2005 $)



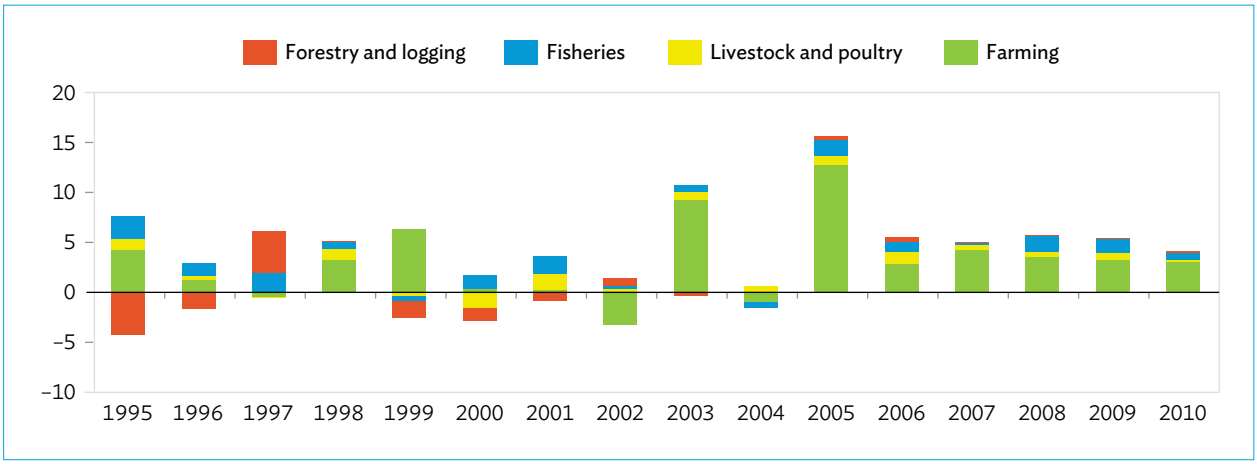
Lao PDR = Lao People's Democratic Republic.
Source: World Bank, WDI database, accessed October 2014.

Figure 1.24. Cereal Yield, 1995–2013 (kilograms per hectare)



Lao PDR = Lao People's Democratic Republic
Source: World Bank, WDI database, accessed October 2014.

Figure 1.25. Agriculture Subsectors' Contribution to Agriculture Growth, 1995–2010 (%)



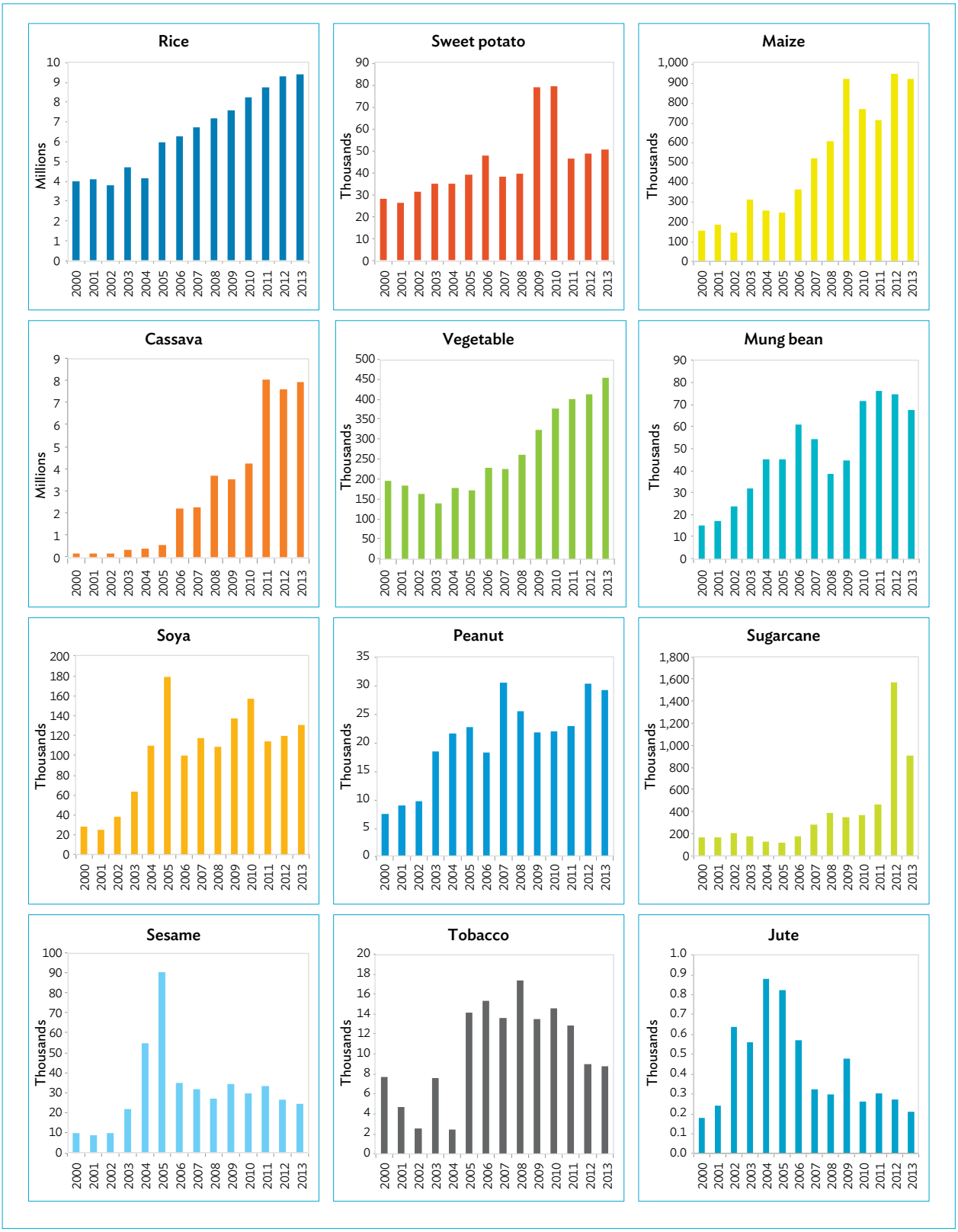
Source: Calculations using data from CEIC Global Database, accessed January 2014.

$887 million to GDP in 2010.[6] Fisheries provided direct employment to about 420,000 people and impacted 2 million people through livelihood benefits in 2009. During the wet season, nearly all rural households engage in subsistence fishing (Food and Agriculture Organization 2011). Fish are an important component of the average Cambodian diet, and policies to promote fish production have important implications for national food and nutrition. Fisheries activities also leave an important ecological imprint that could affect the subsector's future productivity, so that conservation is essential to the sector's sustainable development.

Fish production comes from inland and marine capture as well as aquaculture (Figure 1.27). Inland fisheries, centered on the Tonle Sap and Mekong floodplains, account for about three-fourths of the total catch. Nearly 600,000 tons of fish were caught in 2013, a six-fold increase from 2000 (Ministry of Agriculture, Forestry, and Fisheries website). Marine capture yields tripled from 2000 to 2013, with an increased number of both foreign and local boats fishing in Cambodian waters. Aquaculture, using

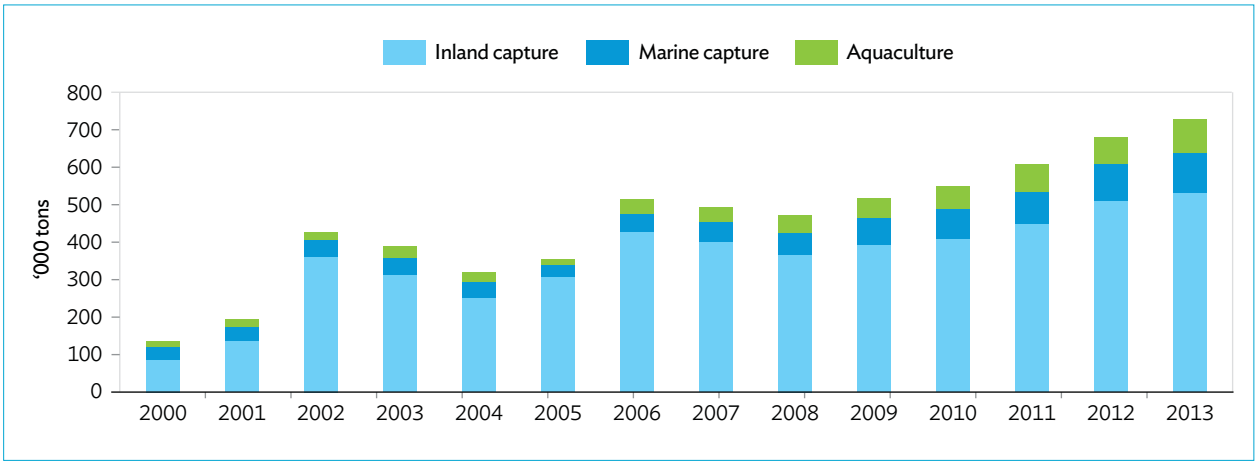
[6] Estimates based on nominal fisheries as a share of GDP using data from CEIC Global Database.

Figure 1.26. Output of Major Agriculture Products, 2000–2013 (tons)



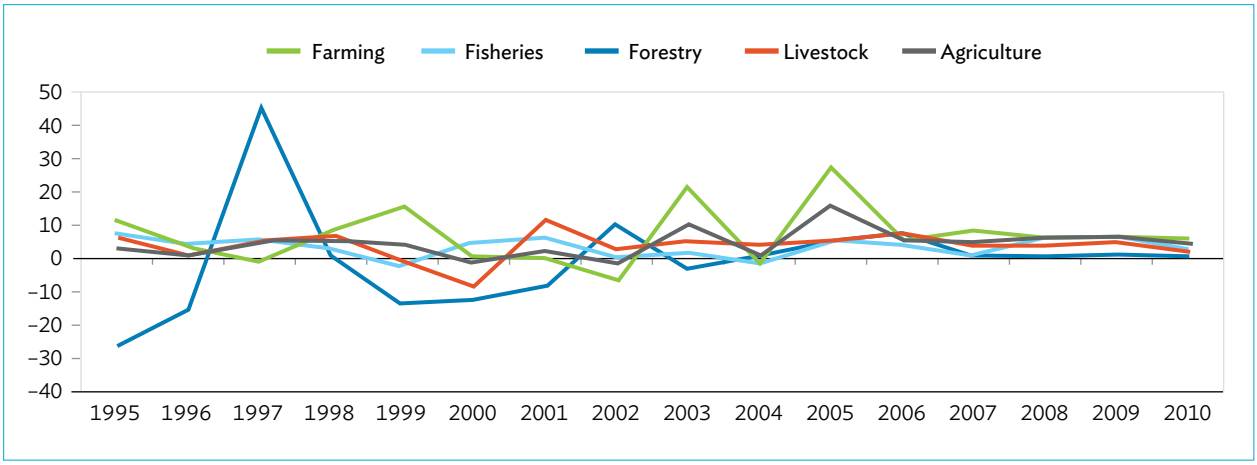
Source: Ministry of Agriculture, Forestry, and Fisheries website.

Figure 1.27. Production of Fisheries Subsectors, 2000–2013



Source: Ministry of Agriculture, Forestry, and Fisheries website.

Figure 1.28. Growth of Agriculture and its Subsectors, 1995–2010 (%)



Source: Calculations using data from CEIC Global Database, accessed January 2014.

mainly cage and pond techniques, accounts for less than 10% of total fishery output. Production of aquaculture grew by an average of 17% per year during 2008–2013 due to improved infrastructure and distribution of fish feed and fingerlings.

The growth of value added in fisheries is somewhat erratic, but averaged 3% annually in 1995–2004 and 4% in 2005–2010 (Figure 1.28). Fisheries' reliability as a source of growth is driven more by supply than by rising demand—Cambodia already has one of the highest levels of per capita consumption of fish in Southeast Asia. Fisheries can be improved by addressing factors that hamper productivity, such as fishers' lack of access to modern technology and technical skills and threats from overfishing, pollution, and the loss of mangroves and flooded forests.

The Strategic Planning Framework for Fisheries 2010–2019 and the National Fisheries Policy detail mechanisms to help realize the vast potential of fisheries. Their goals include environmentally safe fisheries, conservation of biodiversity, and sustainable use of fisheries resources through legal enforcement, use of action plans, and the strengthening of institutions (Nam and Bunthang 2011).

Livestock and Poultry. This subsector primarily comprises raising cattle, buffalo, pigs, and chickens. Its share of total agriculture output was stable at about 15% in 2000–2010. Value added has increased each year since 2001, except in 2009, peaking at 11% in 2001. The subsector contributed about 13% to annual agriculture growth during 2000–2010 (Figure 1.25, p. 20).

The subsector is characterized by small-scale production. For example, farmers raise poultry mainly as an income supplement. The subsector is unable to attract a significant number of domestic or international investors due to the lack of animal biosecurity measures to prevent the introduction of disease and to promote adherence to sanitary standards. In addition, road infrastructure linking farm areas to border areas is underdeveloped, resulting in high transport costs. Lack of border control, quarantine facilities, and animal medicines, as well as weak veterinary services, leave the country vulnerable to transboundary animal diseases. All these factors are contributing to stunting the subsector's growth, and without appropriate government support, the potential of the livestock and poultry subsector is considerably diminished (Cambodia Forestry Administration 2010).

Forestry. About 73% of the country's land area was covered by forests in 1965. With a rising population and expanded farming and nonfarm activities, forest cover fell to 57% in 2011. Value added from forestry primarily comes from wood production and utilization, and domestic and international forest trade involving trade in timber, wildlife products, and nontraditional forest products. During the first years of transition to an open economy, forest products, especially timber, became a source of foreign exchange with markets that initially included the Lao PDR, the former Soviet Union, and Viet Nam, then shifted to the People's Republic of China, Japan, Malaysia, and Thailand (Cambodia Forestry Administration 2010).

Relative to other agriculture subsectors, forestry and logging have performed poorly since the mid-1990s. Except for a spurt of growth in 1997, the subsector recorded negative or close to zero growth during 1995–2004, in part due to the suspension of forest concessions in 2002. After a brief period of growth in 2004–2006, the subsector has expanded only marginally in recent years (Figure 1.28). Its contribution to agriculture output averaged 3% in 2006–2010 and year-on-year growth averaged only 2% during the same period.

Expanding forest coverage to 60% of total land area by 2015 is among Cambodia's MDG targets. A revival of the sector's performance is envisioned in the National Strategic Development Plan 2014–2018, to be achieved through demarcating land areas covered by forests, classifying forests and developing a forest resources inventory, improving law enforcement against illegal logging, and enhancing governance in forestry management.

1.8.2. Industry

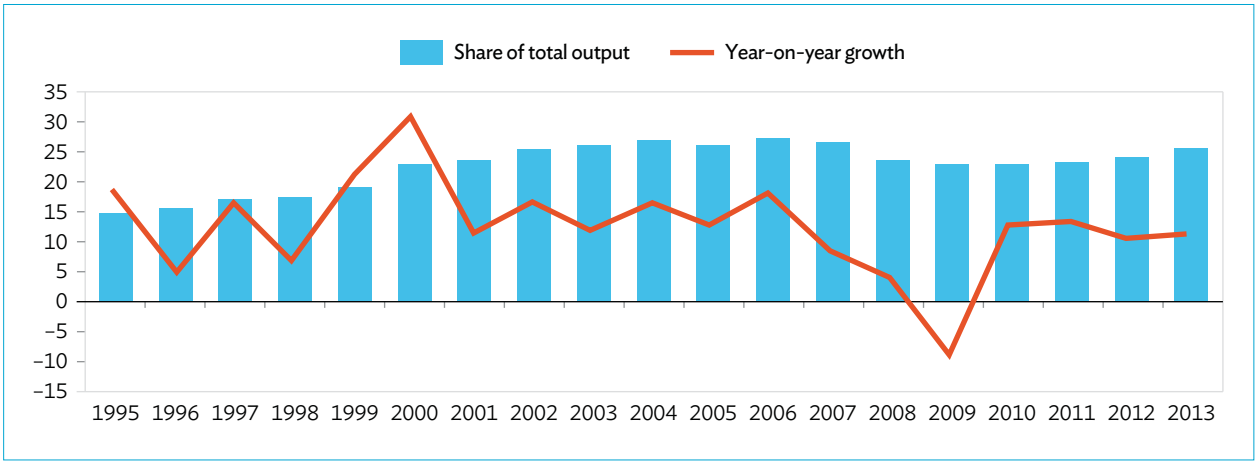
Cambodia's industry sector has performed remarkably well since the country transitioned to an open market economy, with industry accounting for 26% of output in 2013 (Figure 1.29) and contributing 41% to GDP growth in that year (see Figure 1.18, p. 16). Driven by a robust manufacturing subsector, industry's value added has been growing by more than double the annual rate of agriculture's value added (Figure 1.30).

Manufacturing is the largest contributor to industry output, accounting for at least 70% since 1998, with construction adding another 24%. Mining and utilities account for the remaining 4% (Figure 1.30). Manufacturing also contributed most to industry growth—averaging 9.4 percentage points in 2000–2012.[7] Construction contributed 2.3 percentage points per year during 2000–2012. The contributions of mining and utilities are smaller (Figure 1.31).

Construction and Mining. The urban landscape, particularly in Phnom Penh, has changed vastly with the construction of buildings and infrastructure, creating strong demand for mining materials

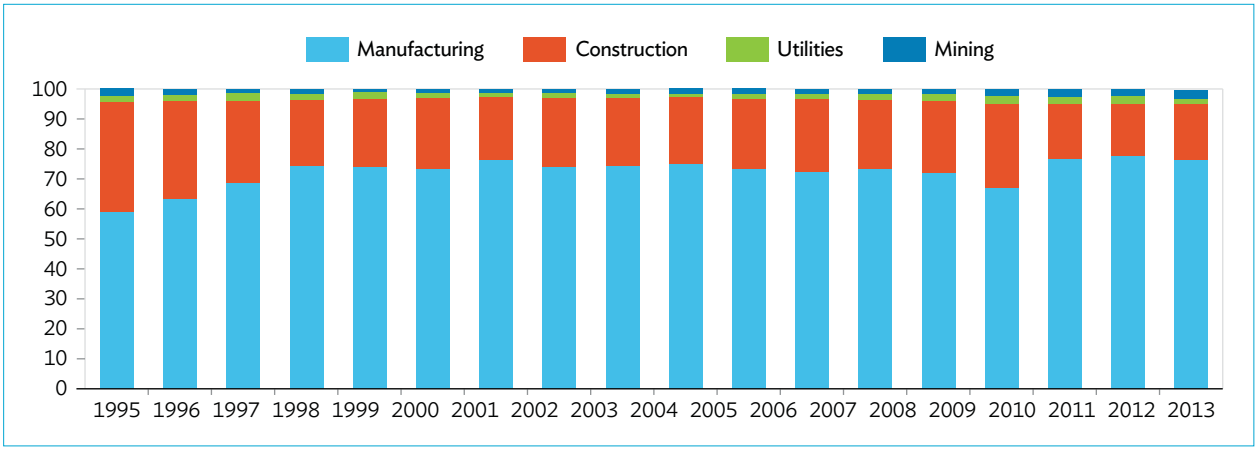
[7] This average excludes 2009 data, when growth declined abruptly, and which would distort the 2005–2012 average.

Figure 1.29. Industry's Share of Total Output and Growth Rate, 1995–2013 (%)



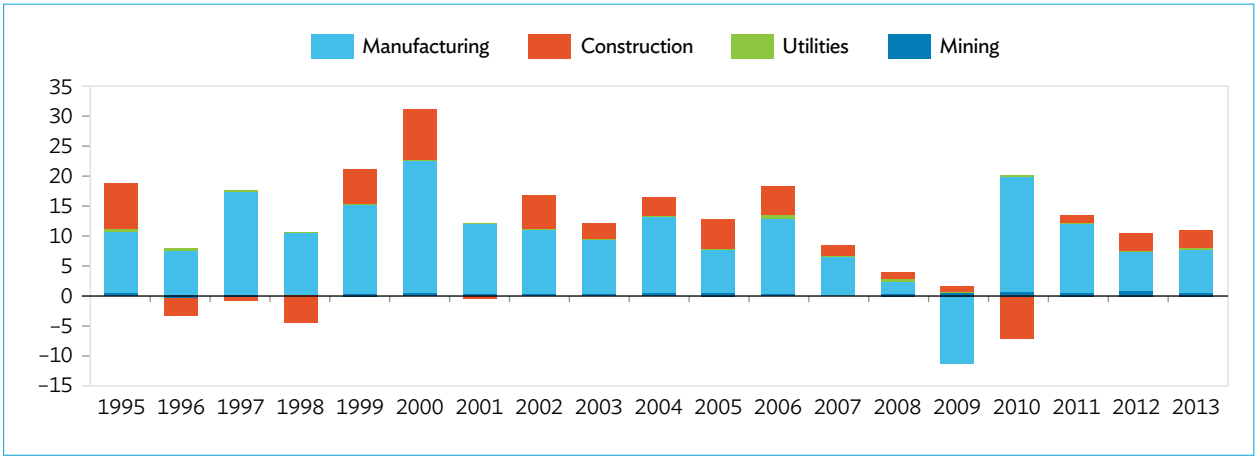
Source: ADB, SDBS, accessed October 2014.

Figure 1.30. Industry Subsectors' Shares of Total Industry Output, 1995–2013 (%)



Sources: Calculations using data from ADB (2013a, 2014b).

Figure 1.31. Contribution of Subsectors to Industry Growth, 1995–2013 (%)



Source: Calculations using data from ADB, SDBS, accessed October 2014.

Table 1.3. Construction Industry, 1995–2013 (%)

Indicator	1995–2000	2001–2005	2006–2010	2011	2013
Share of Industry Output	27.6	22.4	23.7	17.6	19.5
Growth Rate	8.0	13.9	1.2	7.9	16.9
Contribution to Industry Growth (percentage points)	2.3	3.1	0.4	1.5	3.1

Source: Calculations using data from ADB, SDBS, accessed October 2014.

Table 1.4. Production of Mineral Commodities, 2004–2011 (tons)

Commodity	2004	2006	2008	2010	2011
Cement	…	…	772,029	789,025	800,000
Gravel	…	45,625	37,500	82,500	82,500
Laterite, Blocks	118,400	…	454,750	1,612,500	1,500,000
Salt	40,000	59,000	78,000	…	…
Sand (construction material)	363,700	2,043,500	6,581,500	38,367,500	40,000,000
Stone: Crude Construction Material	501,600	676,832	2,039,336	6,331,000	6,300,000
Limestone	…	…	1,000,000	1,000,000	1,000,000

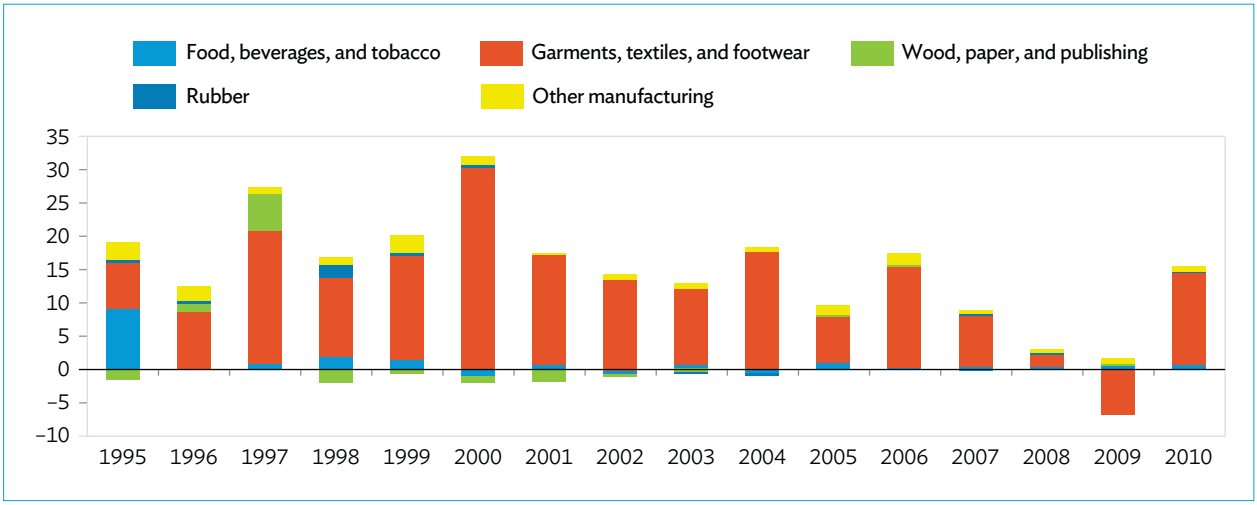
… = data not available.
Sources: Fong-Sam (2012); Soto-Viruet and Fong-Sam (2013).

(Table 1.3). Mining is dominated by industrial and construction materials (crushed stone, sand, gravel). Production of laterite and crude stone grew more than 12-fold from 2004 to 2011, while sand production increased at least 100-fold (Table 1.4). Extractive activities currently involve exploration for natural gas and petroleum along the coast.

Manufacturing. The production of garments, textiles, and footwear dominates manufacturing, and their share of sector output rose from 15% in 1995 to 75% in 2010. Cambodia has become an attractive production site due to its low wages, preferential tariffs, and quota-free access to major markets. The food, beverage, and tobacco subsector continues to grow, but its relative importance has diminished with the rise of garments, textiles, and footwear. Food, beverages, and tobacco accounted for 36% of manufacturing output from 1995 to 1999, but for only about 10% since 2006. The shares of other subsectors, including rubber, wood, paper, and publishing have experienced a similar decline (Figure 1.32 and Table 1.5).

The output of garments, textiles, and footwear grew 60% annually in 1995–2000, but slowed to 8% in 2006–2010 (Table. 1.5). Exports increased four-fold between 2001 and 2013, from $1.2 billion to $4.9 billion (Figure 1.33), including a contraction of almost 20% in 2009 due to the global financial crisis. Reliance on global clothing retailers in Europe and the United States left this sector susceptible to adverse demand shocks. The fall in exports in 2009 highlighted the need for Cambodia to diversify its markets (Figure 1.34). Footwear exports were less affected by the crisis and have recorded positive growth since 2006, averaging 32% per year. Figure 1.35 shows the lack of export diversification, with garments dominating exports for more than a decade.

Figure 1.32. Contribution of Subsectors to Manufacturing Growth, 1995–2010, (%)



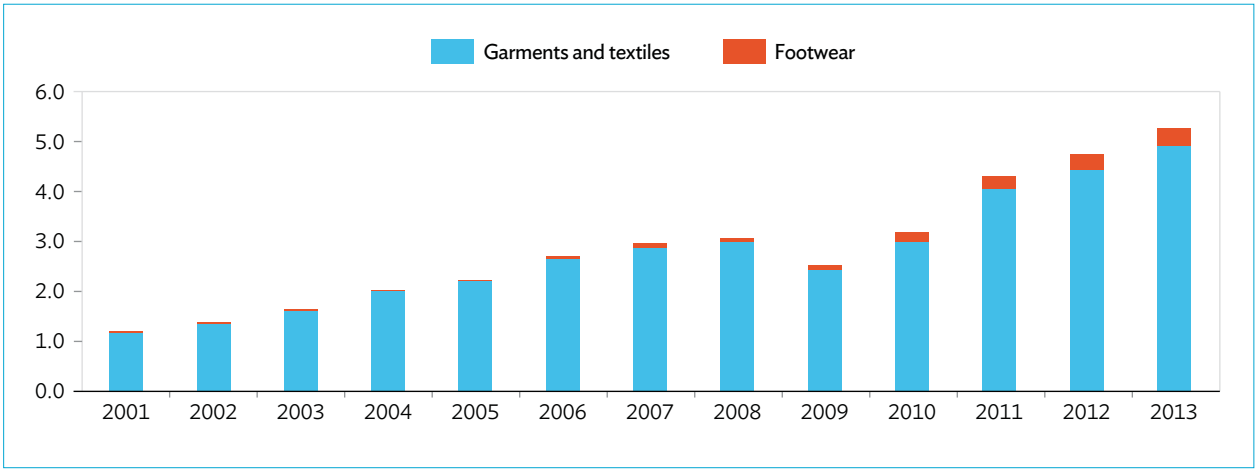
Source: Calculations using data from CEIC Global Database, accessed January 2014.

Table 1.5. Manufacturing Subsectors, 1995–2010 (%)

Subsector	Share of Total Manufacturing Output			Growth Rate per Subsector		
	1995–2000	2001–2005	2006–2010	1995–2000	2001–2005	2006–2010
Garments, Textiles, and Footwear	34.6	70.4	75.9	59.5	19.9	7.9
Rubber	3.1	1.9	1.2	21.5	-5.6	8.2
Food, Beverage, and Tobacco	33.3	13.9	10.0	4.7	1.6	5.3
Food, Paper, and Publishing	10.7	2.7	2.0	1.0	-7.0	5.6
Other Manufacturing	18.3	11.0	11.0	9.5	8.6	1.1

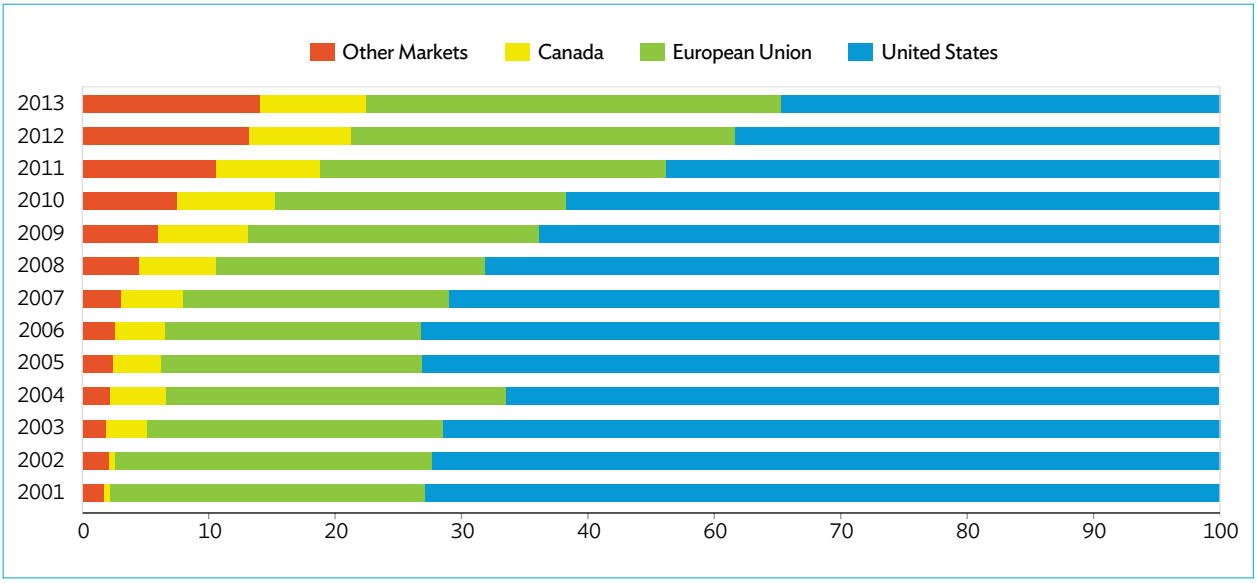
Source: Calculations using data from CEIC Global Database, accessed 23 January 2014.

Figure 1.33. Exports of Garments, Textiles, and Footwear, 2001–2013 ($ billion)



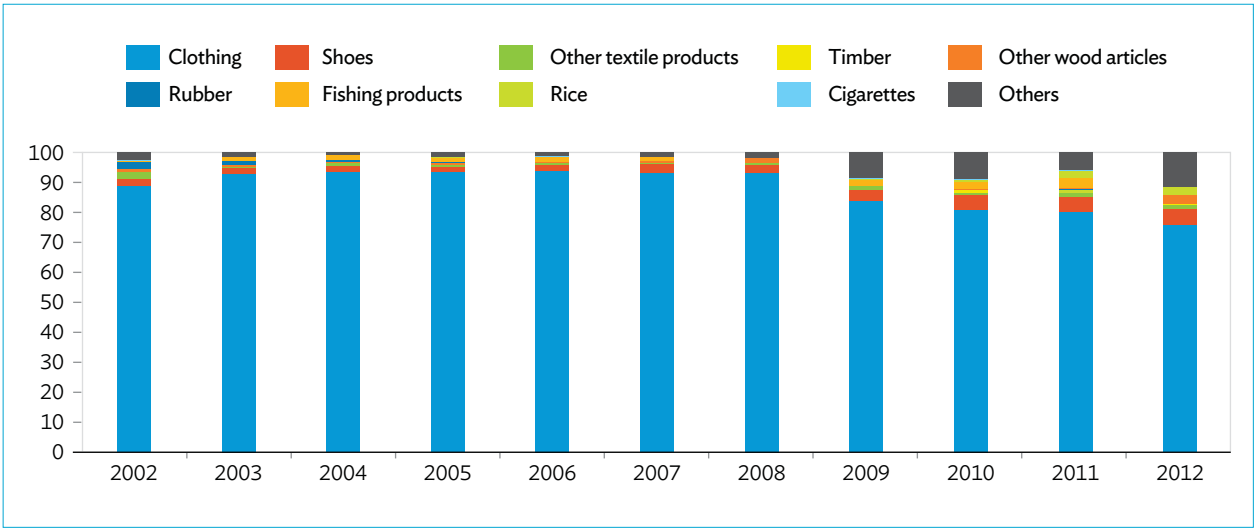
Source: Data from GMAC website, accessed February 2014.

Figure 1.34. Major Markets for Garments, Textiles, and Footwear Exports, 2001–2013 (% of $ value)



Source: Data from GMAC website, accessed February 2014.

Figure 1.35. Exports by Commodity, 2002–2012 (% of $ value)



Source: Calculations using data from CEIC Global Database, accessed June 2013.

1.8.3. Services

The services sector accounts for just over 40% of GDP, more than industry or agriculture (Table 1.6 and Figure 1.18). Trade, finance, and other services are the most dynamic subsectors, accounting for 78% of sector output annually during 1995–2013. Improved financial architecture has led to stellar year-on-year growth in finance, averaging 9% since 2000. Trade contributed the most to services sector growth (Figure 1.36).

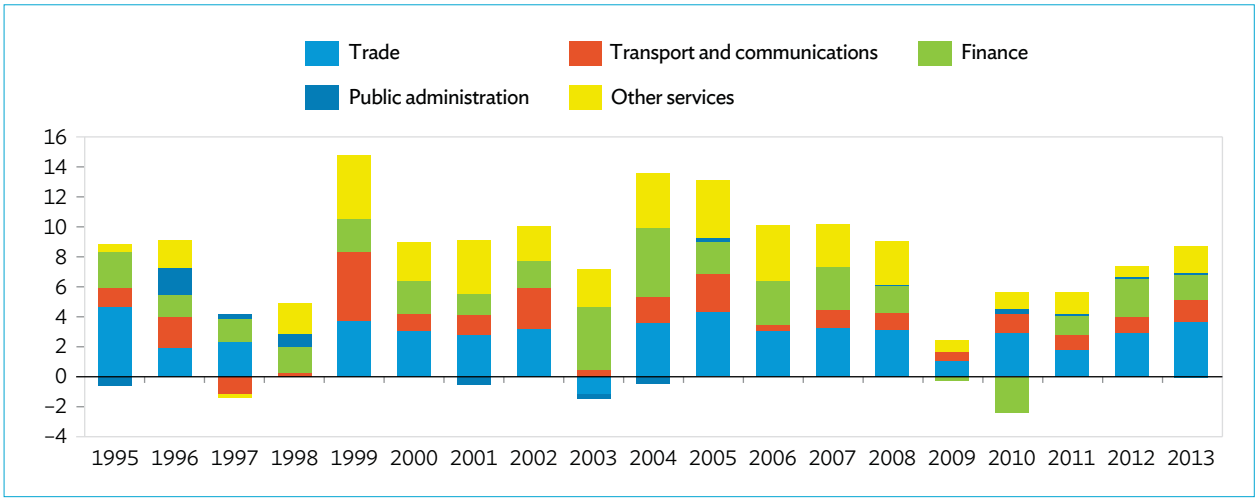
Tourism, a key component of the services sector, accounted for 17% of GDP in 2013, nearly a six-fold increase from 1995 (Figure 1.37). About 54% of investment approved by the Cambodia Investment

Table 1.6. Services Sector, 1995–2013 (%)

Indicator	1995–2000	2001–2005	2006–2010	2011	2013
Share of GDP	37.1	40.9	41.1	39.8	40.5
Growth Rate	8.0	10.2	7.0	5.7	8.7
Contribution to GDP Growth (percentage point)	2.9	4.0	2.9	2.3	3.5

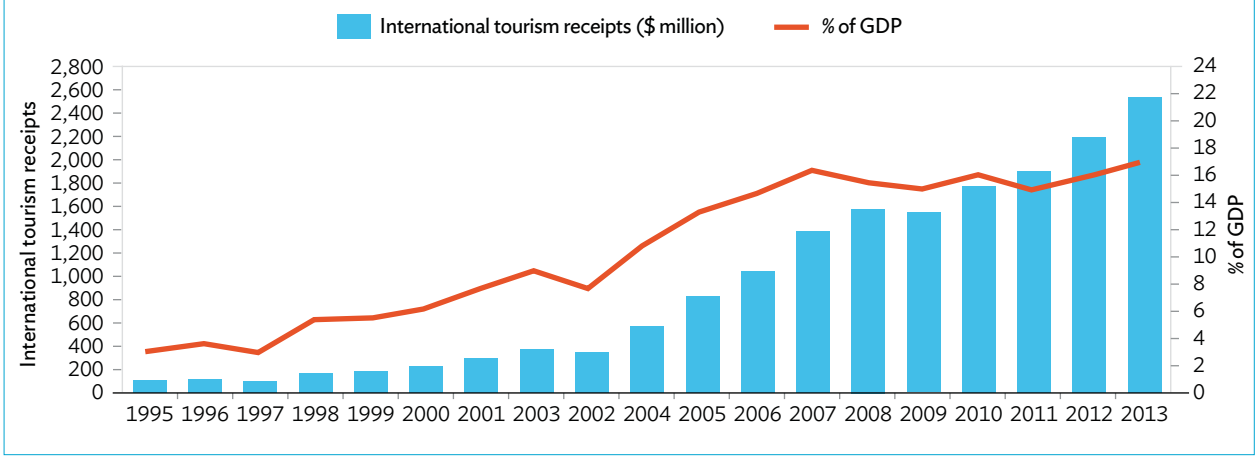
Source: Calculations using data from ADB, SDBS, accessed October 2014.

Figure 1.36. Services Subsectors' Contribution to Services Growth, 1995–2013 (%)



Note: Trade includes hotel and restaurants. Finance includes real estate.
Source: Calculations using data from ADB, SDBS, accessed October 2014.

Figure 1.37. Tourism Industry, 1995–2013



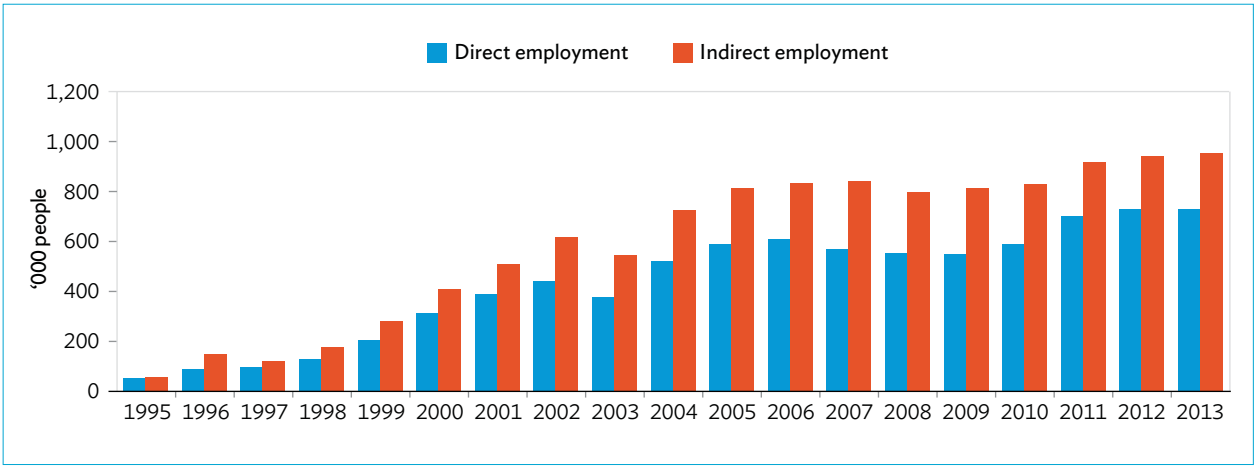
GDP = gross domestic product.
Source: Calculations using data from Ministry of Tourism (2014) and World Bank, WDI database, both accessed October 2014.

Board in 2006–2011 was in tourism, twice the combined shares of agriculture and industry. Tourism also creates considerable direct and indirect employment (Figure 1.38).

Cambodia received some 4.2 million visitor arrivals in 2013, up from less than 250,000 in 1995, with arrivals growing by about 20% annually during the 2000s (Figure 1.39). The severe acute respiratory syndrome (SARS) epidemic in 2003 and the 2008 global financial crisis temporarily reduced arrivals, but the tourism sector rebounded quickly after both events. Still, Cambodia accounted for less than 5% of total arrivals in Southeast Asia in 2012. Malaysia and Thailand had much higher shares, at 30% and 27%, respectively (Figure 1.40).

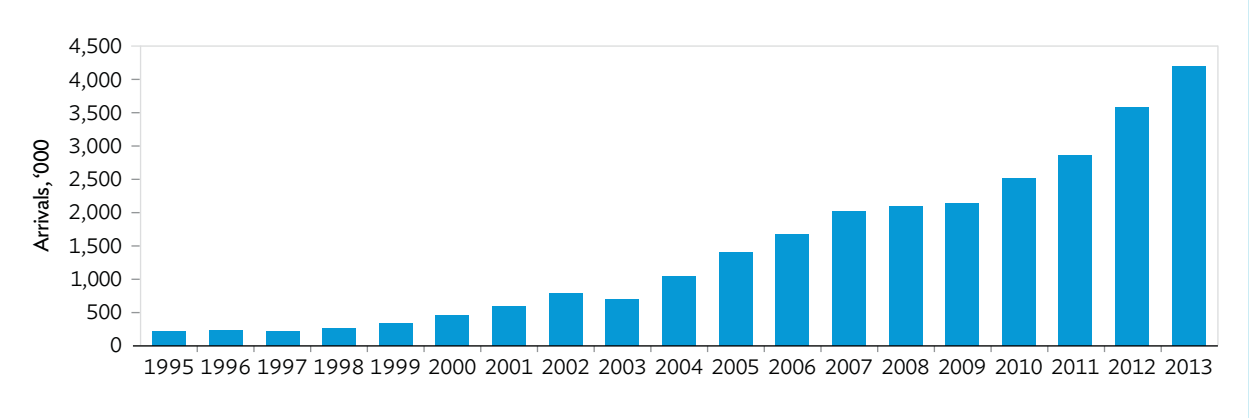
Tourism is benefiting from closer regional ties and the rise of a middle class in Asia with money to spend on leisure. About 77% of visitors to Cambodia originate from other Asian and Pacific countries, followed by Europe at 17% and the Americas with 6% (Figure 1.41). Over 90% of international arrivals visit Cambodia for tourism; these are mostly one-time visits that are not repeated (Supreme National Economic Council 2011). Cambodia will need to

Figure 1.38. Contribution of the Travel and Tourism Industry to Employment, 1995–2013



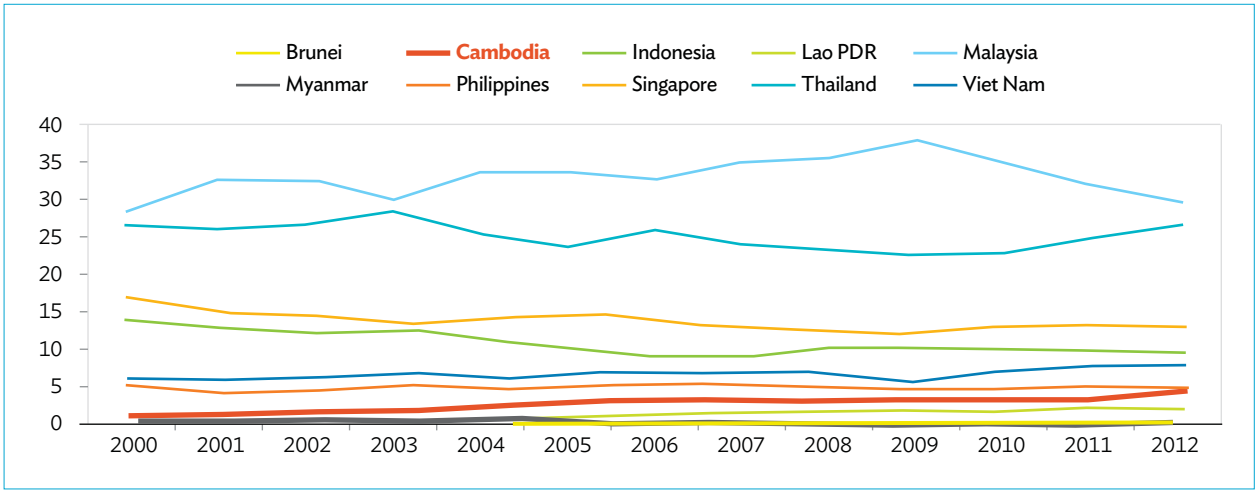
Note: Direct employment includes jobs related to accommodation; food and beverage; retail trade; transport; and cultural, sports, and recreation activities. Indirect employment includes jobs in travel and tourism investment, government travel and tourism spending, the impact of purchases from suppliers, and spending by direct and indirect employees.
Source: Calculations using data from World Travel and Tourism Council website, accessed June 2014.

Figure 1.39. Total Annual Visitors to Cambodia, 1995–2013 ('000 arrivals)



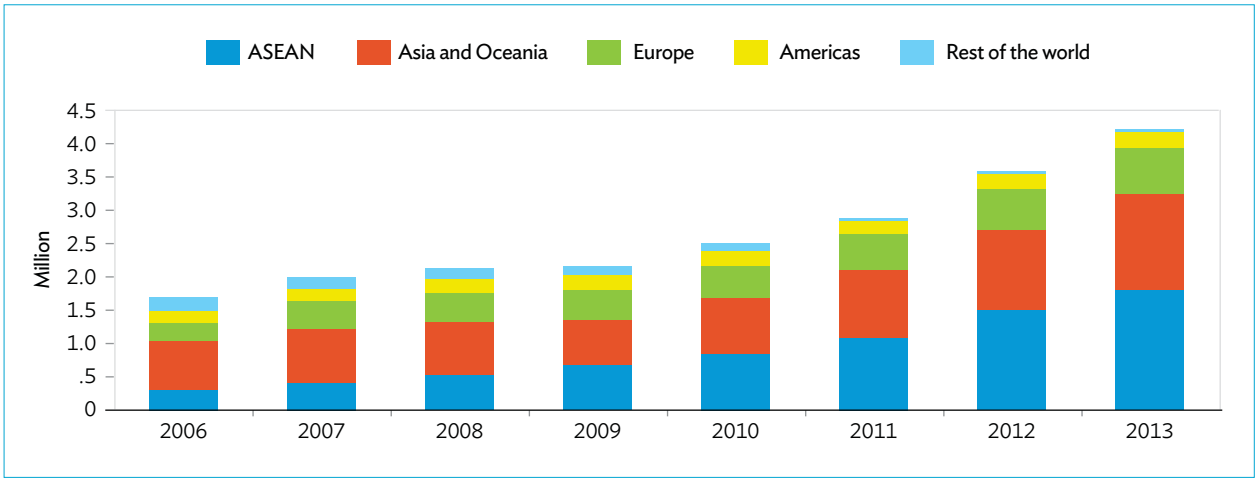
Source: Ministry of Tourism (2014).

Figure 1.40. International Visitor Arrivals in ASEAN by Country Shares, 2000–2012 (%)



Lao PDR = Lao People's Democratic Republic.
Source: World Bank, WDI database, accessed October 2014.

Figure 1.41. Visitor Arrivals in Cambodia, by Major Geographic Region, 2006–2013 (million)



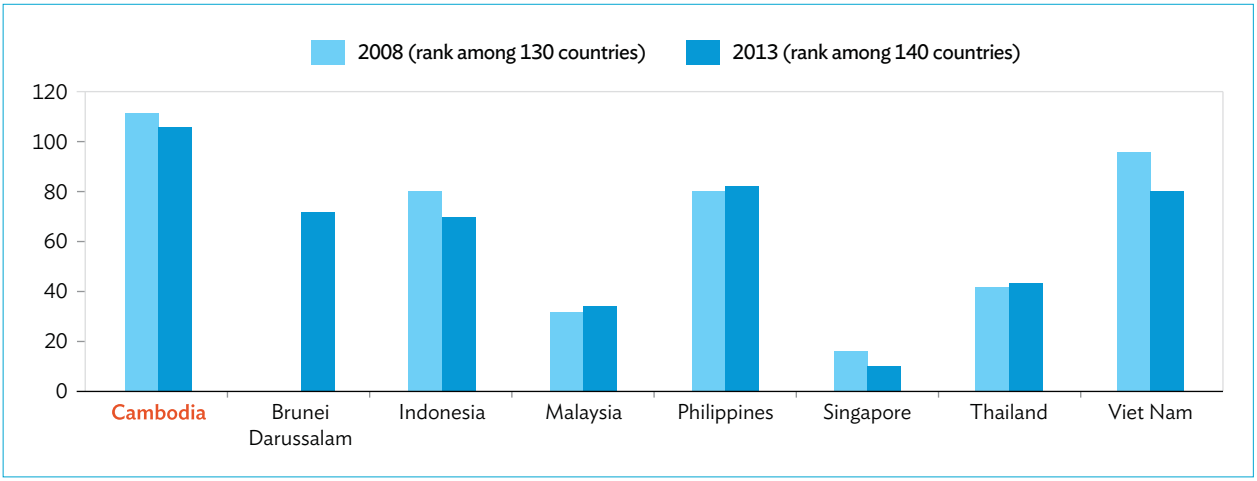
ASEAN = Association of Southeast Asian Nations.
Source: Calculations using data from Ministry of Tourism (2014).

diversify its tourism offerings if the government is to meet its target of 8 million foreign tourists and 8 million to 10 million domestic tourists in 2020 (ADB 2011c).[8]

The Travel and Tourism Competitiveness Report 2013 (World Economic Forum [WEF] 2013b) ranked Cambodia 106th of 140 countries (Figure 1.42). It achieved a high score in the prioritization of tourism, price competitiveness, and affinity for travel and tourism, but received low scores for health and hygiene, tourism infrastructure, information and communications technology, and cultural resources (Figure 1.43). Developing infrastructure for better health and hygiene, particularly water and sanitation, will improve the health of the population and the country's attractiveness as a tourist destination. Cambodia fared poorly in tourism infrastructure, with its scores for air, land, and information and communication technology infrastructure lower

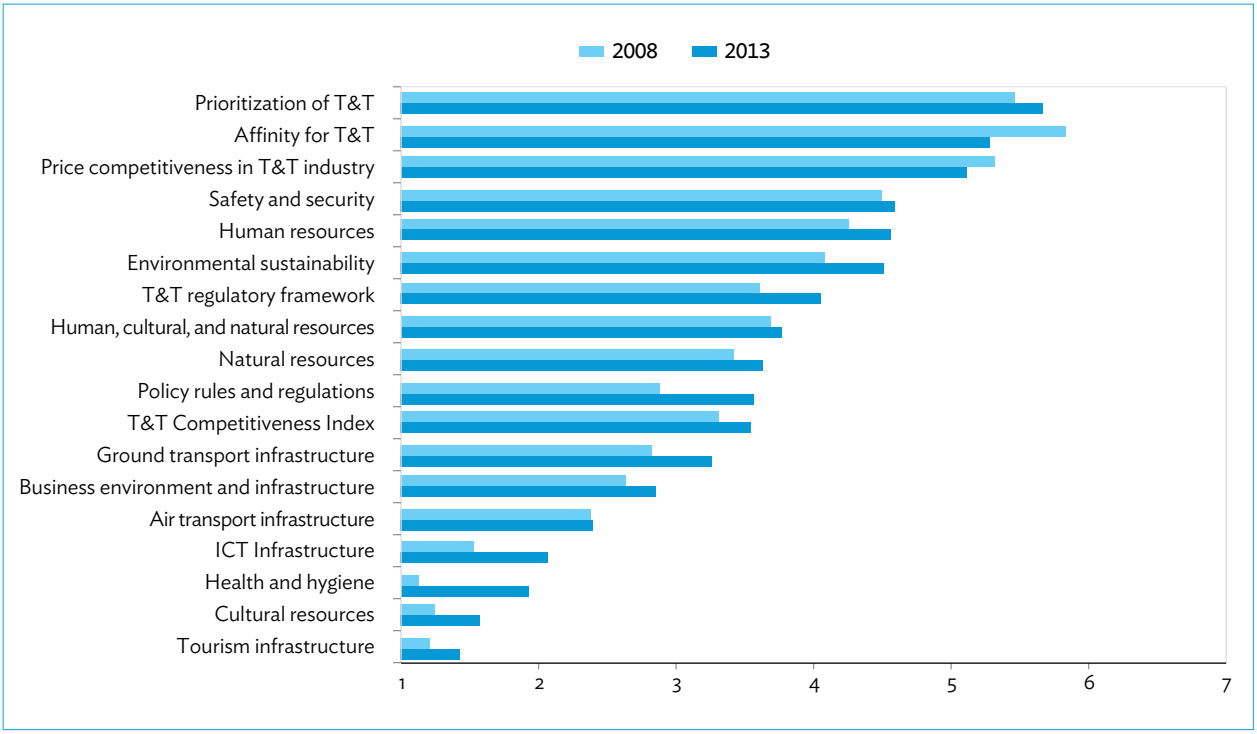
[8] Tourist arrivals were 2.5 million in 2010. The Tourism Master Plan (Ministry of Commerce 2014) targets 8.0 million international tourist arrivals.

Figure 1.42. Tourism Competitiveness Ranks of ASEAN Countries, 2008 and 2013



ASEAN = Association of Southeast Asian Nations.
Sources: WEF (2008b, 2013b).

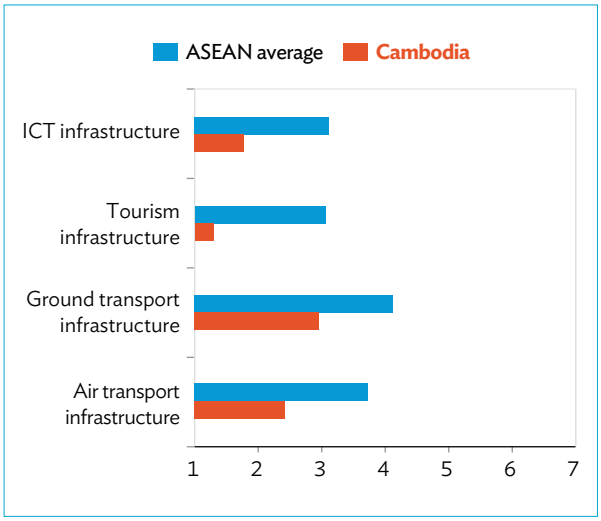
Figure 1.43. Elements of Cambodia's Tourism Competitiveness: Scores in 2008 and 2013



ICT = information and communication technology, T&T = travel and tourism.
Note: Data refer to scores in the Travel and Tourism Competitiveness Reports for 2008 and 2013. Scores range from 1 to 7, with higher scores preferred.
Sources: WEF (2008b, 2013b).

than other ASEAN countries surveyed (Figure 1.44). Upgrading hard infrastructure such as airports, ports, roads, and railways will clearly help transport tourists to, from, and within Cambodia. Almost half of all tourists to Cambodia arrive by land; thus, developing the rural road network will be essential for boosting travel within and between provinces to diversify tourism beyond Angkor Wat and the temples near Siem Reap, currently the mainstay of the country's tourism offerings.

Figure 1.44. Competitiveness in Tourism Infrastructure



ASEAN = Association of Southeast Asian Nations, ICT = information and communication technology.
Note: Data refer to average scores in the Travel and Tourism Competitiveness Reports for 2007, 2008, 2009, 2011, and 2013. ASEAN average represents average scores for Indonesia, Malaysia, Philippines, Singapore, Thailand, and Viet Nam. Scores range from 1 to 7 with higher scores preferred.
Source: Calculations using data from World Economic Forum (WEF) (2013).

The government's vision for tourism is set out in the Tourism Development Strategic Plan 2012–2020 to promote the industry's efficiency and establish tourism as a sustainable source of growth. The plan focuses on six priorities: product development, marketing, and promotion; connectivity; safety; management of negative impacts; legal system and management; and development of human resources.

1.9. Poverty and Inequality

Cambodia ranks 136th of 187 countries on the United Nations Development Programme's Human Development Index, a combined measure of per capita income, education, and life expectancy.[9] The country's score rose from 0.44 in 2000 to 0.58 in 2013.

[9] Cambodia's ranking worsened from 130th to 136th in 2000–2013, partly because the number of countries ranked increased from 177 to 187.

1.9.1. Poverty

Poverty has declined remarkably in recent years—during 2007–2011, the share of Cambodia's population living below the national poverty line plunged from 45% to 21% (World Bank, WDI). The international poverty line of $1.25-a-day reveals a similarly significant decline in poverty (Table 1.7).[10] These large declines are enabling Cambodia to close the gap with neighboring countries. In 2009, its poverty level was comparable to those of the Philippines and Viet Nam.

Table 1.7. Poverty Rates, Selected Asian Countries, Latest Year

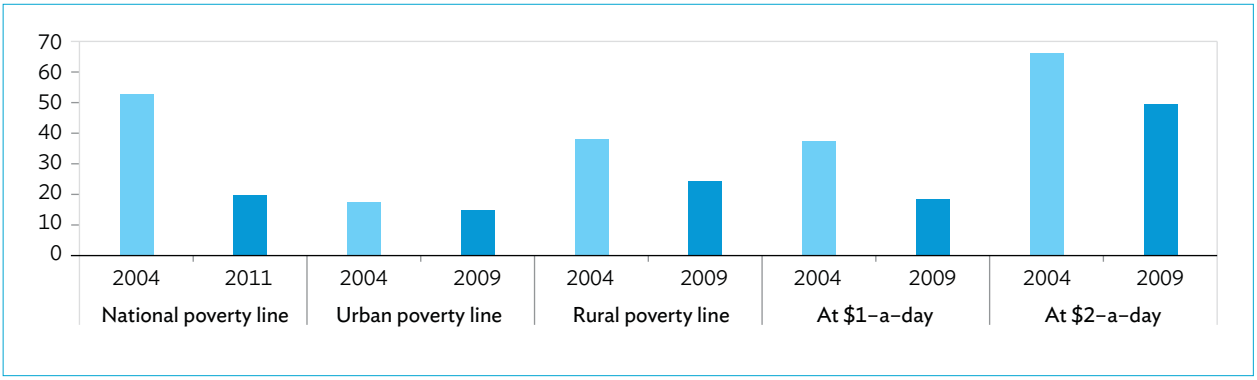
Country	Latest Year for the International Poverty Line	Poverty Headcount Ratio (% of the population) At $1.25 a Day	At $2 a Day	At the National Poverty Line (latest year)
Cambodia	2009	19	50	21 (2011)
Indonesia	2011	16	43	11 (2013)
Lao PDR	2008	34	66	28 (2008)
Malaysia	2009	0	2	2 (2012)
Philippines	2009	18	42	25 (2012)
Thailand	2010	< 1	4	13 (2011)
Viet Nam	2008	17	43	17 (2012)

Lao PDR = Lao People's Democratic Republic.
Source: World Bank, WDI database, accessed July 2014.

The reduction in poverty has been most pronounced in rural areas, where the headcount ratio fell from 38% to 25% during 2004–2009 (Figure 1.45). The decline is accounted for by two reinforcing factors. First, many of the poor had been living on incomes

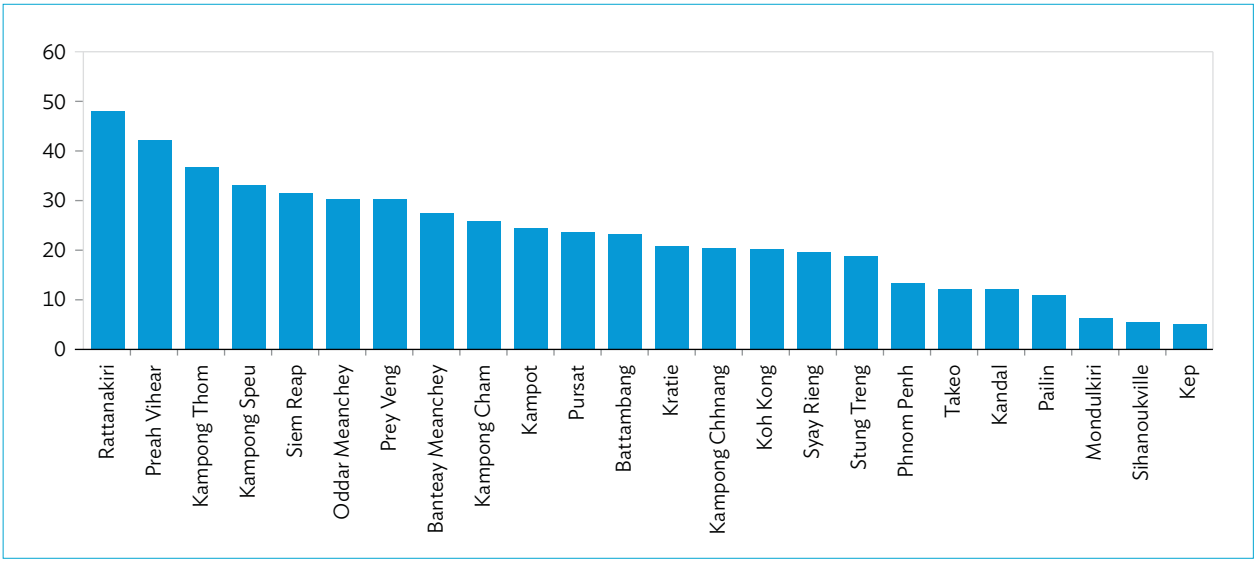
[10] National poverty lines are defined according to each country's specific economic and social circumstances and vary considerably among nations, meaning that poverty incidence figures based on national poverty lines are not comparable across countries. International poverty lines attempt to hold the real value of poverty lines consistent across countries by accounting for differences in purchasing power across countries. Use of the international poverty line allows for comparison of poverty incidence across countries. The common international poverty lines are $2 a day and $1.25 a day (extreme poverty).

Figure 1.45. Poverty Rates, 2004 and 2009 (%)



Source: World Bank, WDI database, accessed July 2014.

Figure 1.46. Poverty Incidence by Province, 2009 (%)



Source: Estimates using National Institute of Statistics (NIS) (2009).

just below the poverty line. The increase in rural farm and nonfarm income has been effective in pushing them above the national poverty line and the $1.25-per-day line. For the higher poverty line of $2 per day, the reduction has been less impressive and the poverty level remains high. About 50% of the population survived on $2 or less in 2009.

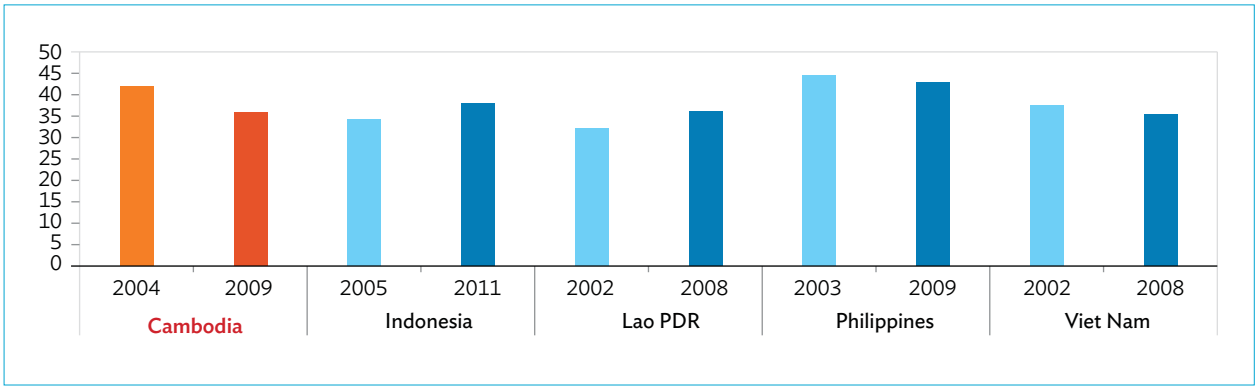
The second factor in rapid poverty reduction is strong growth throughout the economy and in particular agriculture, which has increased rural household income. In the mid-2000s, Cambodia experienced 4 consecutive years of GDP growth above 10%. Agriculture was a strong performer during that period and appeared to shed the boom-and-bust cycle that was common to the sector prior to 2005. Annual gains in farm output were sustained in subsequent years. Nevertheless, poverty remains high in some areas. In 5 of the 24 provinces, the poverty rate exceeds 30% (Figure 1.46). Poverty in urban areas is lower than that in rural areas and has fallen at a slower rate, from 18% to 15% in 2004–2009.

1.9.2. Inequality

The initial years of high growth were accompanied by worsening inequality. The Gini coefficient rose

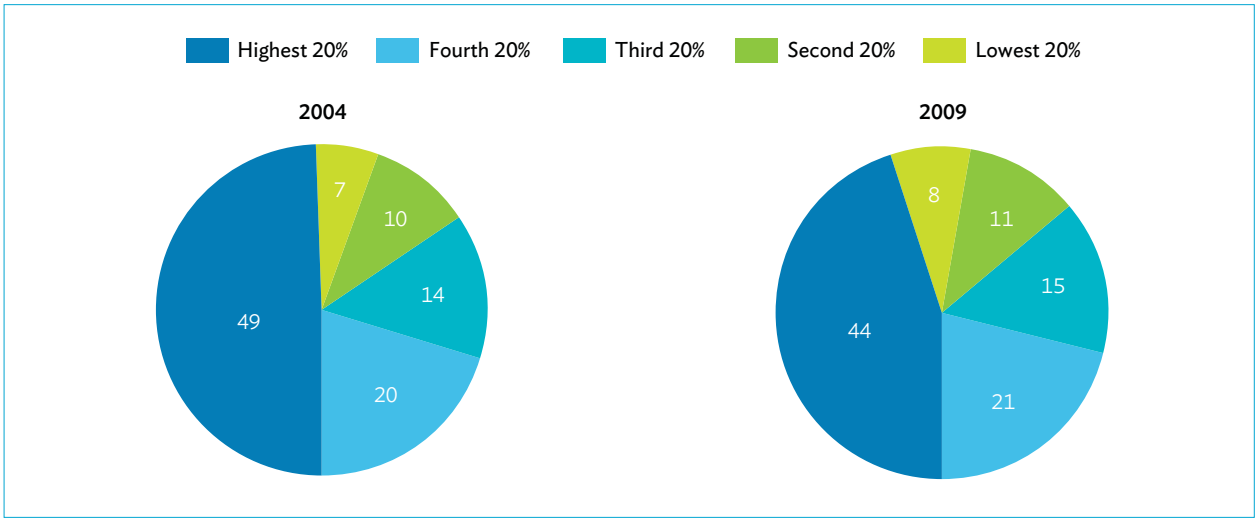
from 0.38 in 1994 to 0.42 in 2004 (World Bank, WDI). However, during the more recent phase of rapid growth, the trend reversed and the Gini coefficient fell to 0.36, below the critical benchmark of 0.40 that conventionally separates moderately unequal countries from those with a high rate (Figure 1.47). The richest 20% of income earners still account for 45% of the country's total income, while the poorest earn only 8% of it. During the recent period of declining inequality, the income share of the richest quartile declined and the share of the other four income quartiles rose (Figure 1.48).

Figure 1.47. Income Inequality in Selected Asian Countries, Latest Year Available (%)



Lao PDR = Lao People's Democratic Republic.
Source: World Bank, WDI database, accessed July 2014.

Figure 1.48. Income Distribution by Quintile, 2004 and 2009



Source: World Bank, WDI database, accessed July 2014.

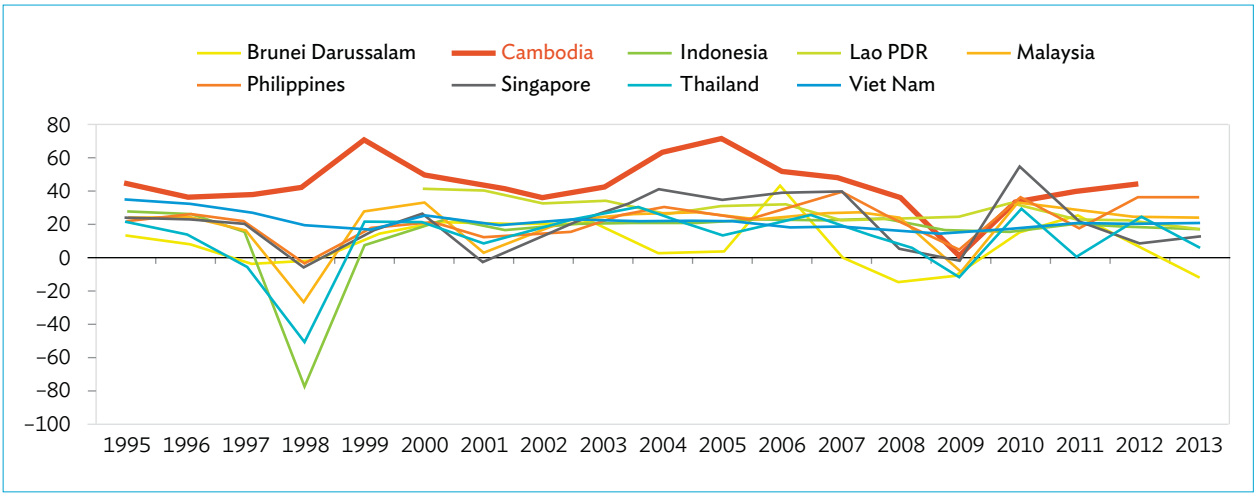
2. CRITICAL CONSTRAINTS TO GROWTH

To sustain high growth at or above an annual average of 7%–8%, Cambodia needs to renew its efforts to promote economic diversification and industrial upgrading while continuing to leverage its comparative advantage. Additional support would be required for the country to produce more complex and high-value goods and services, and to avoid getting caught in a low-value, low-wage production trap. And the priority should be on making further improvements in the business environment and investment in public goods.

The government has maintained a stable macroeconomic environment and invested in key growth-supporting factors (infrastructure and education), thus providing a backdrop for strong growth. The social return on investment, which measures the efficiency of investment in generating growth, has been the highest in Southeast Asia for the last 2 decades (Figure 2.1).

Drawing on the growth diagnostics framework developed in Hausmann, Rodrik, and Velasco (2005), Box 2.1 assesses Cambodia's economy to determine the key constraints to sustaining and accelerating growth. The analysis is organized around the three general areas provided in the framework: (1) factors that affect the social return on investment—education and infrastructure, (2) the appropriability of the return on investment—government and market failure, and (3) access to low-cost finance—both domestic and foreign .

Figure 2.1. Social Return on Investment in ASEAN Countries, 1995–2013 (%)

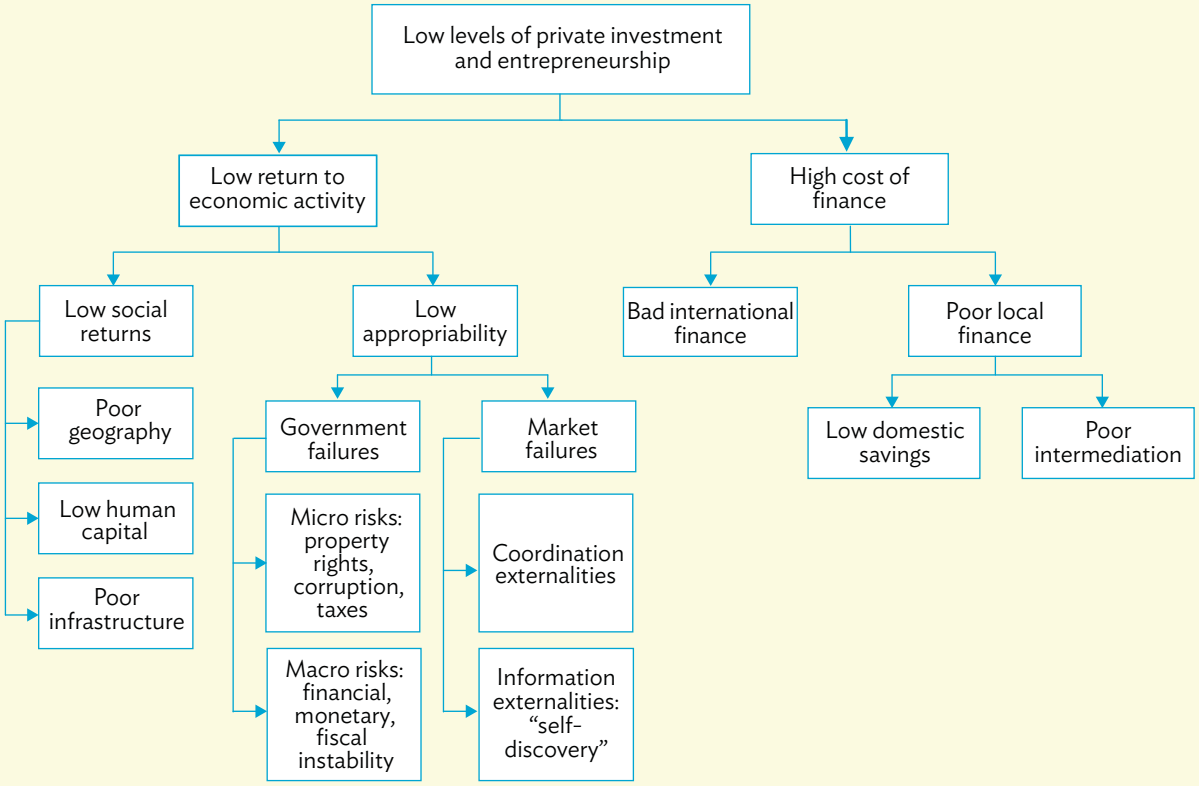


ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.
Note: Social return on investment is the ratio of the GDP growth rate and gross capital formation as a percentage of GDP. Myanmar is excluded due to its incomplete data series.
Source: World Bank, WDI database, accessed October 2014.

Box 2.1. Growth Diagnostics Framework

The Hausmann, Rodrik, and Velasco (2005) approach provides a consistent framework for identifying the most critical or binding constraints to growth and for discerning the priorities and sequence of policies required to ignite and sustain growth. The growth diagnostics approach starts with a set of proximate determinants of growth, investigates which of these pose the greatest impediments or are the most critical constraints to higher growth, and determines specific distortions behind the impediments. The point of departure of the inquiry is a standard endogenous growth model in which growth depends on the social return to accumulation, private appropriability of this social return, and the cost of financing. Each of these three broad determinants of growth is in turn a function of many other factors, which can be presented in a problem tree (Figure B2.1.).

Figure B2.1. Problem Tree of the Growth Diagnostics Framework



Sources: Hausmann, Rodrik, and Velasco (2005); authors.

2.1. Human Capital

There is a need to increase investment in human capital. Developing an adequate skills base is essential for realizing the potential of young people coming into the job market. The working-age population (15–64 years) has increased rapidly, from about 7.6 million in 2004 to 9.6 million in 2013 (Table 2.1). Although Cambodia is moving toward the end of this demographic transition and fertility rates have declined, a large influx of young people into the labor force will continue for some time.

Cambodia's economic performance and future growth opportunities will depend largely on its ability to equip its young people with adequate education and skills for productive jobs and entrepreneurship.

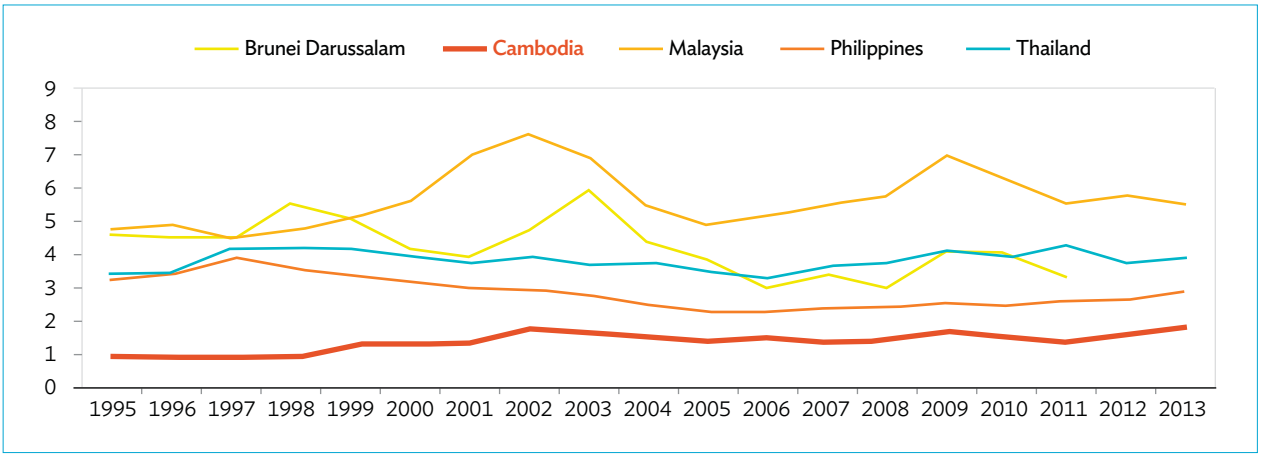
The short supply of skilled labor stems from major disruptions in education during the civil war of

Table 2.1. Overview of the Labor Market, 2004–2013

	2004	2007	2009	2013
Total Working-Age Population, 15–64 years ('000)	7,589	8,232	8,865	9,604
Labor Force ('000)	6,235	6,888	7,480	7,974
Labor Force Participation Rate	82.2	83.7	84.4	83.0
Employed ('000)	6,577	7,313	7,469	7,951
Employment Rate	81.3	83.0	84.3	82.8

Source: NIS, Cambodia Socio-Economic Survey (CSES), accessed January 2014.

Figure 2.2. Expenditure on Education, 1995–2013 (% of GDP)



GDP = gross domestic product.
Source: ADB (2013b, 2014a).

the early 1970s and the subsequent Khmer Rouge regime. The state of education has improved greatly during the last 2 decades, broadening access for students of all socioeconomic and geographical backgrounds. However, limited funding seems to be a perpetual issue that hampers progress.

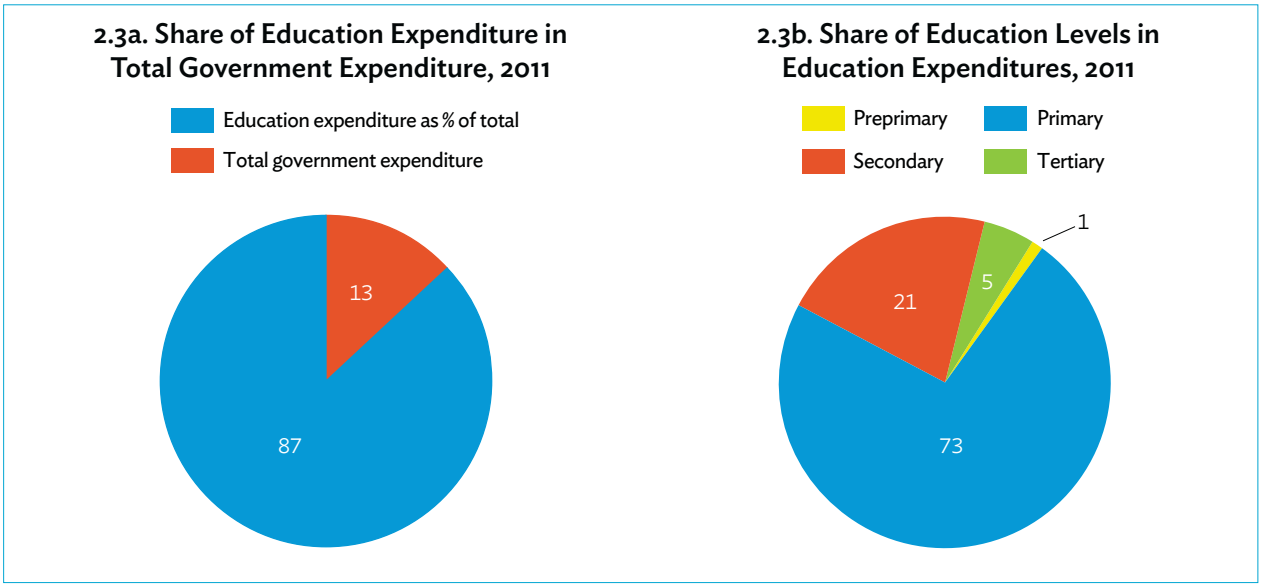
The share of government expenditure on education was the lowest in Southeast Asia, at less than 2% of gross domestic product (GDP) between 1995 and 2013 (Figure 2.2). Investment in education since the 1990s has concentrated on primary education, with education policy focused on achieving universal primary education. Remaining resources were mostly allocated to developing secondary education, while preprimary and tertiary education received very limited support (Figure 2.3).

Early years in education need more attention and public support. Preprimary education, a basic foundation of learning for school children, has expanded during the last decade due to support from public and private institutions. But it was still below the average of 68% for East Asia and the Pacific in 2012 and below that of comparator countries in Southeast Asia (Figure 2.4).[11]

The overall quality of education remains a challenge. A national assessment system has yet to be standardized and regularly administered, but national assessment tests for grades 3, 6, and 9 in mathematics and language (Khmer) show that students' learning achievements, although improving, remain low. Grades 3 and 9 students only managed mean scores in mathematics of 48% and 44%, respectively, which were below the passing score of 50% (Table 2.2). Language test scores were higher, and for grades 6 and 9 averaged well above 60% (the passing score for languages is also 50%).

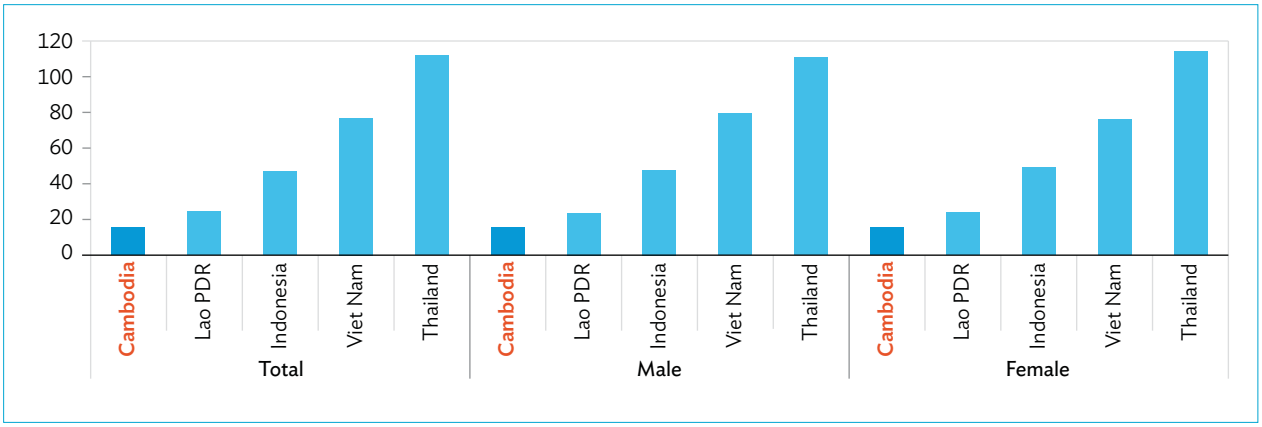
[11] UNESCO Institute for Statistics, accessed July 2014.

Figure 2.3. Education Expenditure in Cambodia



Source: UNESCO Institute for Statistics, accessed May 2013.

Figure 2.4. Gross Enrollment Ratios in Preprimary Education, Selected ASEAN Countries, 2012 (%)



Lao PDR = Lao People's Democratic Republic.
Source: UNESCO Institute for Statistics, accessed October 2014.

Progression rates have improved, but dropout rates remain high among lower- and upper-secondary students. The average repetition rate in the primary level fell to 5% in the 2012/2013 school year (SY) from 9% in SY2008/2009, but the dropout rates edged up from 8% to 11% (Figure 2.5). At the lower- and upper-secondary levels, the dropout rates are even higher at 21% and 14%, respectively. Dropout rates were also much higher in rural than in urban areas. Boys are more likely to repeat than girls.

Table 2.2. National Assessment of Learning Outcomes (average score)

Assessment Grade	Mathematics	Language
Grade 3 (2009)	48	54
Grade 6 (2007)	59	68
Grade 9 (2010)	44	68

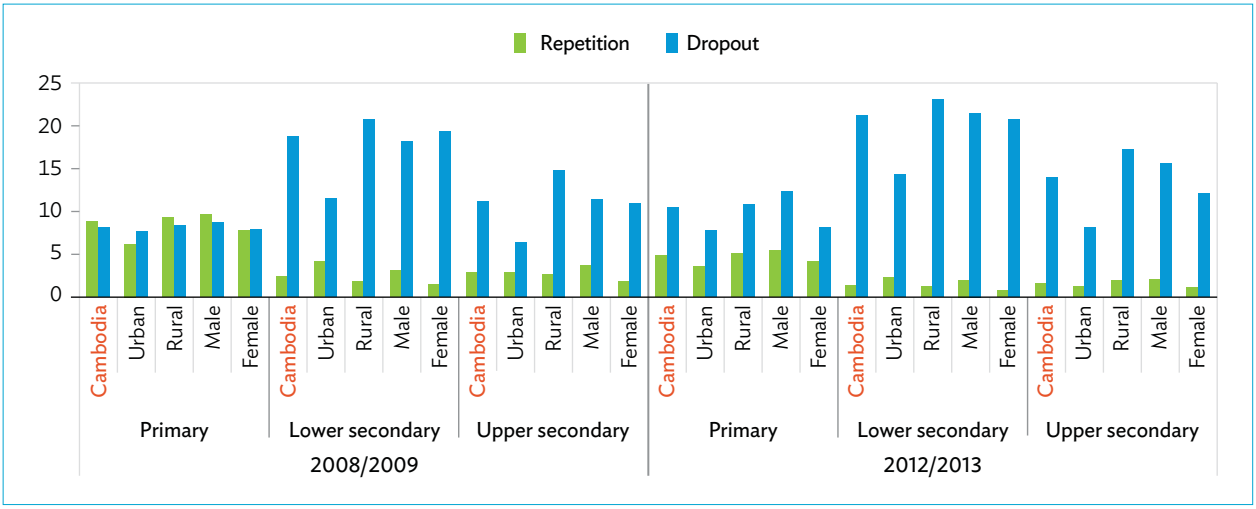
Source: World Bank, Global Partnership for Education Database, accessed June 2014.

Cambodia has lowered its repetition rate substantially, especially at the primary level, but the share of repeaters to total enrollment at the primary level remains the second highest in Southeast Asia (Figure 2.6).

The low level of learning outcomes suggests a serious deficiency in the education system. The scarcity of basic learning materials and equipment and a weak curriculum in English and mathematics are major issues. In addition, the quality of teachers is a critical constraint on the performance of schools. A high proportion of teachers have not completed educational qualifications and pedagogical training. Of Cambodia's 89,000 teachers, only 14% hold a bachelor's degree, and less than 1% have a master's degree. More than 95% of primary school teachers have completed only up to upper secondary education. Among secondary school teachers, only 27% have obtained a bachelor's degree (Table 2.3).

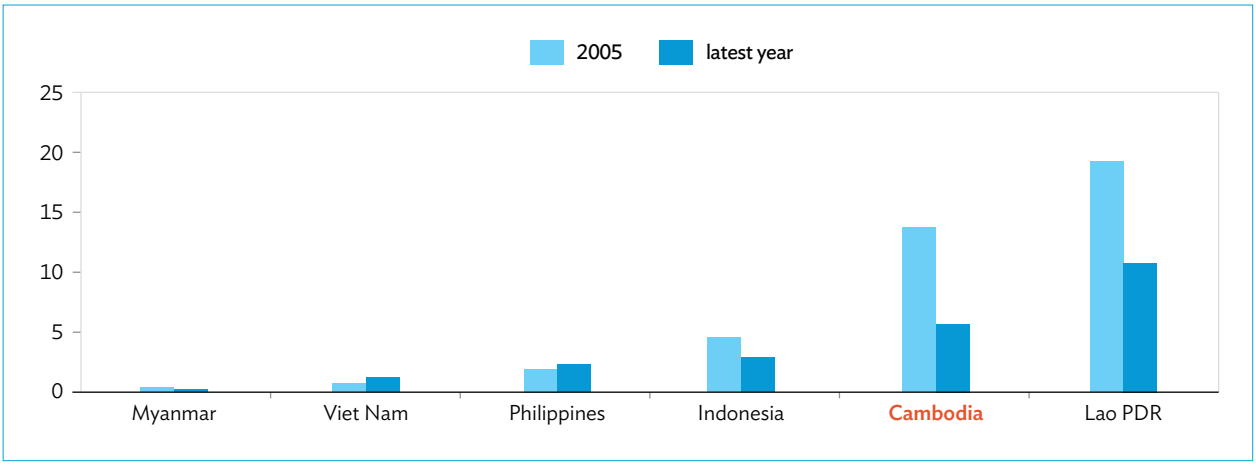
The shortage of qualified teachers necessitates additional investment to upgrade teachers'

Figure 2.5. Repetition and Dropout Rates in Various Levels, SY2008/2009 and SY2012/2013 (%)



SY = school year.
Source: Ministry of Education, Youth, and Sport (2010a, 2014), accessed October 2014.

Figure 2.6. Repetition Rates at the Primary Level, Selected ASEAN Countries (%)



Lao PDR = Lao People's Democratic Republic.
Note: Latest year is 2012 for Cambodia, Indonesia, and Viet Nam; 2010 for Myanmar; and 2009 for the Philippines.
Source: World Bank, WDI database, accessed October 2014.

Table 2.3. Education Level and Pedagogical Training of Teachers

Education Level Taught	Highest Education Level Achieved					
	Primary	Lower Secondary	Upper Secondary	Bachelor's Degree	Master's Degree	Doctoral Degree
Overall						
Number	1,708	23,934	50,006	12,611	555	4.0
%	1.9	26.9	56.3	14.2	0.6	0.0
Primary						
Number	1,364	15,768	25,893	1832	37	1.0
%	3.0	35.1	57.7	4.1	0.1	0.0
Secondary						
Number	164	6,240	21,733	10,728	518	3.0
%	0.4	15.8	55.2	27.2	1.3	0.0

Source: Ministry of Education, Youth and Sport (MOEYS) (2014), accessed July 2014.

education and skills. Teachers need to keep abreast of the advancement of technology and development of knowledge, as students' learning outcomes largely depend on how well a teacher knows the subject matter and can ably teach the curriculum. Over time, Cambodia needs to expand the number of qualified teachers in primary and secondary schools.

Skills mismatches and gaps in the labor market are evident. According to the World Economic Forum's Global Competiveness Report, Cambodia's education system is the weakest in Southeast Asia (Table 2.4). While Cambodia's education-related indicators are not the lowest in all categories, they are below other countries' indicators in many categories. Improving the education system could strengthen the provision of market-relevant technical and vocational training in upper secondary schools and encourage the teaching of soft skills needed in the workplace, such as communications, problem solving, and working together.

The low completion rate for secondary school and the poor overall quality of education have limited the number of tertiary education enrollees. Less than 2,000 students enrolled in a 4-year bachelor's degree program in SY2009/2010, and about 3,300 enrolled in a 2-year associate degree program (Table 2.5). The number of higher education institutions increased from 15 to 72 between 2001 and 2008, mostly concentrated in Phnom Penh. Of the 72 institutions, 46 are privately run (Figure 2.7).

Popular areas of study among Cambodian higher education students include foreign languages, management, accounting, and computer science. These had the highest number of enrollees during 2006–2009 (Table 2.6). Table 2.7 shows projections for the demand and supply of higher education graduates for 2009–2014. Most disciplines are likely to provide more than an adequate supply of graduates, with the exceptions of engineering, health science, and marketing. Nevertheless, employers continue to note that graduates lacked the essential skills and practical experience required for employment in the fields for which they were supposed to be qualified.

Both technical and vocational education and training (TVET) and higher education have a low-enrollment problem (Table 2.5). Although the number of students enrolled in TVET has grown in the last few years, it is low compared with the number of youths in the country. Many students do not pursue TVET because staying in school is costly. Further, the value of TVET to future earning potential may not be widely understood. Secondary school graduates who have followed the TVET curriculum earn 60% more than primary school graduates, and postsecondary TVET graduates earn a wage premium of 112% over lower-

Table 2.4. Global Competitiveness Report, 2013–2014 (rank among 148 countries)

Comparative Indicators	Cambodia	Indonesia	Lao PDR	Thailand	Viet Nam	Philippines	Malaysia	Brunei Darussalam	Singapore
Global Competitiveness Index	88	38	81	37	70	59	24	26	2
Quality of Primary Education	106	55	79	86	97	76	33	17	3
Primary Education Enrollment, net %	31	56	42	101	15	108	55	47	1
Secondary Education Enrollment, gross %	125	92	122	94	96	83	105	9	18
Tertiary Education Enrollment, gross %	104	87	100	55	89	81	62	94	20
Quality of Educational System	76	36	57	78	95	40	19	32	3
Quality of Math and Science Education	102	35	90	80	85	96	27	29	1
Quality of Management Schools	108	58	82	53	125	6	35	52	6
Internet Access in Schools	89	50	87	65	41	74	36	32	4
Availability of Research and Training	90	48	88	64	125	51	20	87	14
Extent of Staff Training	66	25	55	50	98	27	11	26	6

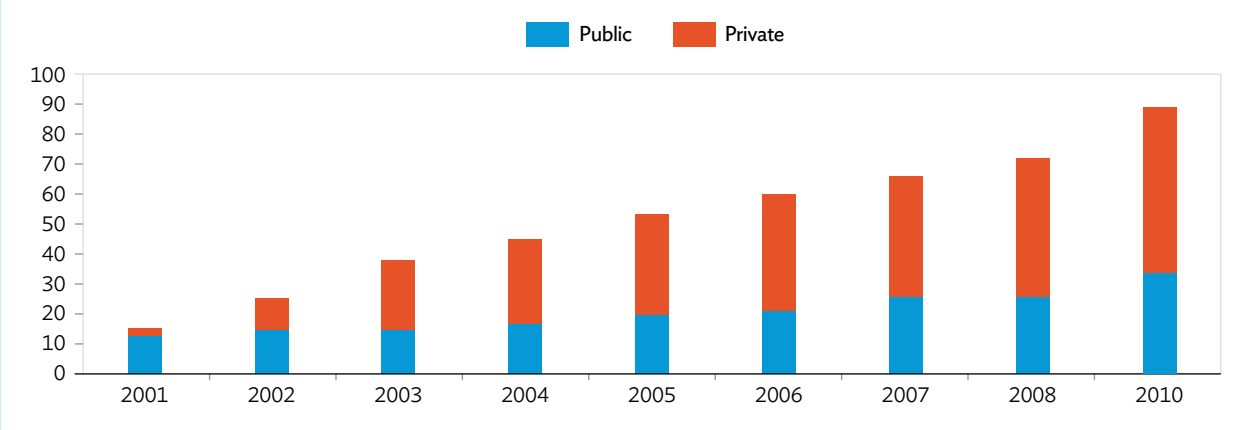
Lao PDR = Lao People's Democratic Republic.
Source: WEF (2013a).

Table 2.5. Enrollment in Higher Education and TVET in Cambodia, 2004–2010

Type of Education	2004–2005	2005–2006	2006–2007	2007–2008	2008–2009	2009–2010
Bachelor's Degree	1,041	1,126	1,158	1,408	1,330	1,981
Associate Degree	1,237	2,201	2,172	3,151	1,959	3,308
Vocational Training Certificate 1,2,3 (from grades 10–12)	594	503	1,562	1,524	1,214	746
Vocational Training Certificate (less than 1 year/informal)	10,692	17,722	64,970	67,178	11,7240	66,695
Training at Private Institutes and NGOs	14,330	26,434	18,505	40,387	45,887	47,447

NGO = nongovernment organization, TVET = technical and vocational education and training.
Note: A bachelor's degree is a 4-year degree course; an associate degree is a 2-year course.
Source: United Nations Development Programme (UNDP) (2011).

Figure 2.7. Number of Higher Education Institutes, 2001–2010



Source: HR Inc. Cambodia (2009).

Table 2.6. Higher Education Enrollment by Discipline, 2006–2009 (% of total)

Study Discipline	2006–2007	2008–2009
Various		
Mathematics, chemistry, physics, biology	1.8	2.2
Foundation year	2.2	3.3
Computer science	8.8	6.9
Sociology, humanities, arts	5.6	6.3
Tourism	3.6	2.2
Foreign languages	16.5	12.7
Law	4.9	5.5
Health science	5.8	5.7
Agriculture and rural development	4.1	3.9
Engineering and mechanical	3.1	3.4
Subtotal: Various	**56.4**	**52.1**
Business Management		
Business	7.9	7.9
Marketing	0.9	1.2
Management	14.6	12.2
Banking and finance	1.2	2.6
Economics	6.1	6.4
Accounting	8.8	11.3
Finance	4.1	6.4
Subtotal: Management	**43.6**	**48.0**

Note: Includes public and private higher education institutions. Foundation year is a year of study to prepare students whose educational background or achievements are insufficient to qualify to pursue the course in which they are enrolled.
Source: UNDP (2011).

Table 2.7. Projected Demand for and Supply of Higher Education Graduates, 2009–2014 (total for the 6 years)

Discipline	Demand	Supply	Excess Supply	Supply as % of Demand
Disciplines in Excess Supply				
Business and management	11,414	46,974	35,560	412
Foreign languages	2,916	32,958	30,042	1,130
Information technology	2,928	17,956	15,028	613
Accounting	9,220	23,562	14,342	256
Banking, finance, and economics	17,215	30,683	13,468	178
Sociology, humanities, and arts	1,570	13,789	12,219	878
Law	1,184	11,820	10,636	998
Tourism	2,632	6,591	3,959	250
Other science	860	4,773	3,913	555
Agriculture and rural development	5,141	8,638	3,497	168
Disciplines in Excess Demand				
Engineering	8,153	7,197	−956	88
Health science	14,307	12,424	−1,883	87
Marketing	8,066	2,501	−5,565	31
Total	**85,606**	**219,866**	**134,260**	**257**

Note: Total supply excludes unspecified disciplines, comprising 7,425 degrees in the 6-year period.
Source: HR Inc. Cambodia (2009).

secondary school graduates. Yet, only about 17% of students express a desire to enroll in TVET (World Bank 2012).

The government has emphasized improving skills as part of its Rectangular Strategy for Growth, Employment, Equity, and Efficiency. Although firms do not currently perceive skills as a top business constraint, skills shortages will undermine the process of upgrading and diversifying industry, services, and agriculture. Estimates based on a recent survey of firms in Cambodia (World Bank and ADB 2012) indicate that 9.2% of firms reported skills shortages as a major constraint to growth, an increase from the 6.5% in an earlier assessment (World Bank 2004). The 2012 survey also noted that 22% of foreign-owned firms identified skills shortages as a "severe" or "very severe" constraint to their businesses.

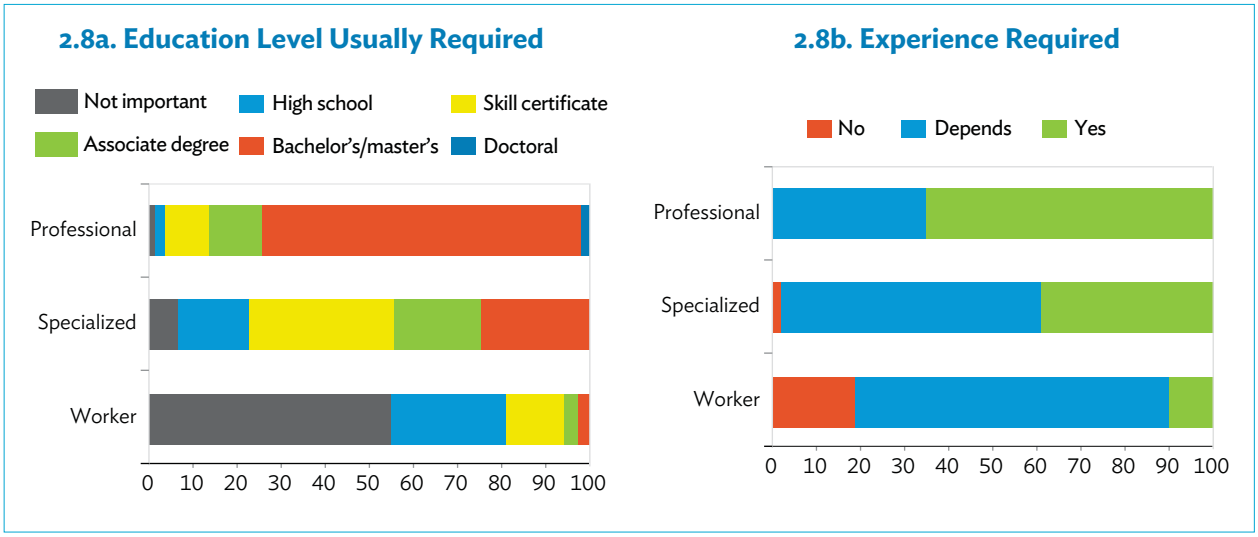
Employers also point to the relative shortage of skilled TVET and higher education graduates. In a survey of 78 employers (World Bank 2012), 73% reported that university graduates did not have the right skills (only 12% said there are not enough university graduates) and 62% of employers noted that vocational training graduates did not have the right skills (38% suggested that there are too few vocational graduates). Moreover, 31% of employers noted that it is difficult to train or upgrade their workforce, reflecting that training programs are not widely available and are of low quality, and that the skills foundation is generally weak.

Education and experience are major considerations in hiring. Employers find higher education important for professional work, but seek workers with skills certificates and associate degrees for specialized work. In hiring general workers, employers place greater emphasis on work experience than education (Figure 2.8).

Employers perceived the greatest skills shortages in senior management; they also identified "soft skills" as the most important type that employees lack. In the same survey of employers (World Bank 2012), more than 70% reported a major shortage of management skills, 36% reported that middle management and supervisor skills were in short supply, and 34% noted that skills of professionals such as engineers and lawyers were insufficient. Among the most deficient soft skills, 52% of employers identified work attitudes in unskilled workers, 45% cited decision-making skills in semi-skilled workers, and 64% mentioned analytical skills in skilled workers.

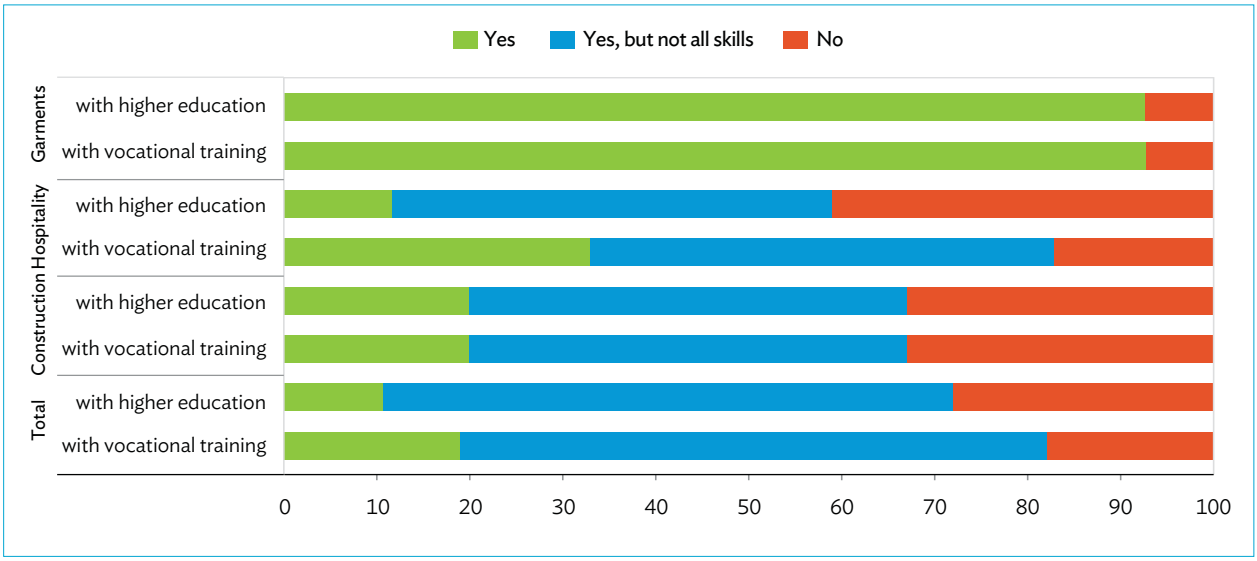
Formal and informal vocational training programs have not been addressing the needs of the labor market and this is evident from the skills mismatch

Figure 2.8. Education Level and Experience Required by Employers



Source: BDLink Cambodia (2008).

Figure 2.9. Skills Gaps among Workers (%)



Note: Data refer to the percentage of formal sector firms reporting on vocational training graduates and the skills necessary to perform their jobs. "Yes" means the firm felt that workers had the required skills.
Source: World Bank (2010).

indicated by employers for selected sectors. About 19% of employers surveyed indicated that workers with vocational training lacked the necessary skills to do their jobs and 63% indicated that such workers had some but not all of the necessary skills (Figure 2.9). For workers with higher education the results were similar: 28% of employers indicated that these workers lacked the required skills and 61% noted that the workers lacked some skills. The skills gap varies between sectors and workers. Those with higher education, particularly, lack skills for jobs in hospitality and construction.

Employers also indicated the skills that are lacking per type of worker (Table 2.8). For unskilled workers, employers ranked a lack of motivation or poor work attitude as the skill most lacking; for semi-skilled workers, a need to improve decision-making ranked first; and for skilled workers, it was a lack of analytical ability.

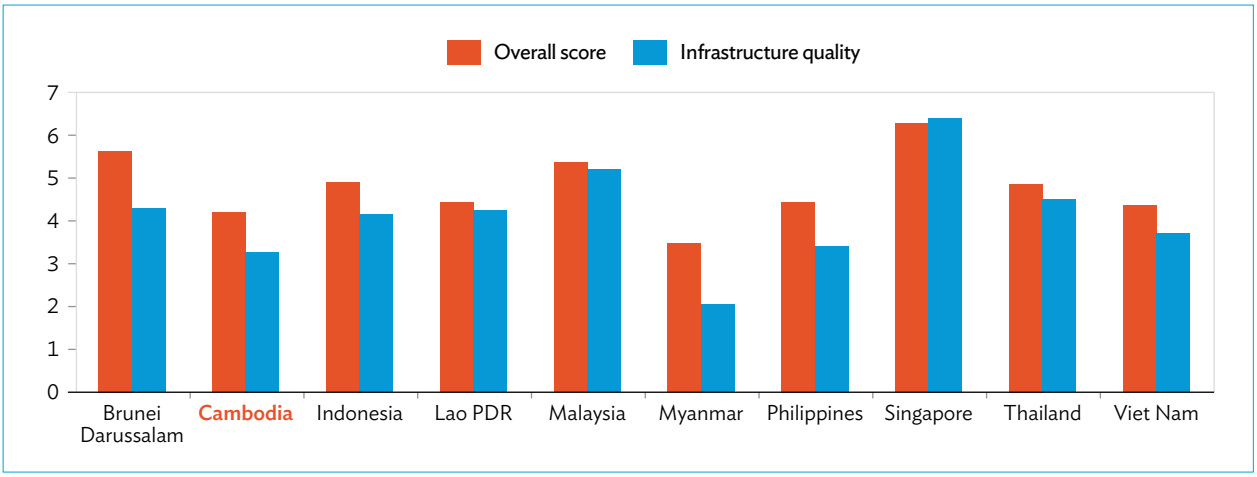
Overall, the skills gaps and mismatches are linked to the access to and quality of education and skills training and to the priority government gives to different levels of the education system. Insufficient information and coordination with the labor market compound the problem, as employers seem to lack channels to communicate their need for specific skills or to influence the government's policies for skills development. Supply-side factors include the challenges of

Table 2.8. Skills Employers Find Lacking Most in Employees

Worker Skill Level	Skill	Percentage
Unskilled	Work attitude	52
	Foreign language	37
	Technical	32
	Experience	32
	Communication	30
Semi-Skilled	Decision making	45
	Experience	42
	Analytical	40
	Technical	36
	Work attitude	35
Skilled	Analytical	64
	Decision making	55
	Experience	37
	Technical	32
	Work attitude	29

Source: UNDP (2011).

Figure 2.10. Global Competitiveness, Infrastructure Scores in Selected ASEAN Countries, 2013



Lao PDR = Lao People's Democratic Republic.
Source: WEF (2013a).

- managing resources in ways that create incentives for higher education and TVET institutes to perform well, be accountable for results, and produce a quality workforce;
- teaching technical and soft skills;
- bringing schools and industries closer together to promote high quality education relevant to the market demand; and
- motivating households to encourage children to attend school and complete their education.

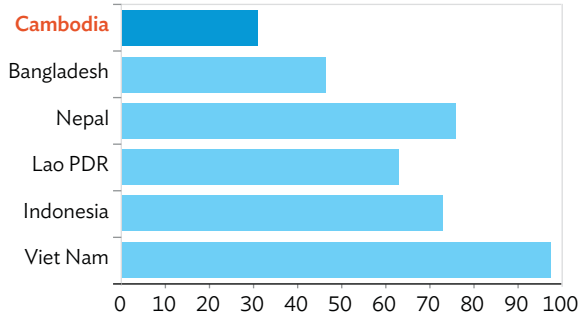
2.2. Infrastructure

The government recognizes the importance of improved infrastructure for sustaining growth and reducing poverty. Cambodia's infrastructure is less developed than in neighboring countries, due to destruction during the civil conflict and subsequent underinvestment (Figure 2.10). An inadequate supply of infrastructure is consistently ranked among the top five constraints voiced by business executives (WEF 2013a).

2.2.1. Electricity

The cost of electricity is high, while access to electricity is among the lowest in Southeast Asia (Figure 2.11). Both are major constraints on business because they increase production costs. Over 40% of businesses surveyed for the 2012 Investment Climate Assessment cited the quality of electricity supply among their top three business constraints (World Bank and ADB 2012). A quarter of respondents ranked it as their top constraint.

Figure 2.11. Access to Electricity in Selected Asian Countries, 2011 (% of population)



Lao PDR = Lao People's Democratic Republic.
Source: World Bank, WDI, accessed July 2014.

Table 2.9. Main Sources of Lighting by Geographical Domain, 2013 (% of households)

Sources of Lighting	Cambodia	Phnom Penh	Other Urban	Other Rural
Publicly-Provided Electricity/ City Power	50.9	100.0	94.3	37.9
Generator	0.3	...	...	0.4
Battery	34.3	...	2.9	43.5
Kerosene Lamp	12.4	...	2.2	15.5
Candle	0.3	...	0.5	0.4
None	...	...	...	0.0
Solar	0.8	...	...	1.0
Other	1.0	...	0.1	1.3
Total	100.0	100.0	100.0	100.0
Households ('000)	3,162	363	331	2,468

... = data not available.
Source: All numbers, including the totals, are from NIS, CSES Tables, accessed July 2014.

The electrification rate was 51% in 2013. The residential subsector continues to be the primary user of electricity (consuming 51% of the supply), followed by services (27%), and industry (19%). The coverage of electricity supply varies widely across regions, with urban households much better supplied than rural. In Phnom Penh, 100% of households are covered and 94% have coverage on the other cities, but in rural areas, the coverage is a low 38%. In Siem Reap, a popular tourist destination, less than a third of the villages are covered. In areas served by private rural electricity enterprises, supply is intermittent and often limited to 4–5 hours in the evening (ADB 2011b). In 2013, 44% of rural households used batteries for lighting and 16% used kerosene lamps (NIS, CSES Tables; Table 2.9).

From the early 1990s and until recently, insufficient attention was paid to planning for the economy's power needs, resulting in inadequate generating capacity, lack of a nationwide grid, and lack of diversification in the structure of production. Consequently, Cambodia depends heavily on electricity imports, which provided 64% of electricity consumed in 2012 (Table 2.10). About three-quarters of total imports are sourced from Viet Nam and the rest are mostly from Thailand. Imports from Viet Nam cost twice as much as imports from Thailand.

Table 2.10. Cambodia's Electricity Sector, 2012

Description	Unit	Amount
Electricity Generated	million kWh	1,423
Total Imports	million kWh	2,104
From Viet Nam	million kWh	1,560
From Thailand	million kWh	535
From Lao PDR	million kWh	9
Total Electricity Available	million kWh	3,527
Energy Sold to Consumers	million kWh	3,266
Generation Capacity	kW	581,935
Consumers	number	992,597
Overall Loss	%	7.4

kW = kilowatt, kWh = kilowatt-hour, Lao PDR = Lao People's Democratic Republic.
Source: Electricity Authority of Cambodia (2013).

Cambodia has yet to benefit from economies of scale in power generation. Electricity is generated by the state-owned Electricité du Cambodge, independent power producers, and consolidated licensees (Table 2.11). The total installed capacity was 582 megawatts (MW) in 2012: independent power producers controlled 77%, Electricité du Cambodge 13%, and consolidated licensees 9%. Independent power producers provided 92% of electricity generated, Electricité du Cambodge 5%,

Table 2.11. Installed Electricity Capacity and Generation, 2012

	Installed Capacity (kW)	Share of Total Installed Capacity (%)	Electricity Generated (million kWh)	Share of Total Electricity Generated (%)
Total	**581,935**	**100**	**1,423**	**100**
Producer				
Independent power producers	451,844	77.7	1,306.0	91.8
Consolidated licensees[a]	54,361	9.3	40.2	2.8
Electricité du Cambodge	75,730	13.0	76.9	5.4
Source				
Hydropower	225,060	38.7	517.4	36.4
Diesel, heavy fuel oil	321,005	55.2	856.6	60.2
Wood, other biomass	22,500	3.9	11.7	0.8
Coal	13,000	2.2	37.4	2.6

kW = kilowatt, kWh = kilowatt per hour.
[a] Consolidated licensees are a combination of some or all types of licenses. A license can be issued to Electricité du Cambodge and to isolated distribution systems, granting the right to generate, transmit, dispatch, distribute, and sell electricity to consumers.
Source: Electricity Authority of Cambodia (2013).

and consolidated licensees 3%. Total electricity generation exceeded 1,400 gigawatt-hours.

Domestically produced electricity is mostly generated from petroleum, leaving the country vulnerable to oil price volatility.[12] Oil-run generators provided 60% of the electricity generated in 2012, with hydropower providing 36% and wood, other biomass and coal the rest.[13] Cambodia has a huge hydropower potential—10,000 MW, of which 50% is in the Mekong River, 40% in its tributaries, and 10% in the southwestern coastal area outside the Mekong basin. With the exception of the large-scale 190-MW Kamchay Plant commissioned in 2011 and a few small and micro hydropower plants, few hydropower dams are on-line (Tables 2.11 and 2.12). However, projects of about 1,000 MW capacity are being developed and, once on-line, they will substantially boost domestic power generation and provide a major shift to cleaner and renewable energy sources (Ministry of Industry, Mines, and Energy, 2012). The government recognizes that these new sources could impact local livelihoods, food security, environmental sustainability, forest degradation, and net carbon emissions (RGC 2012), and that it will need to address these concerns.

The new hydropower projects are part of the Power Development Plan for 2008–2021. Eighteen new power plants are scheduled for completion by 2020. Nine are hydropower, which will account for nearly two-thirds of added capacity; the rest will be mainly fueled by coal.[14] The new plants will add 3,576 MW to the system, dramatically increasing capacity and broadening the sources of power generation.

The national grid covers about 80% of the electricity delivered to consumers. Establishing a complete national grid is a government priority. Currently, grids across the borders with the Lao People's Democratic Republic (Lao PDR), Thailand, and Viet Nam supply adjacent areas inside Cambodia, and other domestic grids support their respective areas (Table 2.13).

The grids have been expanded considerably since 2005. Medium-voltage lines (22 kilovolts) were constructed to support three grids, one each covering the southern, eastern, and northeastern areas. As of 2012, the total length of the medium- and low-voltage lines was 12,880 kilometers (km) and 12,463 km, respectively (Table 2.14). However, the grids do not reach isolated rural areas.

Because of unreliable electricity supply, many firms incur the additional cost of setting up and

[12] Cambodia has unexploited oil and gas reserves. Eight sedimentary basins have been divided into 19 blocks onshore and 6 blocks offshore (Cambodia National Petroleum Authority website). Twenty-eight exploratory wells have been drilled, but the scale of deposits has not been estimated (RGC 2009). Expectations were lowered after it was discovered that the reserves lie in a complicated geological reserve (Reegle website).

[13] In June 2013, electricity supply to Kampong Speu, Kandal, and Phnom Penh received a boost from a new 50-MW coal-fired plant in Sihanoukville province.

[14] Council for the Development of Cambodia, Cambodia Investment Board, and Cambodia Special Economic Zone Board website, Investors Information, Infrastructure, Electricity.

Table 2.12. Hydropower Plants as of May 2013

Hydropower Plant	Province	Installed Capacity (MW)	Commissioned Since
O Chum II	Rattanakiri	1.000	1993
Kirirom I	Kampong Speu and Koh Kong	12.000	May 2002
O Romis Microhydropower	Mondulkiri	0.185	Nov 2008
O Moleng Microhydropower	Mondulkiri	0.185	Nov 2008
Kamchay	Kampot	190.000	2011
Kirirom III	Southwest region	18.000	2013
Total		**221.370**	

MW = megawatt.
Sources: For O Chum II, Kirirom I, and the two microhydros: Ministry of Industry, Mines, and Energy (2011); for Kamchay: Henderson and S. Mesa (2013); for Kirirom III: Energy Business Review (2013).

Table 2.13. Grid Systems

System	Energy Input to System (million kWh)	% of Total	Energy Sold to Consumers (million kWh)	% of Total	Number of Consumers Served	% of Total
National Grid	2,791	79.3	2,622	80.3	651,236	65.6
Kampot–Sihanouk Grid	116	3.3	102	3.1	33,590	3.4
Kampong Cham Grid	42	1.2	33	1.0	54,061	5.4
Viet Nam Grid at MV	318	9.0	277	8.5	131,378	13.2
Thai grid at MV	143	4.1	127	3.9	29,847	3.0
Lao grid at MV	9	0.3	8	0.2	3,563	0.4
Isolated Distribution Systems	29	0.8	24	0.7	88,920	9.0
Generation Licensees to Captive Industries	72	2.0	72	2.2	2	0.0
Total	**3,520**	**100.0**	**3,266**	**100.0**	**992,597**	**100.0**

kWh = kilowatt-hour, MV = medium voltage.
Source: Electricity Authority of Cambodia (2013).

operating their own power generators. Frequent power outages curtail production and shorten the life of capital equipment. Two generation licensees provide supply to captive industries: Kampot Power Plant supplies Kampot Cement Company and Angkor Bio Cogen Company supplies rice producer Angkor Kasekam Roongroeung.

The government aims to increase rural access to electricity and is targeting the electrification of all villages by 2020 and at least 70% of all households having access to grid electricity by 2030 (Electricity Authority of Cambodia 2012).

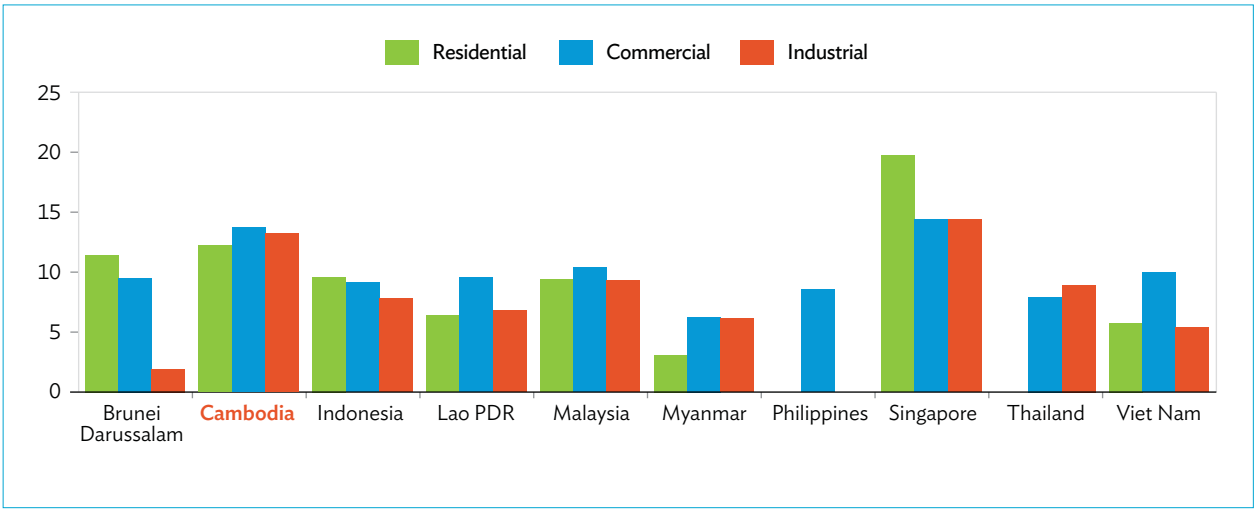
At $0.13 per kilowatt-hour, Cambodia's average tariff is the second highest in Southeast Asia (Figure 2.12, p. 49). The country has different tariffs for domestic, commercial, industrial, and government users. In general, tariffs are much higher outside Phnom Penh (Table 2.15, p. 49). High input costs are a major reason for the high cost of electricity, with small and fragmented generating capacity and large transmission and distribution losses contributing to high tariffs. The majority of generating plants are oil-fueled and electricity prices depend on the price of imported oil.

Table 2.14. Length of Transmission and Distribution Lines, 2012 (km)

	MV Line[a]	LV Line
General Distribution		
Electricité du Cambodge	7,419.64	5,332.91
Consolidated licensees with special purpose transmission license and distribution license[b]	1,020.02	533.18
Consolidated licensees with generation and distribution license[b]	2,291.88	3,764.36
Distribution licensees	1,853.47	2,832.90
Special Purpose Transmission Licensees[c]		
TPLC Holdings	71.00	
Transco Energy (Cambodia)	8.00	
BVC Power Development	215.86	
Total	**12,879.86**	**12,463.35**

km = kilometer, kV = kilovolt, LV = low voltage, MV = medium voltage.
[a] Medium voltage line is 22 kV; below that is a low voltage line.
[b] A consolidated license is a combination of some or all types of licenses, which provide the rights to generate, transmit, dispatch, distribute, and/or sell electricity.
[c] A special transmission license grants the right to construct, own, and operate specified transmission facilities.
Source: Electricity Authority of Cambodia (2013).

Figure 2.12. Average Electricity Tariffs in ASEAN Countries (US cents/kWh)



ASEAN = Association of Southeast Asian Nations, kWh = kilowatt-hour, Lao PDR = Lao People's Democratic Republic, US = United States.
Note: Average electricity tariffs were computed for each sector. Philippine tariffs for commercial and industrial sectors are not available.
Source: Poch and Tuy (2012).

Table 2.15. Electricité du Cambodge Tariffs as of 31 December 2012 (US cents/kWh)

Client	Phnom Penh	Other Areas
Domestic	15.13–20.34	15.19–91.75
Commercial, Industrial, Government	18.24–31.33	12.00–91.75

kWh = kilowatt-hour, US = United States.
Note: $1 = 4,033 riels.
Source: Calculations using data from Electricity Authority of Cambodia (2013).

2.2.2. Transport Network

Road vehicles are the dominant mode of transport, servicing more than 90% of passenger and freight movements. Traffic on rail and water transport has declined steadily due to the deterioration of facilities and inefficient service. Domestic civil aviation has been growing due to burgeoning tourism, but its contribution to overall transport service is minimal.

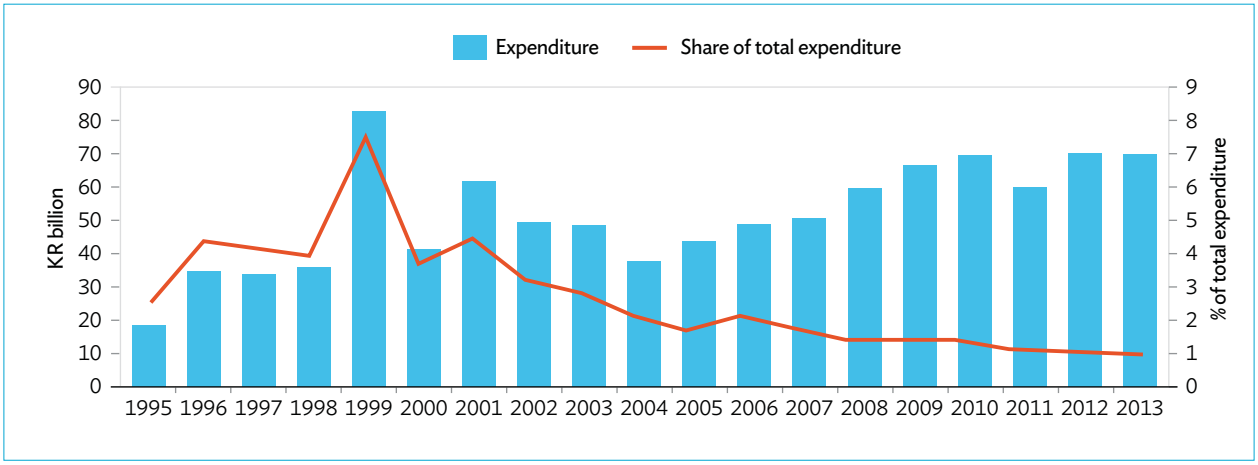
Government expenditure on transport and communication has fluctuated since the early 1990s (Figure 2.13), averaging 4% of total government spending during 1995–1997, but has been below 2% since 2007. In absolute terms, spending on transport and communication rose significantly between 2004 and 2013 except for a dip in 2011.

Road Transport. Development partners have supported the rehabilitation of primary national roads, and 94% of primary national roads have two lanes and are paved and in good condition. However secondary national, provincial, and rural roads are in disrepair and are the chief weakness of the road transport system. About half of the secondary national roads and 85% of provincial roads remain unpaved and have only a single lane (Table 2.16). Nearly all rural roads are unpaved and thus difficult to use during the rainy season. Among countries of the Association of Southeast Asian Nations (ASEAN), Cambodia has the lowest percentage of paved roads (Table 2.17). The budget for routine road maintenance has increased in recent years, but funding for periodic maintenance has declined since 2009 (Figure 2.14).

The poor state of rural roads contributes to the high cost of farm-to-market transport. For example, transporting 1 ton of agricultural product over 100 kilometers costs about $15.00 in Cambodia compared with $7.50 in Viet Nam and only $4.00 in Thailand (World Bank 2009). Farmers, traders, and processors identify high transport costs (due to poor infrastructure and illegal fees) as a major constraint on their profitability (Agrifood Consulting and Camconsult 2006). A typical rural household in Cambodia spends more hours traveling than does a rural household in Bangladesh, Ethiopia, or the Philippines (Table 2.18).

Transport costs consume a large part of poor rural households' incomes. Farmers can also be affected if middlemen try to recoup the high transport costs of taking agricultural products to market and depress the farm gate prices. An efficient transport network will help raise rural incomes and allow farmers and rural agro-enterprises to transport their products to market in a timely manner. More secondary, provincial, and rural roads need to be paved and upgraded to all-weather conditions to reduce transport costs and travel time. An improved road network will also help improve rural access to social services.

Figure 2.13. Expenditure on Transport and Communications, 1995–2013



KR = riel.
Source: ADB (2014a).

Table 2.16. Road Network, 2012

Road Classification	Length (km)	Road Type as % of Total Road Length	Paved Roads per Classification (%)	Number of Bridges
Primary National Road	2,258	4.8	93.7	589
Secondary National Road	3,342	7.1	55.9	698
Provincial Road	6,607	14.0	15.1	904
Rural Road	35,000	74.1	0.3	1,869
Total	**47,207**	**100.0**	**23.0**	**4,060**

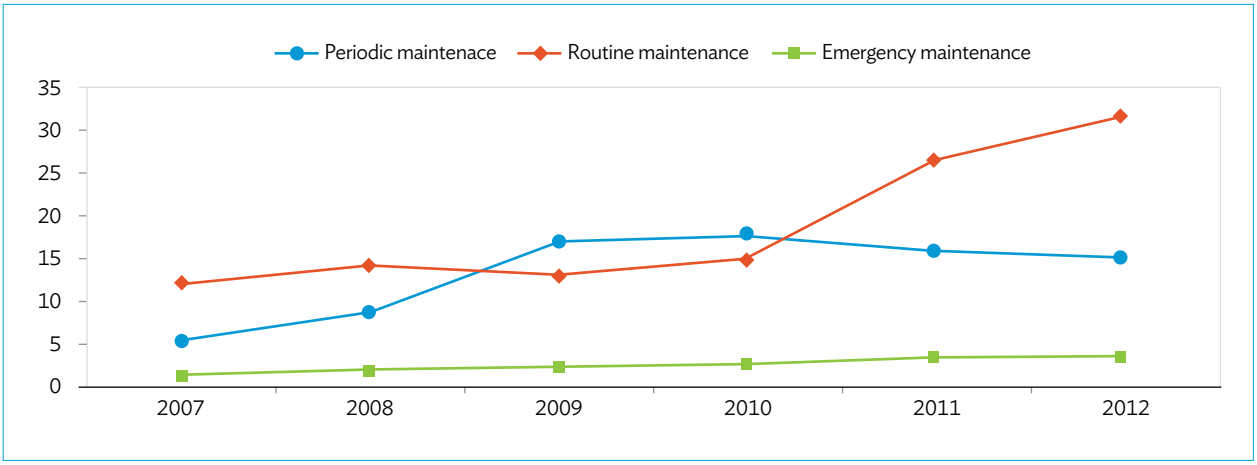
km = kilometer.
Source: Ministry of Public Works and Transport (MPWT) (2012).

Table 2.17. Road Transport Indicators, ASEAN Countries, Latest Year Available

	Roads, Total Network ('000 km)	Road Density (km of road/ 100 km² of land area)	Paved Roads (% of total roads)	Vehicles (per 1,000 people)
Cambodia	**40**	**22**	**6**	**21**
Indonesia	476	25	57	60
Lao PDR	40	17	14	20
Malaysia	144	44	80	361
Myanmar	34	5	12	7
Philippines	200	67	10	67
Singapore	3	4,794	100	186
Thailand	180	35	99	157
Viet Nam	160	48	48	13

km = kilometer, km² = square kilometer, Lao PDR = Lao People's Democratic Republic.
Source: World Bank, WDI database, accessed February 2014.

Figure 2.14. Road Maintenance Budget, 2007–2012 ($ million)



Source: MPWT (2012).

Table 2.18. Transport Burden in Selected Countries

Country	Household Size (people)	Trips per Day (No.)	Hours of Travel per Day	Distance Traveled per Day (km)	Transport Effort per Year (ton-km)[a]
Bangladesh	5.4	32	4.4	26.0	244.0
Cambodia	**5.8**	**15**	**6.7**	**23.1**	**58.4**
Ethiopia	5.8	5	3.5	...	23.2
Philippines	5.3	6	2.4	...	63.8

... = not available, km = kilometer.
[a] The total transport effort expended per household is measured in ton-km; 1 ton-km is the "transport effort" in moving a 1-ton load for 1 km.
Source: Ministry of Rural Development (2007b).

The government has acknowledged the importance of rural roads in sustaining growth and reducing poverty. The Strategic Plan for Rural Roads Development is anchored on "improving social and economic conditions of rural Cambodia, with an emphasis on improving the livelihood of the rural poor and creating livelihood opportunities for women in rural areas, through the sustainable improvement and maintenance of rural roads" (Ministry of Rural Development 2007a, viii). The plan lists inadequate programming and planning, limited financing, unsustainability, and weak institutions as constraints to the development of rural roads. The necessary legal and institutional systems could be strengthened to improve road safety and ensure that regulations are enforced and clear roles are assigned to the agencies involved in transport.

Port and Inland Waterway Facilities. Cambodia's two international ports, Phnom Penh and Sihanoukville, have been expanded and modernized with donor financing. Further expansion and modernization are imperative to support increased exports and investments in the country's special economic zones. For example, additional storage facilities are needed to increase exports of agricultural products and reach the government's target of exporting 1 million tons of rice annually by 2015. Exploiting off-shore oil reserves will also require adequate oil terminal facilities.

Sihanoukville is the country's only deep-water port, handling 70% of imports and exports. Facilities include wharfs, an oil terminal (able to store 60,000 cubic meters of refined oil), a container berth, an old jetty, and storage facilities (Table 2.19). The port caters mainly to feeder ships from Singapore; it also handles oil tankers and general cargo vessels from Malaysia, Thailand, and other countries in the region. The port handled an annual average of 891 ships in 2007–2011. About 45% of freight traffic is containerized, 32% is cement (32%), and 18% comprises oil products (18%).

The total cargo handled in Sihanoukville port has increased significantly since 2005 (Table 2.20). But passenger traffic has been low except for a surge in 2009 and 2010 (Figure 2.15), when additional passenger cruise ships and naval ships visited on rest and recreation and goodwill tours.[15]

On the Tonle Sap River at Phnom Penh, a major inland port provides access to vessels from the sea through Viet Nam. Port facilities include a container and general cargo terminal, a passenger terminal, a warehouse, and a dry port (Table 2.21). The port serves an average of 150 ships per year, including Singapore-based cargo vessels that usually take 10–12 days for a return voyage. Phnom Penh's port infrastructure consists of three main cargo ports and two oil terminals. The current capacity of the port is 120,000 twenty-foot equivalent units (TEUs)[16] per year, enough to cater to the maximum cargo throughput handled so far (Table 2.22). A new port that will increase the total capacity to 300,000 TEUs per year is being constructed to accommodate the expected increase in cargo traffic.

[15] Sihanoukville Infrastructure and Real Estate website, accessed May 2013.
[16] Equivalent to a twenty-foot container.

Table 2.19. Infrastructure at Sihanoukville Port

Name, Location		Structure	Length (m)	Depth (m)	Year Constructed
Old Jetty	Outer	Jetty	290	–9.0	1960
	Inner	Jetty	290	–8.0	1960
New Wharf		Concrete block	350	–8.5	1970
Container Berth		Concrete block	400	–10.0	2007
Oil Terminal (used by private companies listed below)					
Sokimex		Jetty	200	–10.5	
Tela		Pontoon	110	–6.5	
Oil terminal		Stone wharf	53	–4.2	

m = meter.
Source: MPWT (2012).

Table 2.20. Cargo Throughput at Sihanoukville Port, 2005–2011

Type	2005	2008	2011
Total Cargo (tons)	1,380,846	2,057,967	2,439,384
Container (TEU)	211,141	258,775	237,941
General Cargo (TEU)	107,929	291,114	372,554

TEU = twenty-foot equivalent unit.
Source: Port Autonome de Sihanoukville website, accessed September 2013.

Figure 2.15. Passengers at Sihanoukville Port, 2001–2011 ('000)

Source: MPWT (2012).

Cambodia also has maritime ports at Koh Kong near the Thai border and in Kampot Province. These cater mainly for interisland cargo and only take smaller vessels due to their lack of modern equipment and limited berth lengths.

Cambodia still has a relatively small international freight market with no major bulk commodity flows, unlike some of its neighbors. The number of containers the two main ports handle is low by regional standards (Figure 2.16).

Although port infrastructure has increased, inefficiencies in operations and customs procedures remain, resulting in high transaction costs and longer port handling times. For example, shipping

Table 2.21. Major Infrastructure at Phnom Penh Port

Description	Specification	Vessel Limitations
Container and General Cargo Terminal	Quay: 20 m x 300 m Berthing capacity: 3 vessels at one time	Water depth: –5.0 m
Passenger Terminal	2 pontoons of 15 m x 45 m each	Water depth: –3.5 m
Warehouse	Area: 70m x 50m = 3,500 m^2 Area: 50m x 30m =1,500 m^2	
Inland Container Depot	Area: 92,000 m2	

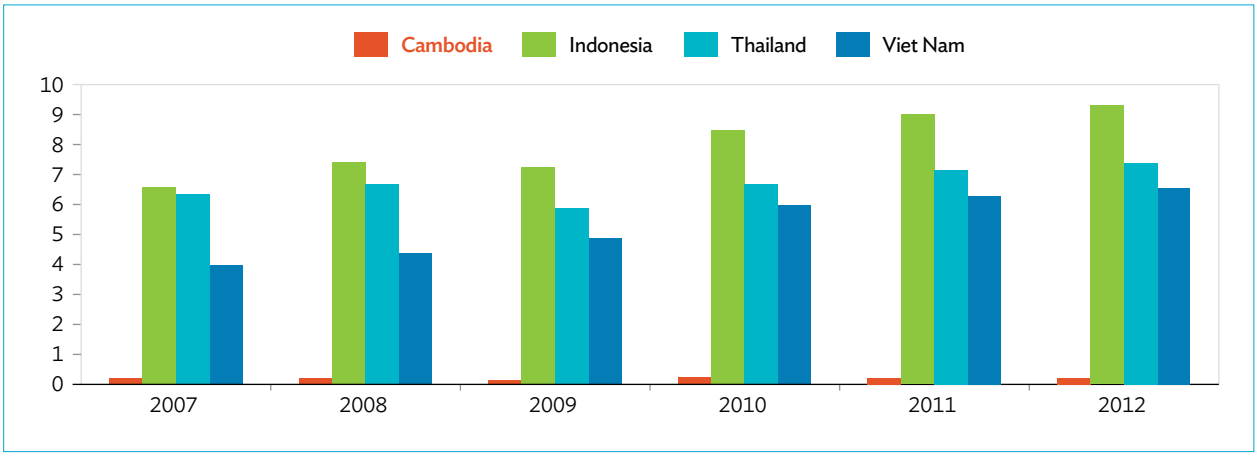
m = meter, m^2 = square meter.
Source: MPWT (2012).

Table 2.22. Cargo Throughput at Phnom Penh International Port, 2006–2011

Type	2006	2007	2008	2009	2010	2011
Total Cargo (tons)	956,170	1,106,701	1,240,339	1,297,115	1,294,800	1,508,413
Container (TEU)	38,233	47,504	47,507	43,312	62,256	81,631

TEU = twenty-foot equivalent unit.
Source: MPWT (2012).

Figure 2.16. Container Port Traffic, Southeast Asian Countries, 2007–2012 (TEU)



TEU = twenty-foot equivalent unit.
Source: World Bank, WDI database, accessed July 2014.

a dry forty-foot container from Sihanoukville to Singapore costs about $600, but only $220 from Ho Chi Minh to Singapore (World Bank 2009).

Costs associated with handling and inland transport of imports at the main ports are high by regional standards (Table 2.23). Importers pay $223/TEU for port and terminal handling plus $205/TEU for inland transport and handling. However, exporting costs less, which may be due to the nature of Cambodia's main export product—garments—and the active role of the industry association in reducing trade costs (World Bank and International Finance corporation [IFC] 2009).

Other constraints to efficient and competitive trade logistics are rooted in operational, procedural, organizational, and other causes. The largest cost items for imports and exports are cargo clearance procedures and document processing. Customs procedures are slow, reflected in the average number of days that a container is processed while in port. In Cambodia, trade costs not related to transport are more than three times those in Thailand and two

Table 2.23. Comparison of Duration and Cost of Importing and Exporting, 2013

	Export						Import					
			Ports and Terminal Handling		Inland Transportation and Handling				Ports and Terminal Handling		Inland Transportation and Handling	
Country	Total Days	Total Cost ($)	Share of Total Days (%)	Share of Total Cost (%)	Share of Total Days (%)	Share of Total Cost (%)	Total Days	Total Cost ($)	Share of Total Days (%)	Share of Total Cost (%)	Share of Total Days (%)	Share of Total Cost (%)
Brunei Darussalam	19	705	16	34	16	32	15	770	13	41	7	29
Cambodia	**22**	**795**	**14**	**13**	**9**	**25**	**24**	**930**	**17**	**24**	**8**	**22**
Indonesia	17	615	12	27	18	26	23	660	17	25	9	24
Lao PDR	23	1,950	13	8	13	69	26	1,910	8	8	15	71
Malaysia	11	450	18	27	27	41	8	485	25	25	25	38
Myanmar	25	670	8	25	8	30	27	660	22	25	7	30
Philippines	15	585	20	38	13	29	14	660	21	30	7	28
Singapore	6	460	17	33	33	30	4	440	25	34	25	32
Thailand	14	595	21	27	14	35	13	760	15	21	8	28
Viet Nam	21	610	14	25	10	33	21	600	19	29	5	33

Lao PDR = Lao People's Democratic Republic.
Sources: World Bank and International Finance Corporation (IFC), Doing Business website (2013a); economy profiles for Brunei Darussalam, Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Viet Nam from World Bank and IFC (2013c–l).

times those in Viet Nam (Chheang and Hamanaka 2011). Bribery and corruption also add to the cost of transport logistics.

Long turnaround times are also an issue, although trade facilitation, customs procedures, and port administration are improving. It takes 5 days on average to clear exports which is comparable to the regional average. Clearance for imports is 6 days which is still longer than the regional average of 4.6 days (World Bank and IFC, Doing Business 2013a). However, the initiation of "blue" and "green" channels for imports has reduced the clearance time for some goods to just 1 day.

Inland waterways are a traditional means for moving goods and people, especially during the rainy season. Cambodia's extensive inland waterways—the Mekong, the Tonle Sap, the Bassac, and their numerous tributaries—provide 1,750 km of navigable waterways, although only 580 km are navigable year round (Ministry of Public Works and Transport 2012). There are severe draft restrictions during summer, as only small craft with a 0.6-meter or less draft are able to operate in the river system. The capacity of vessels plying the Mekong ranges from 20 to 150 tons, depending on the river depth at various locations and times of the year.

In general, inland water transport receives limited support and faces severe constraints in port facilities, especially a lack of navigation aids, limited storage, and the absence of wharf infrastructure at important river crossings. Although many communities depend on these waterways in the absence of a road network in their areas, this is unlikely to be a key means of moving goods and people in future. In any case, limited funds prevent the government from expanding and rehabilitating its inland waterways (RGC and Belgian Technical Cooperation 2006).

However, the government recognizes the Mekong River's importance in rural, domestic, and international transport. The 2006 Master Plan for Waterborne Transport on the Mekong River System in Cambodia laid out strategies to improve and rehabilitate transport operations, including regular dredging of waterways, container facilities, handling equipment, and navigation aids. The master plan also includes strategies for environmentally responsible dredging, and for a bilateral navigation agreement with Viet Nam.

Rail Transport. Rail transport is not playing a significant role in supporting economic activity, aside from transporting key bulk goods such as petroleum and cement. The rehabilitation of the railway, which is under way, will reduce the volume of bulk freight on the roads, significantly reducing road damage.

Cambodia's rail system consists of two single-track main lines with a total length of 640 km. The Northern Line links Poipet on the Thai border in the northwest to Phnom Penh; the Southern Line runs from the capital to Sihanoukville on the coast. The last 48 km of the Northern Line from Sisophon to Poipet (referred to as "the missing link") is being rehabilitated. The main commodities carried by rail are petroleum (from Sihanoukville to depots in Battambang and Phnom Penh), cement, sugar, and other cargo for which expeditious delivery is not essential.

Passenger trains ceased to run on the Southern Line in 2004 and the Northern Line in 2008 (Figure 2.17). Freight trains continue on both lines, but the travel time between Phnom Penh and Sihanoukville is 18–20 hours,[17] compared with 4–5 hours[18] by road.

The repair and rehabilitation of the railways will enhance the country's economic growth and help reduce poverty. The project will reduce the number of heavy vehicles on the road by up to 50%, leading to fewer road accidents, savings in road and sea transport costs, lower carbon dioxide emissions, and improved safety by shifting dangerous or flammable cargo from roads to rail.

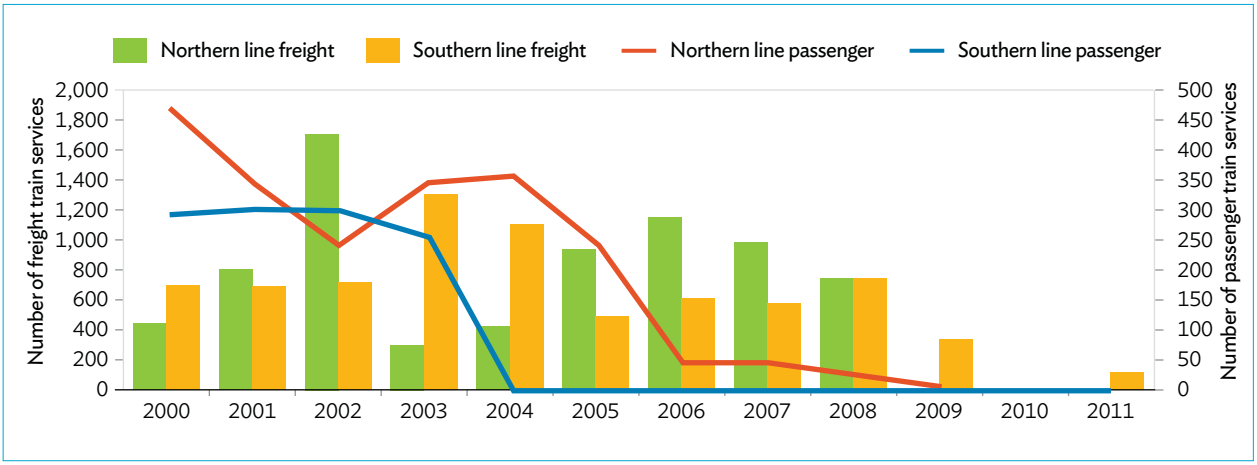
With declining traffic and revenue, and the need to rehabilitate infrastructure, continued subsidies to the railways weigh on the government budget. The government took a major step in June 2009 when it signed a concession agreement with a private sector agency to operate and maintain the rail network for 33 years. The agreement is to provide freight services only. Main lines are being rehabilitated, with cofinancing from the Asian Development Bank, the OPEC Fund for International Development, and Malaysia, and with counterpart funding from the Government of Cambodia. Significant portions have already been rehabilitated and opened for operation. The rehabilitation also includes two branch lines: Phnom Penh station to the Green Trade Warehouse complex and Sihanoukville container terminal to the Sihanoukville port. A Greater Mekong Subregion cross-border rail facility and rail and road freight terminal is to be built at Poipet (ADB 2011d). The challenge is now to find a niche market for the railway and restructure its organization to make it more responsive to evolving sector demand.

Air Transport. Airport infrastructure has improved, but requires further upgrading to handle expanding tourist traffic. Phnom Penh International Airport and Siem Reap International Airport are the major facilities. Each handled an average of 1.7 million passengers per year during 2005–2013 (Figure 2.18). Passenger arrivals have increased sharply since 2005, dominated by growing international traffic, though there was a dip during the global financial crisis. The two main airports operate above capacity and are being expanded so that each can handle 5 million passengers per year. Both airports are accessible via primary national roads. The government plans to build new international airports in Phnom Penh and Siem Reap to meet increased demand: the Tourism Development Strategic Plan 2012–2020 anticipates foreign tourist arrivals reaching 8 million annually by 2020.

[17] Calculation based on information from Council for the Development of Cambodia, Cambodia Investment Board, and Cambodia Special Economic Zone Board website, Investors Information, Infrastructure, Railways, accessed September 2013.

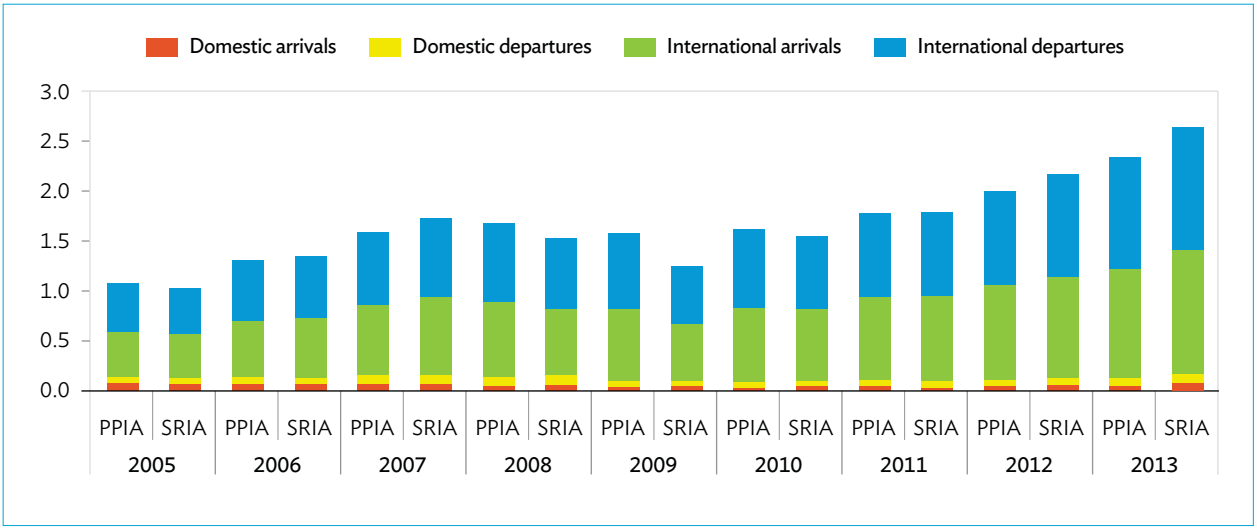
[18] Port Autonome de Sihanoukville website, accessed September 2013.

Figure 2.17. Freight and Passenger Train Services, 2000–2011



Source: MPWT (2012).

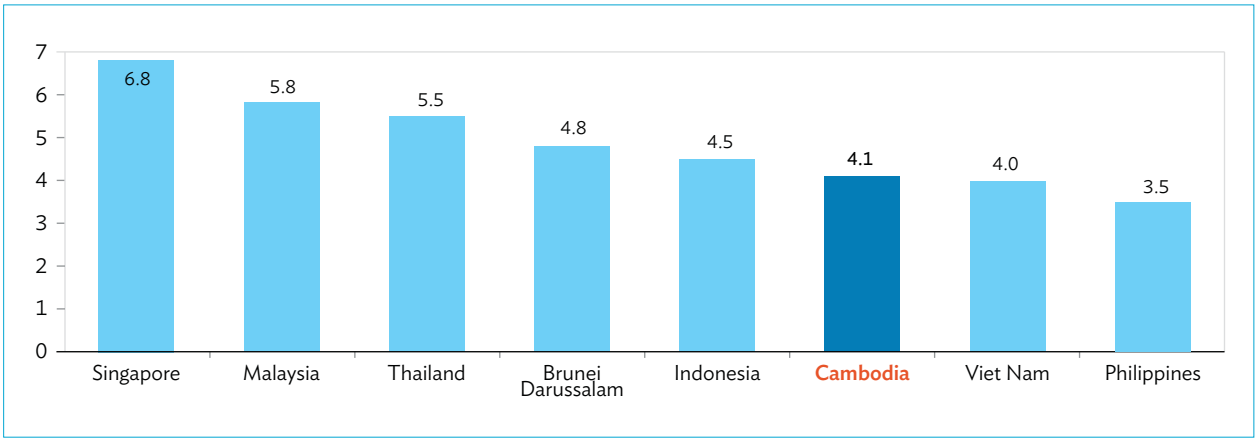
Figure 2.18. Passenger Volume, Phnom Penh and Siem Reap Airports, 2005–2013 (million)



PPIA = Phnom Penh International Airport, SRIA = Siem Reap International Airport.
Note: Each airport is designed for the capacity to handle annually 1.5 million passengers. Phnom Penh is designed for 30,000 tons of cargo annually; Siem Reap for 3,000 tons of cargo.
Sources: Cambodia Airports website, accessed February 2014; State Secretariat of Civil Aviation website, accessed May 2013.

Air transport is key to tourism growth in Cambodia. The government's commitment to an "open skies" policy since 1999 and deregulation of the airline industry allowed foreign carriers to operate in the country, resulting in competitive fares, additional flights, and increased tourist arrivals. The formation of the State Secretariat of Civil Aviation in 1996 was instrumental in improving compliance with the safety and security of international air transport. It encouraged private sector participation in the management, operation, maintenance, and capital upgrading of airports, terminals, and air traffic and navigation services through build-operate-transfer concessions. The legal and regulatory framework for civil aviation was strengthened by the 2008 Civil Aviation Law and numerous safety-related regulations. These efforts are starting to bear fruit (Figure 2.19), as reflected in the higher rating of Cambodia's airport infrastructure than those of the Philippines and Viet Nam in the Global Competitiveness Report 2013–2014 (WEF 2013b).

Figure 2.19. Quality of Air Transport: Scores of Selected ASEAN Countries, 2013



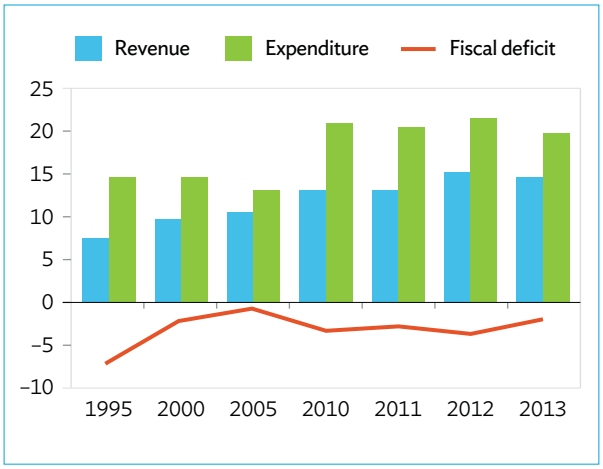
ASEAN = Association of Southeast Asian Nations.
Note: Scores are a weighted average of scores in reply to the question "How would you assess infrastructure (e.g., transport, telephony, and energy) in your country?" In the scoring, 1 = extremely underdeveloped and 7 = extensive and efficient by international standards.
Source: WEF (2013b).

2.3. Macroeconomic Risks

2.3.1. Fiscal Position

The main fiscal challenge is to increase domestic revenue mobilization. Additional revenue is needed to fund public investments in physical and social infrastructure (energy, roads, education) that are crucial to economic growth and development (Figure 2.20). Additional revenue will also help replenish fiscal buffers and ensure that resources are available to help counter sudden economic downturns.

Figure 2.20. Fiscal Deficit, 1995–2013 (% of GDP)

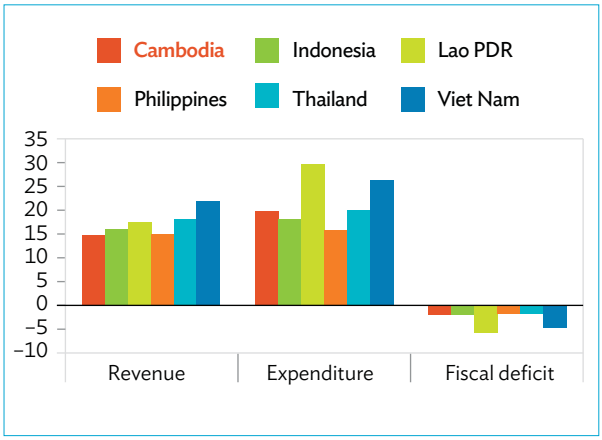


GDP = gross domestic product.
Source: ADB (2014a).

Revenue as a share of GDP remained flat in the decade to 2004, averaging 8%–10%. Revenue collection improved with the implementation of the Law on Taxation, passed in 1997 and amended 2003. Further fiscal reforms were implemented under the two phases of the Public Financial Management Reform Program (2004–2006 and 2008–2010). The Law on Public Finance System (2008) laid down fundamental principles to manage public finances. These initiatives broadened the tax base in the informal sector and strengthened tax auditing. In other fiscal efforts, the tax and customs departments have been modernized and the anti-smuggling plan upgraded. Tax exemptions beyond the allowable limit set out by the Law on Investments were officially prohibited. These reforms, especially in business taxes and customs administration, resulted in a gradual increase in revenues. Tax revenue as a share of GDP rose from 7.3% in 2000 to 12.4% in 2013. This has supported growth in total government revenues to just over 14.9% in 2013; however, the revenues are still lower than in most other countries in the region (Figure 2.21).

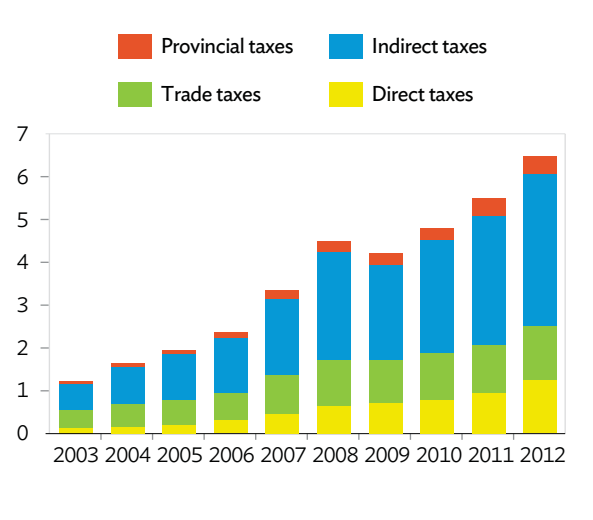
Revenues are dominated by indirect taxes, which accounted for 52% of all taxes in 2012 (Figure 2.22). Taxes on international trade contributed one-third

Figure 2.21. Fiscal Deficit, Government Revenues and Expenditures, Selected ASEAN Countries, 2013 (% of GDP)



ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.
Source: ADB (2014a).

Figure 2.22. Government Tax Revenue Sources, 2003–2012 (KR million)



KR = riel.
Note: The methodology for classifying and defining government finance items is based on IMF (1986).
Source: IMF, Cambodia Article IV Country Consultation, various years.

of tax revenues in the early 2000s and, although they have fallen to about one-fifth, the share remains high relative to other countries in the region. The share is likely to decline further as tariff reductions continue under the ASEAN Economic Community 2015 and other bilateral and multilateral agreements.

Provincial taxes contribute a small share of total revenues.

Low tax revenues are caused by weaknesses in tax administration and tax policy. On the former, about 80% of taxes come from large taxpayers, and the creation of the Large Taxpayers Department has helped to increase revenues, though these gains have leveled off in recent years. A large buildup of tax arrears has reduced revenue inflows and a more aggressive strategy to tackle the arrears should be developed. Thus, along with the effort to strengthen tax collection from a greater number of large taxpayers, a broader effort to increase direct taxes is needed. The hiring of 200 new tax auditors from mid-2011 to mid-2012 was clearly a help in this effort. The General Department of Taxation continues to operate as a directorate of the Ministry of Economy and Finance, but increased autonomy might help to improve its governance and management.

Better tax information and services to the public and small enterprises would increase collection. Better tax department use of information and communication technology (ICT) is needed to ensure officials can focus on increasing tax collection rather than on low-level administrative tasks. Cambodia's tax department has no substantial ICT function in-house, which most developed countries and several emerging ones have (among them, the People's Republic of China, the Philippines, and Thailand). Tax collection would likely also improve through greater use of ICT to make payments. Taxpayers currently do not have access to advanced payment mechanisms, such as phone banking, internet banking, direct debit through a bank, or payment kiosks. All of these facilities are available to taxpayers in neighboring Thailand, for example. Taxpayers in Cambodia do not even have the facility of sending a check by mail for tax payment—common in advanced countries prior to electronic payments (Araki and Claus 2014).

Weak tax policy is also contributing to low revenues. The profit-tax exemption on new investments under the Qualified Investment Projects incentive scheme can be stretched to a maximum of 9 years

and results in considerable foregone tax revenue. It is also unclear if the incentive is effective in attracting new investment. Furthermore, the tax guide for companies (based on the Cambodian Tax Law) includes a number of goods or services to which full or partial exemptions apply, including electricity, financial services, and several petroleum products. Excise taxes are generally low and a revision of their application could increase revenues. Tobacco and diesel may be particularly targeted.

2.3.2. Inflation

Inflation has held steady and is not a threat to macroeconomic stability. Cambodia experienced triple-digit inflation in the early 1990s due to rapid monetary expansion from deficit financing. Inflation was subsequently reduced through prudent macroeconomic management and was maintained at the single-digit level from the late 1990s to the mid-2000s.

2.3.3. Current Account Balance

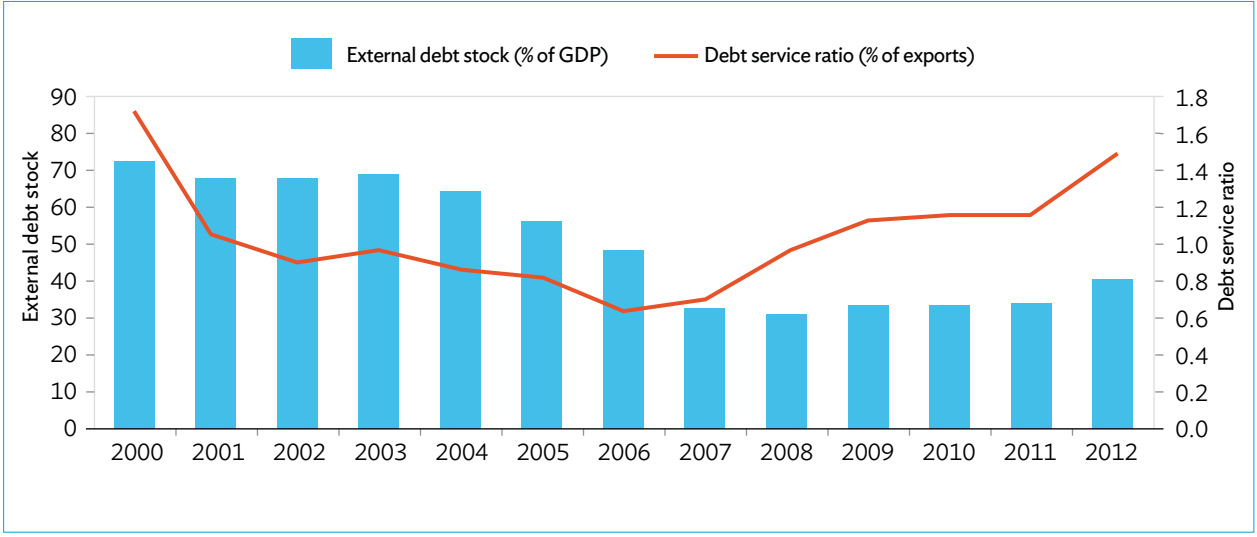
Cambodia's external position remains stable despite a widening current account deficit. The deficit, largely driven by a widening merchandise trade gap, continues to be financed by foreign direct investment and official loans and grants, which have grown rapidly since 2005. But with healthy growth in official reserves, the exchange rate has remained relatively stable.

2.3.4. External Debt

Cambodia's external debt structure is relatively uncomplicated. It almost entirely comprises concessional loans, both bilateral and multilateral, with relatively long maturities. The stock of debt has increased steadily since 2007 and was $5.7 billion in 2012. The debt-to-GDP ratio rose from 33% to 41% in that period (Figure 2.23).

Debt service was less than 1% of goods and services exports in 2007, but rose steadily to 1.5% in 2012. The risk of debt distress is low and standard stress tests do not reveal any serious vulnerability, according to the International Monetary Fund's debt sustainability analysis in 2012 (IMF 2013). The present values of debt-to-GDP, debt-to-exports, and debt-to-revenue ratios are also expected to decline over the next 20 years. However, the debt-to-revenue ratio appears sensitive to exchange rate

Figure 2.23. Size of External Debt and Debt Service Ratio, 2001–2012



GDP = gross domestic product.
Source: World Bank, WDI database, accessed July 2014.

movements and export shocks. This implies that monetary policy to keep the foreign exchange value of the riel in check must be prudently managed. Diversifying export goods while searching for new and additional markets could help reduce Cambodia's high degree of correlation with market movements in the European Union and the United States, its major trading partners. Progress in fiscal consolidation would not only provide a necessary buffer for government revenues, but also reduce the risk of future high deficits.

The government recognizes the need to adopt a debt management strategy to manage the risks, coordinate and implement debt-related policies, and develop its debt management capacity. It is important for the government to analyze regularly the sustainability of its debt, as fiscal risks can arise from contingent liabilities from public–private partnerships.

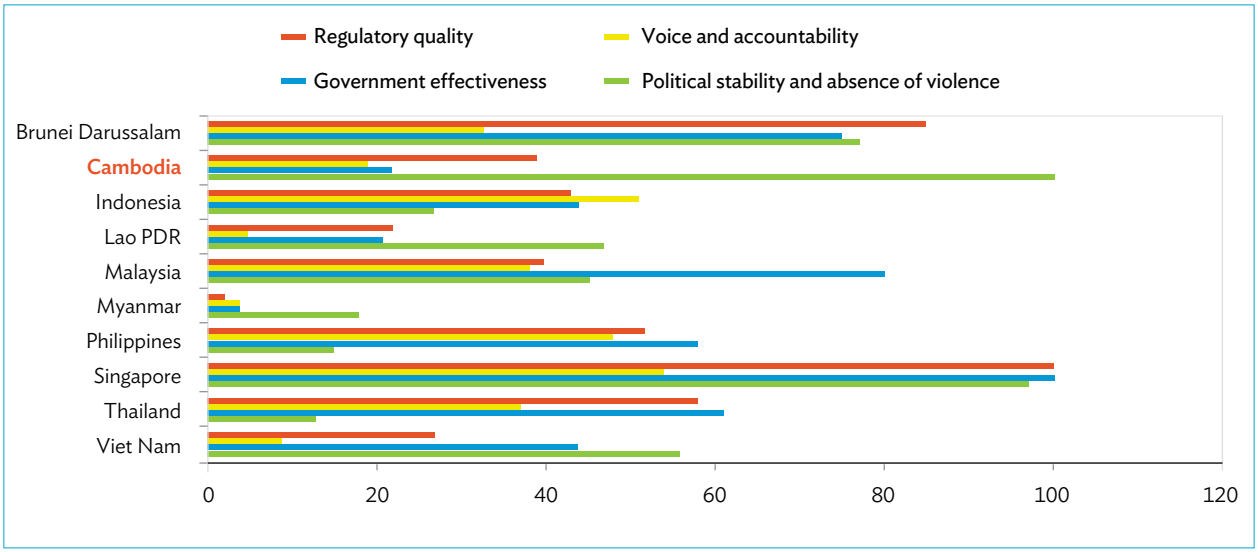
2.4. Microeconomic Risks

Weaknesses in governance pose considerable risk to doing business. Key challenges include strengthening the rule of law, reducing corruption, and improving business regulation. Improved governance would create a more transparent, less troublesome, and less costly environment for conducting business and attract more investment into the country.

2.4.1. Political Stability

Cambodia has established a stable political environment, leaving its violent past behind. The signing of the Paris Peace Agreements in 1991 and the final resolution of armed opposition in 1998 ushered in an era of tranquility. Five national democratic elections have been held since 1993 with a single party, the Cambodian People's Party, emerging dominant in recent years. Cambodia ranks a respectable sixth among the 10 ASEAN countries in political stability and absence of violence, according to the World Bank's Worldwide Governance Indicators (Figure 2.24). This places it above economies with higher incomes, including Indonesia, the Philippines, and Thailand. Elections in mid-2013, in which a main opposition leader was pardoned and returned to the country, were peaceful and helped ensure continued political stability. This stability has reassured investors, who do not see a lack of stability constraining growth. However, the ability of civil society to voice concerns and hold the government accountable is not strong, with the country ranked

Figure 2.24. Governance Indicators in ASEAN Countries, 2012 (percentile ranking)



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Source: World Bank, Worldwide Governance Indicators, accessed July 2014.

seventh in the ASEAN region in these indicators, which have shown little improvement in the last 2 decades.

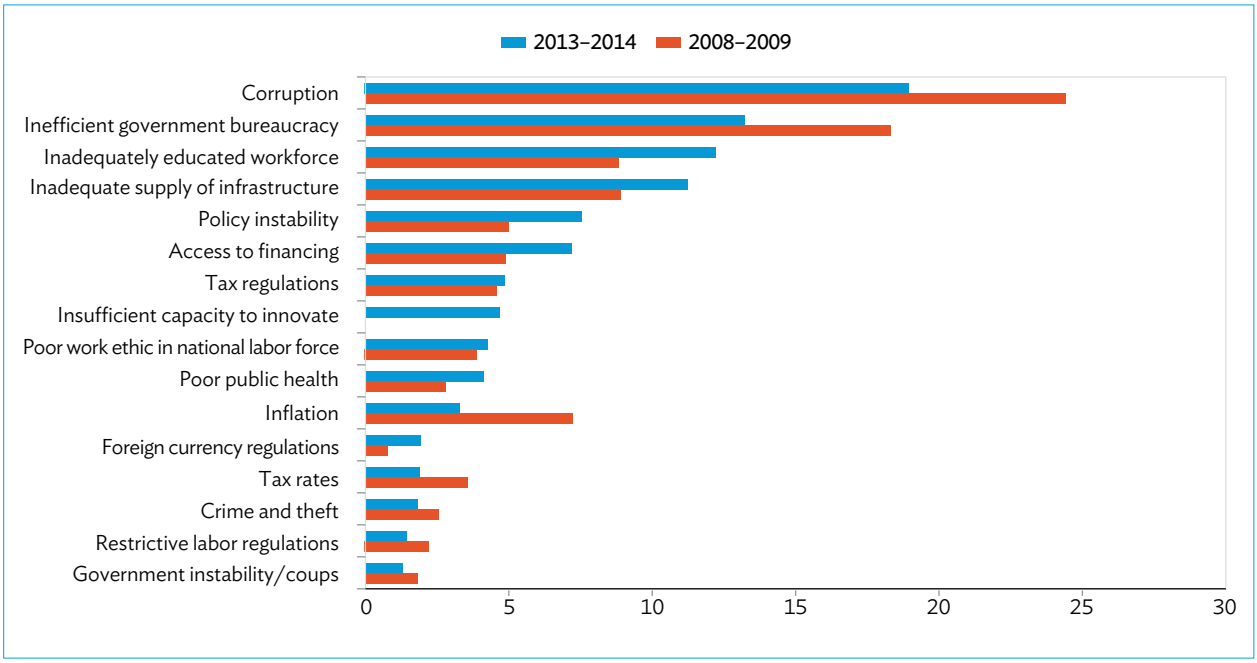
2.4.2. Corruption

Corruption has long been regarded as a major barrier to improving the business environment and governance in Cambodia (ADB 2012a), and is a significant deterrent to investment. Corruption is often a direct financial burden on businesses, and dealing with it at the firm level also contributes to the high cost of doing business, perpetuates uncertainty, and encourages smaller firms to remain in the informal economy. Business surveys consistently find that corruption is the top business constraint. In the most recent Global Competitiveness Report (WEF 2013a), corruption was almost twice as significant a problem as the next major concern—inefficient government bureaucracy, which is also related to government performance (Figure 2.25). On the positive side, corruption appears to have decreased during the last half decade, while other concerns (skilled labor, finance, and infrastructure) have increased in importance.

Cambodia ranked low in governance indicators in the World Bank's World Governance Indicators compared with other ASEAN countries (Figure 2.26), on par with the Lao PDR and only slightly higher than Myanmar on the corruption measure. And transparency International's 2013 Corruption Perceptions Index ranks Cambodia lowest in ASEAN. The 2013 Global Corruption Barometer survey suggests that the key institutions in Cambodia affected by corruption are the judiciary, the police, public officials and civil servants, political parties, and the private sector (Transparency International 2013a, 2013b).

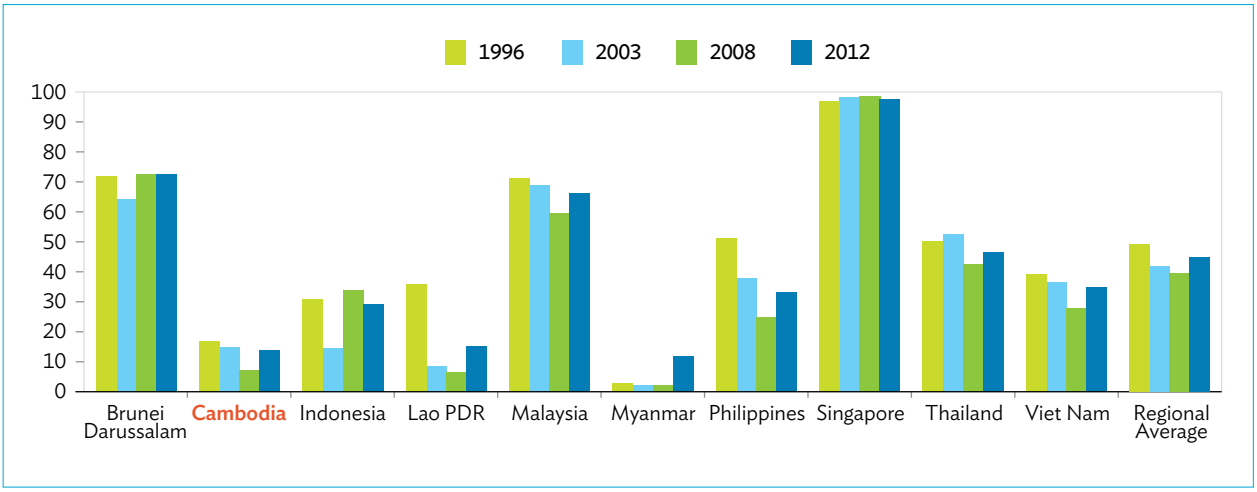
Bribes, often referred to as "informal payments" or "gifts," are required to get action from government officials, including access to basic services. About half the firms in the Asian Development Bank and World Bank survey of 2012 said they expected to give gifts to public officials to "get things done"; for example, securing a water or electricity connection.

Figure 2.25. Most Problematic Factors for Business, 2008–2009 and 2013–2014



Note: From a list of 16 factors, respondents were asked to select the 5 most problematic for doing business and to rank them between 1 (most problematic) and 5. Data in bars indicate the responses weighted according to their rankings.
Sources: WEF (2008a, 2013a).

Figure 2.26. Control of Corruption in Southeast Asia, 1996–2012 (percentile rank)



Lao PDR = Lao People's Democratic Republic.
Note: Percentile rank 0–100, with a higher score indicating less corruption. For example, Cambodia's percentile rank in 2012 was 14, indicating that it ranks higher than only 14% of the 215 countries involved in the Worldwide Governance Indicators survey. This captures perceptions of the extent to which public power is exercised for private gain, including both petty and grand forms of corruption, as well as "capture" of the state by elites and private interests.
Source: World Bank, WDI database, accessed July 2014.

In the same survey, 65% of respondents expected to pay bribes for a construction permit. Bribe-taking is prevalent at least partly because public sector salaries, especially of frontline and clerical officials, are below what is widely considered necessary for achieving an adequate household income. Although a large number of responding firms said they expected to have to pay bribes to get things done, the expectation has nevertheless decreased since 2007, except for acquiring a water connection (Table 2.24). This is in line with the general finding that corruption has fallen somewhat since the late 2000s.

Table 2.24. Paying Bribes in the Business Community, 2007 and 2012 (% of firms)

Reported Expectation	2007	2012
Give Gifts to Public Officials "To Get Things Done"	61	48
Give Gifts to Get a Construction Permit	92	65
Give Gifts to Get an Electrical Connection	58	51
Give Gifts to Get a Water Connection	33	50

Sources: IFC and World Bank, Enterprise Survey (Cambodia), accessed May 2013; World Bank and ADB (2012).

Corruption is prevalent in government procurement. An Asian Development Bank assessment concluded that there is a general perception that processes lack "transparency and integrity" and it is difficult to prove or act upon specific allegations. The assessment suggests that procurement specialists suspect collusion among tendering agencies, procurement review committees, and bidders. Practices include rigged specifications, limited publicity of bid opportunities, falsification of information in bid evaluation reports, and expectations that winning bidders will have to provide kickbacks (ADB 2012c). The importance of having a comprehensive and focused law on procurement has been raised by development partners for at least the last decade, but to date no such law has been enacted. A subdecree on procurement was approved 1995 and one on Implementing Rules and Regulations for Public Procurement was issued in 2006. The detailed instructions for the former were updated in 2010.

The decline in overall corruption in recent years may be the result of the enactment of the Anti-Corruption Law in 2010. This seeks to combat corruption through education, prevention, and law enforcement using a process of public participation and international cooperation. Among other

measures, the law requires civil servants to declare their financial assets every 2 years. The Anti-Corruption Unit was established in 2010 to enforce the new law.

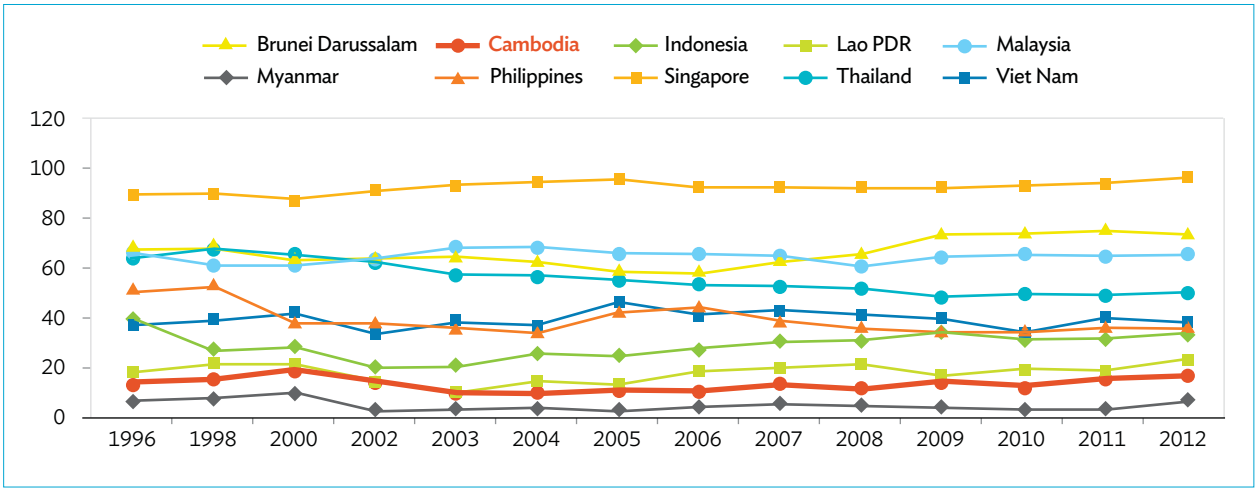
2.4.3. Rule of Law and Property Rights

The legal environment and judicial institutions for enforcing contracts and guaranteeing property rights are weak. During the Khmer Rouge period in the late 1970s, the legal system was effectively abolished and much of the legal profession eliminated. Rehabilitating the system continues to this day. The government undertook a major review of the law in the late 1990s and early 2000s, which led to the enactment of a new Civil Procedure Code (2006), Code of Criminal Procedure (2007), and Penal Code (2009). Efforts to strengthen the legal profession have also continued, although many judges and others in the legal profession remain without formal legal training.

Cambodia ranks second weakest in the rule of law among the 10 ASEAN countries, just above Myanmar, according to the Worldwide Governance Indicators (Figure 2.27). There has been modest improvement in the rule of law since the reform process started in the early 2000s. Even so, it takes 483 days to resolve disputes through the formal court system, involves 44 procedures, and requires a cost equal to 103% of the claim (World Bank and IFC 2013a). Courts have little power to act independently of the executive branch of government, and there are few checks and balances on the judicial system. Moreover, the court system lacks resources, capacity, and an adequate institutional framework. Court officials are badly underpaid. The lack of transparency within legal processes casts doubt on the independence of the judiciary system. As a result, citizens tend to rely on less transparent patronage systems and on recourse to the intervention of senior officials to settle disputes (Chene 2009).

The government has general respect for the property rights of the business community and no businesses have been nationalized or appropriated, allowing foreign investors to feel relatively safe in their investments. However, its widespread granting of economic land concessions to big businesses, including foreign firms, is a serious problem and poses a threat to human rights by potentially violating the human rights of people living on these lands.

Figure 2.27. Rule of Law in ASEAN Countries, 1996–2012 (percentile ranking)



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Note: Regional average data excludes Cambodia.
Source: World Bank, Worldwide Governance Indicators, accessed July 2014.

2.4.4. Business Regulation

The overall business environment has improved. In the World Bank and IFC's *Doing Business* report for 2014, Cambodia ranks 137th globally in the overall ease of doing business, an improvement of eight places since the 2008 report (Table 2.25). In the 2014 report, Cambodia remains ahead of the Lao PDR and has reduced the gap with Indonesia. But it continues to lag behind more advanced ASEAN countries, and its increased overall ranking in recent years is mostly attributable to improvements in just one measure—getting credit (Table 2.26). Cambodia's scores on a range of other indicators have fallen relative to 2008.

In 2008, Cambodia's credit information and regulations were among the worst in the world. Since then, the country has made improvements, notably the new Law on Secured Transactions that legalized the use of movable property as collateral and created an online unified registry. In more recent years, regulations for sharing credit information have been put in place, and a private credit bureau began operations and now covers 12% of the adult population. These changes allowed Cambodia to climb to 42nd place globally in the 2014 *Doing Business* report.

Table 2.25. Overall Ease of Doing Business in ASEAN Countries, 2008 and 2014

Country	Rank in 2008	Rank in 2014
Singapore	1	1
Malaysia	24	6
Thailand	15	18
Brunei Darussalam	78	59
Viet Nam	91	99
Indonesia	123	120
Philippines	133	108
Cambodia	145	137
Lao PDR	164	159

Lao PDR = Lao People's Democratic Republic.
Note: A lower rank indicates an easier environment for doing business. Ranking is out of 189 economies in the 2014 report and 178 economies in the 2008 report.
Source: World Bank and IFC (2007, 2013a).

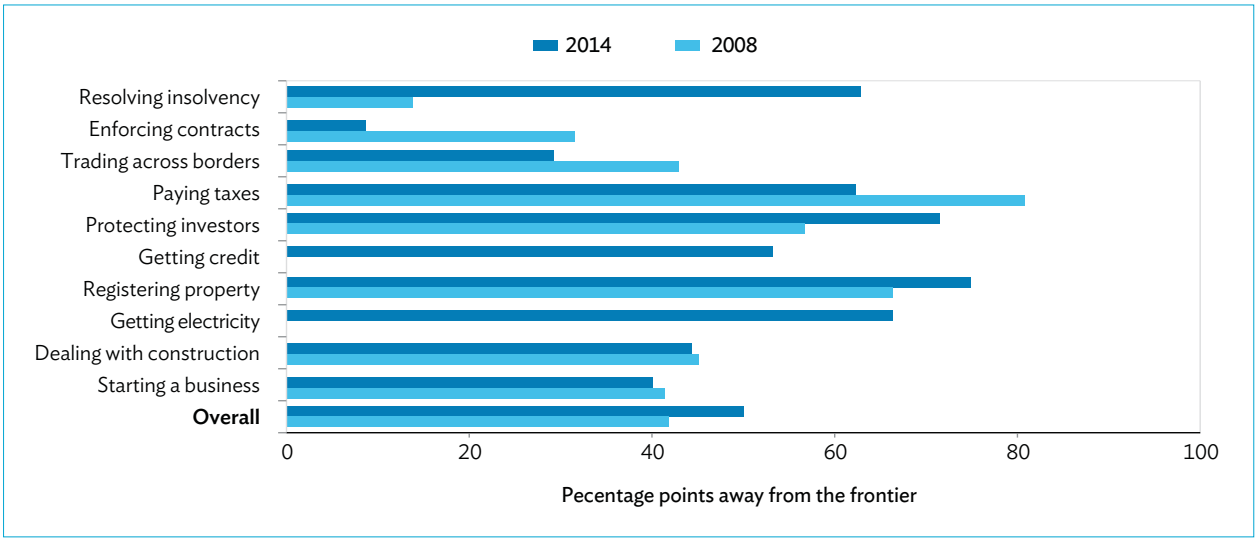
Other aspects of the regulatory environment are ranked much lower and in some cases have deteriorated in recent years, including the legal enforcement of contracts, which is critical for effective credit transactions. Regulations for starting a business are particularly cumbersome (Cambodia ranked 184th), requiring 11 procedures and an average of 104 days. Resolving insolvency is also a concern (ranked 163rd), taking an average of

Table 2.26. Ease of Doing Business, Specific Measures, 2008 and 2014

Topic	2008 Report	2014 Report	Change in Rank
Starting a Business	162	184	–22
Dealing with Construction Permits	144	161	–17
Getting Electricity	…	134	
Registering Property	98	118	–20
Getting Credit	177	42	135
Protecting Investors	64	80	–16
Paying Taxes	21	65	–44
Trading across Borders	139	114	25
Enforcing Contracts	134	162	–28
Resolving Insolvency	…	163	
Employing Workers	133	…	
Closing a Business	178	…	

… = data not available.
Note: A lower rank indicates an easier environment for doing business. Ranking is out of 189 economies in the 2014 report and 178 economies in the 2008 report.
Source: World Bank and IFC (2007, 2013a).

Figure 2.28. Distance to Frontier, Doing Business 2008 and 2014 Reports



Note: "Distance to frontier" shows the distance of each economy from the frontier, which represents the highest performance observed on each of the indicators across all economies included in *Doing Business* since each indicator was included in the surveys. An economy's distance to the frontier is indicated on a scale of 0 to 100, where 0 represents the lowest performance and 100 the highest (the frontier). For example, a score of 75 in the 2012 *Doing Business* report means an economy was 25 percentage points away from the frontier constructed from the best performances across all economies and across time. A score of 80 in the 2013 report would indicate the economy is improving. In this way the distance to frontier measure complements the yearly ease of doing business ranking, which compares economies with one another at one point in time.
Sources: World Bank and IFC (2007, 2013a).

6 years to wind up a failed business and getting only 8.2 cents on the dollar for creditors. Dealing with construction permits requires 21 procedures and a wait of more than 1.5 years. Another indicator that scores poorly is getting access to electricity.

Firms do not rate paying taxes as a major constraint, but it continues to be a cumbersome process. The 2014 *Doing Business* report shows that a business makes an average of 40 tax payments a year, requiring 173 hours of work (World Bank and IFC 2013a; World Bank 2014). The effect of this arduous procedure as a deterrent to doing business may be somewhat offset by Cambodia's low tax rates for personal and corporate income compared with other ASEAN countries. Income tax rates range from 5% to 20% depending on income bracket; the corporate tax rate is 20%. So-called Qualified Investment Projects are given tax holidays for 3–6 years.

Although the overall business environment has improved, it stands at only the midpoint in the distance to the "frontier", which is the best performance, per indicator, by economy in the *Doing Business* survey (Figure 2.28). Cambodia still has a long way to go in enforcing contracts, trading across borders, dealing with construction permits, and starting a business.

2.5. Market Failures

2.5.1. Coordination Externalities

The need to address coordination failures is best seen in the rice policy (RGC n.d.a).[19] This recognizes that policy coordination is essential to meet high production and export targets, and that public support is needed for the rice industry. The main areas calling for government coordination are infrastructure (roads, electricity, irrigation, ICT); extension services and inputs; land management reform; finance; marketing; farmer organization; and institution building.

[19] Royal Government of Cambodia (2010), Policy Document on the Promotion of Paddy Production and Rice Exports.

Finance is a major bottleneck for the rice industry, with millers lacking working capital to purchase paddy from farmers; instead, farmers sell their paddy, which is low value, in domestic or export markets. The rice policy recommends establishing an export–import bank and an agricultural development bank. The broader idea is to develop subsector coordination policies for other commodities, including rubber, cashew, soybean, and aquaculture.

In nonfarm sectors, coordination is often done through industry associations. A notable example is the Cambodia Garment Manufacturers Association, which promotes the industry and liaises directly with the government on regulatory issues. The Cambodia Tourism Association plays a similar role. At a thematic level, the Cambodian Federation of Employers and Business Associations focuses on industrial relations, human resources issues, and business environment issues.

Industry and business associations work through the Government–Private Sector Forum, established by the Prime Minister in 1999.[20] The forum aims to improve the business environment, build trust, and come up with solutions to problems raised by the private sector. Semiannual plenary sessions are supported by frequent meetings of working groups covering agriculture, tourism, manufacturing and small and medium-sized enterprises, tax and governance, banking, trade facilitation, infrastructure, and industrial relations. The private-sector-only working groups meet monthly to identify issues and develop suggestions related to legal and policy concerns (laws, subdecrees, *prakas*[21]), and to direct operational matters such as road conditions, unofficial fees, and damaged infrastructure. Government–private sector working groups, co-chaired by the relevant government minister, are then held to present and seek solutions to problems. Unresolved issues are brought to the attention of the Prime Minister and addressed at plenary sessions.[22]

[20] The Council for Development of Cambodia acts as the forum's secretariat.

[21] A *prakas* is a proclamation of a ministerial or an interministerial decision signed by the relevant minister.

[22] CAMFEBA Government–Private Sector Forum website, accessed January 2014.

Changes brought about through public–private consultation include extending a tax holiday for the garment sector, reducing the share of containers scanned at Sihanoukville port to reduce cost and time delays, granting a refund on value-added tax for goods destined for export, postponing a tax on accommodation, and reducing the solvency ratio for commercial and specialized banks from 20% to 15%. A review of the public–private dialogue estimated the savings to the private sector from these changes at $69 million during a 5-year period (IFC n.d.).

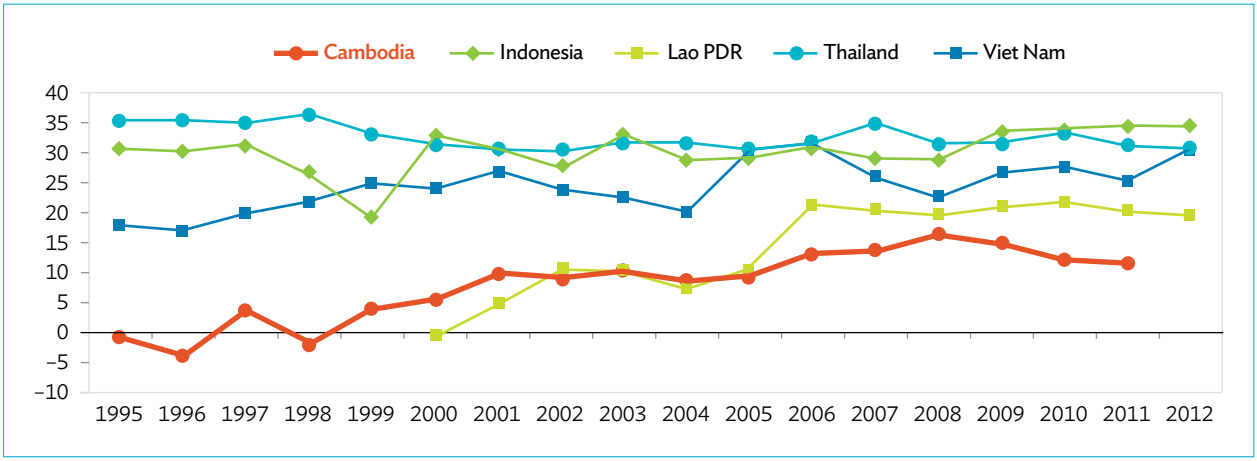
The government has been discussing an industrial policy, although it is not clear that such a broad approach would be able to tackle the specific coordination failures faced by specific subsectors. The government has several programs to promote investment in industry, but a recent assessment found that the programs were not particularly effective (Smiddy 2012).

2.5.2. Information Externalities: Cost Discovery

The limited diversification of the economy suggests that information externalities are a barrier to investment. The problem of "cost discovery"—the effort and risk involved in determining whether a new product can be produced at low cost—was overcome for garments manufacturers in the 1990s. Foreign investors found that garments could be produced competitively despite poor infrastructure, high energy costs, weaknesses in governance, and lack of a well-educated workforce, with quota- and tariff-free access to other markets making this possible. Cost competitiveness was less evident in other sectors, although nongarment firms are increasingly investing and taking advantage of many of the same benefits that the garments sector enjoyed. This process may accelerate as the initial nontraditional firms provide an example for other firms to enter nongarment subsectors. Bicycle manufacturers are a case in point, and Cambodia is also attracting firms in electrical and electronics assembly.

The government is trying to assure potential investors that Cambodia is cost competitive by

Figure 2.29. Gross Domestic Savings in Selected ASEAN Countries, 1995–2012 (% of GDP)



ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.
Source: World Bank, WDI database, accessed July 2014.

providing incentives to reduce costs. These include the Export Market Access Fund, which provides an export subsidy; exemptions from value-added tax on construction and production materials and equipment; and the Qualified Investment Projects scheme. The scheme offers an exemption from profit tax typically for 6 years plus a "priority period" or a special depreciation allowance of 40% in the first year for capital-intensive projects. The scheme also provides guarantees of equal treatment regardless of nationality, a guarantee against nationalization, exemptions from price controls on the investor's products, and for no restrictions on remitting foreign earnings abroad.

Investors can also reduce cost by setting up in special economic zones (SEZs). In Cambodia, these are privately run but regulated by the government under legislation passed in 2005 that created the Cambodian Special Economic Zone Board. Cambodia's approach to the SEZs was modeled on the successful experience of the People's Republic of China. Each SEZ is a one-stop shop for regulatory and administrative issues in which the SEZ management can obtain clearances and licenses for a set fee. The other cost (and coordination) benefits the SEZs offer are infrastructure, with the secured provision of lighting, water purification, electricity, sewerage treatment, dry ports, and telecommunications. Cambodia has 11 SEZs operating, hosting 92 companies.

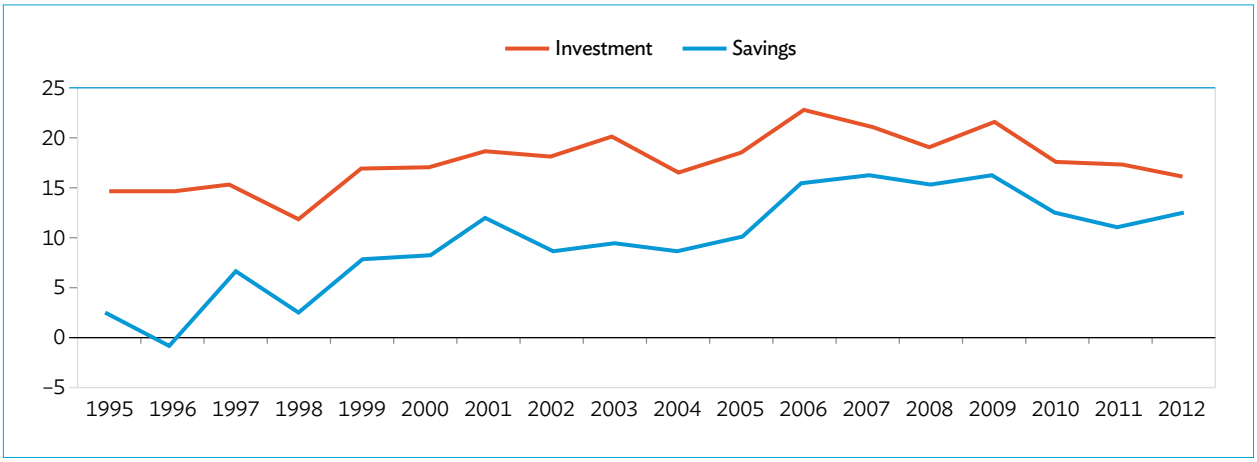
2.6. Finance

The level of domestic savings is low and interest rate spreads are high. This combination—a prominent feature of Cambodia's current financial landscape—limits access to finance for the business sector and government, which have responded by drawing on foreign sources of finance. There are grounds for optimism that the situation will improve as the financial sector has developed considerably in recent years, offering more opportunities for saving, supplying more credit, and generating confidence in the banking system.

Domestic savings were extremely low during the 1990s, never exceeding 4% of GDP and often plunging into negative figures (Figure 2.29). With stronger economic growth, higher incomes, and efforts to develop a secure financial system, the savings rate has climbed, peaking at 16% in 2008, and averaging 11% in the decade to 2011. Despite the progress, the savings rate is still low by any standards and considerably below that of other ASEAN countries, several of which have achieved rates above 30% in recent years. The Lao PDR had one of the lowest savings rates in the region, which has also sharply increased, to 20% since 2006.

Low savings may be attributed to Cambodians' continued reluctance to save in their own currency, a throwback from the civil conflict of the

Figure 2.30. Savings and Investment, 1995–2012 (% of GDP)



GDP = gross domestic product.
Source: ADB, SDBS, accessed October 2014.

1970s, when the riel was abolished (see Box 1.1 in Chapter 1). Most Cambodians still prefer to keep savings in dollars, even though interest rates for riel deposits are generally double or triple the rates offered on dollar accounts. Converting riels to gold, jewelry, or dollars is still considered a safe way of maintaining value. Low nominal interest rates during the last decade and a lack of diverse savings products have also kept the level of domestic savings low.

The low level of domestic savings hampers investment, which has not managed to rise much above 20% in the last decade (Figure 2.30). The shortfall between domestic savings and investment is made up by foreign finance in the form of debt, foreign direct investment, and official development assistance.

Financial intermediation is inefficient. The number of bank branches doubled from 243 in 2006 to 497 in 2013 (National Bank of Cambodia various issues). During the same period, total bank deposits grew more than fivefold, from 5.7 trillion riels (KR) to KR30.2 trillion. To make banking more accessible, modern services such as ATMs, debit cards, and credit cards also expanded rapidly. For example, the number of ATMs multiplied—from one unit in 2005 to 766 by 2013. At least one million debit cards had been issued by the end of 2013. Such developments allowed the number of deposit accounts in commercial banks to increase by 153% to 1,765,000 in 2013 from 699,000 in 2008; loan accounts grew by 68% to 385,000 from 229,000 during the same period.[23]

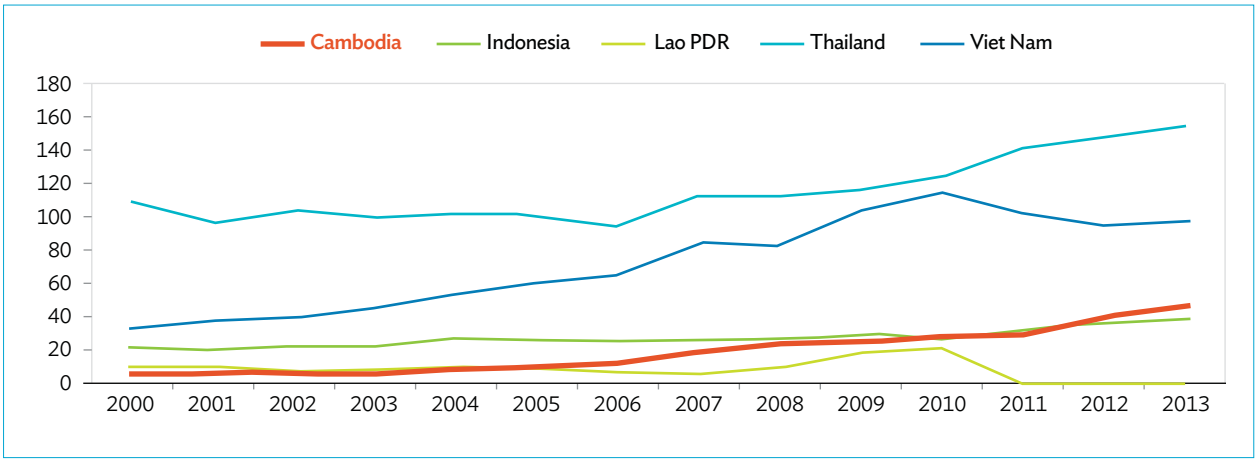
Increased bank deposits and banks' higher capital bases have enhanced the level of private sector intermediation, which increased from 6% in 2009 to 34% in 2012 (CEIC, Global Database).[24] Nevertheless, financial intermediation in Cambodia is still limited, as reflected in the low domestic credit-to-GDP ratio compared with Thailand and Viet Nam (Figure 2.31).

Moreover, the efficiency of banking intermediation, measured by the spread between lending and deposit rates, remains low (though the spread was high, at about 14 percentage points for 2006–2011). Although it has fallen steadily since then, it remains significantly above spreads in Indonesia, Thailand, and Viet Nam (Figure 2.32) due to very low deposit rates and higher lending rates than in several other ASEAN countries (Figures 2.33 and 2.34).

Access to finance has improved, but is still limited. Finance is a particular constraint for investors in completely new areas of activity, SMEs,

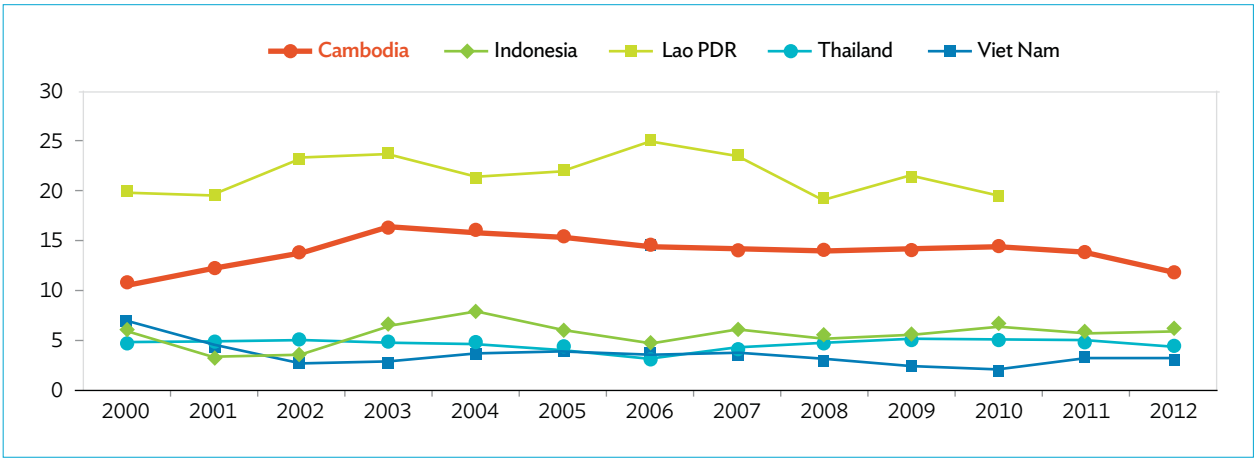
[23] The number of deposit and loan accounts cited refers to the total number of deposit and loan accounts in commercial banks, using data from the IMF Financial Access Survey, accessed July 2014.
[24] Intermediation is measured using the growth of the financial sector's claims on the private sector.

Figure 2.31. Domestic Credit in Selected ASEAN Countries, 2000–2013 (% of GDP)



ASEAN = Association of Southeast Asian Countries, GDP = gross domestic product.
Source: World Bank, WDI, accessed October 2014.

Figure 2.32. Interest Rate Spread in Selected ASEAN Countries, 2000–2012 (percentage points)



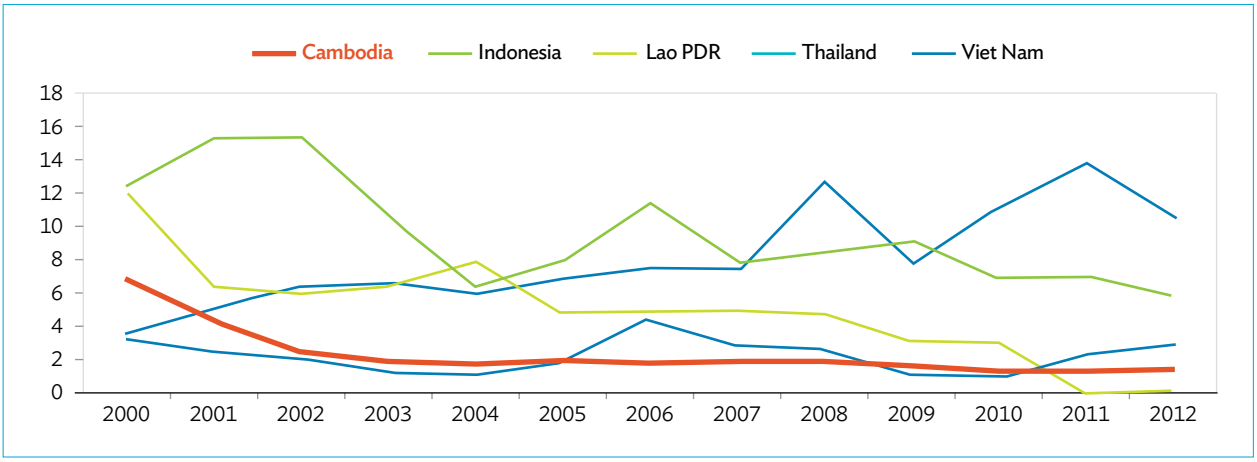
ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Sources: Data for Indonesia, Lao PDR, Thailand and Viet Nam are from World Bank, WDI database, accessed July 2014; Cambodia data from CEIC, Global Database, accessed June 2014.

and the informal sector. Smaller enterprises tend not to apply for formal credit because of collateral requirements, complex procedures, and high interest rates, preferring to access credit through informal sources.

Rapid financial sector development seems to have improved the supply of finance in recent years. The microfinance sector has expanded rapidly, especially in poor rural areas. Since 2005, microfinance institutions have nearly quadrupled their reach, serving 1.3 million clients in 2012 from just 350,000 (Cambodia Microfinance Association 2012). Loans provided by microfinance institutions totaled KR5.3 trillion, or approximately $1.3 billion, at the end of 2013 (National Bank of Cambodia 2014). Profitability has been increasing, with net profit at about KR213.6 billion (or about $53.4 million) in 2013, a 216% increase from 2010.

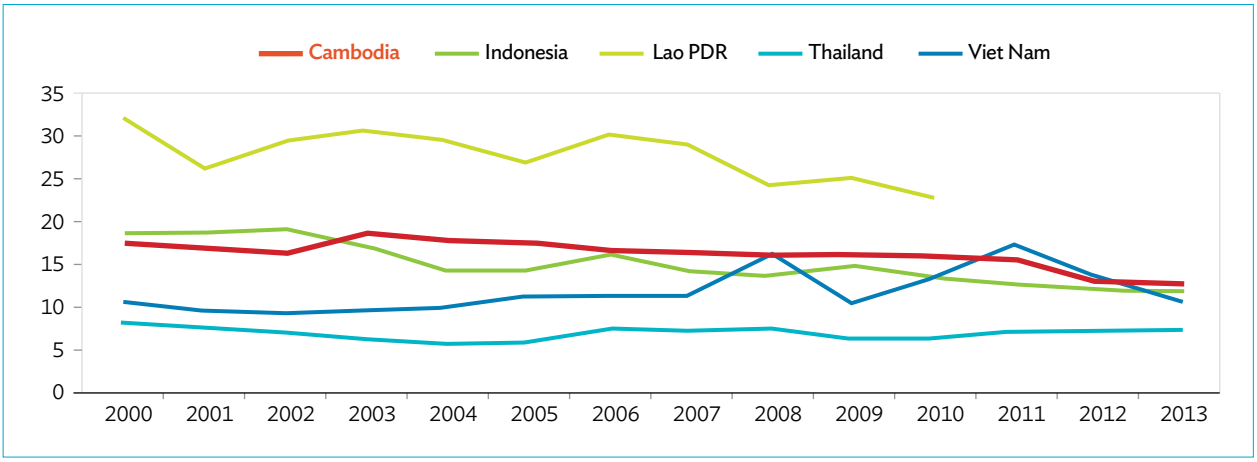
Nevertheless, limited access to finance and financial services continues to be a problem for most private firms in Cambodia, and particularly constrains the business development of SMEs in

Figure 2.33. Deposit Rates in Selected ASEAN Countries, 2000–2012 (%)



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Source: World Bank, WDI database, accessed July 2014.

Figure 2.34. Lending Rates in Selected ASEAN Countries, 2000–2013 (%)



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Sources: Data for Indonesia, Lao PDR, Thailand, and Viet Nam from World Bank, WDI database, accessed July 2014; Cambodia data from CEIC, Global Database, accessed June 2014.

rural areas and in the agriculture sector. In a survey of private firms (comprising 85% SMEs and 15% large firms), 71% of them cited lack of capital and financing for investment as a growth constraint (IFC and European Union 2010). These firms were especially concerned with high loan rates, stringent collateral requirements, and insufficient linkages with appropriate financial institutions, which make external financing challenging and force them to resort to their own savings to fund business growth needs (IFC and European Union 2010). Although large and some medium-sized firms may not be as financially constrained as smaller private firms, it is because most of them are foreign-owned and may access funds through their parent companies. A majority of enterprises in Cambodia are SMEs and informal, with internal savings and informal finance as the only recourse for financing, thereby limiting their growth prospects. New entrants and innovators in sectors other than garments or tourism could face even more difficulties in accessing finance as upgrading is time- and capital-intensive; this also partly explains the country's lack of diversification.

2.7. Conclusion

The economy is expected to continue its high growth path but needs to diversify through sustained private investments. Diagnosis of key aspects of the economy has identified four critical constraints that could derail this growth: weak human capital (limited skills of the workforce), inadequate logistics infrastructure (poor quality of secondary and rural roads), high electricity costs and inadequate supply, and widespread corruption (Table 2.27). In addition, although fiscal conditions in general are not an immediate concern to macroeconomic stability and growth prospects, low revenue generation limits the scope for public investment, thus potentially constraining growth.

Table 2.27. Critical Constraints of Cambodia's Economy

Broad Determinants of Growth	Factors Affecting Determinants of Growth	How the Factor Influences Growth	Is it a Critical Constraint?
Social Return on Investment	Human capital	• Low educational attainment levels and low quality of schooling	✓
		• Labor force lacks necessary skills	✓
	Transport network	• Poor quality of the secondary and rural roads	✓
		• Railway under rehabilitation	
	Electricity	• Limited access to electricity	✓
		• Tariffs among highest in Asia	✓
		• Dependent on high cost, imported supply	
Appropriability of Returns	Macroeconomic risks	• Weak revenue generation, restricting funds for public investments	✓
		• Low to moderate inflation	
		• Stable external position despite widening current account deficit	
		• Public debt at manageable level	
	Microeconomic risks	• Corruption and weak rule of law	✓
		• Moderate tax rates	
	Market failures	• Low value added in production	
		• Low level of diversification	
		• Coordination failures managed through public–private consultation	
Cost of Finance	Access to finance	• Financial intermediation improving	
		• Rising level of domestic credit	
		• Access by new, small firms is constrained	
		• Low savings rate	

Source: ADB.

3. CRITICAL CONSTRAINTS TO INCLUSIVENESS

Strong growth since the 1990s has lifted living standards and improved social conditions throughout Cambodia, but many challenges remain. Although poverty declined substantially in the 2000s, it is still high by regional standards.[25] The majority of jobs continue to be in the informal economy; social service coverage, although expanding, remains lower than the regional average; and inequality is also high, with a Gini coefficient of 0.44.

This chapter assesses the inclusiveness of economic growth using a diagnostic approach (Figure 3.1). Growth is inclusive when all segments of society can participate in and benefit from the opportunities it creates, and all citizens receive adequate protection from economic shocks and transitions (Ali and Son 2007, Zhuang 2010). Further reforms for greater inclusion require firm government commitments and well-designed interventions to increase opportunities for productive and decent employment, improve the quality of education and health services, level the playing field, and broaden social protection.

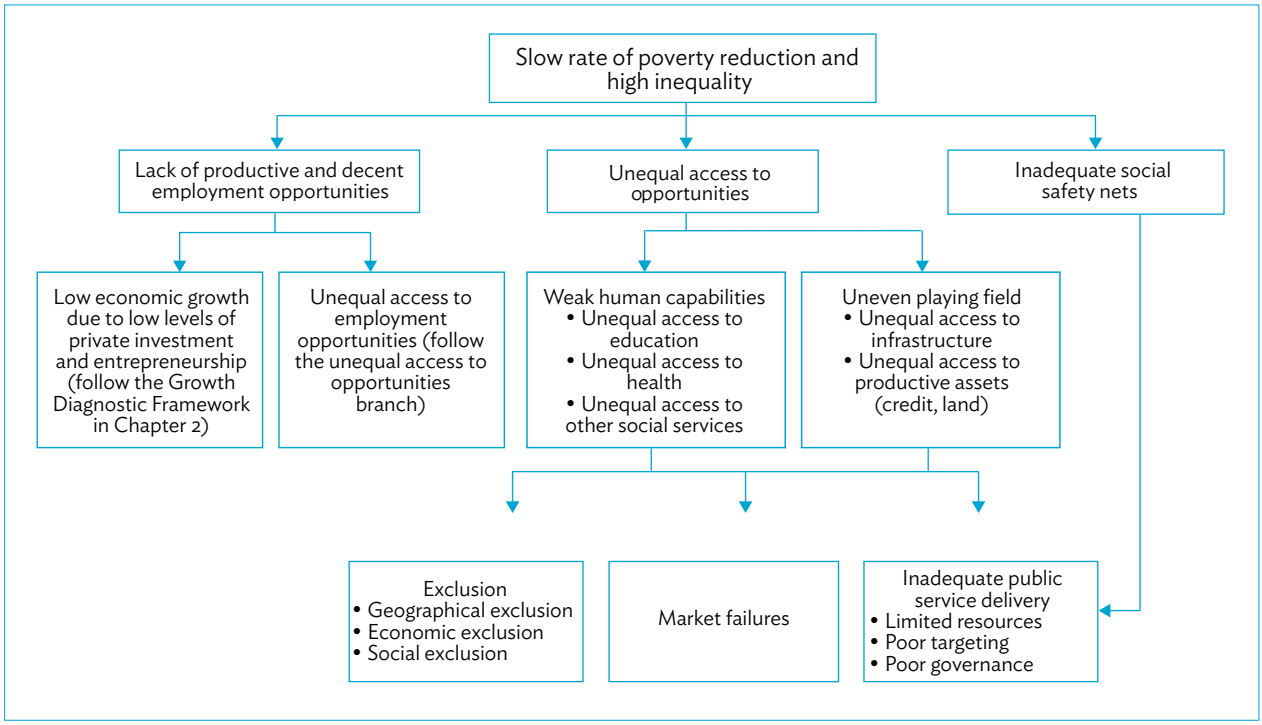
[25] The share of Cambodia's population living below the new national poverty line decreased from 50% to 20% during 2004–2011. The new national poverty line is based on the Cambodia Socio-Economic Survey of 2009, which updated the earlier poverty line set in 1997 and based on data from the 1993/1994 survey. The new poverty lines are 6,327 riels (KR) in Phnom Penh, KR4,352 in other urban areas, KR3,503 in rural areas, and a weighted average of KR3,871 nationwide (Ministry of Planning 2013). Using the $1.25-a-day poverty line, the poverty headcount ratio declined by more than half, from 44.5% in 1994 to 18.6% in 2009 (World Bank, WDI database, accessed June 2013).

3.1. Availability of Productive Employment Opportunities

Generating decent employment is the most critical element of inclusive growth. Cambodia's labor force is still expanding and its labor force participation rate, at 84% of the working-age population, is high (Figure 3.2). Less than 0.5% of the labor force is unemployed according to the National Institute of Statistics' Cambodia Socio-Economic Survey 2013, but nearly 60% of the employed work in the informal sector, mostly as own-account or unpaid family workers (Figure 3.3). Such employment is precarious and vulnerable given its informal arrangements, lack of decent working conditions and social security, inadequate earnings, and low productivity.

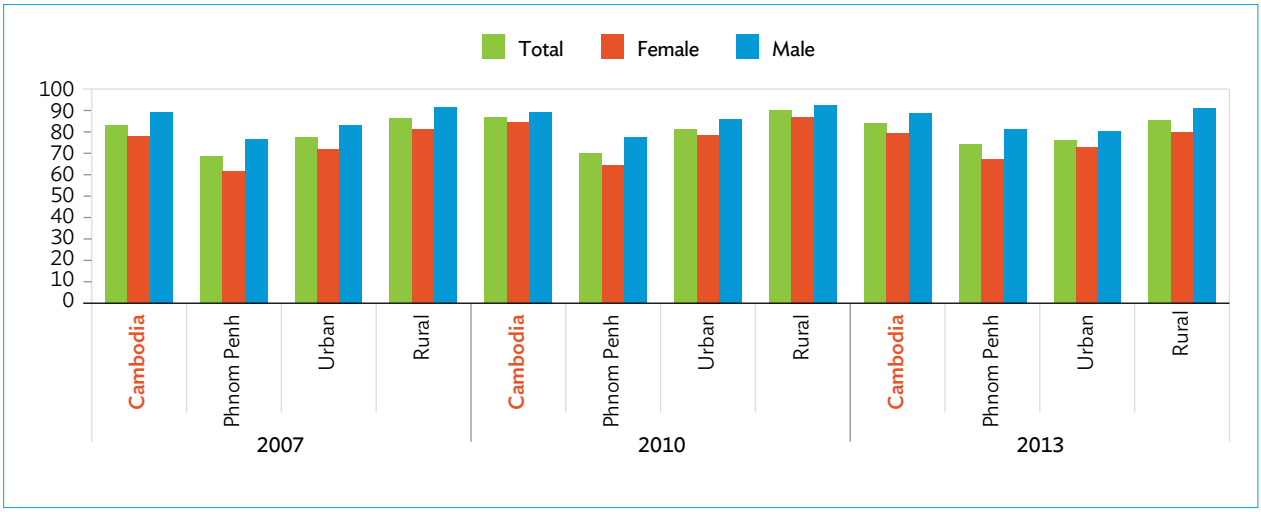
On the positive side, 41% of workers in 2013 had paid employment, up significantly from 26% in 2007. Much of this shift can be attributed to an increase in the share of such jobs in Phnom Penh, from 50% in 2007 to 64% in 2013. The number of own-account workers has increased in rural and urban areas, the result of a large decline in the share of unpaid family workers. Not surprisingly, informal employment is higher in rural than in urban areas, and tends to be higher among people with no or little schooling and among female and older workers (Figure 3.4). The share of underemployed workers is low in rural and urban areas.

Figure 3.1. Diagnostics Framework for Constraints to Reducing Poverty and Inequality



Source: ADB (2007).

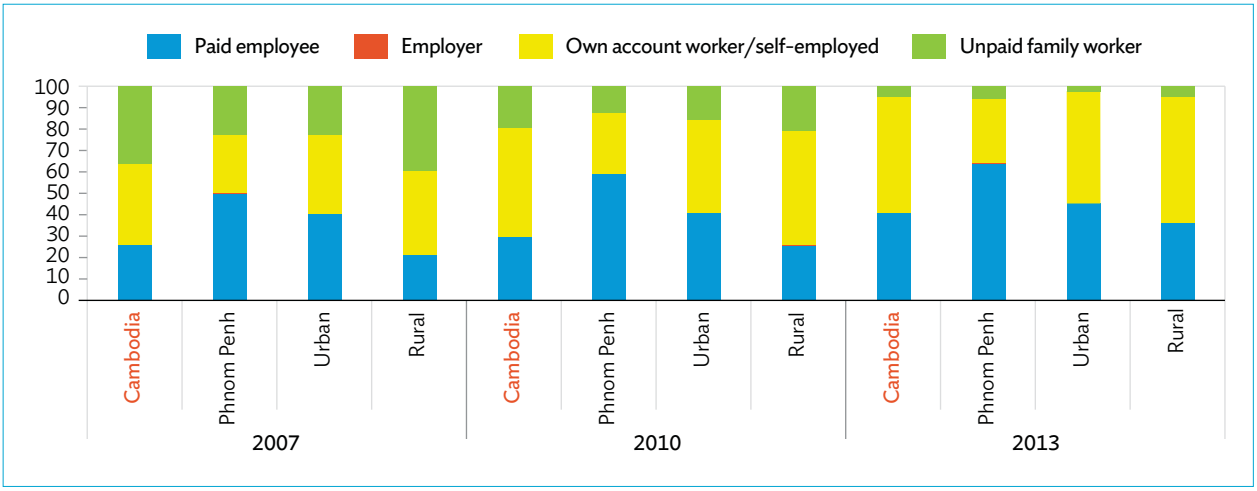
Figure 3.2. Labor Force Participation Rates, by Location and Sex, 2007–2013 (%)



Note: The working-age population is defined as people aged 15–64, of which the labor force comprises all employed or unemployed for the 7 days prior to the survey. Employed persons are those who worked at least 1 hour during the 7 days, or had a job/economic activity from which they were temporarily absent. Unemployed comprises all people who were, during the 7 days prior to the survey without work, available for work, and actively seeking work. Urban and rural exclude Phnom Penh.
Source: NIS, CSES Tables, accessed July 2014.

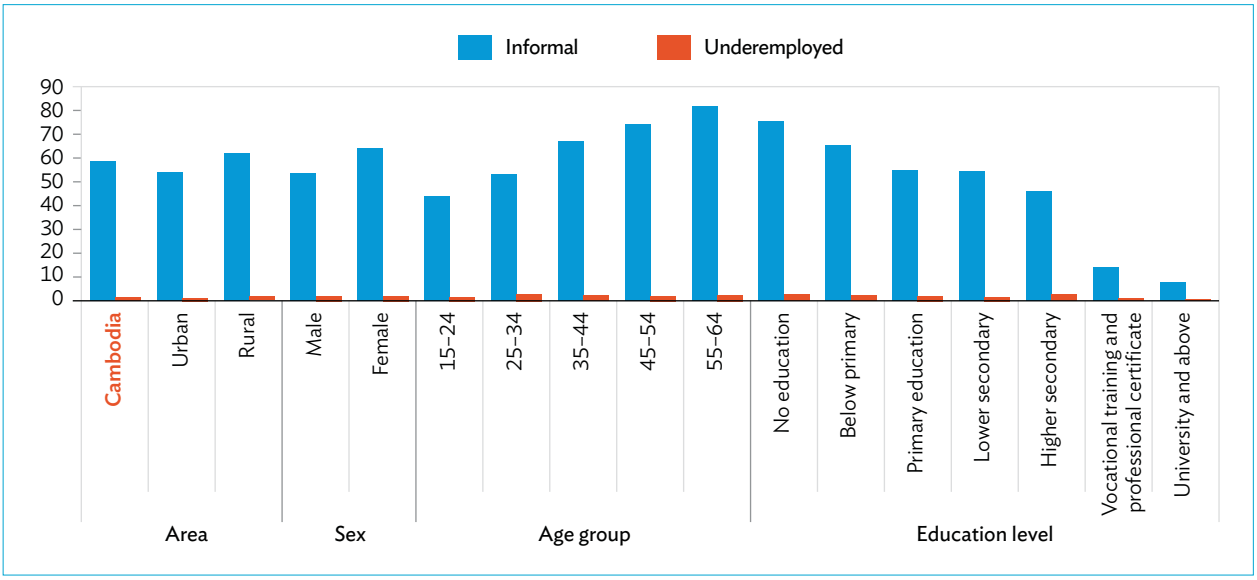
Labor productivity growth—growth of gross domestic product (GDP) per employed worker—has accelerated, rising from 2.4% annually in the 1990s to 3.4% in 2000–2005 and then almost doubling to 7.2% in 2006–2012 (Figure 3.5). However, labor productivity remains low relative to other countries in the region.

Figure 3.3. Employment Status, by Location, 2007–2013 (%)



Note: Urban and rural exclude Phnom Penh.
Source: NIS, CSES Tables, accessed July 2014.

Figure 3.4. Informal Employment and Underemployment, by Area, Sex, Age Group, and Education Level, 2013 (%)



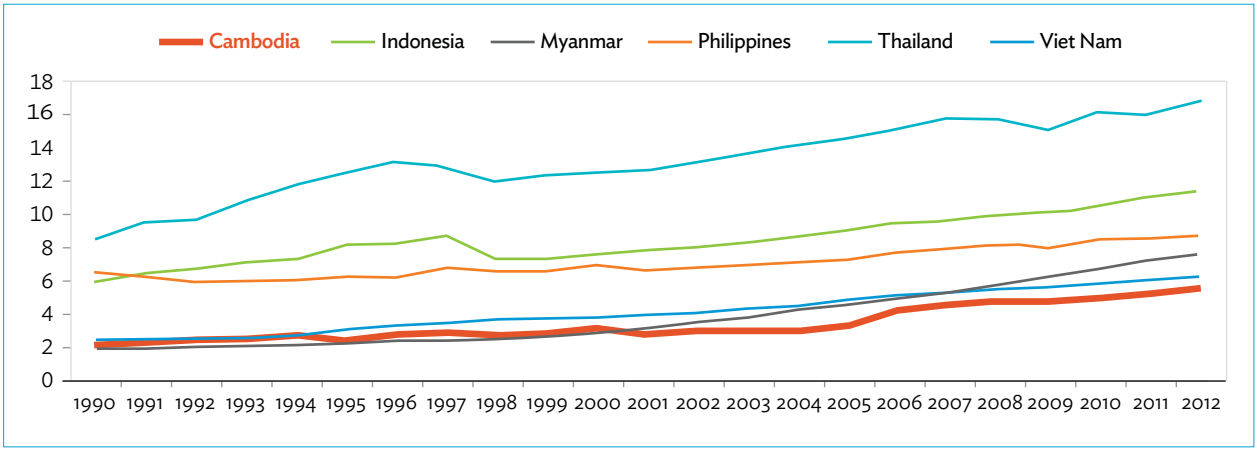
Note: People employed in the informal sector were own-account workers, self-employed, or unpaid family workers during the 7 days prior to the survey. Underemployed were those who worked for less than 40 hours during the 7 days prior to the survey and wanted additional work.
Source: Calculations based on 2013 data from NIS, CSES Tables.

Employment remains concentrated in agriculture, but the share of agricultural jobs has declined, from 58% in 2007 to 49% in 2013, amid rapid expansion of jobs in industry and services (Figure 3.6).

Industry and services jobs are mostly in urban areas, principally in Phnom Penh, where 73% of the labor force was engaged in services and 25% in industry in 2013 (Figure 3.7).

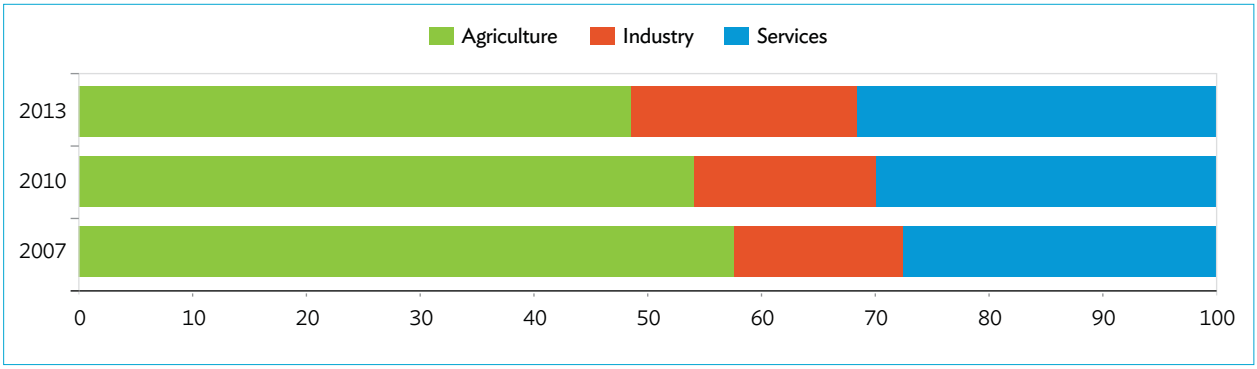
In 2013, women accounted for 48.9% of the labor force and 41.4% of skilled agricultural, forestry, and fishery workers (NIS, CSES Tables 2013). Twice as many women as men are employed in service shops and retail sales. Men outnumber women in professional occupations such as technicians, plant and machine operators, and assemblers.

Figure 3.5. Growth in GDP per Person Employed, 1990–2012 (constant 1990 PPP $ '000)



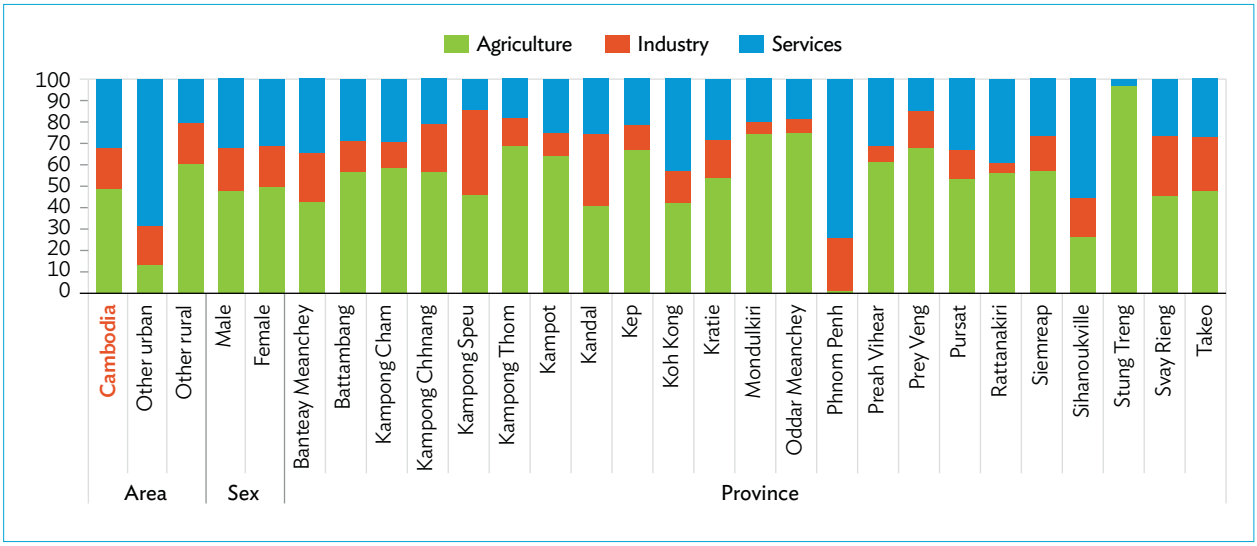
GDP = gross domestic product, PPP = purchasing power parity.
Source: World Bank, WDI database, accessed July 2014.

Figure 3.6. Share of Employment by Sector, 2007–2013 (%)



Note: The agriculture sector includes agriculture, forestry, and fishing; industry includes mining and quarrying, manufacturing, electricity, gas, steam, air conditioning supply, water supply, sewerage, waste management and remediation activities, and construction; services comprises all other subsectors.
Source: NIS, CSES Tables, accessed July 2014.

Figure 3.7. Employment by Sector and Province, 2013 (%)



Source: Calculations based on data from NIS, CSES Tables 2013.

3.2. Human Capabilities

To secure decent employment opportunities, people need skills, knowledge, and other capabilities. Some segments of the population may have weaker capabilities than others owing to limited access to education, health care, and social services such as clean water and sanitation. Growth is inclusive when broad and equal access to such services is ensured.

Human capital development has been at the core of Cambodia's development strategy since reconstruction began in the early 1990s (RGC 2009), specifically through efforts to enhance the quality of education and health services, expand social security, and encourage gender equality.

3.2.1. Education

Education has been a key government focus since the National Programme to Rehabilitate and Develop Cambodia, the country's first national development program, announced in 1994.[26] The program introduced major education reforms, including commitments under the 2007 Education Law to provide free basic education.[27]

The government's long-term goal is to assure equitable access to 9 years of high-quality basic education by 2015 (MOEYS 2003), alongside promoting well-regulated public–private partnerships in upper secondary education, technical and vocational education and training, and higher education. The highest priority is to implement the National Education for All Plan and associated teacher development programs (MOEYS n.d.). The current Education Strategic Plan's five objectives are (1) ensuring equitable access to education, (2) making 9 years of basic education universal, (3) increasing the quality and efficiency of education, (4) linking education and training to labor market needs, and (5) building capacity for decentralizing education planning and management.

Both the supply of and access to education have improved, but the quality of education, the level of qualifications and skills, and the employability of graduates need to be enhanced. Technical and vocational education and training is also still in its infancy.

Generally Low Educational Attainment. Insufficient education restricts access for Cambodians to formal sector jobs. In 2013, 73% of the working-age population had no or only primary schooling: 13% had never attended school, 33% had some primary education, and 27% had finished primary education (Figure 3.8). Women are particularly disadvantaged, with 79% having only a primary school education. Only 3% of the total workforce holds a university degree. Cambodia has one of the lowest literacy rates in the Association of Southeast Asian Nations (ASEAN), at 86% for women and 88% for men (Figure 3.9). Workers with little or no education tend to end up working in the informal sector, whereas workers with vocational training or a professional certificate (who comprise less than 1% of the working population) are gainfully employed.

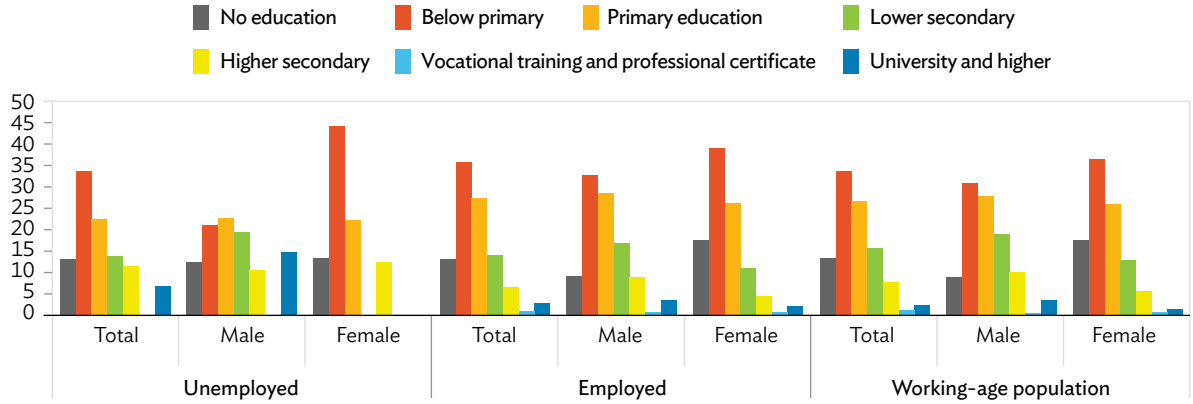
Limited and Unequal Access to Secondary and Higher Education. Access to education improved from 2006 to 2013, with net enrollment in the primary level increasing from 91% to 96% (Figure 3.10). Some geographic disparity in access to primary education persists, but 13 of 24 provinces recorded a primary enrollment rate above 95% (Figure 3.11).

About 12% of children aged 6–11 have never attended primary school (Table 3.1), with nonattendance and high drop-out rates linked to parents' attitudes and household poverty (Figure 3.12). Many parents consider their primary-school-aged children too young to attend school. Many also expect their children to contribute to household incomes and chores or consider themselves too poor to send their children to school. The lack of schools, teachers, and

[26] The National Programme to Rehabilitate and Develop Cambodia is considered the first national development plan following the general election and promulgation of a new constitution, and Prince Norodom Sihanouk's accession to the throne all in 1993.

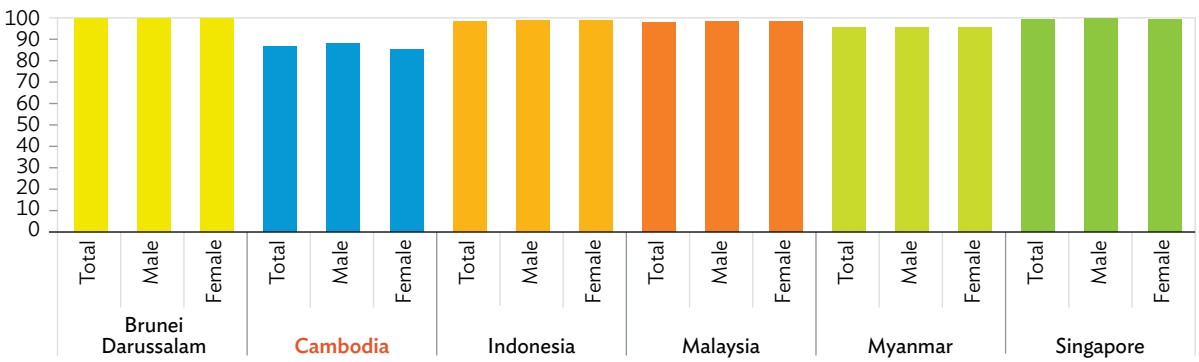
[27] During 1991–2006, successful government reforms were implemented, such as the construction of new schools, provision of scholarships, abolition of school fees, and expansion of community-based early learning opportunities, resulting in significant gains in access to primary and lower secondary schools (ADB 2011d).

Figure 3.8. Educational Attainment of People Aged 15 and Over, Employed and Unemployed, 2013 (%)



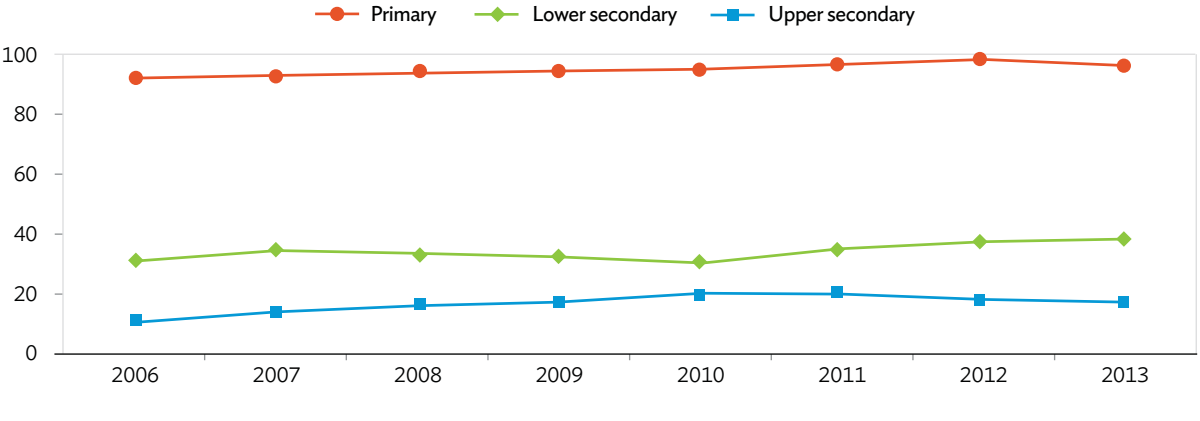
Source: Calculations based on data from NIS, CSES Tables 2013.

Figure 3.9. Adult Literacy Rates in Selected ASEAN Countries, Latest Year Available (%)



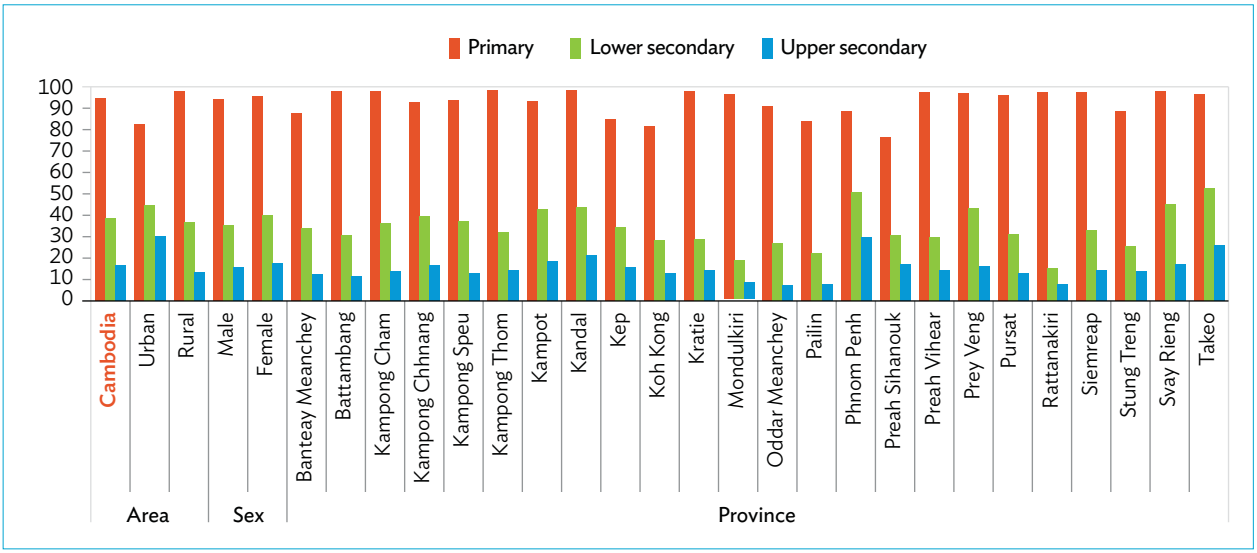
ASEAN = Association of Southeast Asian Nations.
Note: The data are 2009 for Cambodia; 2010 for Malaysia; 2011 for Indonesia; and 2012 for Brunei Darussalam, Myanmar, and Singapore.
Source: ADB, SDBS, accessed October 2014.

Figure 3.10. Net Enrollment Rates, 2006–2013 (%)



Source: MOEYS, Education Statistics and Indicators, various years, accessed July 2014.

Figure 3.11. Net Enrollment Rates, by Province, 2013 (%)



Source: MOEYS (2014), accessed July 2014.

Table 3.1. People Who Never Attended School, by Age Group, 2013 (%)

Age Group	Cambodia	Phnom Penh	Other Urban	Rural
Primary School Age (6–11)	12.3	5.0	9.5	13.4
Lower Secondary School Age (12–14)	1.5	0	0.3	1.8
Upper Secondary School Age (15–17)	4.3	1.8	0.5	5.1
Higher Education Age (18–24)	4.9	1.7	3.0	5.7

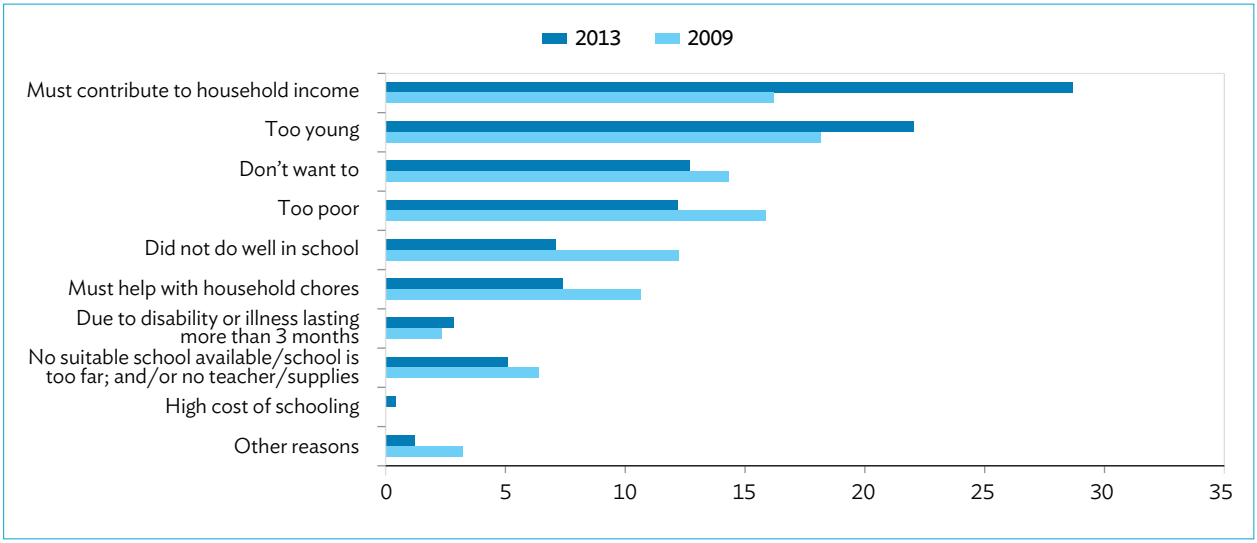
Source: Calculations based on data from NIS, CSES Tables 2013.

school supplies, especially in rural areas, are often cited as contributing factors to high nonattendance.

Net enrollment at the secondary level remains low—about 38% for lower secondary and 17% for the upper secondary levels. Access to secondary education is also much less equitably distributed, with lower secondary net enrollment rates ranging from 16% (Rattanakiri province) to 53% (Takeo), and upper secondary rates ranging from only 8% (Oddar Meanchey) to 30% (Phnom Penh). At both levels, enrollment is higher in urban than in rural areas. Across the country, girls have slightly higher enrollment rates than boys in both lower and upper secondary school. In Phnom Penh, however, upper secondary enrollment of boys, at 31%, is higher than girls, at 29% (MOEYS 2014).

There is a large drop in enrollment rates between the primary and lower secondary levels, averaging 59 percentage points across provinces. The greatest drops are in Rattanakiri and Mondulkiri, at 83 and 79 percentage points, respectively, while seven other provinces show a drop of 65 percentage points. Most children in these nine provinces leave school while in or just after completing primary school, resulting in a very low transition rate to secondary school. Moreover, less than half of students entering secondary school complete their secondary education, mainly for financial reasons. About 51% of children not enrolling in lower-secondary school and two-thirds of those not enrolling in upper-secondary school, report poverty, the need to earn income, and household work as the main reasons (NIS 2009).

Figure 3.12. Reasons for Not Attending School, 6–17 Years Old, 2009 and 2013 (%)



Source: NIS, CSES Tables for 2009 and 2013, accessed July 2014.

The Ministry of Education, Youth, and Sports has recognized the problem and has started providing subsidies to households to keep children in school. In 2006, the ministry implemented the Scholarship for the Poor Programmes (targeting secondary school students and providing a pilot test for primary school students). The program provided scholarships to 18,684 children of lower-secondary age across all provinces, except Phnom Penh. Eligible children are selected using a poverty assessment mechanism that gathers information on students' living standards through a survey and calculates a poverty index for each child. Scholarships are awarded to 50% of all students with the highest poverty index score, with the amount varying according to the recipient's poverty level and school grades. An evaluation of the program showed that it had helped increase enrollment by 30% over 2004 levels (Filmer and Schady 2006), resulting in the program being extended to primary schools.

The Department of General Secondary Education provides scholarships to secondary school students. For grade 7–9 students, scholarships are aimed at expanding educational opportunities for students with high academic achievement and from the poorest and most disadvantaged families. For students in grades 10–12, scholarships are mainly merit-driven and based on grade 9 exam scores, but also take into account household poverty. The program especially targets girls and ethnic minorities, with girls receiving a minimum of 60% of total upper-secondary scholarships.

These initiatives have generated positive results and are needed to keep students in school, but a limited education budget is constraining them to put in active voice. The recurrent financing required for these programs has increased from 6.92 billion riels (KR) in 2009 to KR11.5 billion in 2013 (Table 3.2). The future of the scholarship programs will depend on availability of resources and priorities in the education sector.

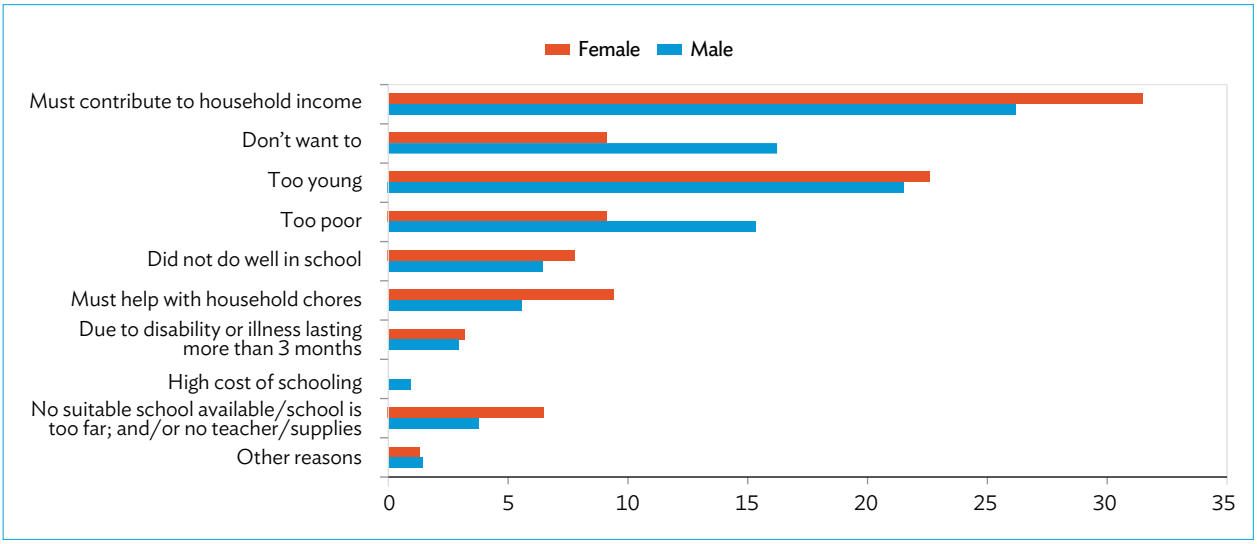
High Opportunity Cost of Education. Although education expenses account for about 3.5% of disposable income in the rural areas, compared with 5.7% in Phnom Penh, alternative income-earning opportunities for rural children (mostly informal jobs in agriculture) raise the opportunity cost of education (NIS, CSES Tables 2013). Girls are expected to contribute to household income and chores more than boys, suggesting that household income is a more significant deterrent to educating females than males (Figure 3.13).

Table 3.2. Financing Plan for Scholarships for Poor and Disadvantaged Students, 2009 and 2013 (KR million)

Activity	2009	2013
Scholarships for Lower Secondary Education	6,172	10,197
Scholarships for Upper Secondary Education	0	0
Operation of Local Management Committees	240	500
Monitoring	505	800
Total Resources	6,917	11,497

KR = riel.
Source: MOEYS, accessed May 2013.

Figure 3.13. Reasons for Not Attending School, 6–17 Years Old, by Gender, 2013 (%)



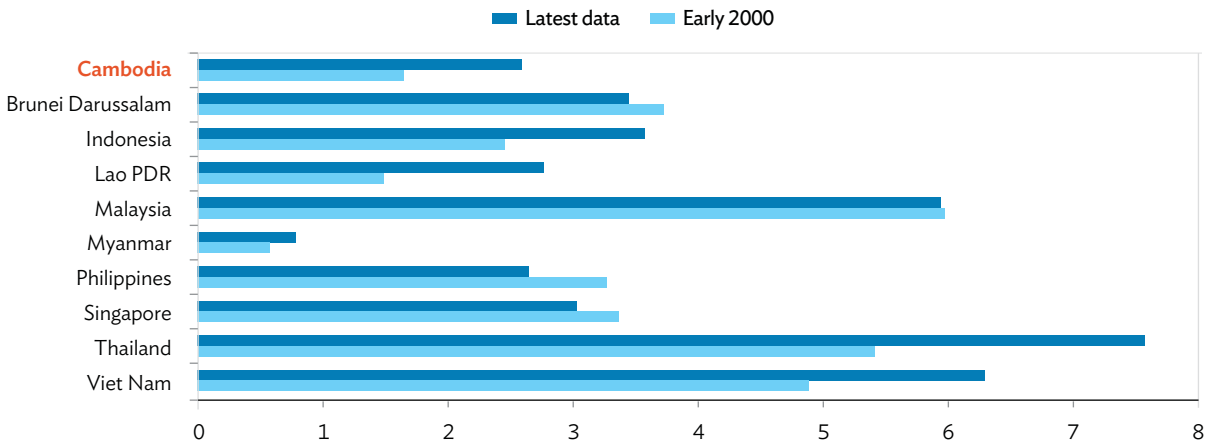
Source: NIS, CSES Tables, accessed July 2014.

Insufficient Spending on Education. Cambodia lags behind most other Southeast Asian countries in the share of GDP spent on public education (Figure 3.14). The country increased its expenditure on education from 1.7% of GDP in early 2000 to 2.6% in 2010, but this is higher only than Myanmar. Per primary and secondary student, spending is the lowest in Southeast Asia (Figure 3.15). The lack of resources and limited allocation of government funding has led to shortages in teachers (especially with adequate training), teaching materials, and school facilities.

At least 60% of primary schools in Battambang, Koh Kong, Mondulkiri, Pailin, Preah Vihear, Rattanakiri and Stung Treng are without water facilities (Figure 3.16). In all provinces, some primary schools do not have indoor toilets. This situation is most pronounced in Mondulkiri, Rattanakiri, and Preah Vihear, where 61%, 57%, 41% of primary schools, respectively, do not have indoor toilets. Such conditions threaten students' health and safety; hurt their academic performance; and discourage school attendance, especially among girls.

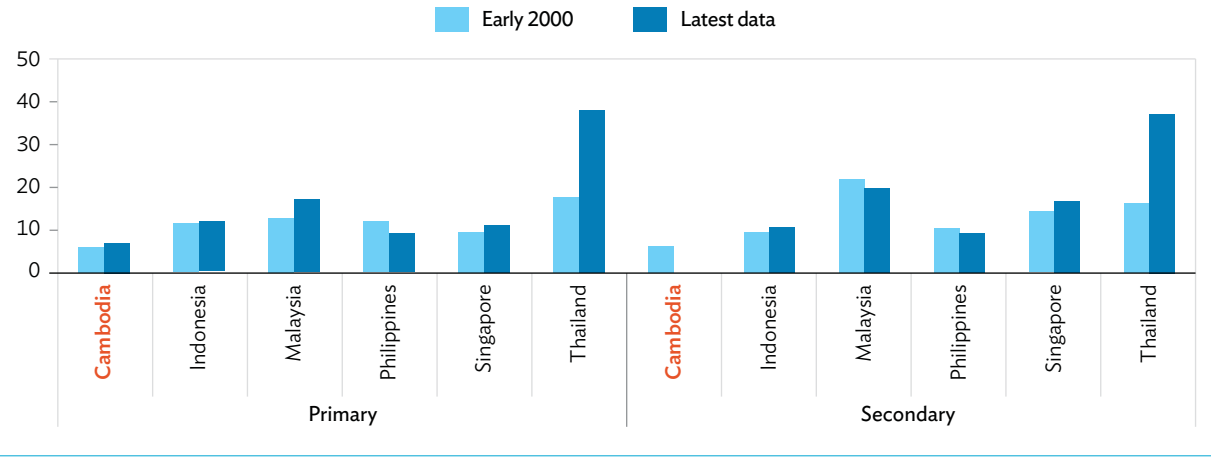
The shortage of teachers contributes to high student–teacher ratios, of about 40–50 students in an average primary school class (Figure 3.17). The problem is particularly acute in Kampong Cham, Rattanakiri, and Siem Reap, which have more than 60 primary school students per class on average, severely limiting the time teachers can spend with individual students.

Figure 3.14. Public Expenditure on Education in ASEAN Countries, Early 2000 and Latest Data (% of GDP)



ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.
Note: The "early 2000" data are 2000 for Brunei Darussalam, Cambodia, the Lao PDR, Malaysia, Myanmar, the Philippines, Singapore, and Thailand; 2001 for Indonesia; and 2008 for Viet Nam. The latest figures are 2009 for the Philippines; 2010 for Cambodia, the Lao PDR, and Viet Nam; 2011 for Malaysia and Myanmar; 2012 for Thailand and Indonesia; and 2013 for Brunei Darussalam and Singapore.
Source: World Bank, WDI database, accessed July 2014.

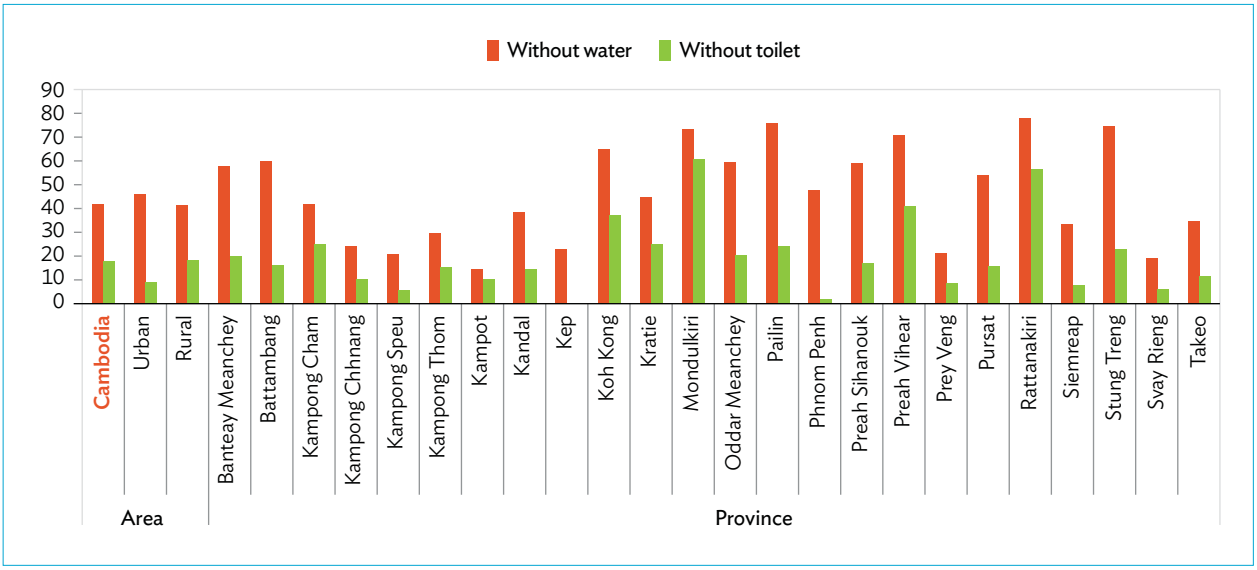
Figure 3.15. Expenditure per Primary and Secondary Student in Selected Asian Countries, Early 2000 and Latest Data (% of GDP per capita)



GDP = gross domestic product.
Note: For expenditure on primary students, early 2000s figures are 2000 for Cambodia, Malaysia, the Philippines, and Thailand, but 2007 for Indonesia and 2008 for Singapore. The latest figures are 2013 for Indonesia and Singapore, 2012 for Indonesia and Thailand, 2011 for Malaysia, 2010 for Cambodia and Singapore, and 2008 for the Philippines. For expenditure on secondary students, early 2000s figures are 2000 for Malaysia and the Philippines, 2001 for Cambodia and Thailand, 2007 for Indonesia, and 2008 for Singapore. The latest figures are 2012 for Indonesia and Thailand, 2011 for Malaysia, 2010 for Singapore, and 2008 for the Philippines. Cambodia does not have data for the late 2000s, but only for 2001.
Source: World Bank, WDI database, accessed July 2014.

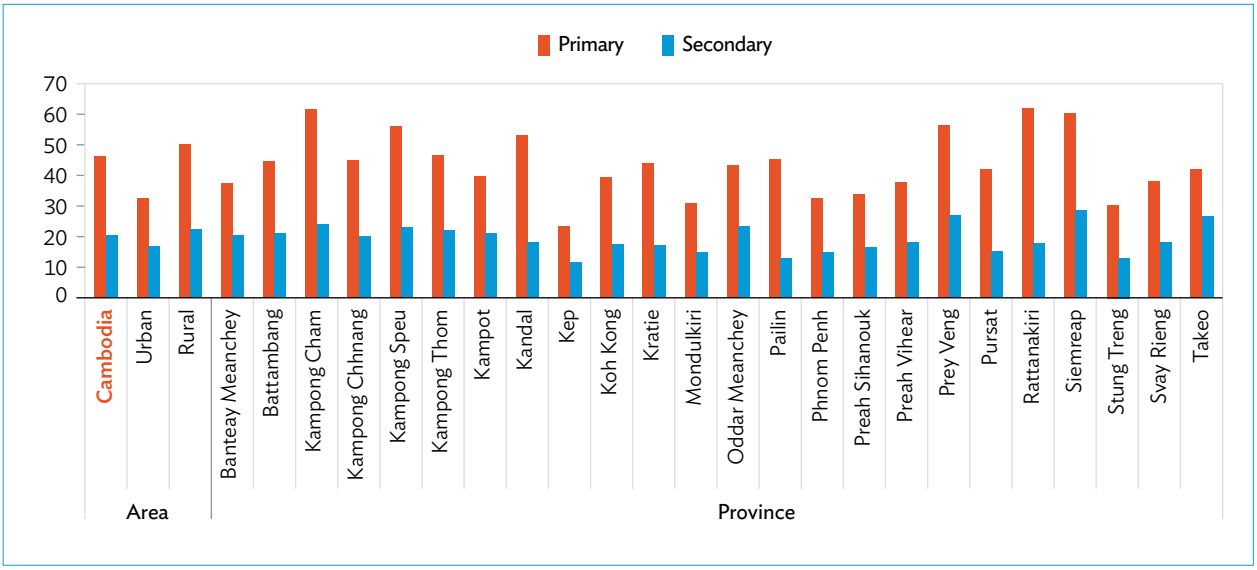
Although most Cambodian villages have a primary school, many schools do not offer a full curriculum up to the end of grade 6 (Figure 3.18). And not all children living far from schools with upper primary grades can manage the travel involved. In four provinces (Koh Kong, Preah Vihear, Rattanakiri, Stung Treng), more than 20% of primary schools do not offer the full elementary curriculum. In another four (Banteay Meanchey, Koh Kong, Preah Vihear, Siem Reap), the curriculum of more than 10% of the upper secondary schools does not reach grade 12.

Figure 3.16. Primary Schools without Water and Toilets, 2013 (% of schools)



Source: MOEYS (2014), accessed February 2014.

Figure 3.17. Student–Teacher Ratios, 2013



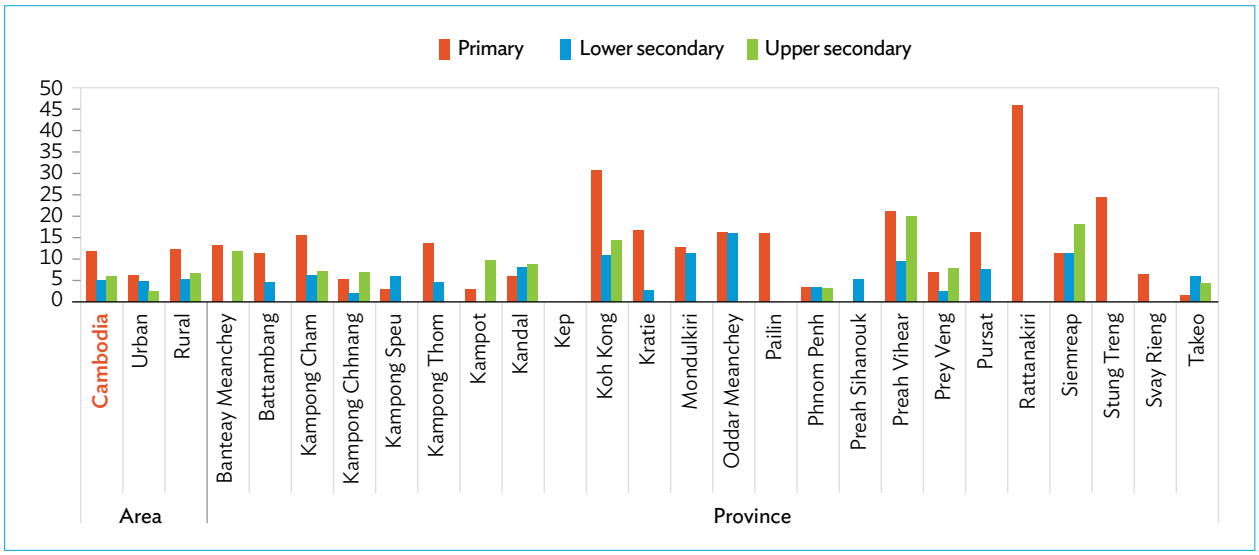
Source: MOEYS (2014), accessed February 2014.

Inadequate education undermines youth employability. Many young people are relegated to jobs in the informal sector, where decent and productive opportunities are rare. A United Nations report noted that 250,000 rural, unskilled young people and 1.5 million children worked in the informal sector (United Nations and Kingdom of Cambodia 2010).

3.2.2. Health

Clearly, health is essential to building human capabilities and poor health hurts labor productivity and earning capacity. Health outcomes in Cambodia have been improving in the last 2 decades amid stronger government commitment to the issue

Figure 3.18. Schools Not Providing a Full Curriculum, 2013 (%)



Source: MOEYS (2014), accessed February 2014.

(RGC 2009). The Health Strategic Plan 2008–2015, for example, aims to reduce

- newborn, child, and maternal morbidity and mortality through better reproductive health;
- morbidity and mortality from HIV/AIDS, malaria, tuberculosis, and other communicable diseases; and
- the burden of noncommunicable diseases and other health problems.

Life expectancy at birth has increased from 52 to 69 years for men in the last 2 decades and from 57 to 74 years for women. Infant, child, and maternal mortality rates have also decreased significantly since 1990 (Table 3.3).

The progress in public health has already enabled Cambodia to meet national targets under its 2015 Millennium Development Goals, such as reducing infant and under-5 mortality rates to 50 and 65 per 1,000 live births, respectively.[28] Scaled-up immunization and breastfeeding programs helped on this front. Vaccination of children aged 12–23 months against diphtheria, whooping cough, and tetanus rose to about 95% in 2012 from 38% in 1990 (World Bank, World Development Indicators [WDI] database). Children are breastfed for an average of 20 months, and 74% of infants under 6 months are exclusively breastfed (NIS, Directorate General for Health [DGH], and ICF Macro 2011). Provision of vitamin A supplements has also expanded, from 79% of children 6–59 months old in 1999 to 98% in 2012.[29]

Some progress is also evident in the fight against communicable diseases. The prevalence of HIV/AIDS (among the population aged 15–49) declined marginally, to 0.8% in 2011 from 0.9% in 2009 (World Bank WDI database). In 2010, the affliction and death rates from acute respiratory infection, which is the leading cause of morbidity and mortality in the country, were 555 and 8 per 100,000 people, respectively (Figure 3.19). Gastroenteric infections contribute to morbidity, with diarrhea prevalent among children less than 24 months old and affecting about 15% of the total population in 2010. The incidence of tuberculosis decreased to 411 cases per 100,000 people in 2012 from 577 in 2000

[28] The Ministry of Planning developed its own set of national development goals for 2015 by setting medium-term targets that build on medium-term planning exercises in 2002 and 2003 and national indicators. Although they are based on the Millennium Development Goals agreed at the United Nations Millennium Summit in 2000, some modifications have been made to adapt the global goals to the context of Cambodia.

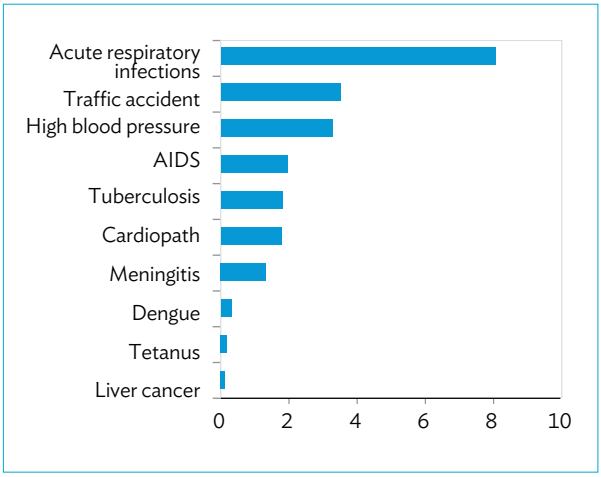
[29] In 2009, the National Nutrition Program developed the National Vitamin A Policy to ensure uniform provision of vitamin A to children aged 6–59 months. 2012 data is from World Bank, WDI database, accessed August 2014.

Table 3.3. Health Outcomes in Cambodia, 1990–2012

Year	Life Expectancy at Birth (years)		Infant Mortality (per 1,000 live births)	Child Mortality (per 1,000 live births)		Maternal Mortality (per 100,000 live births)
	Male	Female		Male	Female	
1990	52	57	85	124	109	1,200
1995	55	61	88	..	..	860
2000	59	65	82	118	103	540
2005	65	70	52	..	..	320
2012	69	74	34	44	35	170

... = no data available.
Note: The 2012 maternal mortality rates refer to 2013 modeled estimates.
Source: World Bank, WDI database, accessed July 2014.

Figure 3.19. Leading Causes of Mortality in Cambodia, 2010 (per 100,000 people)



Source: World Health Organization (WHO) (2011).

and the success rate for treating cases was 93% in 2011 (World Bank, WDI database). Yet, Cambodia still had the highest incidence of tuberculosis in the Western Pacific region (World Health Organization [WHO] 2011). The incidence of dengue was also on the rise, peaking in 2012 at 42,362 (from 9,542 in 2008), but declining in 2013 to 16,722.30.

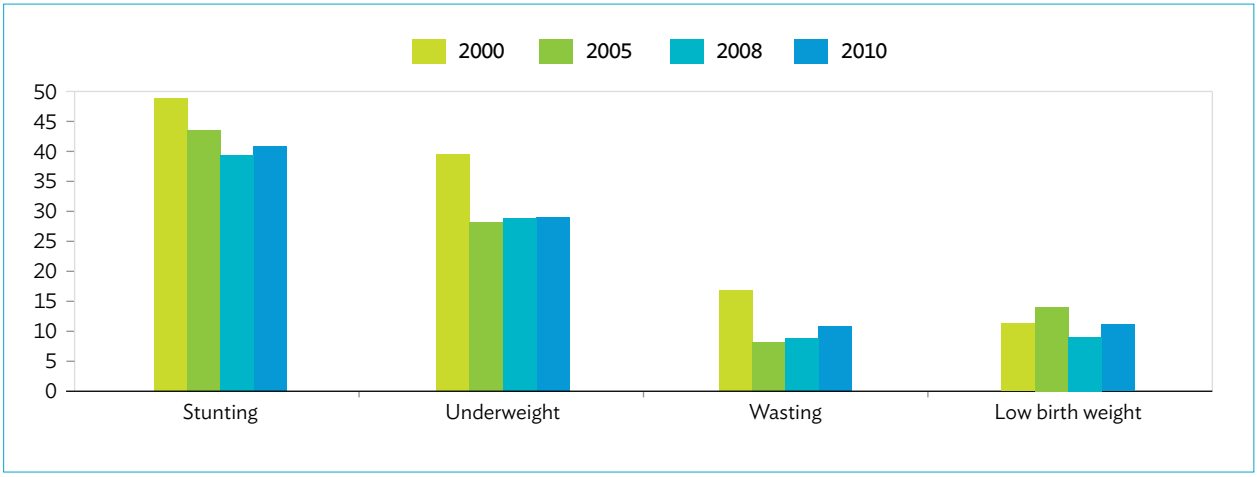
But the prevalence of malnutrition is still high in rural areas. The progress in children's nutritional status, evident in the early 2000s, has stagnated since the mid-2000s (Figure 3.20). The incidence of stunting among children under 5 years old declined from 49% in 2000 to about 40% in 2008, but increased slightly again to 41% in 2010. The proportion of underweight children and the incidence of wasting have also marginally increased since 2005, following a significant drop between 2000 and 2005. All these factors suggest that chronic malnutrition is prevalent among children.

The prevalence of low birth weight, often taken as an indicator of intergenerational transmission of poor nutrition and health, was 11% in 2010, the same as in 2000. This lack of progress is despite the increased use of prenatal health services, with the proportion of pregnant women receiving prenatal care rising to 89% in 2010 from 69% in 2005 (World Bank, WDI database).

Nutrition is critical to building human capital because it influences a child's overall health and development. Poor nutrition from conception to the second birthday damages long-term physical and cognitive development, resulting in deficiencies that can never be fully overcome (ADB 2013a). Among impaired persons, 20% had been impaired since birth, underscoring the importance of maternal nutrition and antenatal care. By influencing physiological and mental development, early childhood health shocks can diminish children's educational and productive potential in later years.

[30] Dengue incidences for 2008–2012 are from the National Center for Parasitology, Entomology and Malaria Control: Dengue Control Programme. The dengue incidence for 2013 is from WHO (2014).

Figure 3.20. Nutritional Status of Children under 5 and Low Birth Weight Incidence, 2005–2010 (%)



Source: World Bank, WDI database, accessed July 2014.

Table 3.4. Nutritional Status of Children, 2010 (%)

Indicator	Stunting (height for age)	Underweight (weight for age)	Wasting (weight for height)
Gender			
Male	41.6	28.0	11.4
Female	38.2	28.6	10.4
Location			
Urban	27.5	18.8	11.6
Rural	42.2	30.0	10.8
Mother's Education			
No schooling	47.6	34.2	11.3
Primary	40.4	28.7	11.7
Secondary and higher	30.7	20.7	9.7
Wealth Quintile			
Poorest	51.1	35.4	11.9
Second	44.4	32.6	9.6
Third	39.3	27.8	11.5
Fourth	34.2	24.6	11.1
Richest	23.1	15.9	10.1

Source: NIS, DGH, and ICF Macro (2011).

In general, children in rural areas, are in the poorest quintile group, and have mothers with little or no education, are most likely to be malnourished (Table 3.4). In rural areas in 2010, 42% of children were stunted, compared with 28% in urban areas. Likewise, 30% of children in rural areas were underweight compared with 19% in urban areas. Interestingly, the incidence of acutely malnourished children was slightly higher in urban areas, where about 12% of children were affected by wasting, compared with about 11% of children in rural areas.

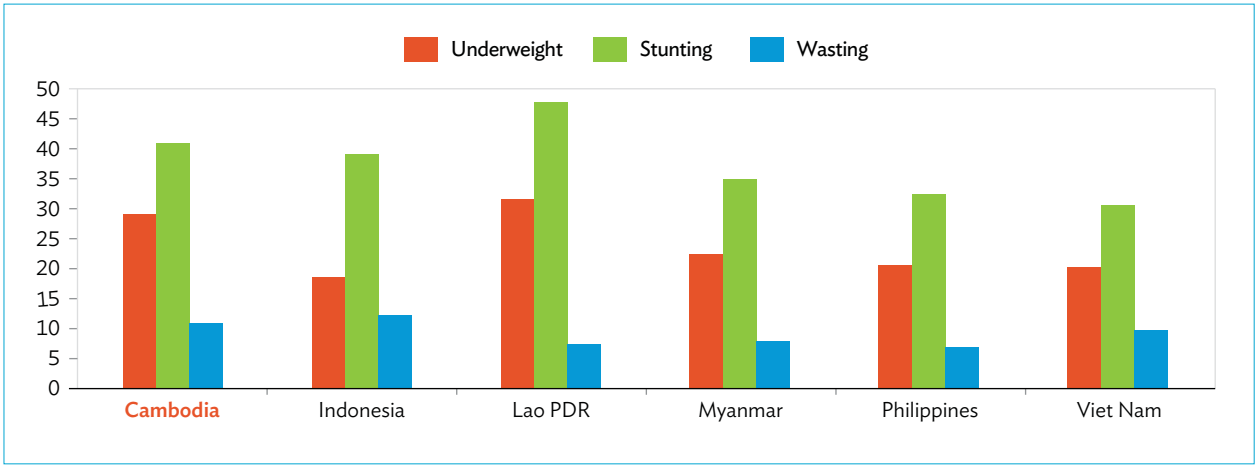
Children from the poorest quintile are impacted by stunting and being underweight more than twice as much as children from the richest quintile. Children of uneducated mothers are also more prone to stunting and being underweight than those whose mothers have at least primary education. Stunting

Table 3.5. Health Outcomes in ASEAN Countries, 2012

Country	Life Expectancy at Birth (years)	Infant Mortality (per 1,000 live births)	Child Mortality (per 1,000 live births)	Maternal Mortality (per 100,000 live births)
Brunei Darussalam	78	7	8	27
Cambodia	**71**	**34**	**40**	**170**
Indonesia	71	26	31	190
Lao PDR	68	54	72	220
Malaysia	75	7	9	29
Myanmar	65	41	52	200
Philippines	69	24	30	120
Singapore	82	2	3	6
Thailand	74	11	13	26
Viet Nam	76	18	23	49

ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Note: Data for maternal mortality are modeled estimates for 2013.
Source: World Bank, WDI database, accessed July 2014.

Figure 3.21. Nutritional Status of Children in Selected Southeast Asian Countries, Latest Year (% of children under 5)



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Note: Data for maternal mortality are modeled estimates for 2013.
Source: World Bank, WDI database, accessed July 2014.

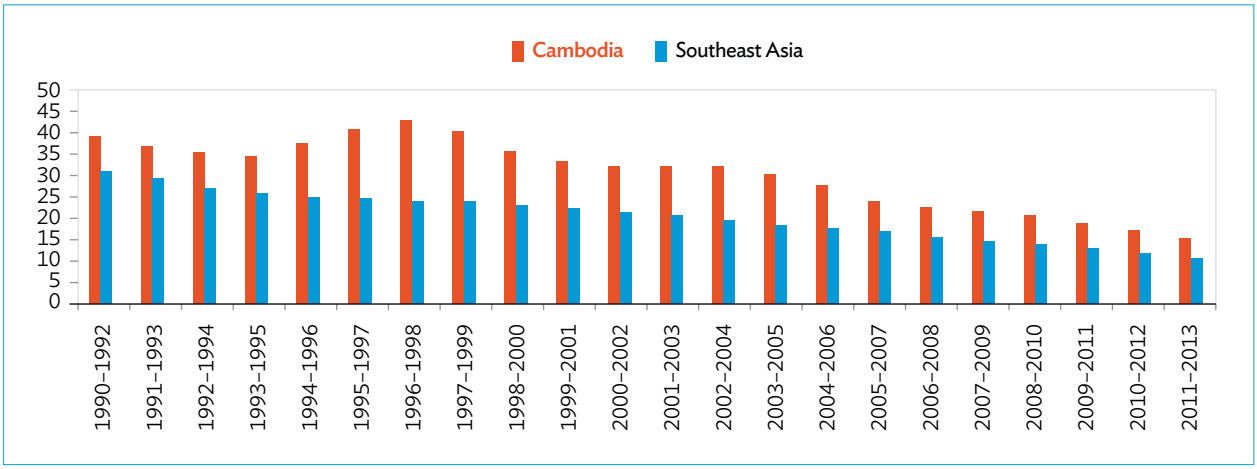
and wasting are slightly more prevalent in boys than girls.

Health outcomes remain low by regional standards. Cambodia's life expectancy is the sixth highest in the Association of Southeast Asian Nations (ASEAN), but its infant and under-5 mortality rates are below only those of the Lao People's Democratic Republic and Myanmar (Table 3.5). Maternal mortality is lower than in Indonesia and the two countries just mentioned.

Cambodia's nutrition profile does not compare favorably with that of its neighbors. The prevalence of being underweight, stunting, and wasting among children is the highest in Southeast Asia, except for the Lao People's Democratic Republic, where they are higher, and Indonesia, where wasting is marginally higher (Figure 3.21).

The undernutrition rate has been persistently higher than the Southeast Asian average since the early 1990s (Figure 3.22). About 15% of Cambodia's

Figure 3.22. Prevalence of Undernourishment, 1990–2012 (% of population)



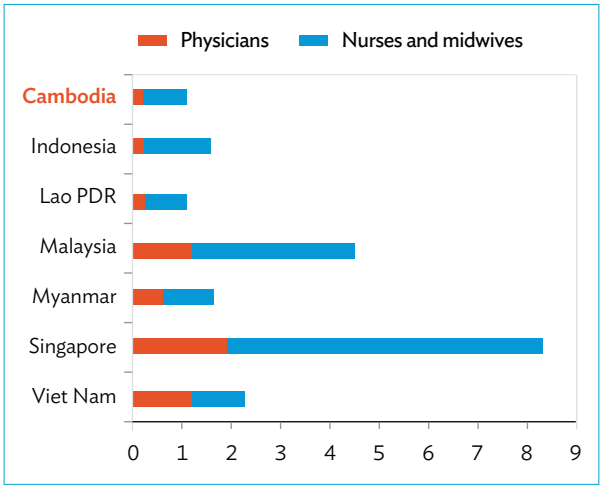
Note: Data refer to the proportion of the population estimated to be at risk of caloric inadequacy.
Source: Food and Agriculture Organization, accessed February 2014.

population was undernourished during 2011–2013, compared with the regional average of 11%.

Inadequate Supply of Medical Workers. The dearth of health care workers both in quantity and level of expertise may explain the country's underperformance in its health outcomes. Availability of professional health services is severely limited. Only 1.2 skilled health workers (physicians, nurses, midwives) serve each 1,000 Cambodians (Figure 3.23). In 2011, 18,045 health care professionals were employed—91 of these were specialist doctors (WHO and Ministry of Health 2012). The limited number of qualified local health professionals constrains the delivery of health services. Inadequate funding, logistics, and data also prevent the government from addressing problems at the primary health care level.

Limited and Uneven Access to Health Care. Overall access to health care is limited, but the situation is even worse for the poor and women. Income remains the biggest determinant of household access to health services, and the vast majority of families do not have access to free health care. Health care access problems affected 72% of women in 2010, an improvement from 89% in 2005 (NIS, DGH, and ICF Macro 2011). For poor women, it is worse: 84% of women in the lowest income quintile reported problems accessing health care, compared with 55% in the highest quintile. Among

Figure 3.23. Physicians, Nurses, Midwives, 2012 (per 1,000 people)

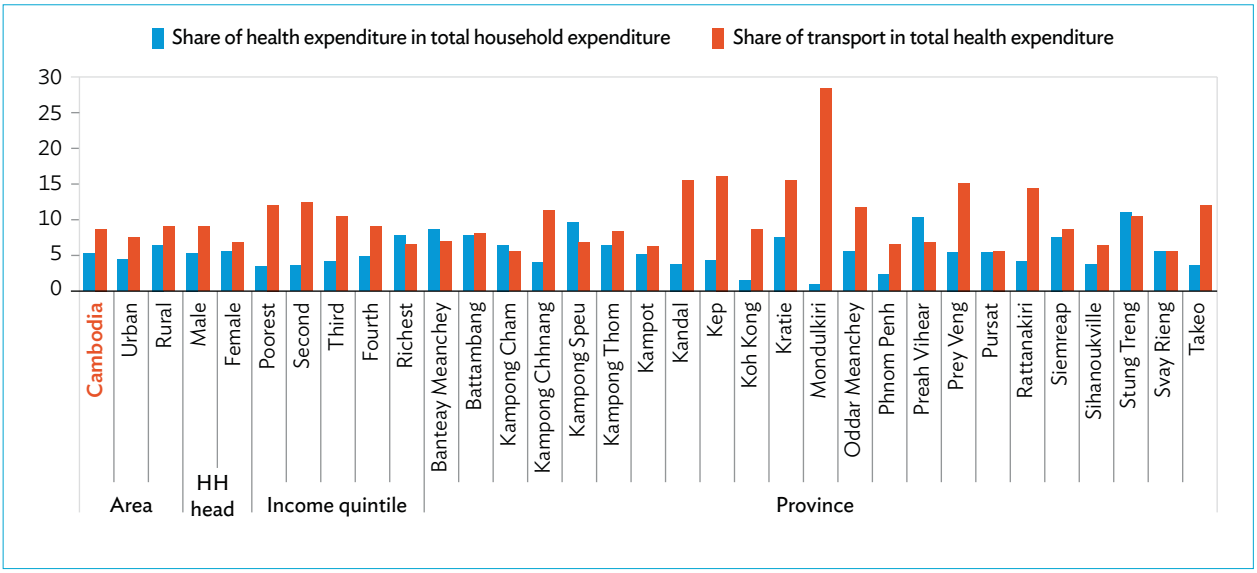


Lao PDR = Lao People's Democratic Republic.
Note: 2010 data are used for Malaysia and Singapore, 2011 data for Viet Nam.
Source: World Bank, WDI database, accessed October 2014.

women in the poorest quintile, 79% reported not having enough money for treatment versus 48% in the highest quintile.

A lack of female doctors is another barrier to women's access to health care—at least one-third of women were concerned about not having female doctors to attend to them (NIS, DGH, and ISF Macro 2011). In 2011, 84% of regular doctors and 92% of specialist doctors were male.

Figure 3.24. Household Health Expenditure, 2013 (%)



HH = household.
Note: Income quintiles are based on expenditures data and use the new methodology of computing consumption aggregate, which the government applied from April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

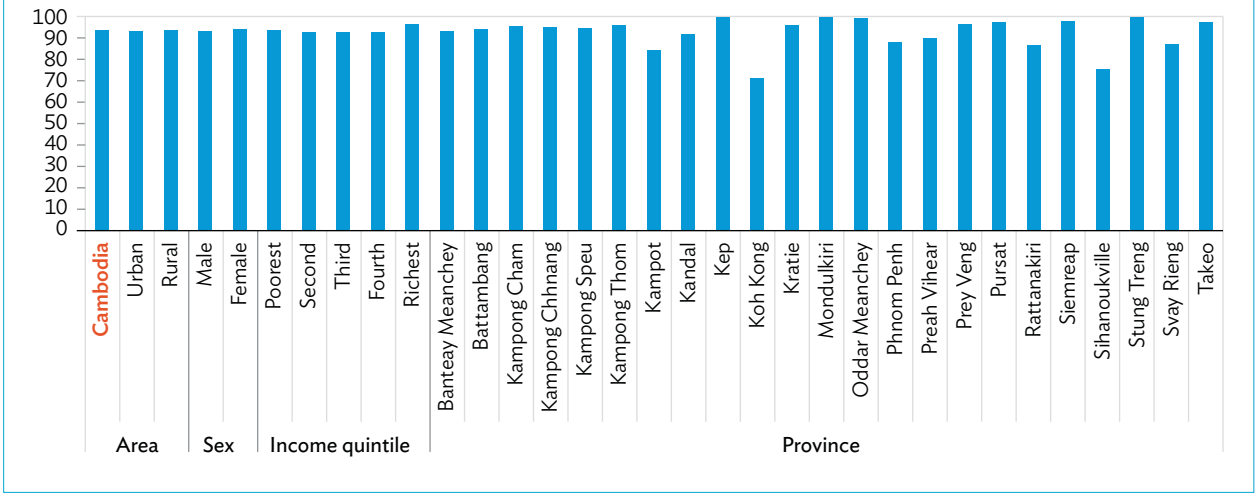
Interpersonal dynamics within a household may also contribute to the problem of women accessing health care. The need for permission from husbands to go to a health center affected 33% of women; only 45% of women claimed to be able to make health-related decisions on their own (NIS, DGH, and ISF 2011). Not wanting to go alone for health care affected 40% of women across all income quintiles, with those in the lower income quintiles even less willing to go alone. The tendency to go to clinics with a companion compounds the problem by raising transport costs.

The share of health expenditure in total household expenditure rises from the lowest to the highest income percentiles, suggesting that poor households seek less health services or more inexpensive ones (Figure 3.24). But the share is higher in rural than in urban areas, likely reflecting higher transport costs. From the provincial data, household health spending seems to be relatively low where transport costs are a significant share of total health expenditure, suggesting that this hinders health service access. Mondulkiri households allocated the highest portion of total health expenditure to transport, at 28%, followed by households in Kandal, Kep, and Kratie, which spent at least 15% on transport.

Limited Coverage of Subsidized Health Care. In most provinces, more than 90% of Cambodians sought consultation or treatment when they were ill (Figure 3.25). People used private hospitals and clinics nearly three times as often as public hospitals, although poor households tended to make greater use of public facilities (Figure 3.26). People tend to use public health facilities less because of a lack of confidence in them; long waiting times; restricted hours of service; unpredictable informal (and formal) charges; real and perceived poor quality of care, facilities, and medication; uneven clinical skills of providers and lack of medical staff; poor staff attitude toward patients; reluctance to travel; distance from the home; and preference for home-based health care, which is provided by private medical practitioners (Annear et al. 2006).

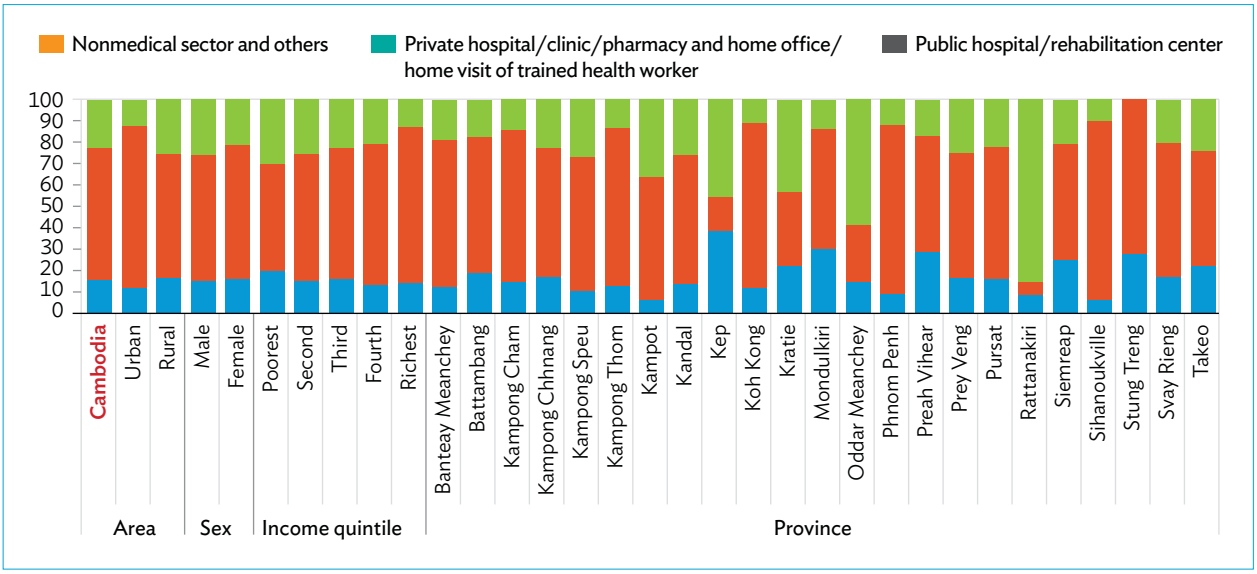
On average, at least one member in 10% of households receives free or subsidized health care. In Banteay Meanchey, Kampong Thom, Kep, and Phnom Penh subsidized health care was primarily granted through inclusion in the list of poor households that is held by the local authorities. In other provinces, patients received subsidized treatment upon providing documentary proof such as a Household Priority Access Card or Equity Card.

Figure 3.25. Percentage of the Population that Became Ill and Sought Consultation or Treatment, 2013



Note: Income quintiles are based on expenditure data and use the new methodology of computing consumption aggregate, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

Figure 3.26. Health-Seeking Behavior for First Treatment of Illness, by Province and Health Care Provider (% of population that became ill)

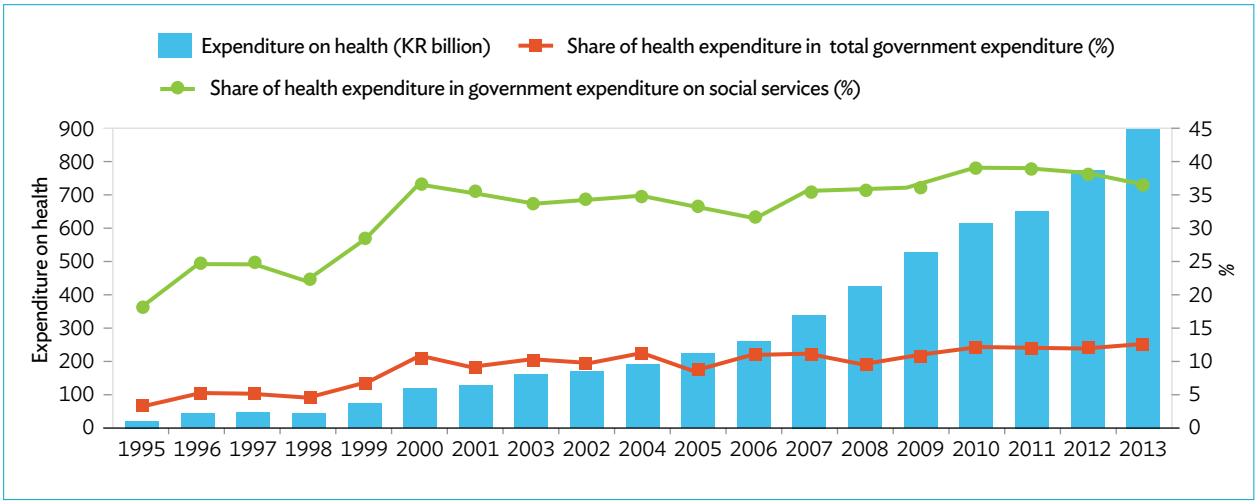


Notes: Income quintiles are based on expenditures data and use the new methodology of computing consumption aggregate, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

But members of only 6% of households (and only 14% of those in the poorest quintile) have such cards (NIS, CSES Tables 2013).

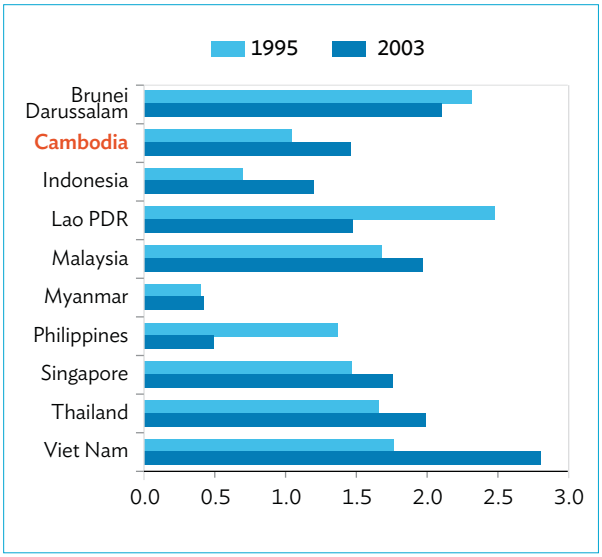
The government has significantly intensified its support for the health sector, increasing its spending 35 times from 1995 to 2013. Resources allocated to health services rose to KR902 billion in 2013, compared with just KR26 billion in 1995. Government health spending increased sharply between 1995 and 2000 and has risen steadily since then, reflecting the government's focus on public health in its social sector agenda (Figure 3.27). As a result, health spending as a share of GDP rose significantly between 1995 and 2013, but only at about 1.5% of GDP (Figure 3.28).

Figure 3.27. Government Expenditure on Health, 1995–2012



KR = riel.
Source: ADB (2013b).

Figure 3.28. Public Health Expenditure in ASEAN Countries, 1995 and 2013 (% of GDP)



ASEAN = Association of Southeast Asian Nations, GDP = gross domestic product, Lao PDR = Lao People's Democratic Republic.
Source: ADB (2014a); World Bank, WDI database, accessed October 2014.

3.2.3. Water and Sanitation

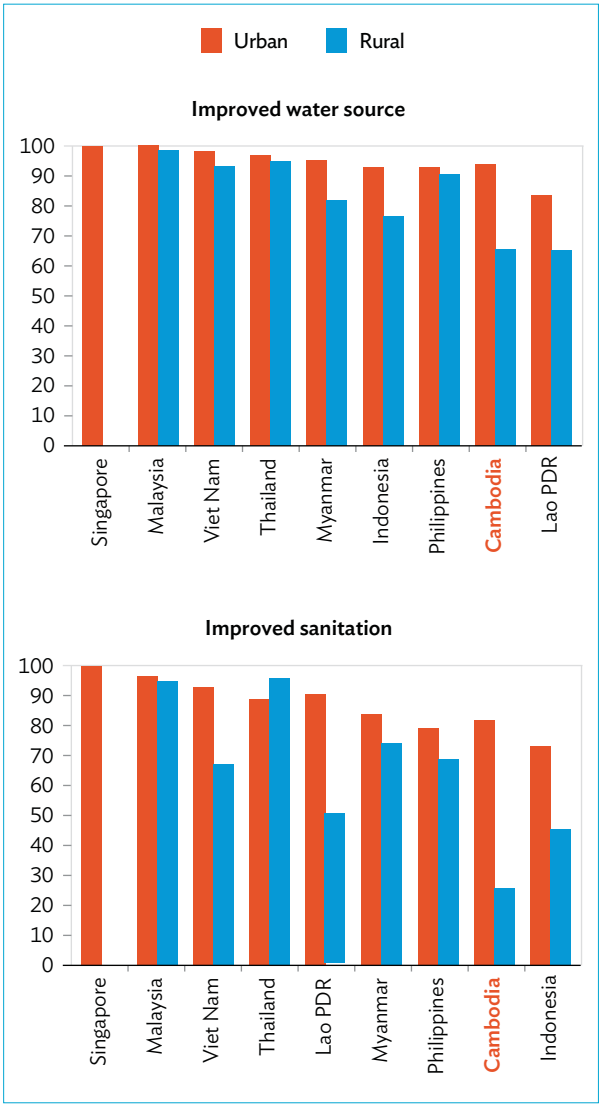
Water and sanitation infrastructure is in short supply due to its destruction during the civil war, lack of budgetary resources, and unclear institutional structure. Access to improved water sources and sanitation has been increasing, albeit slowly. Among ASEAN countries, Cambodia has the lowest access to rural sanitation facilities and the second lowest access to good quality water in rural areas (Figure 3.29). Urban facilities are generally in much better condition. Large regional disparity also exists in both the access to and the presence of improved water sources and sanitation (Figure 3.30).

Inequality in access to improved water and sanitation affects children more than any other demographic group, although the incidence of gastroenteric diseases varies widely across provinces;[31] the incidence was highest in Stung Treng and lowest in Rattanakiri. Provinces with poor sanitation facilities have higher incidence of diarrheal disease.

In Phnom Penh, at least 90% of households have access to improved water sources during both dry and wet seasons (NIS, CSES Tables 2013). In rural areas, 52% of households have access in the dry season, but only 42% in the wet season. Among households in the poorest quintile, only 48% (during dry season) and 39% (during wet season) have access to improved water sources, whereas 70% (dry season) and 64% (wet season) of the richest quintile have such access.

[31] Based on calculations using survey data from NIS, CSES Tables 2013.

Figure 3.29. Improved Water Source and Sanitation Facilities in ASEAN, 2012 (% with access)



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Note: Excludes Brunei Darussalam.
Source: WHO and UNICEF database, accessed July 2014.

Access to improved water also varies across provinces. In Koh Kong and Svay Rieng, at least 90% of households have access during the wet season, while those in Kep, Mondulkiri, and Rattanakiri have access rates below 15% of households.

Because it is difficult and expensive to extend the piped water system, water facilities in rural areas are limited to hand pumps, dug wells, ring wells, and rainwater harvesting systems. For many rural people, drinking water is sourced from unprotected dug wells and surface water, which are highly susceptible to contamination from fecal matter, waste, and chemicals. During the wet season, lasting 7 months of the year, many people use rainwater collected from unprotected tanks or containers.

The high cost of better sanitation facilities and inadequate awareness of sanitation's benefits contribute to the low demand for these facilities in some areas (Robinson 2010). In 2013, just over 98% of households in Phnom Penh had improved toilets, compared with only 40% in rural areas. Open defecation remains common among 56% of rural households (Table 3.6).

Toilet facilities are accessible to only 29% of people in the poorest income quintile versus 79% in the richest quintile. Male-headed households are more likely to have access to improved sanitation than households headed by women. Sanitation coverage also varies across provinces (Figure 3.30).

3.3. Leveling the Playing Field

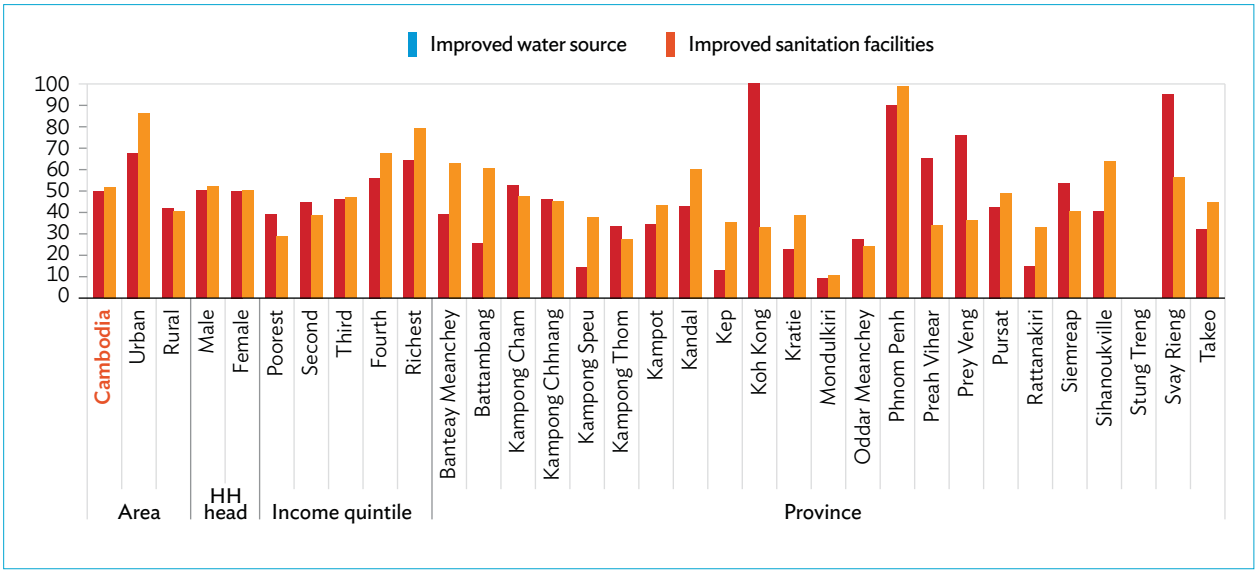
Leveling the playing field entails ensuring that people in all geographic localities and socio-economic groups have equal access to economic opportunities. This requires equitable provision of infrastructure facilities, productive assets, and credit.

3.3.1. Infrastructure

Access to Electricity. Access to electricity is highly uneven, with 94% of households in urban areas having access, but only 38% in rural areas (Figure 3.31). In 2013, about 80% of households in the top income quintile had electricity access versus only 28% of those in the lowest income quintile.

In Phnom Penh, all households have access to electricity, but in 14 of the country's 22 provinces

Figure 3.30. Improved Water Source (Wet Season) and Sanitation Facilities, 2013 (%)



HH = household.
Note: Household income quintile is assigned based on the new methodology of computing consumption aggregate, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

Table 3.6. Sanitation Facilities, 2013 (% of households)

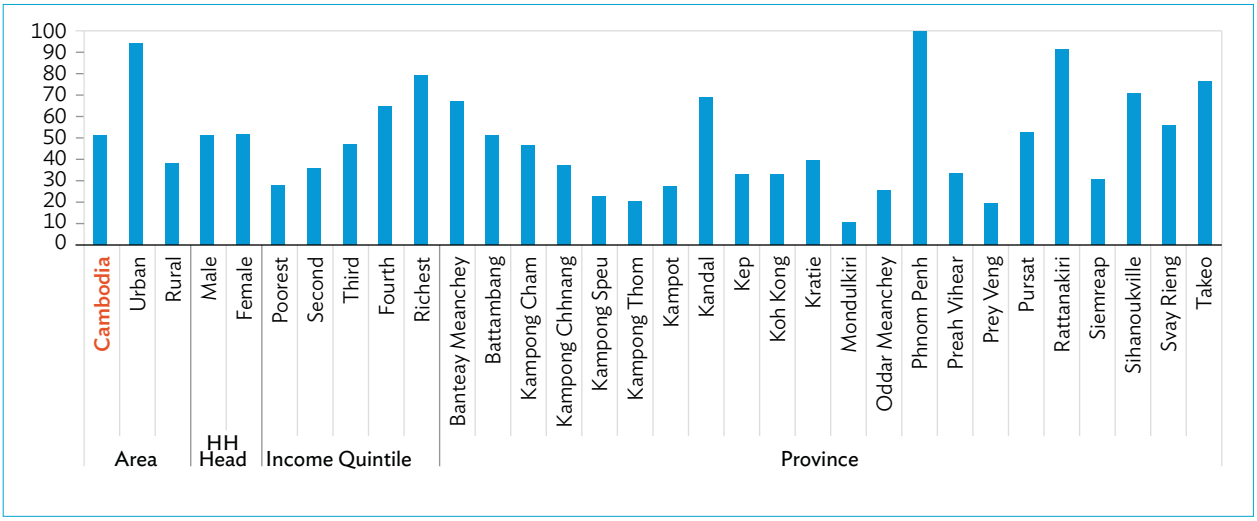
Toilet Type	Cambodia	Phnom Penh	Other Urban	Other Rural
Improved Toilets	**51.7**	**98.4**	**86.4**	**40.2**
Pour flush/flush connected to sewerage	11.3	73.9	12.9	1.8
Pour flush/flush connected to septic tank	39.9	24.5	72.4	37.8
Pit latrine with slab	0.5	0.0	1.2	0.5
Unimproved Toilets	**48.3**	**1.6**	**13.6**	**57.8**
Pit latrine without slab/open pit	0.4	0.0	0.3	0.5
Latrine overhanging field/water	1.6	0.1	2.3	1.8
Public toilet (pit latrine/latrine)	1.1	0.0	1.6	1.2
Open land	44.9	1.5	9.2	56.0
Other unimproved	0.2	0.0	0.2	0.3

Note: "Other Urban" and "Other Rural" exclude Phnom Penh.
Source: NIS, CSES Tables, accessed July 2014.

(excluding Phnom Penh) less than 50% of households do. The reasons include limited electricity supply and grid connection, and high cost. The richest households, which have 15 times the per capita disposable income of the poorest quintile, had almost three times greater electricity access.[32] Proximity to major grid areas also impacts electricity access and tariff rates, and thus poor households in areas with limited or no grid connection have poor quality electricity service that is also supplied at higher prices. Isolated distribution systems supply only 0.4% of total energy input and serve 2.6% of consumers, while the national grid, which supplies 84.3% of total energy to the system, serves 84.0% of total consumers (Electricity Authority of Cambodia 2013).

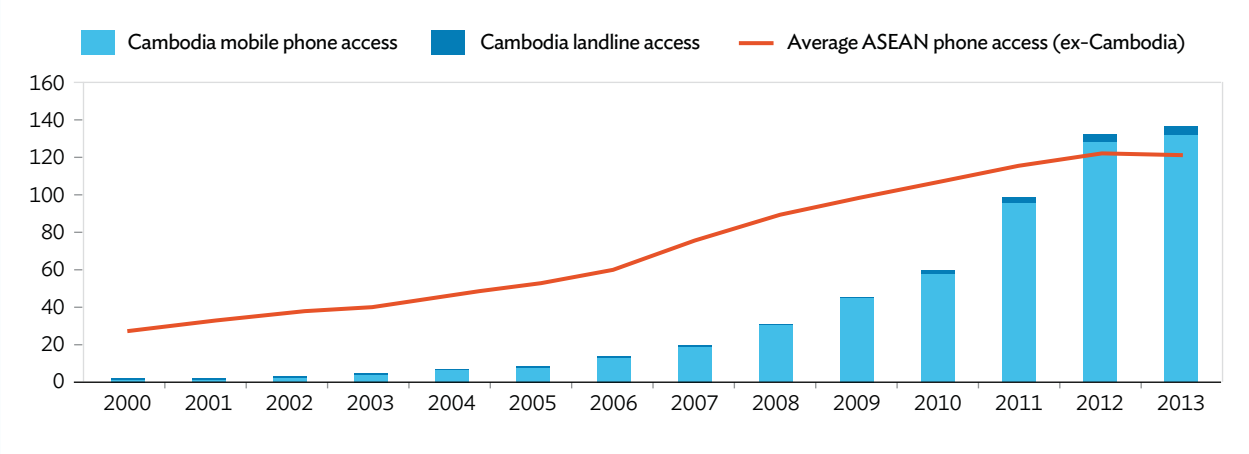
[32] Data on per capita monthly disposable income are from NIS, CSES Tables 2013.

Figure 3.31. Access to Electricity, by Area, Province, and Income Quintile, 2013 (% of households)



HH = household.
Note: Income quintiles are based on expenditures data and use the new methodology of computing consumption aggregate, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

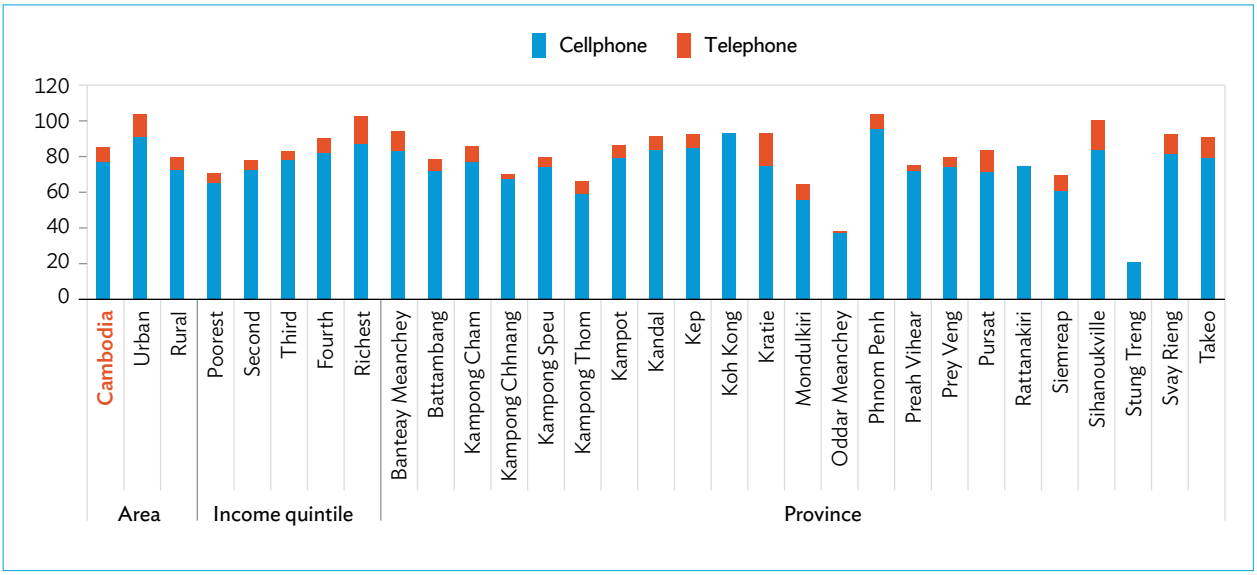
Figure 3.32. Access to Telecommunications in Cambodia and the Rest of ASEAN, 2000–2013 (subscriptions per 100 people)



ASEAN = Association of Southeast Asian Nations.
Source: World Bank, WDI database, accessed July 2014.

Access to Telecommunications Services. Access to telecommunications services is skewed toward urban areas and rich households. Telecommunications access has vastly improved. In 2000, Cambodia had only 1.3 phone subscriptions per 100 people, compared with the ASEAN average of 28 (Figure 3.32). Digital technology has helped widen the reach of telecommunications, and mobile and landline subscriptions have risen rapidly to 137 per 100 people in 2013, higher than the ASEAN average; the increase is mainly due to widespread mobile phone use. Among rural households, 72% have mobile access, while 65% of the poorest households have mobile access (Figure 3.33). Landline infrastructure lags behind mobile infrastructure, so that even in the province of Kratie, where landline telephone density is highest, a landline telephone is accessible to only 19% of households. Households in Koh Kong, Rattanakiri, and Stung Treng have no landline

Figure 3.33. Access to Telecommunications, by Area, Province, and Income Quintile, 2013 (% of households)



Note: Income quintiles are based on expenditures data and use the new methodology of computing consumption aggregate, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

access. Mobile phone density by contrast, is quite high. In Phnom Penh, 96% of households have mobile phone access. Outside the capital, mobile access is highest in Koh Kong (93%) and lowest in Stung Treng (20%).

3.3.2. Land

Because agriculture employs the majority of the labor force, access to productive land is important for poverty alleviation and economic growth. Of households in Cambodia, 64% own or farm land, with the share higher for households headed by men (66%) than by women (57%). The average size of land farmed is 1.6 hectares, with larger average sizes for households headed by men, at 1.7 hectares, than women, at 1.1 hectares (Figure 3.34). The average size of land owned by urban households is 1.6 times that of rural households.

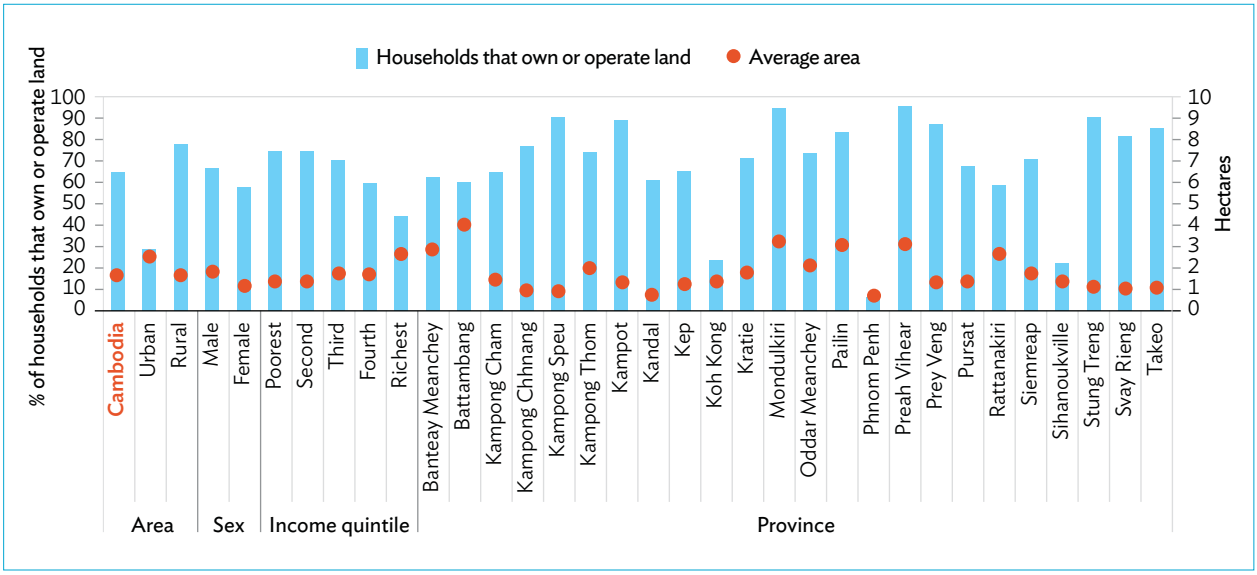
Land Use and Land Tenure. Problems related to accessing land and securing land tenure stem from the destruction of all land title documents and the abolition of private property during the Khmer Rouge period. A collectivized land system was adopted during the Vietnamese-backed administration in the 1980s. In 1989, the government allowed formal private land ownership, and introduced the concept of legal ownership in the Land Law (1992), which was updated in the 2001 Land Law. Legal owners of land have the right to request a title of ownership which, in theory, the government can grant in a fairly straightforward manner. However, "there is repeated evidence of the Government denying land titles to those with valid possession rights" (Land and Housing Working Group 2009, 21).

The Cambodia Socio-Economic Survey 2013 shows that about 45% of land was obtained through family inheritance or acquired from a relative, and 34% from the government (Figure 3.35).

The updated Land Law provides for the redistribution of land. In 2009, the Gini coefficient of land distribution was 0.6997, a relatively equitable level.[33] Ownership of land, however, is no guarantee of security. The legal and regulatory infrastructure for land titling and settlement of land disputes should be strengthened. In 2012, 70 land dispute cases were reported, affecting 101,408 hectares and 10,689

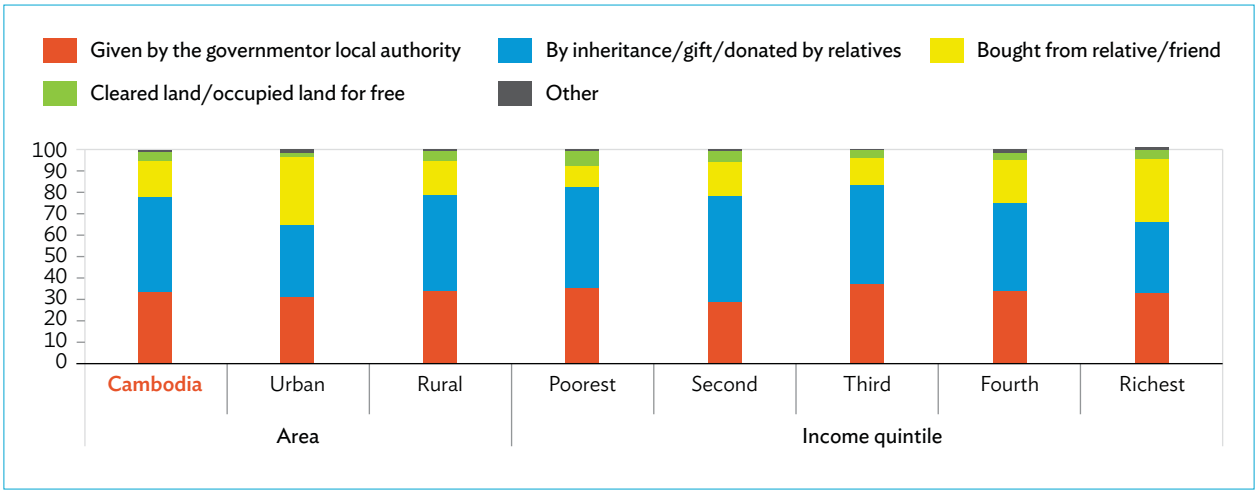
[33] Calculation based on data from NIS, CSES 2009.

Figure 3.34. Households Owning or Farming Land, 2013



HH = household.
Note: Household expenditure quintile is assigned based on the new methodology of computing consumption aggregate in Cambodia, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

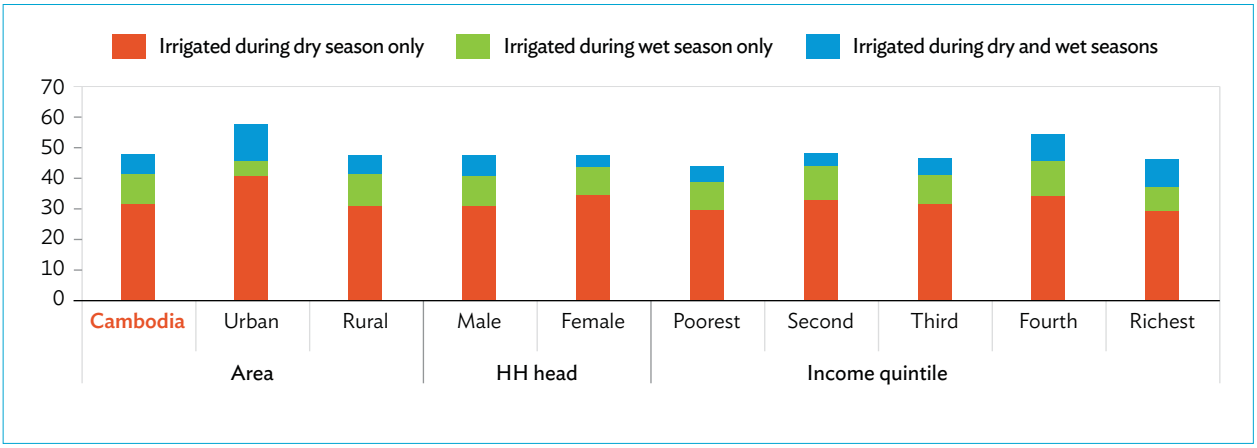
Figure 3.35. Source of Land, by Major Geographic Domain and Income Quintile, 2013 (% of households)



Note: Income quintiles are based on expenditures data and use the new methodology of computing consumption aggregate, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

families, in addition to cases pending from previous years (ADHOC 2013). The Land Management and Administration Project has been unable to provide security to many vulnerable households, with the influx of foreign investment and rapid urbanization and commercialization endangering the land tenure of many households. As of December 2012, the government had reserved or allocated about 2.7 million hectares of land under the Economic Land Concession scheme, despite announcing a moratorium on granting land concessions under the scheme. Many land concessions that have been granted affect protected areas. The government also granted 38 social land concessions (which provide land to poor, landless families, including those displaced by economic land concessions, and

Figure 3.36. Land with Access to Irrigation, 2013 (%)



HH = household.
Note: Income quintiles are based on expenditures data and use the new methodology of computing consumption aggregate, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

to veterans of the Cambodian Armed Forces and the National Police Force), covering 101,000 hectares in 16 provinces—a negligible figure compared with the amount of land granted to the private sector under other concession schemes (ADHOC 2013).

Access to Irrigation Facilities. Although Cambodia has ample natural water resources, in 2013, less than 50% of the land was irrigated; of that, 42% was irrigated only seasonally, and only 6% was irrigated year-round (Figure 3.36). Land cultivated by male-headed households is more likely to be irrigated than land cultivated by female-headed households. Because irrigation raises agricultural productivity, the low level of irrigation limits the income-earning potential of most farm households.

3.3.3. Credit

Financial access is a critical component of inclusive growth and development. Access to credit enables households to smooth consumption during economic adversity and to engage in opportunities to raise their income and welfare during periods of growth.

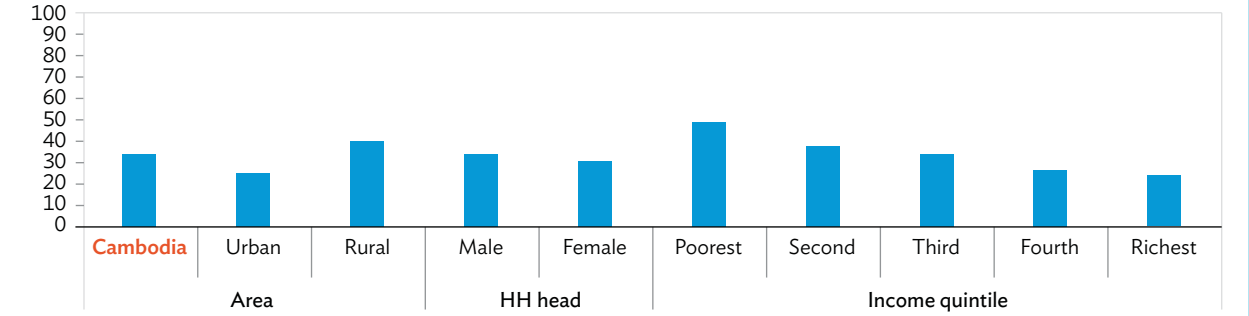
Financial development reforms have helped pave the way for greater access to credit from formal institutions. But Cambodians still rely significantly on informal sources, including family, friends, and moneylenders. About 34% of households borrowed money in 2013.[34] Households in the poorest quintile are at least twice as likely to borrow as wealthier households (Figure 3.37). Poor households access two-thirds of their loans from banks and nongovernmental organizations (NGOs) and about one-third from moneylenders and relatives and friends. These shares are very similar for the population as a whole (Figure 3.38). Female-headed households tend to rely more on relatives and friends and moneylenders than male-headed households and less on NGOs.

NGOs charge marginally higher interest rates to the poor, at 3% per month, than banks, at 2.8% (Figure 3.39). As expected, moneylenders charge the highest rates, at over 5% per month (over 60% per year).

The rapid development of microfinance in the last 10 years has helped minimize the unserviced need for financial services, but people in poorer regions still face limited access to microcredit services. Further developing credit mechanisms in rural areas will be needed to help poor rural households engage in economic activities more intensively and to promote financial inclusion.

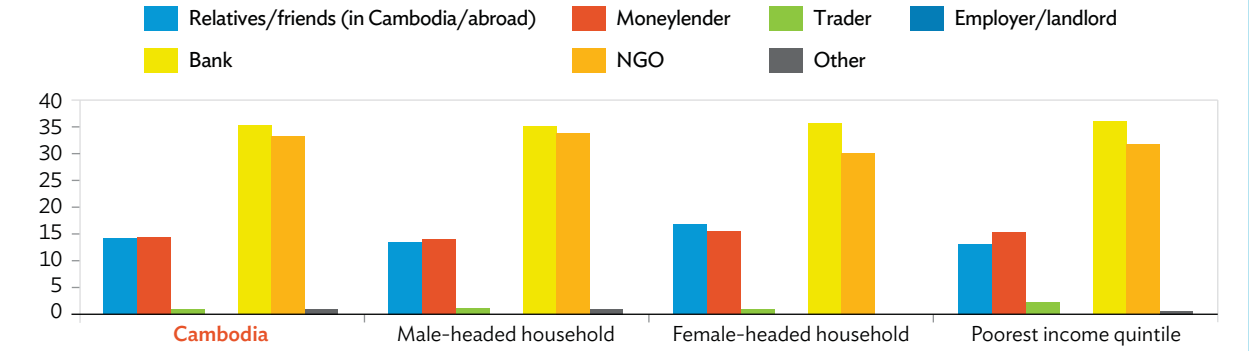
[34] Calculation based on NIS, CSES Tables.

Figure 3.37. Access to Loans, 2013 (% of households)



HH = household.
Notes: Income quintiles are based on expenditures data and use the new methodology of computing consumption aggregate, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

Figure 3.38. Household Loans by Source, 2013 (% of total number of loans)



NGO = nongovernment organization.
Note: Income quintiles are based on expenditures data and use the new methodology of computing consumption aggregate, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

Figure 3.39. Average Monthly Interest Rate on Loans to the Poorest Quintile, by Source of Loan, 2013 (%)

NGO = nongovernment organization.
Note: Income quintiles are based on expenditures data and use the new methodology of computing consumption aggregate, which the government started applying in April 2013.
Source: Calculations based on data from NIS, CSES Tables 2013.

3.4. Social Safety Nets

Coverage of social safety nets is very low. Social protection in Cambodia covers only 3.2% of the population, according to the World Bank—far behind the world average of 43%. Only 1.7% of households in the lowest income quintile are covered.[35]

Cambodia's social protection landscape consists of social security entitlements as provided by law, national social protection programs, and donor-funded programs and projects. The Labor Law (1997) provides the legal framework for the protection of wage employees in the private sector and mandates that employers provide employees with social security benefits in the form of employment injury benefits, maternity leave, sick leave, and severance pay. The Law on Social Security Schemes for Persons Defined by the Labor Law (2002) provides a social security scheme for private sector employees under the National Social Security Fund, a mandatory employment-based social insurance scheme intended to provide occupational injury coverage, medical insurance, and pension benefits to private sector employees. This fund and the National Social Security Fund for Civil Servants are the two main benefit programs. In addition, the Council for Agricultural and Rural Development, supported by line ministries, stakeholders, and development partners, launched the National Social Protection Strategy for the Poor and Vulnerable in 2011. It aims to help attain Cambodia's Millennium Development Goals by protecting poor and disadvantaged groups in the face of economic shocks and vulnerable situations, and by expanding opportunities to build human capital to move people out of poverty (RGC 2011c). The strategy is still in the early stages of implementation.

Other legal measures relevant to social protection include the following:

- the Common Statute of Civil Servants (1994);
- Prakas No. 012: on The Instructions to Implement the Retirement and Disability Pension Regime of Career Soldiers of the Both Sexes of the Royal Cambodian Armed Forces (2007) and Establishment of the National Fund for Veterans via Sub-Decree No. 79 (2010);
- Establishment of the National Fund for Veterans via Sub-Decree No. 79 (2010);
- the Law on the Protection and the Promotion of the Rights of Persons with Disabilities (2009);
- the Law on Suppression of Kidnapping and Trafficking of Human Persons and Exploitation of Human Persons (1994);
- the Law on the Prevention of Domestic Violence and the Protection of Victims (2005), which was used to develop the National Action Plan to Combat Violence against Women; and
- the Insurance Law (2000).

With these laws in place—and government spending on social security and welfare increased—from KR159 billion in 2008 to KR238 in 2010—the share of the labor force covered by some type of social protection increased from 49% to 60% in 2008–2010, according to the Asian Development Bank (Table 3.7).

The government established the National Social Security Fund for Civil Servants in 2008 to centralize the administration and disbursement of social security benefits and establish a contributory and financially sustainable social insurance scheme for retired civil servants, soldiers, and police; disabled people; and dependents of soldiers and military heroes. Benefits cover sickness, work injuries, maternity leave, retirement, invalidity, death, and family allowances for spouses and children. About 703,000 civil servants, civil service pensioners, and their dependents were covered by the scheme in 2010 (Figure 3.40).

[35] World Bank, Atlas of Social Protection Indicators of Resilience and Equity database, accessed August 2014.

Table 3.7. Social Protection Coverage, 2008–2010

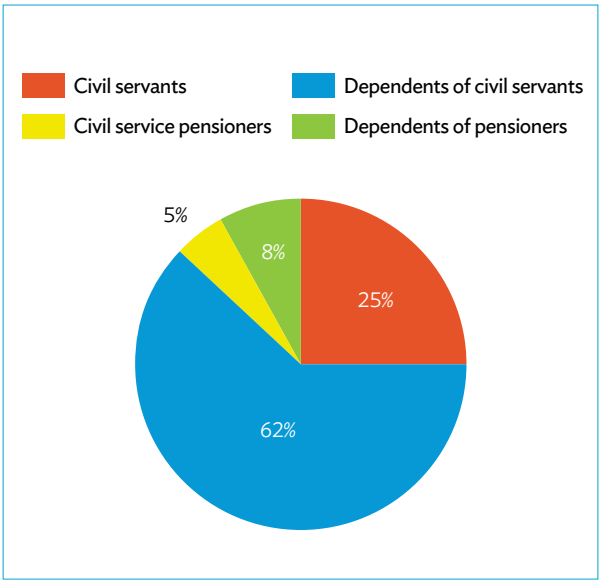
Year	Number of Beneficiaries Covered	Labor Force	Ratio of Beneficiaries to Labor Force (%)	Government Spending on Social Security and Welfare (KR billion)
2008	3,345,856	6,854,000	48.8	159.0
2009	4,133,402	7,480,000	55.3	195.9
2010	4,620,867	7,720,000	60.0	237.7

KR = riel.
Sources: ADB (2012c); ADB Social Protection Index Database website; NIS, CSES website; both accessed May 2013.

Benefit expenditures totaled KR245 billion during 2007–2009 (Figure 3.41). There are about 17 pensioners for every 100 active civil servants, and this ratio is expected to rise with more civil servants retiring relative to new hiring. The Treasury—through the Ministry of Social Affairs, Veterans, and Youth—finances Rehabilitation National Social Security Fund for Civil Servants benefits, although a regulation has been prepared stipulating financing from joint contributions of the government as the employer (18%) and civil servants as employees (6%). However, the salary base on which contributions will be levied has not yet been established. A social health insurance component to protect civil servants and their dependents (about 5% of the total population) against heavy health expenditures has been proposed to be added to the benefits envelope of the National Social Security Fund for Civil Servants, but this is not yet in operation.

Under the National Social Security Fund, all private sector firms with more than seven employees are covered; employees of smaller enterprises are to be included later. As of December 2011, the fund had about 700,000 members,[36] approximately 10% of the labor force. About 80% of members were women, the majority employed in the garment sector. Since 2008, occupational risk insurance has been in place for employees. Benefits include medical care, nursing cash allowance, temporary disability benefits, permanent disability and caretaker benefits, survivor benefits, and rehabilitation benefits. In 2010, 83% of beneficiaries received payments for temporary disability, with benefit

Figure 3.40. Coverage of the National Social Security Fund for Civil Servants, 2010



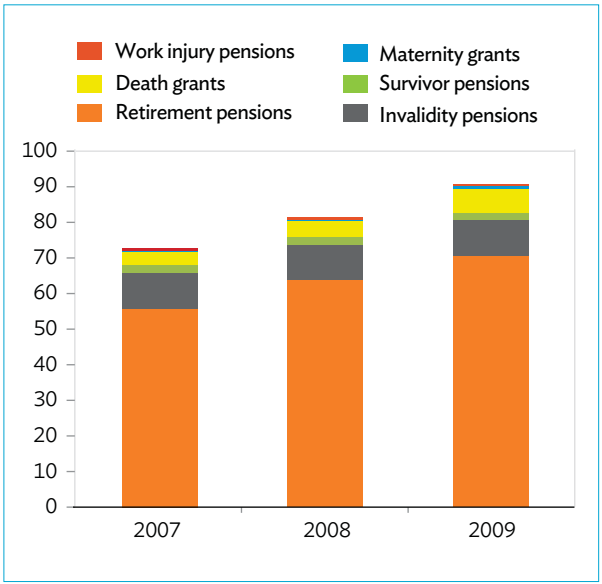
Source: International Labour Organization (2012).

expenditures of the National Social Security Fund totaling KR2.4 billion (excluding administration costs) in that year.[37] Two additional components are targeted for inclusion—health insurance from mid-2014 and a pension scheme in 2015. The health insurance component includes employees and their dependents (spouses and children); 11% of the population is targeted for membership. Since benefits will be channeled through the public health care system, the insurance scheme could be a vehicle for funding improved medical services. The pension scheme covers retirement, invalidity, and survivors. Given the current demography of the workforce, the scheme, once launched, is in a good

[36] See the CAMFEBA website. Laws and Regulations Research Center. National Social Security Fund. http://www.camfeba.com/en/services/hr-and-labour-practice-consultation/nssf-law-and-regulations-.html

[37] Administration costs raise the total to KR5 billion (International Labour Organization 2012).

Figure 3.41. Total Expenditures on National Social Security Fund Benefits, 2007–2009 (KR billion)



KR = reil.
Source: International Labour Organization (2012).

position to accumulate funds during the next 2–3 decades, as its first generation of contributors are young and not expected to retire before 2035.

The benefits of the National Fund for Veterans, created in 2010, are similar to those of the National Social Security Fund for Civil Servants, with the addition of a marriage allowance (a cash allowance payable on a first marriage). In 2010, expenditures on veteran pension benefits totaled KR77 billion, with over three-quarters of that amount going to survivors. Because the average pension is only $35 per month, the scheme does not effectively reduce poverty (using a $2-a-day threshold). Survivors of veterans receive even less.

There are several forms of ad hoc government-originated and donor-dependent social safety nets managed by various line ministries. These include food distribution; health equity funds; community-based health insurance; public work programs; scholarships; as well as social welfare services for vulnerable groups such as the elderly, orphans, and people with disabilities. Although Cambodia's constitution enshrines the protection of the poor, the reality is that, because the country's social safety nets are inadequate, many disenfranchised groups rely on informal arrangements to tide them through crises, typically by securing financial and in-kind assistance from family and the community.

A formal social protection system will need to be developed quickly as the economy rapidly modernizes and evolves into one in which the importance of traditional social protection recedes as a source of assistance and insurance against health and income shocks. Despite increased central government spending on social benefits (from KR27 billion in 2000 to KR411 billion in 2013), its share of total government spending still accounts for a small part of the total budget at 5.9%, in 2013 (ADB 2014a).

The attainment of short-term targets for social development takes precedence over creating a long-term vision. The bias toward achieving short-term targets is reflected in the reach of the three main types of social protection programs. In 2009, social assistance, which accounted for 57% of total social protection spending, reached 39% of the target population of 7.5 million. Social insurance, which accounted for 25% of total spending, reached only 5.3% of its 9.1 million target population, while the labor market program, which could have had the biggest effect on employment and productivity, reached only 13% of the 1.8 million targeted population (ADB 2012d).

3.5. Conclusion

The diagnosis of key socioeconomic issues identified the following as critical constraints to the inclusiveness of Cambodia's growth (Table 3.8):

- limited opportunities for productive and decent employment;
- poor quality of education and low levels of access to secondary and higher education;
- inadequate nutrition and health services;
- limited (but improving) access to electricity; and
- limited coverage of social protection.

Table 3.8. Summary of Diagnosis of Constraints to Reducing Poverty and Inequality

Broad Determinants of Poverty and Inequality	Factors Affecting Poverty and Inequality		How the Factor Affects Poverty and Inequality	Is It a Critical Constraint?
Productive and Decent Employment Opportunities	Employment opportunities		• Rising employment opportunities in the formal sector • Still high informal employment, especially among female, older, and rural workers	✓
Access to Opportunities	Human capabilities	Education	• Low educational attainment of workforce due to limited access to and low quality of education • High opportunity cost of education among women and rural people • Nascent stage of technical and vocational education and training • Low public expenditure on education resulting in poor school facilities	✓
		Health	• Prevalence of malnutrition particularly in rural areas • Prevalence of waterborne or water-related diseases, particularly among children • Too few medical workers • Limited coverage of health care benefits	✓
		Other social services	• Insufficient access to improved water and sanitation in rural areas and towns	
	Uneven access to infrastructure and productive assets	Infrastructure	• Half of households still do not have access to electricity	✓
		Land	• Poor people have access to land • Limited access to irrigation	
		Credit	• Limited financial products offered by formal financial services that might cater to the needs of poor households	
Social Safety Nets	Social safety nets		• Several social protection programs in place but scope is limited • National Social Protection Strategy launched in 2011	✓

Source: ADB.

4. DIVERSIFICATION AND UPGRADING

Four sectors—rice, garments, tourism, and construction—have been Cambodia's major drivers of growth in the past 2 decades. Although they will likely continue to be important for the country's medium-term growth prospects, their success masks a structural weakness in the economy—lack of diversification. Specialization in a few sectors leaves the economy vulnerable to single-sector price and demand shocks from changes in market conditions, trade access, and new competitors.

This vulnerability became apparent in the 2000s when garments dominated industrial output and exports, which were hit hard by the 2008–2009 global financial crisis. Cambodia's narrow production and export bases are a significant risk to the sustainability of its current pattern of economic growth. With a heavy concentration of exports to Western countries, the expectation of slow longer-term growth in advanced markets suggests weaker demand for Cambodia's exports in the long run. Without diversifying into higher value products and services, the country also risks being caught in low-wage, low-technology production.

The need to diversify and upgrade is made more urgent by the changing global trading environment. Cambodia currently benefits from tariff preferences with developed regions. The Everything-But-Arms arrangement gives the country duty-free access to the European Union, while other agreements offer low barriers to access to Canada and the United States. These tariff preferences have helped the country increase exports of rice, garments, and other products, and to establish a bicycle assembly industry (Box 4.1). But by the end of the decade, Cambodia will likely cease to be eligible for many tariff preferences as income rises and it loses least-developed-country status. Although new arrangements may be developed, Cambodia should seek to rely less on preferential trade agreements and more on competitiveness.

The process of diversification could also be developed in a manner to ensure that it contributes to growth that is inclusive. Developing sectors that are employment intensive will ensure that the gains from investments are shared more widely through job creation and wage income. A diverse spatial distribution of new investments will spread growth more evenly to include border and inland areas that are still lacking economic opportunities.

4.1. Patterns of Specialization and Diversification

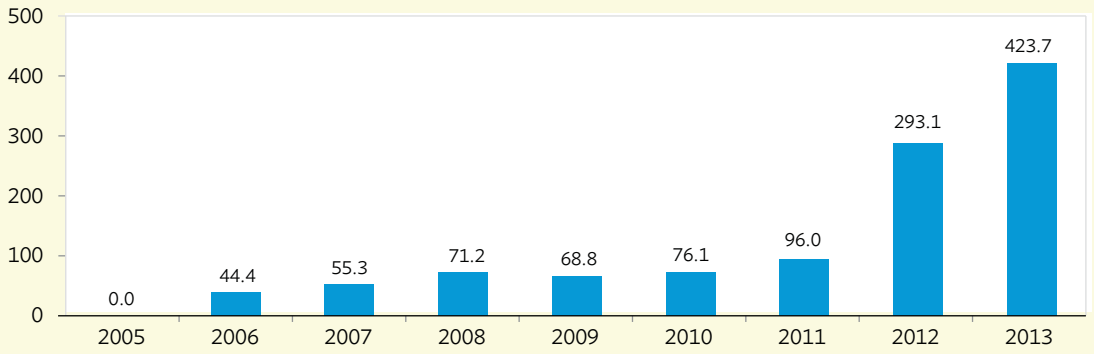
Cambodia's export structure has evolved considerably since the early 1990s, from resources-based products to manufactured goods. The top five exports in 1990 were rubber, scrap metals, sawlogs and wood, soya beans, and leather and skins. In 2013, they were garments, bicycles, rice, electronics, and rubber (Table 4.1). Rubber and wood products dominated in the early 1990s, with rubber accounting for more than a third of all exports in 1990 and wood accounting for nearly two-thirds, with a surge in demand during 1992–1995 (Figure 4.1). The contribution of manufactured goods was marginal, with garments making up a mere 3% of total exports in 1990. Rice exports were also low, generating no more than $1 million in revenues in that year, but by mid-decade had risen to $3 million. Because the economy was emerging from foreign military occupation and undergoing reconstruction, the overall level of export of goods and services was low—equal to about 30% of gross domestic product during the 1990s. In 2013, total exports reached 66% of gross domestic product.

Box 4.1. Tariff Preferences Aid Diversification: Cambodia's Bicycle Industry

Cambodia began producing and exporting bicycles in large numbers in 2006. The addition of new factories resulted in bicycle exports increasing nearly 10 times in 2013, just 8 years after the start of these exports (Figure B4.1). Cambodia is now the second largest bicycle exporter to Europe. Production is driven by Taipei,China manufacturers, which operate five of the six production facilities in the country, and a US firm.

Tariff preferences, largely, have driven the industry's rise. Taipei,China producers relocated factories from Viet Nam to Cambodia after the European Union imposed antidumping duties in 2005. Cambodia enjoys quota-free and tariff-free access to the European Union under the Everything But Arms arrangement, which means all exports are exempt from the standard 14% tariff on imported goods. Cambodia's proximity to Viet Nam also helped. Bicycle factories in Svay Rieng are just 90 minutes from Ho Chi Minh City, which is important because parts are still produced in Viet Nam for shipment to Cambodian manufacturers. Cambodia's low wages were also a major factor in Taipei,China bicycle producers moving production there.

Figure B4.1. Bicycle Exports, 2005–2013 ($ million)



Bicycles assembled in Cambodia are mostly simple models sold at low prices. The Taipei,China plants are expanding while trying to keep a low profile to avoid a repeat of the anti-dumping duties experienced in Viet Nam. Cambodian trade officials hope that bike manufacturers from Taipei,China will consider Cambodia as part of a long-term investment strategy and establish a bicycle manufacturing cluster.

Infrastructure and labor-related factors that could hold back the bicycle industry's development should be resolved to improve the country's competitiveness as a production platform. Power supply issues need resolving to reduce production costs, as bicycle factories currently have installed their own generators to ensure adequate supply. Improvements in road transport and logistics would facilitate the import of parts and the export of completed products. The industry would also benefit from sector-specific skills training to reduce the defect rate and improve product quality. Cambodia has also recently experienced frequent labor strikes that disrupt production and cause costly delays in shipments.

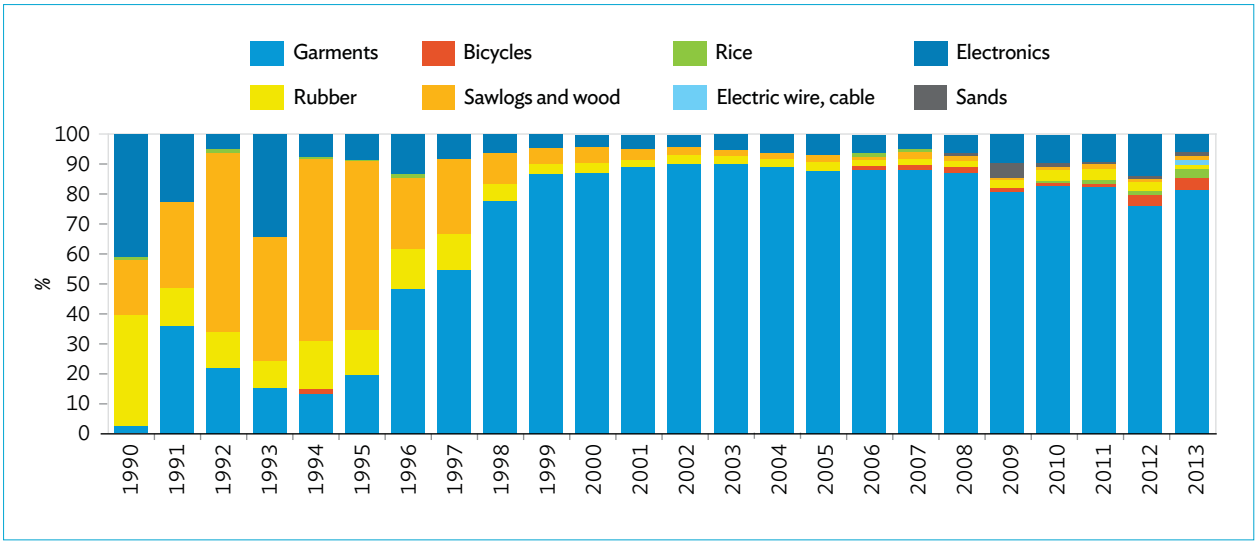
Source: Ruan (2013).

Table 4.1. Top Five Exports, 1990–2013 (% of total)

Rank	1990	1995	2000	2005	2010	2013
1	Rubber (37%)	Sawlogs and wood (56%)	Garments (88%)	Garments (88%)	Garments (82%)	Garments (82%)
2	Scrap metals (20%)	Garments (20%)	Sawlogs and wood (5%)	Sawlogs and wood (2%)	Rubber (4%)	Bicycles (4%)
3	Sawlogs and wood (19%)	Rubber (14%)	Rubber (3%)	Rubber (2%)	Bicycles (1%)	Rice (3%)
4	Soya beans (7%)	Cotton (3%)	Seafood (1%)	Gold and jewelry (1%)	Sawlogs and wood (1%)	Electronics (1%)
5	Leather and skins (3%)	Seafood (2%)	Textile and yarn (0.7%)	Textile and yarn (1%)	Gold and jewelry (1%)	Rubber (1%)

Note: Garments include footwear.
Source: Calculations based on datasets from UN Comtrade, accessed June 2014.

Figure 4.1. Composition of Cambodia's Exports, 1990–2013 ($ billion)



Note: Garments include footwear.
Source: Estimates based on datasets from UN Comtrade, accessed June 2014.

This all changed with the emergence of the garment sector. Political stability brought new confidence, with garment manufacturers looking for a low-cost production platform that had quota access to advanced markets. Cambodia filled this requirement and a predominantly foreign-owned garment sector developed, albeit one without design capability, domestic fabric producers, or supporting industries (zippers and buttons, for example). The industry focused on low-value, labor-intensive cut-make-trim activities. Investment grew rapidly and, with it, employment and exports. Total garment exports breached $1 billion in 1999 and have accounted for over 80% of all exports since.

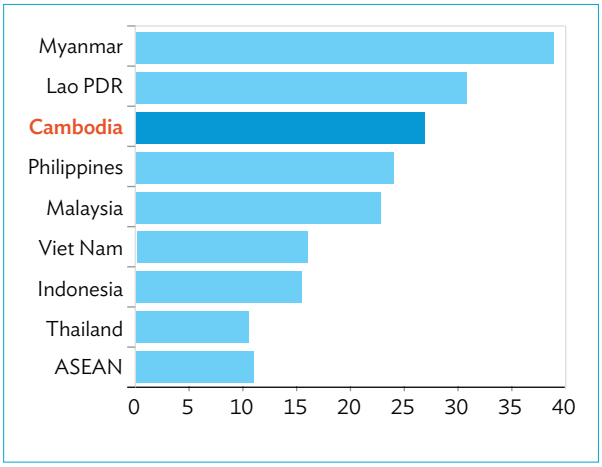
Cambodia's export concentration is the third highest in the Association of Southeast Asian Nations (ASEAN), as measured by the Herfindahl-Hirschmann Index (Figure 4.2).[38] This heavy focus on

[38] The Herfindahl-Hirschmann Index is calculated as follows:

$$H_{ij} = 100 * \left[\frac{\sqrt{\sum_i \left(\frac{X_{ij}}{Xj} \right)^2} - \sqrt{\frac{1}{n}}}{1 - \sqrt{\frac{1}{n}}} \right]$$

where *Xij* is country *j*'s exports of product *i*, *Xj* is country *j*'s total exports, and *n* is the total number of products. The higher the index, which is bounded between 0 and 1, the more a country relies on fewer products for export earnings.

Figure 4.2. Index of Export Concentration in ASEAN Countries, 2013



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Note: The ASEAN figure excludes Brunei Darussalam and Singapore.
Source: Estimates based on datasets from UN Comtrade, accessed April 2013.

garments leaves the economy vulnerable to single-sector demand and supply shocks. Its vulnerability was evident during the global financial crisis, when export demand slumped, pushing the economy to near zero growth. Although the economy recovered quickly, the experience underlined the importance of developing other industries and a broader range of export destinations. Moreover, the reliance on tariff preferences makes Cambodia vulnerable should it cease to be eligible for them, raising the specter of quickly losing competitiveness with other exporting countries. The experiences of Fiji, Mauritius, and some Caribbean countries offer valuable lessons in this regard. These countries lost market access for garments (and other products including sugar) due to reduced tariff preferences, resulting in a significant decline in their exports and the need to expand other sectors, such as tourism, and to develop new ones.

Although garments continue to dominate Cambodia's exports, production and exports have diversified somewhat in recent years, led by primary commodities, such as rice and rubber, and light manufactured goods, including automobile and electronics components. For example, bicycles are now Cambodia's second largest export item. One factor contributing to this diversification is Cambodia's location next to Thailand, a major producer of trucks, cars, disk drives, and other electronic components. Cambodia exported 467 products in 2013, up from 386 a decade earlier.

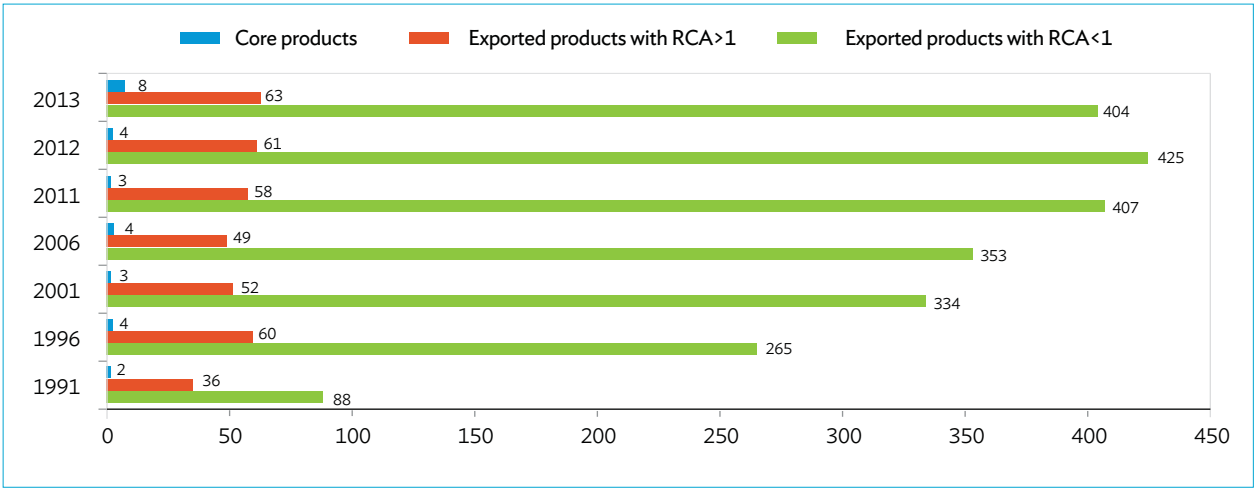
Another measure of product diversification and export competitiveness is revealed comparative advantage (RCA).[39] Cambodia's RCA indicates a positive outlook. The number of goods with an RCA greater than 1, indicating a comparative advantage in the product, rose from 52 to 63 in the decade to 2013 (Figure 4.3). A little less than half (25) of these products are in the garment sector, 11 are agriculture-based, and 4 are wood-based. Cambodia is specialized in only eight "core products" (salts of inorganic acids; lead alloys; electric generators and metal foundry equipment; electric wire; ships, boats and other vessels; optical instruments; and bicycles) despite the recent progress. Core products are defined as those in the general product groups of machinery, metal, and chemicals, and are based on production capabilities that are similar to those needed to produce a wide range of other products.

Cambodia's short, sharp slump in 2009 is attributable in part to the lack of diversification in its export markets. Nearly 80% of exports were bound for Canada, the European Union, and the United States in 2011 (Table 4.2). Although these regions offer preferential trade access, they are also among the slowest growing markets in the world, with their long-term growth prospects slower than Asia's. A rebalancing of trade toward Asia will provide more stability for Cambodia if demand slumps in these markets.

Cambodia is already starting to diversify away from these markets and is doing so fairly rapidly. The 80% share of exports to Canada, the European Union, and the United States in 2011 was down from 92% only 4 years earlier. Much of this is due to a shift to Asia—exports to the People's Republic of China (PRC), Japan, the Republic of Korea, and

[39] The RCA is the ratio of a product's share in a country's total exports relative to the share of that country's total exports in global exports. An RCA above 1 suggests that the country has a comparative advantage in that product. See Appendix 4.2 for further discussion on RCA.

Figure 4.3. Number of Products with Revealed Comparative Advantage, 1991–2013 (%)



RCA = revealed comparative advantage.
Note: Core products include machinery, metals, and chemicals.
Source: Calculations based datasets from UN Comtrade, accessed June 2014.

Table 4.2. Destinations of Cambodia's Exports, 2007 and 2011

Destination	Destination as % of Total	
	2007	2011
United States	64	41
European Union	23	30
ASEAN	5	8
(of which: Thailand and Viet Nam)	(3)	(6)
Canada	5	8
Japan	1	3
China, People's Republic of	<1	3
Korea, Republic of	<1	1
Other Asia and Pacific	<1	<1
All other	3	6
	Total Goods Exports	
$ million	2,962	5,122

ASEAN = Association of Southeast Asian Nations.
Note: "All other" are mainly shipments to European destinations that are not members of the European Union and to Latin America.
Source: Ministry of Commerce (2014).

the 10 ASEAN countries increased from 7% to 15% of total exports in the same period. The increased intraregional trade is explained in part by rising agriculture exports to neighboring countries and by an increase in trade through regional production networks. Lower barriers to trade and investment and increased connectivity within the subregion, notably through the creation of the ASEAN Economic Community by 2015, are also supporting intensification of intraregional trade.

4.1.1. Tourism and Other Sectors

The economy remains heavily specialized in the four pillars of garments, tourism, rice, and construction. There is, however, evidence of some diversification in goods production and exports, and some diversification in market destinations, with increased shipments to Asian markets and reduced reliance on Western countries and tourists. Growth in tourism, rice production, and construction is helping reduce reliance on garments. However, a closer look reveals a general lack of diversification within these nonmanufacturing subsectors.

In tourism, Cambodia's main attraction is Angkor Wat. Direct international flights connect Siem Reap to other countries in the region and a dense tourism industry with hotels, restaurants, tours, cultural sites, and crafts has developed around the temple complex. Although Angkor Wat is by far the country's biggest tourist draw, which also highlights the sector's lack of diversification, other areas are starting to develop. The three other main tourist zones are Phnom Penh; the beach and island leisure areas of Kampot, Koh Kong, and Sihanoukville to

the southwest; and the mountainous northeast provinces of Mondulkiri and Rattanakiri, which are being promoted for ecotourism. The focus on developing these destinations is to make their attractions more accessible and increase the quality of local services. A fifth area of development is Tonle Sap, the largest lake in Southeast Asia and an environmentally attractive area for both domestic tourists and international ecotourists.

Siem Reap drew 53% of the 4.2 million international tourists in 2013 (Ministry of Tourism 2013), up from 46% just 4 years earlier, indicating an increased focus on the Angkor Wat temple site rather than diversification to other destinations. And the country of origin of arriving visitors is increasingly concentrated, with the top five accounting for 57% of total arrivals in 2013, up from 43% in 2007. Japan and the United States have slipped out of the top five, which now includes only Asian countries: the PRC, the Republic of Korea, the Lao People's Democratic Republic, Thailand, and Viet Nam. An expanding Asian middle class with more money and leisure time to travel is driving this trend.

As noted earlier, rice dominates farming and its share of the agriculture sector is expanding, from just above 40% in 1995 to 54% in 2010, with reduced shares for the three other subsectors (forestry and logging, fisheries, and livestock and poultry). Within the farm subsector, output of paddy (unmilled rice) has continued to rise, but its share in total crop output is declining gradually as production of other crops, notably cassava, increases at a faster rate. The share of rice in total crop output fell from 66% in 2006 to 57% in 2006–2010.

4.1.2. Sophistication of Production

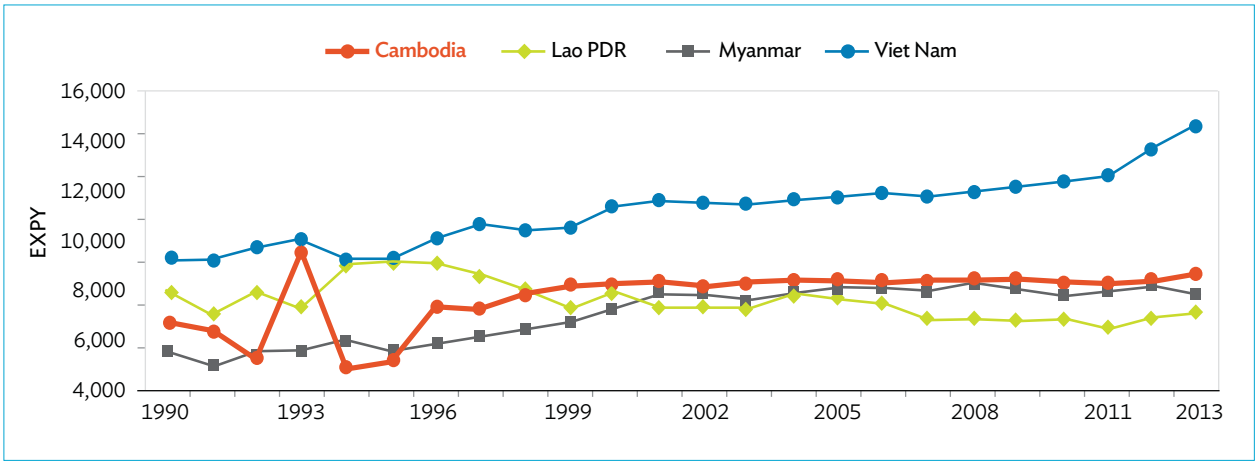
Although production volumes and revenues have increased across all sectors since the mid-1990s, sophistication of production has shown only minimal development. Cambodia has grown at the extensive margin (producing more of the same goods and services) rather than the intensive margin (producing higher value goods and services). More garment factories, increased rice and cassava production, and more tourists to Siem Reap have added to output. But the economy's productive capabilities—based on an efficient combination of adapted technology, advanced workforce skills, and improved management techniques—have grown less rapidly. There has been limited movement up the value chain. Nevertheless, new investments in making more complex goods have increased somewhat, as Cambodia begins its integration in nongarment value chains.

Gauging the overall sophistication of an economy is not easy and cannot be done through one simple indicator. However, the recent development of techniques based on detailed export data has helped to provide aggregate indicators that proxy for underlying productive capabilities. Briefly explained, these techniques gauge the sophistication of individual products based on the income level of countries that are successful in exporting them. The assumption is that higher-income countries export the more sophisticated goods. These scores (known as PRODY) for individual goods are then applied to the export basket of a particular country to generate an aggregate sophistication score (called EXPY). A higher score indicates a more sophisticated export basket and greater productive capabilities[40] (see Appendix 4.1 for further discussion of PRODY and EXPY).

Based on this measure, Cambodia's overall export sophistication is slightly above the Lao People's Democratic Republic's and Myanmar's (the export baskets of which are more resource based), but lower than Viet Nam's (Figure 4.4). This may not be surprising given that other Southeast Asian countries—for example, Singapore, Thailand,

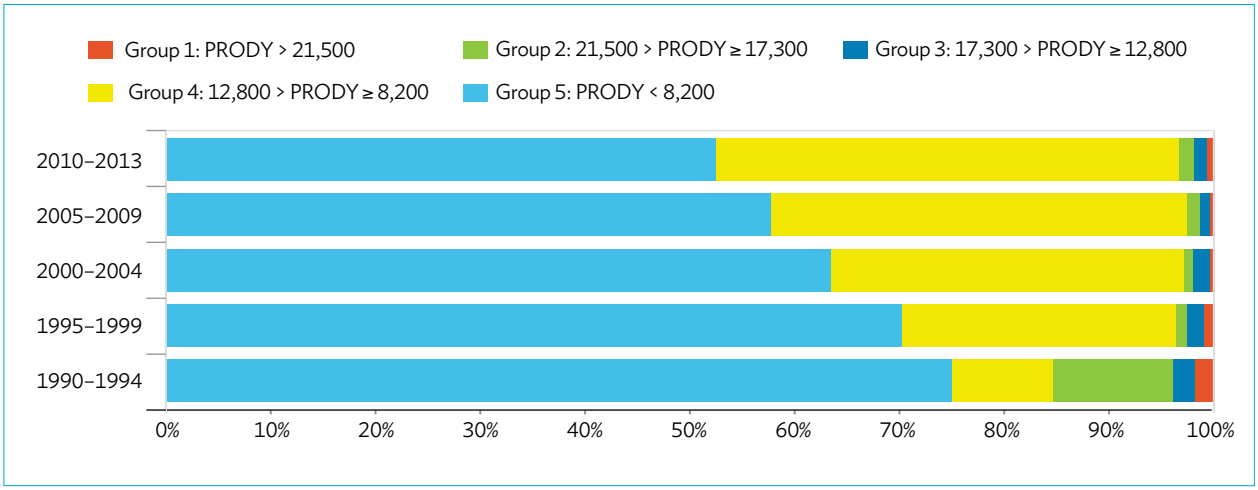
[40] See Hausmann et al. (2007). In more technical terms, a product's sophistication can be measured by the PRODY index, which is the average exporting countries' gross domestic product per capita weighted by each country's revealed comparative advantage for the exported commodity. The sophistication of a country's export basket can then be measured by EXPY, which is the weighted sum of the PRODY values of all the products that a country exports, with the weights being the share of each commodity in the country's total exports. Sophistication captures the income content of a country's export basket. A higher value of EXPY indicates that the country has acquired complex capabilities that make it easier to export sophisticated products.

Figure 4.4. Trend in Export Sophistication (EXPY), Selected ASEAN Countries, 1990–2013



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Source: Estimates based on datasets from UN Comtrade, accessed June 2014.

Figure 4.5. Disaggregation of Cambodia's Exports by PRODY Group, 1989–2013 (% of total)



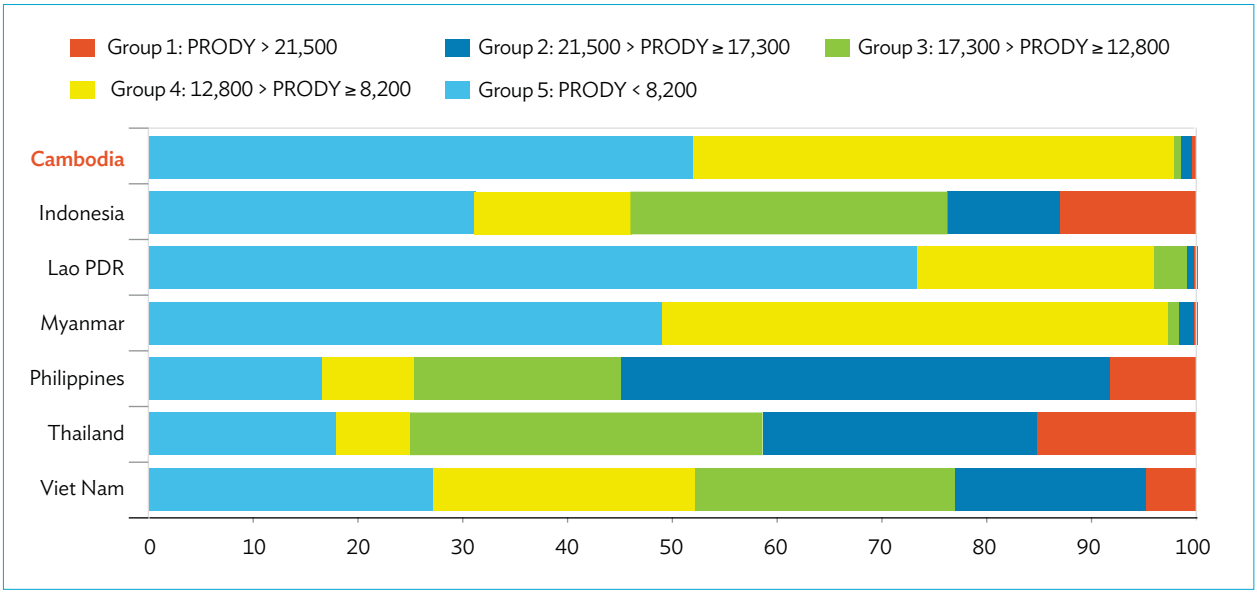
Note: Groups 1–5 refer to the quintiles of the PRODY distribution. Group 1 refers to the topmost quintile and Group 5 to the bottommost quintile. For each period, average shares are shown.
Source: Estimates based on datasets from UN Comtrade, accessed April 2013.

and even Viet Nam—are known to export a range of more complex goods. More revealing—and a greater concern—is that Cambodia's overall score has been virtually constant since 1999. In contrast, Viet Nam's score has been rising as a result of its movement into more complex products, including synthetic fabrics, electronics, and light machinery.

Exports can be further broken down into five levels (or quintiles) of sophistication. This reveals that about 98% of Cambodian exports are in the two lowest quintiles (Figure 4.5). However, the share of products in the lowest quintile has decreased since the late 1990s, and the number of products in the second-lowest quintile has increased, suggesting that upgrading is occurring.

About 97% of Cambodian exports belong to PRODY groups 4 and 5 (products that are least sophisticated), comparable to the Lao People's Democratic Republic's and Myanmar's, while the rest of Southeast Asia's exports are more concentrated in the upper levels of sophistication (Figure 4.6). For example, in Viet Nam only about

Figure 4.6. Disaggregation of Exports by PRODY Group, Selected ASEAN Countries, Average 2010–2013 (% of total)



ASEAN = Association of Southeast Asian Nations, Lao PDR = Lao People's Democratic Republic.
Note: Groups 1–5 refer to the quintiles of the PRODY distribution. Group 1 refers to the topmost quintile and Group 5 to the bottommost quintile.
Source: Estimates based on datasets from UN Comtrade, accessed June 2014.

half of export products (52%) are within the two lower quintiles, and in the Philippines the share is even lower, at 26%.

4.2. Into Which Products Can Cambodia Diversify?

The Cambodian economy would clearly benefit from diversification, but into which new products and services should it expand? This question is best answered on the basis of three guiding principles—set out in the following section—supported by detailed product analysis.

4.2.1. Principles for Product Diversification

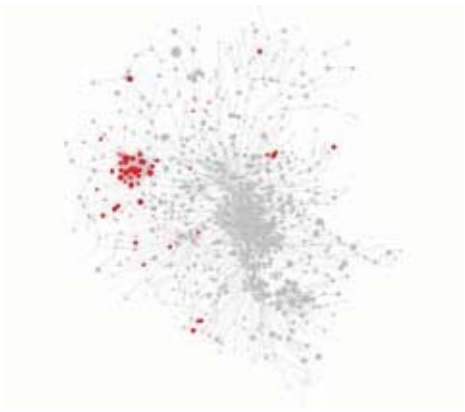
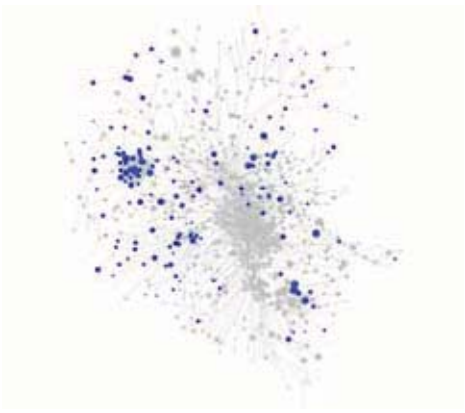
The first principle is that government should be wary of picking winners because it may not provide good information about which products can become competitive. The private sector normally has better information and will ultimately make the investments. This might seem obvious, but the developing world is littered with industrial "white elephants" in which governments have pushed a vision of industrialization (for example, steel mills and vehicles) that is out of sync with productive capabilities. Governments have created state-owned firms that are uncompetitive and maintained trade protection or production subsidies to keep inefficient local firms and industries afloat. The best approach is to ensure that goals are realistic, based on sound information, and chosen in consultation with the private sector.

The second principle is that an increase in diversification requires the accumulation of new capabilities. These capabilities might include labor with sector-specific skills; transport and logistics services versed in moving specific types of goods, such as bulk and refrigerated commodities; government regulation, such as phytosanitary standards and testing for food products; and clusters of suppliers and supporting businesses. When a country has a fairly large set of capabilities, it can quite easily add new sectors to its product portfolio by adapting existing capabilities.

The third principle is that goods differ in their value addition and in the extent to which they are connected to other goods. Goods that are closely connected to a greater number of other goods are more likely to generate further diversification than those that are not. Research based on "product space" analysis suggests that higher-value goods tend to be "closer" to the range of other goods than lower-value goods, thus allowing for further diversification.

Product space analysis can provide governments with pointers to the goods to promote as part of diversification. Product space is based on export data but, unfortunately, does not cover services. Figure 4.7 shows Cambodia's product space map, along with Viet Nam's. Both countries have similar endowments but their manufacturing and exports followed different paths. The bold dots indicate the 53 goods in which Cambodia had an RCA greater than 1 in 2011. The grey dots represent the full range of all goods produced in the world. The concentration of red dots in the central-left space is the garment and footwear cluster; the other red dots are scattered on the periphery of the product space. This arrangement implies three things. First, there is no second cluster that might serve as the basis for further development. Second, the nongarment products in which Cambodia does have a comparative advantage are not well connected—that is, "close"—to other potential products. This implies that the capabilities needed for Cambodia's current group of competitive goods are not those needed for most other goods. Diversification will therefore be difficult. Third, the country has no competitive products in the central

Figure 4.7. Product Space Cambodia and Viet Nam

Cambodia Cambodia is not very diversified, with a thinly populated product space map. The garments grouping on the left side is the only densely populated area.	
Viet Nam Viet Nam's populated product space map shows greater diversification and reflects greater export capacity. Viet Nam exports a number of products that have higher value added, have more dense linkages, and are closer to the center of the product space.	

Source: ADB estimates.

dense area of the map where there are many close-by products that tend to be of higher value than goods at the periphery. This implies that not only will diversification be difficult but so, too, will be moving into higher-value goods.

The comparison with Viet Nam is instructive. Viet Nam not only has more goods with RCA > 1, but also more goods closer to the central space of high-value, well-connected goods. Like Cambodia, Viet Nam has a competitive garments cluster (blue dots in the central-left space), but it also has emerging clusters in electronics (lower right), textiles (below garments), and wood and furniture (above right of the central space). Viet Nam has a more diverse product range and greater opportunities for further diversification.

4.2.2. Products of Rising, Declining, and Stable Revealed Comparative Advantage

The foregoing product space analysis provides some idea of the difficulty Cambodia faces in diversifying, but little information on which areas to diversify into. To determine this, the goods that Cambodia exports and the changes in the pattern of exports over 2 decades are analyzed.

Cambodia exported 587 products during 1992–2011. Many of these products were exported briefly or intermittently, and their values were low; thus, goods with annual exports below $200,000 were excluded from the analysis.[41] This reduced the number of products to 147. These were grouped into four categories based on their RCA and change between the periods 1992–1995 and 2009–2011. Two of the categories included strong performers: "classics" that have sustained competitiveness, with RCA > 1 in both periods, and "emerging" products, which show increasing competitiveness from an RCA < 1 in the first period to RCA > 1 in the second period. The two other categories of products were less competitive. "Disappearing" products lost competitiveness, with the RCA falling from greater than 1 in the first period to less than 1 in the second period, whereas "marginal" products had an RCA < 1 in both periods (Figure 4.8). The full list of products and their categorization is provided in Appendix 4.2. The analysis shows, first, that Cambodia has 27 classic products, of which more than half (15) are types of garments and the others include rice, rubber, and wood (four products); cashews; and sesame seeds. These products are competitive internationally and generate export earnings, and are hence important for the economy.

In addition, Cambodia has 29 emerging products, several of which have been at the forefront of the recent diversification. These include bicycles, footwear, plywood, maize, vegetables, sand, sugar, palm oil, and 11 types of garments. All have become competitive and provide opportunities for future growth and diversification. Bicycles in particular are shaping up to be an important growth industry (Box 4.1, p. 104). This presents the prospects of developing a cluster around which the parts and supporting industries can develop. Footwear is a natural companion industry to garments, providing for a fairly easy transfer of skills and related production capabilities.

Eight products are classified as disappearing. Several of them have not fully disappeared and are still produced and exported, but have slipped from having an RCA > 1 to < 1. One example is soybeans: the RCA fell below 1 but exports have increased, which might be explained by the sharp rise in world demand for soybeans. The other disappearances are a mixed bag and include mostly agricultural products, including two types of fish, certain cereals, and raw cotton. Except for the product "fresh or chilled fish (excluding fillets)," export values of the disappearing group in the early 1990s were fairly small.

The 83 marginals are the most interesting and varied. Most of these products fall under light manufacturing and include machinery, metallurgy, chemicals, and furniture (Appendix 4.2). These are the products that Cambodia can develop to

[41] The criterion is imposed on classic, emerging, and marginal products for 2009–2011 and on disappearing products for 1992–1995.

Figure 4.8. Cambodia's Classic, Disappearing, Marginal, and Emerging Products

Classic products—RCA in the starting and end periods were high

Policy implication: long-term competitiveness, strong export performance that should be maintained

1992–1995: RCA ≥ 1
2009–2011: RCA ≥ 1

Disappearing products—RCA was high in the starting period but low in the end period

Policy implication: declining competitiveness, leave such products alone

1992–1995: RCA ≥ 1
2009–2011: RCA < 1

Marginal products—RCA in the starting and end periods were low

Policy implication: such products may have potential and may be encouraged

1992–1995: RCA < 1
2009–2011: RCA < 1

Emerging products—RCA was low in the starting period but high in the end period

Policy implication: build on these new product discoveries, which show emerging competitiveness

1992–1995: RCA < 1
2009–2011: RCA ≥ 1

RCA = revealed comparative advantage.
Notes: RCA = 0 implies either no exports or very low exports. Products that have potential may have RCA < 1, particularly if the product is in the marginal group. However, RCA analysis is insufficient for determining whether a product has potential for export.
Source: Record and Nghardsaysone (2010).

supplement its traditional garments and farm-based products. Many of the marginal products exhibit three characteristics that are important to the discussion of diversification and upgrading. First, they are not close to the classic products in Cambodia's export basket. The capabilities needed to produce these products may not be readily transferred from the garments and agriculture sectors. Figure 4.8 well illustrates the disconnect between classics and marginals. This shows garment sector products clustered in a small area at the left of the product space, whereas the marginals are scattered in the center of the product space. This presents a challenge and requires extra effort to build capabilities in the marginal products' areas.

However, the same product space maps in Figure 4.9 illustrate the second key characteristic of the marginals—their concentration in the main area of the product space implies a closer relationship to a broader array of other products and to products of higher value. More centrally located in the product space, marginals could become strategic bets. If Cambodia could strengthen its capability to produce these marginal products, it could diversify even more, creating a diversification snowball effect. This is in contrast to the garments sector, which is a more self-contained cluster without close links to other product groups (excluding footwear).

The third characteristic of the marginals is that they exhibit higher sophistication than the current export basket. This strengthens the case for their strategic value. Because diversification is often viewed as path-dependent (meaning that technological innovation is subject to the accumulation of capabilities), building capacity in these products would not only help diversify the economy, but also raise the value of output. Producing goods that are located in a densely

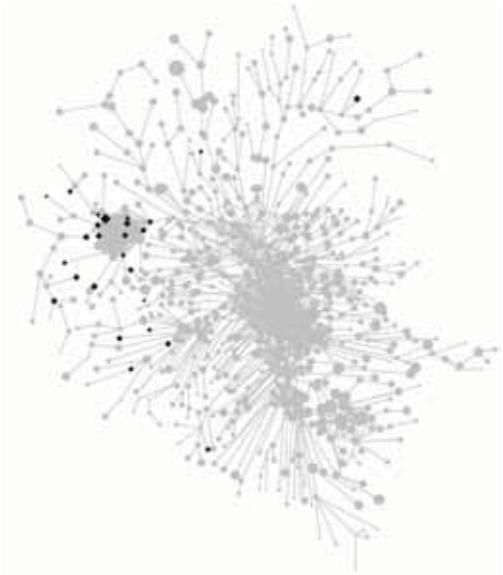
Figure 4.9. Cambodia's Product Space Map: Classic, Emerging, Disappearing, and Marginal Products

Classic products

Wood products
Rice
Rubber
Cashew nuts
Garments

Emerging products

Wood products
Light manufacturing
Footwear
Maize
Cassava
Garments



Disappearing products

Fishery
Soya beans

Marginal prioducts

Light manufacturing
Wood products
Fishery
Vegetables
Garments
Rice

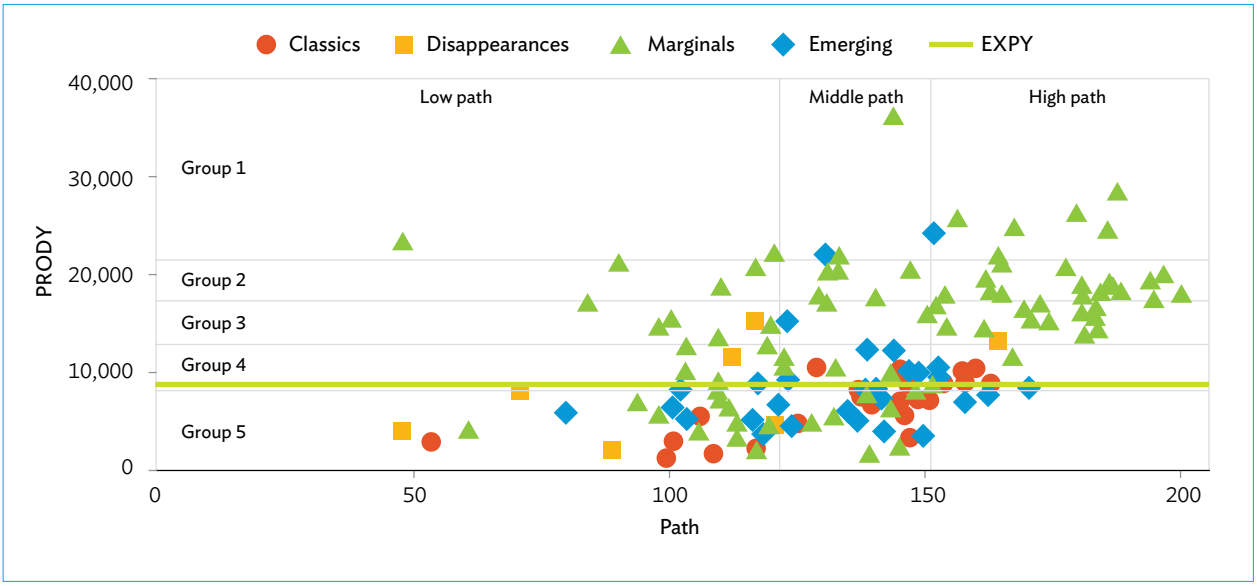
Source: ADB estimates.

distributed area of the product space—in other words, there are many nearby products—offers a better chance of diversification. To gauge this potential, "path" can be measured based on the sum of a product's proximity to all other products (see Appendix 4.1 for further discussion of proximity and path). In Figure 4.10, the marginals are represented by triangles and located mostly in the top three quintiles of production sophistication (Groups 1–3). This contrasts with the classics, which are represented as circles and concentrated in the two lowest quintiles (Groups 4–5). Figure 4.10 also shows that a number of marginal products fall in the "high path" area, which means they have close connections to a large number of other products that are or might be produced. Twenty-two products have high paths and are in the top two groups of product sophistication. These products are varied and include plastic and metal packing containers; switches and relays; nuts, bolts, and nails; other metal products; paper; tires; and candles. They are products that Cambodia is currently producing and could gain a comparative advantage in. Similarly, Figure 4.11 illustrates how Cambodia's products are distributed across different levels of sophistication and diversification paths, using products weighted by their export volumes. Many of Cambodia exports are in the middle path and have lower levels of product sophistication, as shown by the large red circles.

4.3. Policies for Diversification and Upgrading

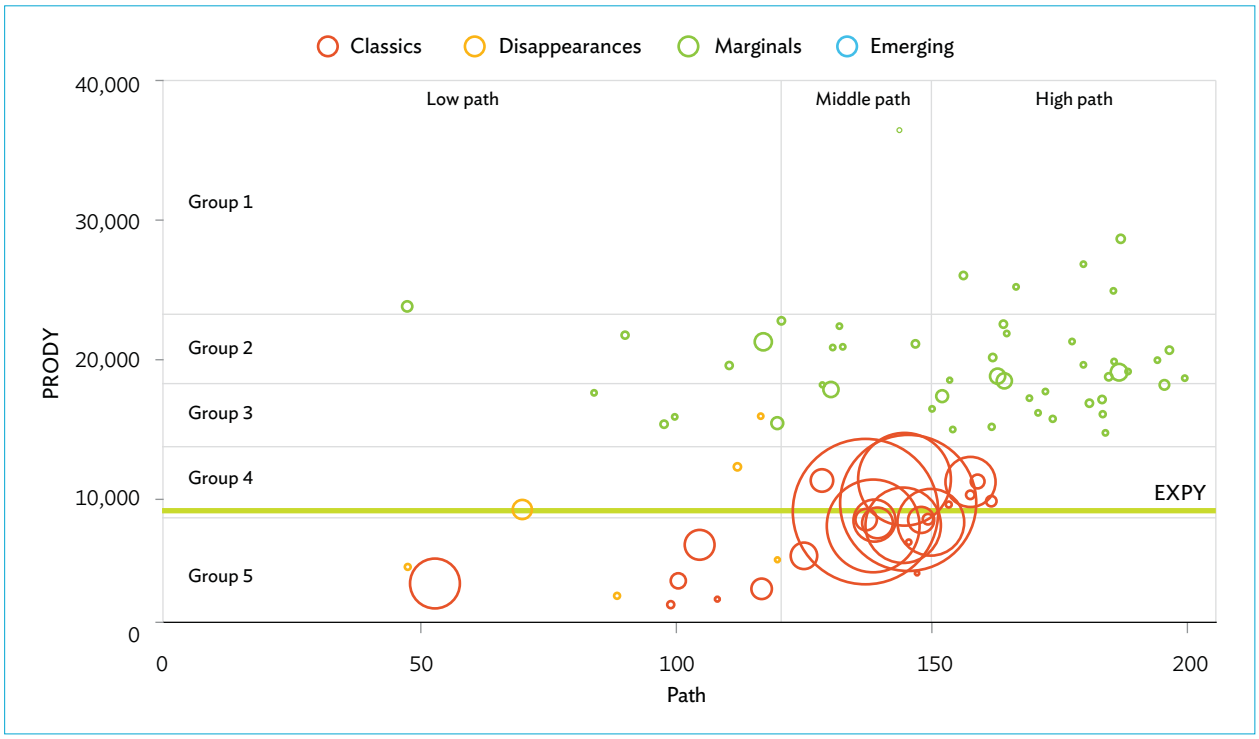
The government is well aware of the need to diversify and upgrade the country's exports. As a result, the policy emphasis has shifted to the more strategic question of how the government can encourage product diversification and value addition through policy instruments and programs, working with the private sector, and amid increased regional integration. An equally important question is: Which new subsectors should be encouraged and which current products and services have the greatest potential for upgrading?

Figure 4.10. Unweighted Plots of Product Technological Sophistication (PRODY) against the Path, 2009–2011



Note: Groupings are the PRODY quintiles. Groups 1–5 refer to the quintiles of the PRODY distribution. Group 1 refers to the topmost quintile and Group 5 refers to the bottommost quintile. Low, middle and high path are the path's tercile.
Source: Estimates based on datasets from UN Comtrade, accessed April 2013.

Figure 4.11. Weighted Plots of Product Technological Sophistication (PRODY) against the Scope for Further Diversification, 2009–2011



Note: Products are weighted by the average export value in $ million during 2009–2011. Groups 1–5 refer to the quintiles of the PRODY distribution. Group 1 refers to the topmost quintile and Group 5 refers to the bottommost quintile. Low, middle and high path are the path's tercile.
Source: Estimates based on datasets from UN Comtrade Database, accessed April 2013.

The development of specific product sectors should be consistent with both the economy's strengths and potential. The product space analysis suggests that Cambodia reveals strengths mainly in its classic and emerging products. But it is interesting to see many of its marginal products also show good potential for future diversification. These lie at the core of the product space and therefore once Cambodia establishes capabilities in these products, even greater diversification is likely. In addition, these products exhibit greater sophistication and value addition than the country's current basket of products. Developing marginal products can help Cambodia move beyond low-wage, low-value production.

The challenge is how to develop capabilities to fully support the development of these emerging and marginal products. New sectors require new skill sets, which require dynamic coordination by government and industry to upgrade the workforce so that it has the specific skills needed to make emerging sectors successful. The development of capabilities in other areas is also needed, including a more reliable and low-cost power supply, and improvements in logistics and transport networks to move supplies, components, and finished goods between firms and into and out of the country. Effective testing and certification facilities, for precision metal, plastics, and electronics production, and for high-value food products, are also an important requirement.

4.3.1. Recognition of Importance

The Rectangular Strategy for Growth, Employment, Equity, and Efficiency Phase III, approved in 2013, notes that "economic diversification remains limited" and the country should focus on "promoting investments in modern and high-value-added industrial sectors aimed at upgrading the

diversification of the manufacturing base" (RGC n.d.b). The strategy also recognizes the need for higher value and a more diverse range of products in agriculture, focusing on increased processing, such as milling paddy into rice, and raising the output of other products, including rubber, cashew nuts, maize, and beans.

Aside from statements in planning documents, Cambodia does not have an approved industrial policy, master plan, or strategic plan (and the Industrial Development Action Plan 1998–2003, has lapsed). There are, however, policies and plans for the development of specific sectors. The most notable is the Policy on the Promotion of Paddy Production and Rice Exports, an industrial policy to promote production, processing, and export of rice (discussed in Chapter 1, section 1.8.1). The Tourism Master Plan is the other main example of sector strategic planning.

In 2011, the Supreme National Economic Council issued a working paper titled Enhancing Fiscal Reform and the Counter Cyclical Aspects of Fiscal Policy in Cambodia to stimulate thinking on the development of such an industrial policy (RGC 2011b). The paper generated considerable interest and was the basis for discussions and seminars with stakeholders, including development partners. It discusses possibilities for industrialization and the role of the government in that process, and it explores developing forward linkages in agriculture (processing), backward linkages in garments and footwear, and further diversification of tourism. The paper recognizes the economic potential of a number of emerging or revitalized industries, including furniture, paper, handicrafts and creative industries, construction materials, household appliances, and oil and gas. It also envisions the government encouraging diversification by deepening the financial sector, improving public finance, promoting savings, and providing key public goods in human resource development and infrastructure. Other pro-industry policies that could aid diversification include procurement and tax policies, the trade regime, the development of special economic zones (SEZs), and standards setting.

In late 2013, the government prepared the Industrial Development Policy 2014–2018, but has not released it for public circulation.[42] The policy maps out an industrial policy strategy and includes key areas for support, targets for investment and exports, and an institutional structure with implementation arrangements to promote the policy.[43] With this document, the government is moving toward a single, codified industrial policy and supporting institutional arrangements.

4.3.2. Institutional Structure

Even without a specific industrial policy in place, the government has sought to promote industrial development through various institutional arrangements and promotion programs. Combined, these constitute a de facto industrial policy and industrial policy setting apparatus.

This process is headed by the Private Sector Development Steering Committee, chaired by the Minister for Economy and Finance, with the Minister of Commerce as vice-chair and other line ministries as members. The committee has subcommittees on the development of small and medium-sized enterprises (SMEs), public–private infrastructure and investment, and trade facilitation and development. The committee provides a forum for donors and development agencies to discuss development policies and reforms with the government. Similarly, the Government–Private Sector Forum enables the private sector to provide inputs on government policy through semiannual meetings chaired by the prime minister and through more regular meetings of eight working groups. This forum provides some level of accountability to policy because it links government with the private sector.

Specific responsibility for industrial policy lies with the General Department of Industry within

[42] It is referred to in the Rectangular Strategy Phase III as one of the policies, along with Vision 2030, set for approval in the coming term of the fifth National Assembly covering 2014–2018.

[43] Because the document is not for public circulation, we are prevented from further discussion of its contents.

the Ministry of Industry, Mines, and Energy. The department is responsible for regulating manufacturing, developing industrial strategies, and formulating and implementing policy. Because many of Cambodia's industrial firms are small, the department also has a role in policies supporting SMEs and provides the secretariat to the government's SME subcommittee. A draft concept paper outlines the department's Strategic Framework for 2010–2015, but this is for internal use and not part of official policy. It states that the General Department of Industry "will focus all its activities and operation on two key strategic plans for industry sector development: Cambodia's comparative advantages and human development with industry growth, and eco-friendly and socially responsible industry growth." However, there appears to be very little in the way of specific actionable plans.

The ministry's ability to promote industry is limited by its budget, which is one of the smallest within the government (Smiddy 2012).[44] Similarly, capital expenditure for industry policies is small. Industry policies and programs fall under the "manufacturing, mining, and trade" component of the government capital expenditure budget—one of the economic sectors of government spending. This component accounts for less than 5% of total spending (equivalent to $50 million per year over 5 years).

Another important body is the Council for the Development of Cambodia (CDC) and its operational bodies, the Cambodian Investment Board (CIB) and the Cambodian Special Economic Zones Board. These promote investment, including foreign investment, and oversee and implement the government's key investment incentive scheme—the Qualified Investment Projects (QIPs)—and oversee SEZs and incentives related to them (discussed in section 4.3.4 on specific policies and programs). The CDC, chaired by the prime minister with the vice-chairs comprising the minister of the economy and finance and the minister of commerce, has access to the highest levels of government.

Cambodia relies on development partners to fund much of its capital expenditure, including a number of programs relating to industrial policy. Donor programs work with the government and many are implemented by line ministries. Given that industrial policy cuts across sectors and issues, support for diversification and upgrading is implemented by other ministries touching on areas such as commerce, infrastructure, tourism, health, education, rural development, planning, and customs and taxation.

4.3.3. De Facto Policy

Cambodia's de facto policy for diversification and upgrading is contained in the specific measures and programs that the government has put in place. The development of new industries, especially in higher-value market segments, is inherently risky. Entrepreneurs and investors may be reluctant to move into these areas for fear of not becoming competitive. The purpose of industrial policy is to support and encourage investors to make those investments by reducing some of the risk, providing information about markets, helping to manage the cost structure, and securing the necessary inputs.

The experiences of advanced economies, including those in Asia that have recently industrialized, suggest a number of things that government can do. At the center, effective promotion requires leadership and sustained commitment at the highest levels of government (Box 4.2). As noted in Table 4.3, assistance could be provided in seven areas—from fiscal and financial incentives and building basic infrastructure and human capital, to facilitating trade and advancing technology and research and development (R&D). Cambodia's key incentive is a fiscal one (a profit tax exemption) and its main supporting mechanisms are export processing zones and improved trade facilitation. Infrastructure and human capital improvements are part of the government's more generic

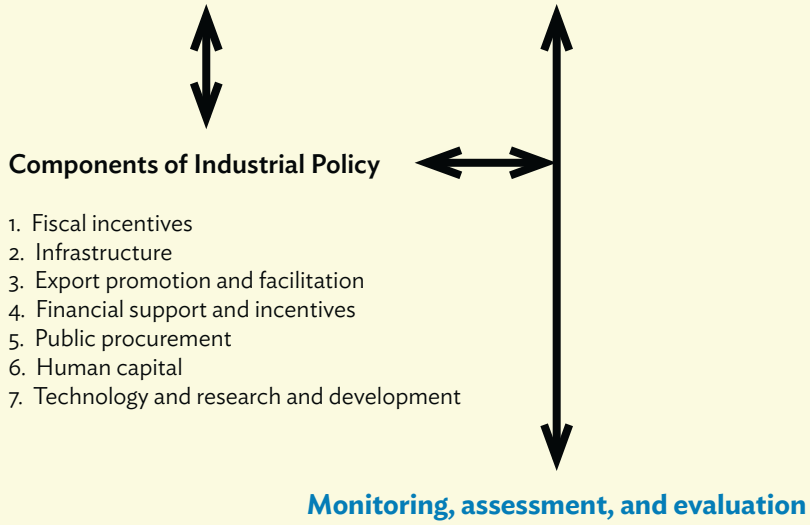
[44] For example, its 2009 recurrent budget of approximately $4 million was only larger than the budgets for the Civil Service Secretariat, Council for the Development of Cambodia, Relations Assembly and Inspections, National Election Committee, National Audit Authority, Ministry for Public Worship and Religion, and Civil Aviation Secretariat.

Box 4.2. Institutional Mechanisms for Industrial Policy

Cambodia needs a high-level body or steering committee to provide direction and support for the components of industrial policy, particularly for fiscal incentives, infrastructure, export promotion and facilitation, financial support and incentives, public procurement, human capital, technology, and research and development. Figure B4.2. shows a possible structure for a high-level body to undertake these tasks.

Progress toward achieving these aims needs to be monitored, impacts assessed, and the results fed back into the program processes.

Figure B4.2. Leadership and Coordination: High-Level Body or Steering Committee



Source: ADB.

development policies but remain weak, as noted in Chapters 2 and 3. Human capital has not been particularly aligned with industrial development and diversification. Furthermore, there is little in the way of financial programs to support advances in competitiveness, such as the low-cost credit given to successful exporters by the Republic of Korea and Taipei,China. Cambodia does not have an industrial development bank or a public SME bank, and it lacks credit guarantee mechanisms. Support for the development of technology and the promotion of R&D is at a rudimentary stage. Thus, Cambodia has some of the basic components of an effective industrial policy but not a full structure. Furthermore, as Cambodia adds programs, it could consider the merits of having a monitoring and assessment framework to see that its mechanisms are effective. The rice policy is a good example of an area in which Cambodia has attempted to provide broad, balanced, and concerted support for a target industry. That policy and some of the other programs are discussed in the following section.

4.3.4. Specific Policies and Programs

Policy on the Promotion of Paddy Production and Rice Exports. This is a frontrunner in sectoral industrial policy. As rice is a major crop, the government is picking a known winner and seeking to expand production and exports of milled rice. Cambodia is starting to become a rice basket and a key exporter in the global market. The government has focused on a particular commodity instead of the agriculture sector as a whole because "working on too many products at the same time will overstretch our limited resources and capacity,

Table 4.3. Industrial Policy Components: Mechanisms and Examples

Policy Component	Mechanisms and Examples	
	General	**Cambodia**
Fiscal Incentives	Tax exemptions or reduced rates are used to encourage foreign or domestic investment, especially if targeted to new or "pioneer" sectors. They are easy to administer because no money changes hands, but it is important to screen legitimate applications. They can be wasteful to the treasury if firms would invest without this incentive.	Profit tax exemption up to 6 years is the main industrial policy mechanism.
Infrastructure	Moving goods, people, data, and information efficiently is critical for market development, connecting suppliers, factories, and customers. Rapid expansion of infrastructure helped countries in East Asia, but poor infrastructure constrains South Asia. Facilities may be sector specific, such as refrigerated storage.	Developing all areas, with weaknesses remaining. Not sector specific.
Export Promotion and Trade Facilitation	Export promotion encourages producers to break into new markets by understanding quality and price standards and procedures, and behind-the-border barriers. Specific goods will have unique barriers in customs procedures, so that trade associations have a role in advising governments.	Recent programs funded by donors. Reforms have improved procedures in main sectors (rice, garments).
Financial Support and Incentives	Credit constraints may hamper enterprise development. Governments provide access and/or subsidize credit directly through state banks or indirectly through private banks. Credit guarantees can be effective. Linking access to performance criteria, such as exports, was used effectively in East Asia. Public industrial and small and medium-sized enterprise (SME) development banks should be managed on commercial principles to avoid loan losses. The promotion of a venture capital market can provide finance for innovative startups.	Lack of financial programs or institutions for industry. Rural Development Bank provides some support to SMEs.
Public Procurement	Advanced economies continue to use public procurement to encourage innovation, including contracts to the defense sector. Procurement is also used to develop SMEs. Competitive bidding domestically is needed to reward efficiency.	No specific program.
Human Capital	Strong basic education and market-relevant technical and professional education are key ingredients of success in all countries. Some models stress apprenticeships; others, on-the-job training and/or pre-employment education. To avoid skills mismatch, training should target employers' needs.	Improved enrollment and quality at secondary level needed. No sector-specific training (for example, no training institute for garment subsectors).
Technology and Research and Development	Investing in basic and applied research through universities and public institutions will raise the country's technology level. But, without strong links to business, the results might not lead to commercialization. Research by firms can be encouraged through matching grants and fiscal incentives. Low barriers to importing machinery and licensing foreign technology can help firms to move to the global technological frontier. Encouraging technological spillover from large foreign firms to domestic SMEs is difficult.	No specific program.

Source: ADB assessment.

which could lead ultimately to ineffectiveness and inefficiency" (RGC n.d.a). Other crops are to be the subject of similar focused policies in the future.

The rice policy provides a coordinated approach to the sector with involvement at the highest level of government. All ministries and agencies involved in implementing the policy report their activities to the Prime Minister. The Agricultural Produce Export Promotion Committee, led by the Ministry of Agriculture, Forestry, and Fisheries and the Ministry of Commerce, is responsible for overall coordination and serves as a secretariat to the Prime Minister in implementing the policy. The Ministry of Economy and Finance and the National Bank of Cambodia also have a role in key aspects of the policy involving financing. In particular, millers need working capital to pay farmers for paddy before generating revenues from the sale of rice. The main elements of the policy are provided in Box 4.3.

The government intends to provide the same special treatment to the National Cambodian Rice Millers Association, the main industry body, as it has to the Garment Manufacturers Association of Cambodia. The latter was effective in its dialogue with the government on regulatory improvements to facilitate the expansion of the garments industry. The government has indicated that it will give top priority to facilitating the export of milled rice, and that it aims to minimize informal payments and reduce the time required for exporting. There is anecdotal evidence that customs clearance for rice exports has improved significantly since the policy was announced in 2010.

The full benefit of the rice policy has yet to be realized, although the coordinated approach of understanding and tackling bottlenecks in the supply chain seems appropriate. Early export figures are also positive. Exports of milled rice increased dramatically, from 44,000 tons in 2010, the year the policy was implemented, to just below 200,000 tons by 2012 (UN Comtrade Database). This increase is partly the result of favorable international trading arrangements. Both the European Union and the Russian Federation permit duty-free rice imports from Cambodia, but not from its primary competitors. The European Union's Everything-But-Arms system of tariff preferences was fully

Box 4.3. Key Elements of the Rice Policy

The 17 key elements of the Policy on the Promotion of Paddy Production and Rice Exports (2010) are as follows:

- Increasing investment in and expansion of irrigation facilities
- Promoting the use of water, seed, fertilizers, and appropriate technologies
- Supporting provision of microcredit to rice producers
- Encouraging provision of credit to rice millers
- Providing trade finance through the recapitalization of state-owned financial institutions
- Providing incentives to commercial banks to increase agriculture loan portfolios, including the development of credit guarantee schemes and a risk-sharing facility
- Encouraging construction of bonded warehouses and promoting the use of Phnom Penh Port
- Encouraging private sector investment in paddy processing and milled rice exports
- Streamlining rice export procedures (implementing a single-stop service)
- Improving transport
- Eliminating informal fees
- Establishing a sound sanitary and phytosanitary certification system
- Establishing a rice market intelligence unit to explore market opportunities and share market information
- Promoting production technology
- Managing soil fertility
- Managing water, seeds, and fertilizers
- Developing farmer associations

Source: RGC (n.d.a).

applied to rice starting in late 2009. To meet the government target of 1 million tons of rice exports by 2015, improvements are needed in infrastructure, including transit access to Saigon Port via the Mekong River for uncontainerized milled rice, more and bigger mills, an expanded trucking fleet to handle containers efficiently, sufficient "food quality" containers, and adequate port facilities.

Special Economic Zones. Another key government policy is the promotion of SEZs for manufacturers. SEZs have been used successfully in the PRC and elsewhere to attract foreign investment. SEZs provide serviced industrial plots, fiscal incentives, and trade facilitation. In Cambodia, SEZs also provide the services necessary to compensate for investment infrastructure that might be lacking. In particular, SEZs can offer a secure supply of electricity, decent roads within the zone and access to the transport network, and services that help investors process government documents and approval, and facilitate export.

Although 22 SEZs have been approved, only 11 are operating.[45] Of the 92 investments in SEZs, most are concentrated in the four main ones—Phnom Penh, Manhattan, Sihanoukville 2, and Tai Seng. Investors in these zones are predominately from the PRC (including Hong Kong, China); Japan; and Taipei,China. Most of these SEZs are owned by investors from these economies, with each zone tending to target tenants from the home economies of investors.

Qualified Investment Projects. Cambodia's key investment incentive program is the QIP scheme, administered by the CIB. The scheme applies to new investment projects. The main incentive is an exemption from the 20% profit tax for several years (6 years is typically granted). A firm may forego the exemption and elect to use a special depreciation allowance, which is attractive for capital-intensive projects. This allows a deduction of 40% of the value of tangible assets used in production in their year of purchase or the first year of use.

[45] The operational SEZs are Dragon King, Goldfame Pak Shun, Kampot, Manhattan (Svay Reing), Neang Kok Koh Kong, Phnom Penh, Poi Pet O'Neang, Sihanoukville Port, Sihanoukville 1, Sihanoukville 2, and Tai Seng Bavet.

The program also promotes exports, as QIPs are exempt from import taxes on inputs used in exports. Production equipment and construction materials are also exempt from import taxes. Export tax exemptions also apply. Furthermore, QIPs receive an investment guarantee involving equal treatment of investors regardless of nationality, protection from nationalization, a guarantee against price controls on the investors' particular product or service, and no restrictions on remitting foreign exchange abroad.

Trade and Export Market Promotion. The government has sought to promote industrial development by improving trade procedures and promoting exports. Trade procedures have been reformed as part of the country's commitments in joining the World Trade Organization in 2004 and supporting the creation of the ASEAN Economic Community. Cambodia's trade and export production programs have received significant support from development partners, with two key programs supported by the Asian Development Bank and the World Bank.

The Trade Facilitation and Competitiveness Project, 2005–2012 was implemented by the Ministry of Commerce, other key ministries, and the CDC, with funding from the World Bank. Components of the project helped to strengthen trade facilitation, private participation in infrastructure, the environment for foreign investment, and legal transparency. The trade facilitation component focused on establishing an electronic single window integrating all trade facilitation agencies. This included automating customs functions and improving the systems for product clearance. Support was also provided to the CDC and CIB to streamline the approval process for foreign direct investment and enhance the attractiveness of Cambodia as an investment destination by improving the regulatory environment and factor markets. The project supported a range of infrastructure regulatory bodies and line ministries to manage and deliver private–public infrastructure transactions in a fair, transparent, and competitive manner.

The project included the creation of the Export Market Access Fund implemented by the Ministry of Commerce. The fund provides grants and technical advice to help Cambodian companies to increase exports by improving the capacity and knowledge of exporters. The focus is on producing "new results" in export volume to diversify Cambodia's exports. Matching grants cover 50% of expenditures for companies within the framework of a company-specific export development plan. Beneficiary companies are mainly micro and small enterprises that are first-time exporters and from a range of industries, including agriculture and food processing, fashion, handicrafts, tourism, and information technology.

The Ministry of Commerce, working with other ministries and agencies and with support from the Asian Development Bank, implemented the Promoting Economic Diversification Program in 2008 to improve the investment climate and trade facilitation, along with domestic competition and regulation. With continued improvements in trade policy and customs reforms, the program improved sanitary and phytosanitary systems (SPS) to bring Cambodia up to international standards. The improved SPS system helps food producers to overcome nontariff barriers related to SPS standards. A matching grant component of the program gives companies direct assistance to adopt technology to meet SPS standards, enabling the firms to better penetrate export markets.

4.3.5. Cambodia and the 10 Principles for Industrial Policy

An effective industrial policy could support Cambodia's continued structural transformation and diversification into higher value activities—and, as noted, a number of policies and mechanisms are already in place. This section assesses whether the country's industrial policy apparatus conforms to Rodrik's (2004) 10 design principles for industrial policy.

(1) **Incentives should be provided only to new activities.** New is defined as investments in products or services that are new to a country and have not been previously produced there. Incentives should not be given to traditional sectors because this does not induce diversification.

Cambodia's main incentive scheme is the corporate tax exemption under the QIP. This applies to all investments, ones that are new in the sense of introducing new products or services to the country as well as "old" activities such as garments and rice. Thus, the QIP scheme does not satisfy this principle and may be wasteful in terms of lost tax revenue and not inducing new industries to establish operations in Cambodia. The scheme could be revised to give the incentive only to new investments or to differentiate the size of the exemption (full or partial) between new and old investments. Some countries, such as Malaysia, have specified a list of frontier industries that are offered special incentives.

(2) **Provide clear benchmarks and criteria for success and failure.** These criteria are set at the firm level and are the basis for receiving or continuing to receive incentives. Criteria are needed so that such incentives have the intended effect of encouraging performance and ensuring that subsidies are not just a free ride for firms.

Cambodia sets targets at the aggregate level for some sectors (for example, rice exports and tourist arrivals), but has no programs that set benchmarks at the firm level. The QIP scheme sets no criteria for performance. Some economies (such as Chile, the Republic of Korea, and Taipei,China) have tied incentives such as subsidized credit to a firm's export performance (a good measure of a firm's competitiveness). Cambodia could consider a similar performance-based scheme, especially targeting nontraditional exports.

(3) **A built-in sunset clause is essential.** A sunset clause is needed to ensure that firms do not become dependent on incentives, but

wean themselves away from support through improved performance.

The QIP scheme has a built-in sunset clause with its time limit of 3 years, which is normally renewed for an additional 3 years. Therefore, it satisfies the principle. However, an investor can continue to benefit from a QIP by closing down and restarting the same activity as a new investment. The authorities need to ensure that firms are not manipulating the system in this manner. Donors play an important role in financing some of the main QIP schemes. Given that donor programs are for set periods, they have built-in sunset criteria if programs are not renewed by adding phases. The Export Market Access Fund is a case in point, having limited funds and therefore a set timeframe to disperse. The Asian Development Bank's support for SPS procedures also has limited funds.

(4) Public support must target activities not sectors. Industrial policy support should help overcome market failures. Activities that do so should be the focus of specific programs rather than generally supporting sectors such as tourism or agriculture. If logistics are a problem, infrastructure can be improved; if low technological standards are a bottleneck, incentives to acquire and adapt global technologies would help.

Cambodia has used a mix of approaches. Through the rice policy and the Tourism Master Plan, the government has taken a sector approach, although it has sought to identify barriers into those sectors. At the same time, efforts to improve trade facilitation are activity-focused and broadly benefit a range of sectors. The government has tended to address some market failures, such as infrastructure and trade facilitation, but not others, such as R&D and technology adoption and adaptation.

(5) Activities that are subsidized must have the clear potential of providing spillovers and demonstration effects. The idea is that government efforts should crowd in complementary investments or generate spillovers in terms of technology or information on what can be a competitive industry in the country. The benefits should not be captured by a single firm. Government support to new R&D and to new industries that have a demonstration effect are examples.

Cambodia might not have any specific examples of this taking place; however, the framework that it put in place to encourage the establishment of SEZs has drawn investment into nontraditional products. These investments have created a substantial information spillover by indicating to other foreign investors that Cambodia can be a profitable place to engage in types of light manufacturing in addition to garments.

(6) The authority for carrying out industrial policies must be vested in agencies with demonstrated competence. The Asian tigers had competent agencies that designed, coordinated, and implemented policy. In Japan, for example, the lead agency was the Ministry of International Trade and Industry; the Republic of Korea and Taipei,China employed a similar developmental state model guided by key agencies.

In Cambodia, such a powerful and central agency has yet to emerge. The Ministry of Industry, Mines, and Energy's small budget constrains its scope for action. The announcement in late 2013 that the ministry would be split into a Ministry of Industries and Handicraft and a Ministry of Mines and Energy might provide more focus on industrial promotion with specific programs. The CDC (with the CIB and the Cambodian Special Economic Zones Board) is managing the QIP and SEZ promotion programs. It might be useful for the various ministries and councils to be organized with clear focus of responsibilities.

(7) The implementing agencies must be monitored closely by a principal with a clear stake in the outcomes and who has political authority at the highest level. In the Republic

of Korea and other high-growth Asian countries, senior government officials, including the prime minister, took an intense and active interest and involvement in the industrialization process, holding regular, often weekly, meetings.

In Cambodia, the bodies responsible for implementing policy are headed by public officials at the highest levels. The Private Sector Steering Committee is chaired by the Minister of Economy and Finance. The General Department of Industry is accountable to the minister of the Ministry of Industry, Mines, and Energy. Economic development, as a government priority, receives considerable attention.

(8) **The agencies carrying out industrial promotion must maintain channels of communication with the private sector.** The government needs to understand the business environment and markets to provide realistic support to and coordination with business. The best way to keep in touch is through frequent meetings with the private sector. Countries that have successfully industrialized used such forums, often focused on specific sectors—e.g., automobiles, electronics, and steelmaking—to encourage firms to share information (when possible) about recent developments in products and markets.

Cambodia's chief vehicle for this is the Government–Private Sector Forum, which is a model for dialogue between public and private sectors in the subregion. The forum holds regular working group meetings of the private sectors and joint public–private meetings, and is thus an effective channel for cooperation and has led to reforms. The government also interacts frequently with the main sectoral business associations, such as the Garment Manufacturers Association of Cambodia. In sum, the channels of public–private communications appear to be well established.

(9) **Optimally, mistakes that result in "picking the losers" will occur.** Trying to pick winning sectors means getting it wrong sometimes, with some sectors never able to develop and become competitive. This may cost the government resources, but it is the price to pay for trying. If no losers are picked, the government may be too conservative in its approach.

Cambodia's limited policy mechanism means that it has not taken much risk in trying to select winners. Instead, it has relied mainly on promoting established sectors. The real challenge will come when and if it attempts to target and promote other light manufacturing activities or processed agricultural products.

(10) **Promotion activities need to have the capacity to reinvent themselves, so that the cycle of discovery becomes an ongoing one.** The types of interventions that are effective will change over time as a country develops. The private sector becomes stronger—in part by being better able to attract bright minds—and more able to assess market opportunities. The structure of incentives needs to evolve and change. This is the case with developed countries that continue to promote industry, but do so with a more nuanced policy such as credit guarantees, venture capital, and the use of public procurement to encourage innovation (for example, in the defense sector).

Cambodia is in the initial stages of developing an effective industrial policy, which requires a regular assessment of what works, what doesn't, and what methods can be adopted from successful cases of industrialization elsewhere in the region and the world.

4.4. Conclusion

The economy has diversified somewhat recently, but remains heavily concentrated in four activities—rice, garments, tourism, and construction. Although its intersectoral balance is reasonable, the lack of diversity within manufacturing and services leaves the economy vulnerable to global demand conditions and changes in policy (for example, a

withdrawal of preferential trade access for its main export products).

Diversification is happening to some degree, notably in the last few years, with foreign investors establishing factories to produce products other than garments and farmers growing crops other than rice. The product space analysis revealed 29 emerging products that have become competitive, including bicycles and footwear, the latter being a natural offshoot of the garments sector. Eleven types of garment products also emerged from the analysis, suggesting diversification within the subsector. Other products have developed in the farm and forestry subsectors, including maize, vegetables, sugar, palm oil, and plywood.

Cambodia also produces and exports 83 products classified as "marginal" products. Although they are exported in small quantities, they hold great potential, both because they are at the core of the product space—and therefore require capabilities that can lead to even more diversification—and because they have higher value than the current basket of major exports. The products in this group fall mostly under light manufacturing and include machinery, metallurgy, chemicals, and furniture.

Cambodia faces enormous challenges in upgrading and diversifying its production structure. To attract foreign investment, fiscal incentives can help, but they need to be supported by ongoing improvements in trade facilitation and production facilities (for example, in SEZs). Investors also require access to a skilled workforce, which makes efforts to improve human capital and create vital workplace-relevant skills. The establishment of just a few foreign investments in key subsectors could help not only create a specialized cluster (as Thailand did in automobiles and disk drives), but also provide a signal to other potential investors that Cambodia can be an efficient platform for doing business.

Domestic investors also have an important role to play in the diversification process. Many of them are engaged in the production of marginal products that offer great potential to upgrade into higher value production. These investors require the same support that foreign investors do in trade facilitation, logistics, infrastructure, and human capital. Assistance for accessing improved technology, understanding market opportunities, and meeting standards and certifications is also important to achieving competitiveness against imports and in the export market. Overall, a focused industrial policy and programs for nontraditional production and exports would enhance the diversification and upgrading process.

Appendix 4.1. Product Sophistication, Revealed Comparative Advantage, and Proximity and Path

1. Product Sophistication (PRODY)

Sophistication of a product (PRODY) is the income level associated with the products that a country exports. Following, Hausmann, Hwang, and Rodrik (2007), PRODY is calculated as follows:

$$PRODY_i = \sum_c \left[\frac{xval_{ci} \Big/ \sum_i xval_{ci}}{\sum_c xval_{ci} \Big/ \sum_{i,c} xval_{ci}} \right] X \; GDPPC_c$$

where $xval_{ci}$ is the export value of product *i* by country *c and* $GDPPC_c$ the gross domestic product (GDP) per capita of country *c*. GDP per capita, and therefore *PRODY*, is measured in 2005 purchasing power parity dollars (PPP$).

2. Export Sophistication (EXPY)

The measure of sophistication of a country's export basket (EXPY) is from Hausmann, Hwang, and Rodrik (2007). It is a weighted average of the sophistication level of the products that a country exports, weights being share in the country's exports. It is is calculated as follows:

$$EXPY_{ci} = \sum_i \left(\frac{xval_{ci}}{\sum_{i,c} xval_{ci}} X \; PRODY_i \right)$$

where $xval_{ci}$ is the export value of product *i* by country *c*. EXPY is measured in 2005 PPP$.

3. Revealed Comparative Advantage (RCA)

Revealed comparative advantage (*RCA*) is defined, based on Balassa (1965), as:

$$RCA_{ci} = \frac{xval_{ci} \Big/ \sum_i xval_{ci}}{\sum_c xval_{ci} \Big/ \sum_{i,c} xval_{ci}},$$

where $xval_{ci}$ is the value of the exports of country *c* in the product *i*. A country *c* is said to have RCA in export of product *i* if *RCA* is larger than one.

4. Proximity and Path

Proximity: Based on the idea that if every country that exports a product with RCA also exports another product with RCA then these two products must involve similar capabilities. Hidalgo et al. (2007) construct a measure of distance between products based on this outcome measure, which they call the "proximity". On the other hand, if every country that exports a product does not export another product, then these two products must involve different capabilities. This led to the use of conditional probabilities to measure the similarity between the two products. "Proximity" is measured as the minimum between the probability that countries export product *i* with RCA given that they already export product *j* with RCA; and the probability that countries export product *j* with RCA given that they already export product *i* with RCA. The reason for taking the minimum of the two probabilities is to create a symmetric measure of distance for a pair of products. Formally, the proximity between products *i* and *j* is defined as:

$$PROXIMITY, \phi_{i,j} = \min \{RCA_i|RCA_j), (RCA_j|RCA_i)\}$$

where RCA is defined above.

Path: For each product, the strength of the linkages with other products is measured by simply adding up the proximities leading to that product. This index, called "path", shows which products are in a dense part of the product space, and which are on the periphery. The path of product *i* is defined as:

$$Path_i = \sum_i \varphi_{ij}$$

Appendix 4.2. Priority Export Products

	SITC	Description	Priority	PRODY	Path
Classics					
1	2820	Waste and scrap metal of iron or steel	Metal ores	10,492	128
2	6341	Wood sawn lengthwise, veneer sheets, etc., up to 5 mm in thickness	Cork and wood	9,292	158
3	2690	Old clothing and other old textile articles; rags	Textile fibers	7,697	149
4	2450	Fuel wood and wood charcoal	Cork and wood	5,767	145
5	0422	Rice, semimilled or wholly milled	Cereals	5,642	105
6	2483	Wood, nonconiferous species, sawn, planed, tongued, grooved, etc.	Cork and wood	4,851	125
7	2923	Vegetable plaiting materials	Crude materials	3,552	147
8	2472	Sawlogs and veneer logs, of nonconiferous species	Cork and wood	3,123	101
9	2320	Natural rubber latex; natural rubber and gums	Crude rubber	2,889	53
10	0577	Nuts: edible, fresh, or dried	Vegetables	2,414	117
11	2922	Natural gums, resins, lacs, and balsams	Crude materials	1,630	108
12	2225	Sesame seeds	Oleaginous fruit	1,358	99
13–27		15 commodities	Garments	8,361	143
Disappearances					
1	6210	Materials of rubber	Rubber	17,580	185
2	0350	Fish: dried, salted or in brine, smoked	Fishery	15,258	117
3	0481	Cereal grains: worked or prepared, not elsewhere specified	Cereals	13,265	163
4	0341	Fish: fresh or chilled, excluding fillets	Fishery	11,560	112
5	2222	Soybeans	Oleaginous fruit	8,353	71
6	2924	Plants and parts of trees used in perfumery, pharmacy; etc.	Crude materials	4,621	120
7	4243	Coconut (copra) oil	Oils and fats	4,005	48
8	2631	Raw cotton, excluding linters, not carded or combed	Textile fibers	2,013	89
Emerging					
1	2511	Waste paper and paperboard, etc.	Pulp paper	24,028	151
2	8960	Works of art, collectors' pieces, and antiques	Other Mfg.	21,968	131
3	6583	Travelling rugs, blankets (nonelectric), not knitted or crocheted	Textile	14,963	123
4	2460	Pulpwood (including chips and wood waste)	Cork and wood	12,341	139
5	2882	Other nonferrous base metal waste and scrap, not elsewhere specified	Metal ores	12,216	144
6	7852	Cycles: not motorized	Transportation	10,173	146
7	0440	Maize: unmilled	Cereals	9,277	123
8	2733	Sands: excluding metal-bearing sands	Fertilizer	8,414	138
9	7938	Tugs, special purpose vessels, and floating structures	Transportation	8,254	102
10	1211	Tobacco: not stripped	Tobacco	6,708	121
11	9710	Gold: nonmonetary (excluding gold ores and concentrates)	Gold, non-monetary	6,369	101
12	4242	Palm oil	Oils and fats	5,876	80

continued

	SITC	Description	Priority	PRODY	Path
13	6584	Linens and furnishing articles of textile, not knitted or crocheted	Textile	5,862	134
14	0611	Sugars: beet and cane, raw, solid	Sugar	5,388	103
15	0548	Vegetable products: roots and tubers, not elsewhere specified, fresh, dried	Vegetables	5,130	116
16	7933	Ships, boats, and other vessels for breaking up	Transportation	5,069	136
17	6581	Bags, sacks of textile materials, for the packing of goods	Textile	4,262	142
18	9410	Animals, live, not elsewhere specified, (including zoo animals, pets, insects, etc.)	Animals, live	3,583	118
19-28		10 commodities	Garments	7,409	148
29		Footwear	Footwear	10,153	148
Marginals					
1	7284	Machinery for specialized industries and parts thereof, not elsewhere specified	Machinery	36,279	144
2	5417	Medicaments (including veterinary medicaments)	Chemical	28,360	187
3	7442	Lifting, handling, loading machinery, telphers, and conveyors	Machinery	26,299	179
4	5839	Other polymerization and copolymarization products	Chemical	25,536	156
5	6531	Fabrics, woven, of continuous synthetic textile materials	Textile	24,712	167
6	8928	Printed matter, not elsewhere specified	Other Mfg.	24,483	185
7	8942	Children's toys, indoor games, etc.	Other Mfg.	23,150	48
8	7648	Telecommunications equipment, not elsewhere specified	Machinery	22,326	120
9	0488	Malt extract; cereals preparations with less 50% of cocoa	Cereals	21,937	164
10	7371	Metallurgy and metal foundry equipment, and parts thereof, not elsewhere specified	Machinery	21,854	132
11	7643	Television, radio broadcasting, transmitters, etc.	Machinery	21,155	90
12	6415	Paper and paperboard, in rolls or sheets, not elsewhere specified	Paper products	21,139	164
13	7721	Switches, relays, fuses, etc; switchboards and control panels, not elsewhere specified	Machinery	20,675	177
14	5121	Acyclic alcohols and their derivatives	Chemical	20,629	117
15	5419	Pharmaceutical goods, other than medicaments	Chemical	20,512	147
16	2482	Wood of coniferous species: sawn, planed, tongued, grooved, etc.	Cork and wood	20,348	132
17	7234	Construction and mining machinery, not elsewhere specified	Machinery	20,221	131
18	8939	Miscellaneous articles of plastic	Other Mfg.	20,136	196
19	8993	Candles, matches, combustible products, etc.	Other Mfg.	19,504	162
20	6997	Articles of iron or steel, not elsewhere specified	Metallurgy	19,288	194
21	6428	Articles of paper pulp, paper, paperboard, or cellulose wadding, not elsewhere specified	Paper products	19,109	185
22	6251	Tires: pneumatic, new, for motor cars	Rubber	18,952	180
23	7649	Parts, not elsewhere specified, of and accessories for apparatus falling in heading 76	Machinery	18,885	110
24	8931	Plastic packing containers, lids, stoppers, and other closures	Other Mfg.	18,261	187
25	6573	Coated or impregnated textile fabrics and products, not elsewhere specified	Textile	18,223	188

continued

	SITC	Description	Priority	PRODY	Path
26	0819	Food waste and prepared animal feed, not elsewhere specified	Animal feeds	18,215	163
27	6996	Miscellaneous articles of base metal	Metallurgy	18,206	184
28	6940	Nails, screws, nuts, bolts, rivets, etc, of iron, steel, or copper	Metallurgy	17,937	164
29	6911	Structures and parts of iron, steel: plates, rods, and the like	Metallurgy	17,851	199
30	8998	Small-wares and toilet articles, not elsewhere specified; sieves; tailors' dummies, etc.	Other Mfg.	17,806	154
31	6960	Cutlery	Metallurgy	17,804	140
32	7169	Parts, not elsewhere specified, of rotating electric plant	Machinery	17,730	180
33	6552	Knitted items, not elastic nor rubberized, of fibers other than synthetic	Textile	17,500	129
34	6924	Cask, drums, etc, of iron, steel, aluminum, for packing goods	Metallurgy	17,416	195
35	8973	Precious jewelry, goldsmiths' or silversmiths' wares	Other Mfg.	17,014	130
36	7239	Parts, not elsewhere specified, of machinery and equipment of headings 72341 to 72346	Machinery	17,006	172
37	7599	Parts, not elsewhere specified, of and accessories for machines of headings 7512 and 752	Machinery	16,886	84
38	1222	Cigarettes	Tobacco	16,775	152
39	7162	Electric motors, generators (not direct current); generating sets	Machinery	16,464	183
40	7821	Motor vehicles for the transport of goods or materials	Machinery	16,352	169
41	8219	Other furniture and parts thereof, not elsewhere specified	Furniture	16,178	180
42	5921	Starches, insulin, and wheat gluten	Chemical	15,827	150
43	6998	Articles, not elsewhere specified, of copper, nickel, aluminum, lead, zinc, and tin	Metallurgy	15,445	183
44	6560	Tulle, lace, embroidery, ribbons, trimmings, and other small wares	Textile	15,385	171
45	7244	Machines for extruding manmade textile; other textile machinery	Machinery	15,137	100
46	8212	Furniture for medical, surgical, dental, or veterinary practice	Furniture	15,053	174
47	8310	Travel goods, handbags, etc, of leather, plastic, textile, others	Travel goods	14,619	98
48	0344	Fish fillets, frozen	Fishery	14,592	120
49	8211	Chairs and other seats; and parts thereof, not elsewhere specified	Furniture	14,392	161
50	6532	Fabrics, woven, 85% plus of discontinuous synthetic fibers	Textile	14,319	154
51	6421	Packing containers, box files, etc, of paper, used in offices	Paper products	13,907	184
52	6994	Springs and leaves for springs, of iron, steel, or copper	Metallurgy	13,599	181
53	7245	Weaving, knitting, etc, machines; machines for preparing yarns, etc.	Machinery	13,483	110
54	8972	Imitation jewelry	Other Mfg.	12,680	104
55	7932	Ships, boats, and other vessels	Machinery	12,615	119
56	6353	Builders` carpentry and joinery (including prefabricated)	Cork and wood	11,367	167
57	8947	Other sporting goods and fairground amusements, etc.	Other Mfg.	11,171	122
58	6522	Cotton fabrics, woven, bleached, dyed, etc, or otherwise finished	Textile	10,370	122
59	1110	Nonalcoholic beverages, not elsewhere specified	Beverages	10,349	153

continued

	SITC	Description	Priority	PRODY	Path
60	2731	Building and monumental (dimension) stone, roughly squared, split	Fertilizer	10,189	132
61	7243	Sewing machines, furniture, needles etc, and parts thereof, not elsewhere specified	Machinery	10,058	103
62	8997	Basketwork, wickerwork; brooms, paint rollers, etc.	Other Mfg.	9,996	143
63	0813	Oilcake and other residues (except dregs)	Animal feeds	8,822	110
64	2111	Bovine and equine hides, raw, whether or not split	Raw hides	8,694	151
65	6122	Saddlery and harness, of any material, for any kind of animal	Leather	8,109	109
66	6114	Leather of other bovine cattle and equine leather	Leather	8,081	138
67	6534	Fabrics, woven, less than 85% of discontinuous synthetic fibers	Textile	7,934	148
68	6123	Parts of footwear of any material except metal and asbestos	Leather	7,838	162
69	6673	Precious and semiprecious stones, not mounted, set, or strung	Mineral	6,932	110
70	8482	Articles of apparel, clothing accessories of plastic or rubber	Garments	6,681	94
71	0360	Crustaceans and mollusks, fresh, chilled, frozen, salted, etc	Fishery	6,438	111
72	6589	Other made-up articles of textile materials, not elsewhere specified	Textile	6,361	143
73	0615	Molasses	Sugar	5,581	133
74	2871	Copper ore and concentrates; copper matte; cement copper	Metalliferous ores	5,558	98
75	0421	Rice in the husk or husked, but not farther prepared	Cereals	5,073	127
76	6978	Household appliances, decorative articles, etc, of base metal, not elsewhere specified	Metallurgy	4,720	113
77	0751	Pepper of "piper"; pimento of "capsicum or pimenta"	Spices	4,652	119
78	2713	Natural calcium phosphates, natural aluminum, etc.	Fertilizer	4,224	61
79	2221	Groundnuts, green	Oleaginous fruit	3,941	106
80	0542	Beans, peas, other leguminous vegetables, dried, shelled	Vegetables	3,329	113
81	5513	Essential oil, resinoid, etc.	Oils and perfume	2,552	144
82	6521	Cotton fabrics, woven, unbleached, not mercerized	Textile	2,230	117
83	1212	Tobacco, wholly or partly stripped	Tobacco	1,778	139

mfg = manufacturing, mm = millimeter, PRODY = a measure of technological sophistication, SITC = Standard International Trade Classification.
Source: Estimates based on UN Comtrade Database, accessed April 2013.

5. SUMMARY AND POLICY RECOMMENDATIONS

Current projections suggest Cambodia can continue to grow at 7% or more for the rest of the current decade and into the 2020s (IMF 2014). This expansion will be supported by the creation of the Association of Southeast Asian Nations (ASEAN) Economic Community in 2015 and other regional integration schemes.

To sustain high growth, however, the country needs to (1) strengthen weak supporting factors—infrastructure, skills and education, and governance; (2) avoid the low-wage production trap; and (3) maintain a stable political environment conducive to investment and commerce. These three conditions are strongly linked, in that moving beyond low-wage goods and services will require sustained improvements in growth-supporting factors and a stable environment for investment.

This Country Diagnostic Study is constructed based on an inclusive growth framework that combines analytical structures, investigating barriers to both growth and socioeconomic inclusiveness. The four key constraints are:

(1) **Weaknesses in human capital.** Cambodia's workforce remains insufficiently skilled and educated to generate growth in emerging sectors, and limited access to education, health care, and nutrition hampers progress in improving the quality of human capital.

(2) **Deficits in infrastructure provision.** This raises the costs of production and significantly limits access to electricity, rural road transport, and water and sanitation.

(3) **Weaknesses in governance.** Corruption and weak public sector management are persistent problems.

(4) **Limited fiscal space.** The government has insufficient funds to invest in the main growth-supporting factors and in social services.

The government is addressing weaknesses in all these areas. The following sections offer policy recommendations in the four areas to support the reform efforts. The chapter concludes with recommendations for the way forward, including how to overcome the "special challenge" of helping Cambodia move beyond low-wage, low-value production.

5.1. Human Capital and Access to Decent Employment

A healthy, skilled, and educated workforce is essential for attracting investment and generating a high level of productivity throughout the private and the public sectors. Such a workforce is especially important for Cambodia, which is seeking to move into higher-value products and services. Good health and nutrition provide a solid base for human capital development. In education, marked improvements in the take-up of primary education are encouraging, but low completion rates in secondary education remain a concern. Raising the quality of education requires substantial investment in learning materials and equipment, and teacher qualifications.

Reducing a broad skills mismatch is an important part of the human capital challenge. The technical skills needed in all aspects of society—farming, manufacturing, services, and public administration—can be better aligned with the needs of the job market. Skills training institutions

should be linked with employers' needs so that graduates have market-ready and market-relevant skill sets.

Strengthen Health Care and Nutrition

Short-Term Measures

- Expand health care provision.
- Ensure health centers have adequate resources for regular health education and outreach services. Strengthen the links between health service providers, community practitioners, local authorities, nongovernment organizations, and communities. Provide mobile services for populations far from medical centers.
- Strengthen public awareness of the importance of good nutrition. Maximize resources to expand school-based midday meal programs in poor areas in order to improve nutrition and motivate parents to send their children to school.
- Ensure adequate nutrition and health care in the first 1,000 days of life, from conception to 2 years. Strengthen prenatal and postnatal care by primary health centers and provide support and funding for reproductive, maternal, newborn, and child health services. Promote breastfeeding and complementary feeding practices.

Medium-Term Measures

- Increase the number of physicians and other health care professionals. Expand health care access across the country. Ensure effective implementation and financial management of the new health insurance program under the National Social Security Fund.
- Provide adequate funding, logistical, and institutional support to scale up health care access and coverage. Achieve this through mechanisms such as health equity funds, health insurance, and fee exemptions for the poor.
- Establish a planning and surveillance system to conduct regular health mapping and microplanning. The system should focus on disease and on detecting health risks and health inequities, specifically for childhood immunization, primary school retention, anthropometric assessment, food security, and environmental health.

Increase the Quality of and Completion Rates of Primary and Secondary Education

Short-Term Measures

- Fully implement the National Policy on Early Childhood Care and Development to improve access to early childhood education and reduce repetition and dropout rates at all levels.
- To improve learning outcomes, provide resources adequate to implement a breakfast provision and scholarship program.
- Decrease the number of students per teacher from over 40 in many schools to a maximum of 30 in primary schools and 25 in secondary schools. This will increase teacher time per student and improve learning outcomes. Recruit additional teachers to meet these targets.
- Create a mapping system for school-age children that includes out-of-school children and children with disabilities.

Promote an inclusive education program that will provide teachers with the means to identify and help children with disabilities.

- Improve the quality of pre-service and in-service teacher training and enhance the quality of instruction. Review the curriculum and pedagogy to ensure that education and skills provided in secondary schools meet the needs of the job market and entry to higher education.

Medium-Term measures

- Continue investing in education by building more classrooms and providing additional facilities to secondary schools that need them. Finance recruitment of teachers and improve pre-service and in-service teacher development to effectively respond to the shortage of lower- and upper-secondary school teachers.

- Reduce the share of secondary school teachers who have not completed upper-secondary education from over 15% currently to 10% by 2017 and to zero by 2020. Provide appropriate in-service and distance learning opportunities to enable teachers to complete their upper-secondary education.

- Secure the cooperation of relevant ministries, agencies, local authorities, and development partners for expanding the provision of preschool classes in primary schools, of community preschool classes, and of home-based and house-group-based programs.

- Strengthen ties with development partners to secure support for institutionalizing a program to increase the number of scholarships to priority students. The scholarship program could also be used as a vehicle to promote fields of study that are in demand (for example, engineering and sciences); accumulate knowledge; and improve the country's human capital base.

Provide the Accreditation and Certification Framework for Technical and Vocational Education and Training

Short-Term Measures

- Finalize the Policy on Technical Education and Guidelines on Vocational Education. Develop a management structure for technical and vocational education and training (TVET) and capacity development for TVET staff at all levels.

- Incorporate aspects of vocational education in general education to help students develop a combination of academic and vocational skills and increase their awareness of career options after secondary school.

- The quality and relevance of TVET can be improved through better understanding of and links with the needs of employers. This understanding can be achieved through links and dialogue between educators and employers. Develop the National Employment Agency's role in furnishing better information about skills to the National Training Board. Establish channels for employers to communicate their skills needs to education and training institutions.

- Improve the social status accorded to TVET programs through information and motivation campaigns in media, exhibitions, competitions, and so on. This will spread awareness of skills and employability, disseminate success stories, and introduce role models.

- Support standards in TVET programs by focusing on securing an adequate quantity and quality of TVET teachers and trainers. This may be achieved by upgrading learning facilities for instructors and promoting professional development.

- Promote entrepreneurship training for the large part of the workforce that is self-employed, thereby improving the management and sustainability of micro and small enterprises.

Medium-Term Measures

- Promote private sector participation in the provision and management of TVET through an enhanced role in policymaking, training design, standards setting, assessment, and accreditation.

- Secure private sector commitment and investment in setting up sector-specific centers of excellence, which will be located close to the relevant industry and linked with reputable industry-specific training facilities. Such centers of excellence could also be vehicles for an apprenticeship training program.

5.2. Infrastructure: Electricity, Rural Roads, and Rural Water and Sanitation

Cambodia suffers from major infrastructure deficits. Reducing these would help attract greater urban investment, improve productivity in the farm sector, and make growth more inclusive. The main challenges are increasing domestic power generation and distribution, improving the quality of rural roads, and completing the rehabilitation of the railway. In addition, upgrading and expanding water and sanitation infrastructure outside of Phnom Penh would support the productivity of the rural workforce by improving conditions for good health.

Complete the Planned Expansion of Electricity Generation Capacity and Reduce Energy Imports

Short-Term Measures

- Revisit development plans for the national power sector to clearly identify progress and milestones against the investment needed to reach minimum self-sufficiency in power generation.

- Realign power sector development strategies based on the government's ability to fast-track projects involving repairing and upgrading generation, transmission, and distribution infrastructure.

- Ensure that Electricité du Cambodge and private sector entities have the capacity to implement the current plans for expanding the grid.

- Support the integration of regional grids into a national network; this will be a critical step in supplying electricity throughout the country and distributing the new generation capacity coming on stream in the next few years.

Medium-Term Measures

- Give high priority to providing all villages with access to electricity by 2020 through combined improvements in generation, transmission, and distribution.

- Promote energy efficiency to accommodate the country's limited generation capacity and increasing energy demand.

- Focus on providing the government support necessary to complete the new power generation capacity coming on stream through 2020. This added capacity should

substantially reduce the share of imported electricity and help provide for the increase in electricity demand in the coming years.

- Alongside an increase in generating capacity, the creation of a national grid, and improved rural energy supply, review the tariff structure to determine how to lower tariffs overall and reduce the large gap between rural and urban electricity prices.

- Design a tariff structure model that defines the appropriate tariff level for all types of customers and that promotes the delivery of electricity to rural areas. Include a transition process for amending the tariffs and ensure government commitment to it.

Strengthen Rural Electrical Enterprises and Provide Incentives to Expand Coverage

Short-Term Measures

- Designate the Rural Electrification Fund as the central coordination agency for pooling funds from development partners for rural electrification. Ensure regular consultations with development partners to plan the strategy for electrification and for implementing projects. The approach could be modeled on the role played by similar agencies in countries where rural electrification was successful, including Bangladesh and India.

- Support the investment climate for private rural electricity enterprises by assessing the possibility of issuing longer-term permits to reduce the uncertainty associated with their investment and enable them to plot their business operations using a reasonably long time frame. Simultaneously enforce performance standards to promote a culture of efficiency, and eventually help bring down production costs and tariff rates.

Medium-Term Measures

- Provide additional resources to the Rural Electrification Fund so that it can channel incentives and subsidies to rural enterprises. This is crucial for increasing electrification in rural areas.

- Enhance the investment environment by clarifying rules for standalone generation, mini-grid operations, and future large-grid connections to encourage greater investment in electricity by domestic private sources.

- Widen private electricity enterprises' access to finance to enable them to secure capital at affordable rates.

- Explore energy options and consider developing large-scale alternative and clean fuel sources to supply energy to the provinces.

Develop Transport Infrastructure by Expanding the Network of Paved Rural Roads

Short-Term Measures

- Review and assess transport infrastructure models for urban and rural areas and link them more systematically to the country's growth sectors, given increasing rural-to-urban migration, population growth, and the rapid development of urban centers. Based on this assessment, consolidate government leadership on policy to ensure clearly defined roles and minimum overlap among sector coordinators, area planners, and national decision-making entities.

- Prioritize road development in areas where major businesses and markets congregate. Study the business and employment

impact of high priority roads by estimating how many new businesses and work opportunities will be created, and by how much existing businesses can grow with increased road connectivity.

- Ensure the Ministry of Public Works and Transport has adequate funding for its road development projects. Target a significant increase in road density and expand the share of paved roads.

- Finish rehabilitating the rail network to move bulk goods off the roads and reduce the heavy wear and tear on the road system. Ensure connection at the rail ends to ports and to Thailand.

Medium-Term Measures

- Develop and maintain for rural infrastructure an inventory that includes information on all transport channels to enable adequate tracking of rural transport development projects. This information will enable ministries to identify provinces that lack sufficient transport infrastructure and, by gauging investment and maintenance needs, develop strategies to address the problem. Reinforce plans to encourage wider participation of the private sector (through public–private partnerships) in financing transport projects that will have considerable economic impact by generating incomes and employment.

- Support the revival of the railway system by modernizing major links (such as Phnom Penh–Poi Pet, Phnom Penh–Kampot–Sihanoukville, and Sosiphon–Poipet). Sponsor railway promotion, highlighting its efficiency and viability as an alternative to road transport.

- Upgrade water transport facilities and provide support facilities to encourage more foreign direct investment. Assess the additional investment required to develop Sihanoukville Autonomous Port to international standards in the medium- to long-term, enabling Cambodia to end shipment through Singapore and Viet Nam to access international markets.

- Forge ties with private sector providers of infrastructure for information and communication technology, for improved management and operations. Leverage regional ties within ASEAN countries to create new cross-border connectivity channels and intensify existing ones.

- Provide farm-related infrastructure to support agriculture. Provide more farm-to-market roads and establish storage, warehousing, and refrigeration facilities that ensure farm and fishery output is fresh when delivered to the market.

Improve Water, Sanitation, and Flood Management Outside Phnom Penh

Short-Term Measures

- Adapt water supply management techniques used with great success in Phnom Penh to develop urban water supply in other cities and towns.

- Invest in upgrading, extending, and maintaining sewerage and drainage infrastructure in rural areas and in cities and towns outside the capital to reduce disease and expand social inclusion.

- Improve river, lake, and coastal embankments to protect commercial and residential land from erosion and flooding. Develop effective flood management, environmental protection, and disaster readiness systems to mitigate climate change and extreme weather impact.

- Develop effective solid waste management systems for urban areas outside the capital.

Medium-Term Measures

- Invest in water supply in rural areas, from under 50% of households in 2013 (wet season) to 70% by 2020. Also, increase access in urban areas outside the capital from 67% in 2013 to 75% of households by 2020.

- Improve the disposal of household sewage through better toilets and connection to sewerage and septic tanks. Reduce open defecation in rural areas from nearly two-thirds of households to much lower levels by 2020.

5.3. Governance

In the last 2 decades, Cambodia has developed a governance framework—comprising the rule of law, public administration and finance, and the regulation of market activity. Continued strengthening of governance systems is essential.

Investment surveys make clear that informal payments dominate public–private sector arrangements, a major weakness that is distorting and interfering with the conduct of legitimate business. Recent reforms to combat corruption and improve governance, such as the Anti-Corruption Law in 2010 and the Public Financial Management Reform Program, appear to have slightly reduced perceptions of corruption in recent years. Governance could be strengthened by the following measures:

Short-Term Measures

- Encourage other ministries to follow the practice in some government agencies of publishing their schedule of fees for permits, licenses, and regulation in public offices and on official websites to increase transparency. The Ministry of Economy and Finance and the Council for the Development of Cambodia jointly published their fees in December 2012, and the Ministry of Commerce did the same in early 2013.

- Continue to strengthen the Anti-Corruption Unit and allow for full implementation of the Anti-Corruption Law. Strengthen education on corruption and its prevention and enforcement. Maintain adequate funding for the Anti-Corruption Unit and seek to reach a full complement of staff. Ensure that violators are prosecuted and that penalties are sufficient to act as a deterrent.

- Formulate and implement a system for standard procedures, requirements, and payment schedules to reduce processing time and costs. Establish benchmarks and one-stop windows in government agencies to improve operational efficiency. Promote the "best practice" paradigm in various media to help engender a culture of competence and timeliness.

Medium-Term Measures

- Explore ways to institutionalize electronic processing of business-related transactions such as registrations, applications, and permits; and electronic payment of fees, fines, duties, and other levies related to establishing a business, importing and exporting, and liquidating and closing an enterprise.

- Support reforms connected with the Anti-Corruption Law, the Law on Public Finance System, and the Public Financial Management Reform Program. Promote the representation of civil society in the sphere of public contracts by introducing, institutionalizing, and promoting digital

processes of bidding, procurement, and disclosure at the national and local government levels.

- Strengthen the information drive to establish national awareness of transparency and accountability. Minimize opportunities for government employees to handle cash transactions by mandating that some transactions be paid directly to banks. Start a nationwide campaign warning against unofficial payments and stipulate the penalties for soliciting or offering bribes. Introduce a nationwide witness protection system.

- With the support of development partners, continue moving forward on the four main reform programs in public sector management—the National Program for Administrative Reform, the Legal and Judicial Reform Program, the Decentralization and Deconcentration Reform Program, and the Public Financial Management Reform Program.

- Empower key agencies in the legal–judicial areas to strengthen mechanisms to better guarantee and protect property rights, enforce contracts, and settle disputes. Increase the resources and capacity of courts. Amend the institutional framework governing the relationship between the executive and judicial branches of government to promote independence between them and eventually extinguish the patronage system that leads to corruption.

- Ensure the clarity, consistency, and enforcement of laws, regulations, and decrees relating to business to reduce ambiguity and promote transparency. Ensure laws, regulations, and decrees that apply to foreign investors are officially translated and printed in English as well as Khmer.

5.4. Fiscal Resources

The country has vast demand for strengthening hard and soft infrastructure and increasing social service provision. But low revenue generation stemming from a narrow tax base and weak tax administration constrains the government's capacity to meet the public expenditure requirements necessary for such a development agenda.

Government revenues have not increased alongside expenditure growth, severely limiting the government's ability to finance physical and social infrastructure to promote inclusive growth and sustainable development. Revenue mobilization is imperative to rebuild fiscal buffers and support fiscal sustainability in the medium term. Suggested measures include the following:

- Prioritize the implementation of strategies to improve revenue generation from 15% of gross domestic product in 2013 to 17% by 2018. Concentrate on enhancing measures for compliance with tax payments and improved governance in tax collection agencies.

- Improve tax administration through the greater use of information and communication technology and better recruitment and management of human resources. Offer a broader range of options for tax payment by embracing information and communication technology and electronic banking services.

- Reduce tax arrears through a focused strategy and a dedicated arrears collection team; this would boost revenues significantly.

- Assess the effectiveness of the profit tax exemption in attracting new investment (Qualified Investment Projects) to make the incentive less generous and more focused on enticing investments in nontraditional products and services.

- Widen the direct tax base by including more individuals and small firms in the tax net, without lessening the important efforts of the Large Taxpayers Department. Reduce exemptions on specific products such as electricity, financial services, and petroleum. Generate additional revenue through broader application of excise taxes and, in some cases, higher rates on tobacco and diesel, among other products.

- Strengthen the evaluation, contracting, and monitoring of public–private partnership transactions. Promote transparency in this area by establishing a central monitoring unit as an information portal with the power to evaluate and approve projects. Improve coordination capabilities among agencies and private sector counterparts.

- Strengthen resource mobilization to meet the growing public expenditure demand for improved social services and broader coverage of social protection over the medium term. Establish a comprehensive and sustainable national social protection system with a long-term vision and concrete implementation plans. Consolidate various ad-hoc social programs and support the systematic implementation of the national social protection scheme.

5.5. The Way Forward and a Special Challenge

Through the Rectangular Strategy for Growth, Employment, Equity, and Efficiency, Phase III, the government is pursuing its vision of a society based on rapid economic growth, full employment, the equitable distribution of the gains from growth, and effective management of public institutions.

Cambodia has achieved much since it began economic reconstruction and rehabilitation, and established itself as a promising market economy in the early 1990s. In synchrony with Cambodia Vision 2030, a new industrial policy, and the continued implementation of the Rectangular Strategy, the country can continue its progress and expand inclusive growth.

Moving forward, Cambodia faces the special challenge of diversifying and upgrading its productive capabilities to improve its economic resilience and growth potential. The economy is currently driven by a few sectors narrowly focusing on low-skill segments in garments, rice, tourism, and construction. The narrow industrial and export base unnecessarily exposes the economy to volatile sector demand and price shocks. The latest global financial crisis highlighted these risks. Compounding such risks is the concentration of exports to just a few countries; about 80% of merchandise exports go to Canada, Europe, and the United States, where long-term growth prospects remain constrained by the crisis hangover. Furthermore, Cambodia exports largely unsophisticated products concentrated in a limited number of sectors that are poorly connected in the product space. Diversifying into higher-value products and services would help the country avoid being caught in low-wage, low-technology equilibrium. It is equally important that the process of diversification and upgrading be developed in a manner that it contributes to skills upgrading and creation of quality jobs.

To diversify the economy and produce higher-value output, the government could pursue both generic and sector-specific policies. Generic policies improve the business environment for all kinds of investors and enterprises and are detailed in other parts of this report. Sector-specific policies target sectors that hold potential for expansion. Determining what can be achieved will depend on the resources, knowledge, and expertise the government is able to allocate for industrialization. For example, the government has chosen a sectoral approach to rice, knowing that it is important for the economy but is hampered by sector-specific bottlenecks. Understanding a nascent sector is crucial for building it up and allowing for diversification. When using a sectoral approach, the focus of sectoral industrial policies should be

knowledge and not subsidies. The following may help in considering government strategies and options to support the target sectors:

- Use knowledge gained from consultation with industry to address business environment problems. Such knowledge can help determine how to address structural bottlenecks and other problems in the business environment. Sectoral expertise must be fed back to various line ministries to affect change.

- Use detailed production and trade data to select sectors that can be supported. Cambodia can focus on products that are closely related to the goods it currently produces and exports because such products require the use of capabilities similar to the current national capabilities and therefore will facilitate product diversification and upgrading. Light manufacturing and agro-processing are the key candidates.

- Build technocratic expertise about specific sectors. This requires the government to have experts with sector knowledge, but it will have difficulty securing expertise in a large number of sectors given its limited human and financial resources. As a result, the choice of sectors must be focused and selective.

- Consult with industry. The needed expertise can be developed by close and frequent consultation with industry, an approach the government is using through its Government–Private Sector Forum and other consultation forums with industry associations. Industry associations must be actively involved in the effort.

- Establish a knowledge sharing platform aimed at providing essential and timely market information to promote understanding about the changing nature of markets in the region and globally. Wider awareness that Cambodia has better quota access to advanced markets could attract investment into sectors that have recently lost market access elsewhere. An example is the recent growth of bicycle assembly. Cambodia's duty-free export status with the European Union and its comparatively low wages persuaded bicycle manufacturers to move from other countries to set up operations in Cambodia.

- Leverage existing foreign investment. Try to build clusters around foreign investment by targeting and attracting firms that specialize in "nearby" products that are better connected to Cambodia's core competencies and capabilities. Products that have close links to a large number of other products (implying that they are closely connected to a core competency) can help generate greater diversification than those that are not.

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Cambodia: Diversifying Beyond Garments and Tourism
Country Diagnostic Study

Cambodia has enjoyed over 2 decades of robust growth, with rising foreign investment and deepening integration into global and regional value chains. The country—once riven by civil war and conflict—is now politically stable and increasingly making its mark as the world's eighth-largest rice producer, Asia's 10th-largest garment exporter, and a rising tourist destination. Yet Cambodia faces considerable challenges. It suffers from major infrastructure deficits; limited skills development and education quality; and weaknesses in governance. Fiscal resources are also stretched. Moreover, for a successful transition to a modern industrialized economy, Cambodia needs to diversify and upgrade its productive capabilities. This publication examines the opportunities and the challenges, and offers recommendations for long-term socioeconomic strategy.

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ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to approximately two-thirds of the world's poor: 1.6 billion people who live on less than $2 a day, with 733 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

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