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ABBREVIATIONS

ADB	–	Asian Development Bank
ADF	–	Asian Development Fund
CAPE	–	country assistance program evaluation
COS	–	country operational strategy
CSP	–	country strategy and program
CSPU	–	country assistance program update
DER	–	Department of External Relations
DMC	–	developing member country
DOR	–	Department of Roads
FY	–	fiscal year
GDP	–	gross domestic product
ICT	–	information and communication technology
IED	–	Independent Evaluation Department
km	–	kilometer
MDG	–	Millennium Development Goal
OCR	–	ordinary capital resources
		Oesterreichische Kontrollbank Aktiengesellschaft (Austria Export Credit Agency)
OeKB	–	
PPP	–	public–private partnership
RMA	–	Royal Monetary Authority
SMEs	–	small and medium-sized enterprises
TA	–	technical assistance

NOTES

- (i) The fiscal year (FY) of the government and its agencies begins on 1 July and ends on 30 June. FY before a calendar year denotes the year in which the fiscal year ends.
- (ii) In this report, "\$" refers to US dollars.

Key Words

Bhutan, capacity development, development effectiveness, energy, evaluation, evaluation lessons, finance, policy dialogue, private sector development, program assessment, public sector resources management, strategy, technical assistance, transport, urban development

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The report was prepared by the team leader, with inputs from the team members. Alex Jorgensen, Dil Bahadur Rahut, and Kenneth Watson were the consultants. Mr. Jorgensen undertook an evaluation of ADB assistance for urban development in Bhutan. Mr. Rahut conducted socioeconomic impact assessments for various projects. Mr. Watson provided inputs for the assessment of ADB assistance in the finance sector. To the knowledge of the management of the Independent Evaluation Department, there were no conflicts of interest of the persons preparing, reviewing, or approving this report.

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EXECUTIVE SUMMARY

This country assistance program evaluation (CAPE) report presents an evaluation of the Asian Development Bank (ADB) assistance to Bhutan during 2001–2009. The CAPE updates the 2005 evaluation of ADB assistance to Bhutan and assesses to what extent the 2005 CAPE lessons and recommendations were reflected in ADB's subsequent country strategy and programs.

ADB assistance. Since 2001, ADB has approved 12 new Asian Development Fund loans or grants (in the total amount of \$195 million), and one ordinary capital resources loan (\$51 million), and nine project preparatory technical assistance (TA) projects (\$6.7 million) for nine investment projects and policy programs, 27 advisory TA projects (\$10.8 million), and three Japan Fund for Poverty Reduction TA grants (\$3.5 million). Assistance was provided for the energy sector (rural electrification, hydropower generation, and sector restructuring), transport (highways construction and resurfacing, construction of rural feeder roads, limited capacity development for road planning, safety, and asset management), finance and private sector development (support for finance sector reforms and the creation of an enabling environment for micro and small and medium-sized enterprises [SMEs], micro SME credit lines, expansion of vocational training, and support for labor market and accounting reforms), urban development (investment support for water and nonwater related infrastructure in Thimphu, Phuentsholing, and Dagana), fiscal and debt management, health sector reforms, and international communications.

Overall assessment. The overall rating for ADB country operations and programs in Bhutan is *successful*, which is based on the composite ratings of *satisfactory* for strategic positioning, *relevant*, *effective*, *efficient*, *less likely sustainable*, and *modest to substantial* impact. The performance of ADB assistance for the energy sector, urban development, and public sector management was *successful*, while assistance for the transport sector and finance and private sector development has been *partly successful* so far.

Alignment of ADB assistance development strategies and sector development needs. ADB assistance in Bhutan was well aligned with country development needs, government development priorities, and Strategy 2020. Despite steady economic growth and tremendous progress made toward achieving the Millennium Development Goals, Bhutan continues to be a developing country with high levels of rural poverty, widening income inequality, and a narrow economic base that is dependent on hydropower exports to India. Limited economic activity outside of subsistence agriculture and the hydropower sector have made it difficult for the growing number of youth entering the labor force to find employment. The modernization of the country and the emergence of economic opportunities outside of the agriculture sector have also led to an increase in migration from rural to urban areas. ADB support for inclusive development has sought to (i) extend growth and social development to rural areas through rural connectivity projects; (ii) facilitate the absorption of rural migrants through the provision of basic infrastructure in major urban centers; and (iii) create conditions for economic growth through assistance for strengthening financial resource mobilization and intermediation, the development of micro and SMEs, economic management, and public–private partnerships in hydropower. ADB assistance has been largely relevant, although in many cases, project design could have been more responsive to local conditions, adopted a more holistic approach, or been based on wider analysis of available technical options. ADB could have also done more to address gender concerns in its operations.

Contributions to sector and development outcomes and impacts. ADB operations in Bhutan were effective overall. Most anticipated outputs were delivered as planned, although a number of outputs under infrastructure projects had to be dropped due to cost overruns. In some sectors, outputs did not translate into the full achievement of envisaged development outcomes due to design or construction issues or lack of assistance for the implementation of proposed institutional changes or policy and legal reforms. For example, the East–West Highway was not resurfaced to expected quality standards, which reduced anticipated vehicle costs and travel time savings. Changes in foreign direct investment and foreign trade regimes as well as some of the commercial legislation under ADB policy dialogue did not address key sector problems and thus had little impact.

Major achievements of ADB assistance during the CAPE review period so far have included the connection of 16,947 households to the national electricity grid; the corporatization and commercialization of the power sector; the preparation and application of a public–private partnership model for hydropower projects; the approval of revised legislation that grants more autonomy to the central bank and new bank licensing regulations that have introduced more market competition; reduced business registration requirements; and strengthened capacity of debt management, road planning, safety, and construction management. Ongoing assistance will likely result in further outcomes including a financial regulatory framework based on best practices, the new Southern East–West Highway that will facilitate trade and development of southern Bhutan, and the expansion of urban infrastructure for another 60,000 persons.

Rural connectivity projects have helped increase income levels in rural areas, mainly due to improved prices for agricultural products and/or increased opportunities for nonfarm income. The effects were larger in areas that were comparatively better off prior to the infrastructure project in question because of other economic factors such as tourism-related income, the availability of extension services, and closer proximity to economic centers. While rural electrification projects had positive effects on respiratory health and the environment due to reduced fuelwood consumption, as well as education benefits due to increases in the time available for study, incremental social benefits for ADB-financed feeder roads were less pronounced as they were constructed in places that already had primary schools and health care centers, although the quality of these services might be enhanced through better connectivity. Further, ADB assistance for fiscal and debt management facilitated overall management of economic growth and aid flows.

Sustainability issues. The sustainability of infrastructure projects has been affected by a lack of adequate resources and systems for maintaining assets, including those financed by ADB. For example, regarding roads, recurrent expenditures are now only a fraction of capital expenditures for new roads, indicating that resources and management attention are focused on construction rather than asset management. ADB did not have any meaningful policy dialogue on this issue, and has sought to address operation and maintenance through various uncoordinated TA efforts that have not been very effective, as they did not deal with underlying financial resource problems or lack of institutional incentives. Also, ADB-supported investment projects did not have any particular provisions to ensure the sustainability of project outputs and outcomes. Financial sustainability might also become an issue for other sectors, as power consumption and rural credit continue to be subsidized. Charging cost-reflective tariffs, user fees, or interest rates has not been considered desirable or necessary by many in Bhutan, although prices are expected to move closer to cost recovery levels over time, which will support more efficient resource allocation. ADB has sought to address this issue in conjunction with its support for finance, power, transport, and urban sector reforms with varying levels of depth, intensity, and success. There is need for more efforts in this area considering increasing

levels of corporatization and devolution of public service (i.e., delivery) functions. In the finance sector, the creation of sustainable financial intermediation mechanisms for micro and SMEs will also depend on the development of viable models for such type of lending in Bhutan.

Efficiency issues. Implementation efficiency, although still above the ADB average, has been declining in recent years, possibly due to the increasing size of projects and complexity of project designs, frequent project design changes, and increasing work volumes coupled with limited capacity of domestic contractors. Resource efficiencies need to be carefully assessed for rural connectivity projects, considering their comparatively high cost nature and limited number of beneficiaries in a sparsely populated country. Some assumptions, regarding the number of project beneficiaries and the extent of noneconomic benefits underlying the economic model for low-traffic road projects, turned out to be too optimistic, while other economic benefits have not been fully captured. Although completed rural electrification investments financed by ADB in Bhutan have had adequate levels of economic feasibility, this will not necessarily be the case for connections in more remote areas, which will require comprehensive cost-benefit calculations to establish the most appropriate way of meeting the government's target of providing electricity to all by 2013 in line with ADB's energy policy, which requires economic sustainability. Also, cost overruns resulted in the reduction of scope for a number of infrastructure projects.

Status of 2005 CAPE recommendations. Most of the 2005 CAPE recommendations continue to be valid. However, while recommendations for an increase in ADB assistance volumes, greater sector focus, greater operational emphasis on finance sector regulation and micro and SME development, and the incorporation of environmentally friendly project mechanisms are being implemented, an equal number—including the need for improved donor coordination, more sustainable approaches to capacity development, the establishment of a resident mission, and the use of benchmarking and results monitoring—have yet to be fully addressed.

Although a results-based framework was used for the 2005 country strategy and program, many benchmark indicators were not relevant, as they were not linked to nor adequately reflected project outcomes. Further, they were not monitorable, as they lacked baseline data or relied on data that are not regularly collected. More importantly, the strategy and project design and monitoring frameworks apparently have not been used for monitoring and decision-making purposes, despite growing government interest in results-based management.

With regard to assistance for capacity development, outside the power, and, to some extent, the finance sector, ADB did not address institutional development needs in a comprehensive, systematic manner by conducting capacity needs assessments and addressing identified gaps in regard to legal powers, policy environment, institutional setup, corporate governance, financial resources, technical capacity, staff resources, skills and incentives, and processes and systems. Even when assistance was provided for the design of institutional, legal, and policy reforms, it was usually not followed up with assistance for implementation. While ADB remained engaged in capacity development efforts for energy and finance sector institutions, and for fiscal and debt management, capacity development support for transport and urban development declined over the current country strategy and program period despite continued weaknesses in project asset management and financial resource constraints affecting project performance.

Although ADB assistance did not overlap with the assistance of other donors, the potential for information exchange, operational synergies, and coordinated policy dialogue was

not always fully realized. The establishment of an in-country presence can facilitate ADB coordination and communication with the government and other development partners, as well as project implementation, which will be increasingly important given rapidly growing financial assistance volumes. Relationships between ADB and the government are already very good. There has only been one major contentious issue related to land pooling under an ongoing urban development project, with the resettlement framework agreed by the government and ADB in 2006 requiring 100% agreement of plot owners prior to the award of civil works contracts, and the national Landpooling Rules of 2009 allowing landpooling to be initiated after consent from two thirds of plot owners. This is being addressed through a revision of the framework, which is under discussion by the government and ADB.

Future challenges. Large planned investments in hydropower—mostly financed by the Government of India—will reduce the need for and availability of foreign aid. However, the increasing reliance on one major product and one economic partner for trade and labor will also make Bhutan vulnerable to any economic downturn in India or changes in the quality of the relationship between the two countries. In addition to a conducive business regulatory environment that is being promoted with ADB support, future challenges for the government include facilitating private sector engagement in other areas of economic activity such as tourism, information and communication technology, and export-oriented agriculture and horticulture. The other major task for the government and its development partners will be the use of power sector revenues for further broad-based, fiscally and environmentally economic and social development through prudent fiscal and debt management, efficient financial intermediation, integrated rural development, balanced urbanization, and improved transport links within Bhutan and with other countries.

Recommendations. The following are key recommendations for ADB operations in Bhutan that address above efficiency, sustainability, performance monitoring, and capacity development issues. More detailed recommendations are contained in sections IV.C and IV.D of the main report.

Recommendation	Responsibility	Timeframe
1. Improve results orientation of ADB strategies and programs through assistance for the development of results-based government sector investment and institutional development strategies. (paras. 104–108).	SARD	2012
2. Enhance the effectiveness of support for capacity development through (i) comprehensive assessments of institutional capacity development needs at central and local government levels in key sectors of ADB operations, and (ii) incorporation of identified capacity development requirements in results-based sector assistance strategies and programs including adequate TA allocation and policy dialogue to address any problems related to institutional and staff incentives including corporate governance, statutory powers, management systems, human resources policies and financial resources (paras. 109–115).	SARD SARD	2011 Next country partnership strategy
3. Improve mainstreaming of thematic concerns through (i) adequate incorporation of gender concerns in ADB-assisted projects, (ii) additional assistance for private sector development	SARD SARD	New and ongoing projects Next country

Recommendation	Responsibility	Timeframe
<p>including support for the implementation of the Economic Development Policy and public–private partnerships for hydropower development and the provision of urban and transport infrastructure and services.</p> <p>(iii) assistance for strengthening capacity for environmental impact assessments and management, in particular for the hydropower sector and at dzongkhag level, and</p> <p>(iv) support for service-delivery at local government level (paras. 116–127).</p>	<p>SARD</p> <p>SARD</p>	<p>partnership strategy</p> <p>Next country partnership strategy</p> <p>2010</p>
<p>4. Enhance the economic efficiency of future rural connectivity projects through</p> <p>(i) review and adaptation of the economic analysis for rural roads in line with country conditions,</p> <p>(ii) consideration of alternatives to electricity grid-connections based on comprehensive cost-benefit analysis,</p> <p>(iii) coordination with complementary support programs for increasing rural productivity and income opportunities (paras. 129–131).</p>	<p>SARD</p> <p>SARD</p> <p>SARD</p>	<p>For new rural road projects</p> <p>New rural electrification projects</p> <p>New rural connectivity projects</p>
<p>5. Improve the sustainability of ADB operations through</p> <p>(i) systematic policy dialogue on adequate budget provisions or self-financing mechanisms for operation and maintenance of infrastructure,</p> <p>(ii) ADB financing of maintenance equipment, and</p> <p>(iii) adequate TA for building institutional capacity at central and local levels for operation and maintenance of infrastructure (paras. 132–134).</p>	<p>SARD</p> <p>SARD</p> <p>SARD</p>	<p>In conjunction with new transport and urban development projects</p> <p>New infrastructure projects</p> <p>Next country partnership strategy</p>
<p>6. Improve implementation efficiency through</p> <p>(i) establishment of an in-country presence, and</p> <p>(ii) capacity development support for domestic construction industry (paras. 135–136).</p>	<p>BPMSD, SARD</p> <p>COSO, SARD</p>	<p>2011</p> <p>2011</p>
<p>7. Adapt ADB assistance to changing country conditions through</p> <p>(i) an expansion of assistance for integrated urban development within Thimphu and Phuentsholing, and secondary urban growth centers, and</p> <p>(ii) support for government employment-generation initiatives (paras. 142, 145).</p>	<p>SARD</p> <p>SARD</p>	<p>From 2011 onward</p> <p>Under MSMESDP and next country partnership strategy</p>

ADB = Asian Development Bank; BPMSD = Budget, Personnel and Management Systems Department; COSO = Central Operations Services Office; ERD = Economics and Research Department; MSMESDP = Micro, Small and Medium Size Enterprise Sector Development Program; PSOD = Private Sector Operations Department; SARD = South Asia Department; TA = technical assistance.

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I. INTRODUCTION

A. Objectives and Scope

1. This country assistance program evaluation (CAPE) report evaluates Asian Development Bank (ADB) assistance to Bhutan from 2001 to 2009. This CAPE updates the 2005 evaluation of ADB assistance to Bhutan and assesses to what extent its lessons and recommendations have been reflected in ADB's subsequent country strategy and programs. Coverage of this CAPE overlaps with the 2005 CAPE by a few years to validate end-of-period assessments and to provide continuity with the previous evaluation. The evaluation findings are expected to provide inputs to the formulation and implementation of a new country partnership strategy for Bhutan.

B. Methodology

2. The preparation of the CAPE follows ADB's Guidelines for the Preparation of Country Assistance Program Evaluation Reports.¹ In addition to general evaluation questions, the CAPE also addresses ADB's handling of issues that were identified in the previous CAPE and the implementation of these CAPE recommendations. Detailed assessments focus on areas in which ADB has been most active in Bhutan during the evaluation period, that is, transport, energy, urban development, and finance and private sector development.

C. Organization of the Report

3. Sections I and II provide background information on the evaluation approach, country development challenges, related government and ADB development strategies and programs. Section III contains an assessment of ADB assistance organized by evaluation categories. Section IV presents identified lessons and issues, and provides related recommendations for the future country partnership strategy based on the CAPE findings and conclusions.

II. GOVERNMENT DEVELOPMENT PRIORITIES AND ADB ASSISTANCE

A. Country Context

4. Situated in the remote eastern Himalayas, Bhutan is a mountainous, landlocked country with an estimated population of 671,000 and a total area of 47,000 square kilometers (km). Its low density of population, which is spread over mountainous terrain, raises the costs of economic activity and of providing infrastructure and social services. Since Bhutan emerged from self-imposed isolation in the early 1960s, the country has witnessed considerable economic growth, diversification, and modernization, with major improvements in social indicators, communications, governance, and the standard of living.

5. **Economic conditions at start of CAPE period.** Economic growth averaged around 7% per year from the 1970s until the late 1990s. Per capita gross domestic product (GDP) increased from over \$200 during the 1980s to \$752 in 2000, mainly due to hydropower investments, improvements in infrastructure, and a somewhat greater diversification of the country's economic base. The energy, transport, construction, manufacturing, and mining sectors recorded the highest growth rates during that period. Agriculture contributed about 50%

¹ ADB. 2006. *Guidelines for the Preparation of Country Assistance Program Evaluation Reports*. Manila.

to the country's GDP in the mid-1980s, services represented 30%, and industry 20%. In 2000, the respective breakdown was 28%, 34%, and 38%. Tourism accounted for 2.5% of GDP in the same year. The agriculture sector, although characterized by subsistence production, became more diversified with the introduction of new cash crops.

6. Several hydropower projects were constructed during the 1990s, and electricity exports to India accounted for a large share of Bhutan's gross exports in 2000. The production of cement, ferroalloys, calcium carbide, processed foods, and particle board accounted for most of the country's rather modest manufacturing output, with steel and ferroalloy taking advantage of cheap energy in Bhutan. The remainder was mostly re-exports and processing trade that had little value added from Bhutan. Most of Bhutan's hydropower and manufactured goods were exported to India, which has been Bhutan's largest trading and bilateral development partner, accounting for more than 90% of Bhutan's exports and 70% of its imports in 2000. The economy was being managed prudently within the limitations of the ngultrum–Indian rupee peg that constrained the scope for independent monetary policy, but also facilitated macroeconomic stability and trade with India.

7. **Poverty reduction and social development.** Economic growth and diversification were accompanied by significant improvements in human development indicators, albeit from a low base considering the virtual absence of economic infrastructure and social services in the early 1960s. During 1990–2000, life expectancy at birth rose from 53 to 62 years, the infant mortality rate decreased from 90 per 1,000 live births to 68, primary school gross enrollment increased from 55% to 78%, the share of population with access to safe water increased from 45% to 78%, and that with access to sanitation from 67% to 88% due to concerted government efforts in these areas. However, despite better education and health-related indicators, access to basic services and income opportunities remained an issue in rural areas. Also, overall poverty levels were still high, with 36.3% of the country's population being classified as poor in 2000. There were also large regional disparities in poverty levels.

8. **Development challenges.** These included the country's increasing economic dependence on electricity exports to India to generate revenue; its narrow economic base; lack of private sector development; the high-cost nature of infrastructure investments due to country conditions; rising unemployment, particularly of young people, which coincided with sizable imports of skilled and unskilled labor from India; and lack of rural employment opportunities, resulting in widening disparities in income levels and rural–urban migration, which put pressure on existing infrastructure. Other impediments to broader-based economic and private sector development included lack of skilled labor and management expertise, poor infrastructure, regulatory impediments, and an underdeveloped financial system.

9. Despite some divestments during the 1990s, the state sector continued to dominate the economy, accounting for 60% of economic output in 2000. Political reforms introduced decentralization and increased public interest in good governance, participation, and strengthening the quality and coverage of public services and safeguard issues, which posed new challenges for the bureaucracy and the implementation of development programs.²

² Planning and consultations for the transformation of Bhutan's political system from an absolute monarchy to a constitutional monarchy began in the late 1990s. The new democratic system comprises a national council and national assembly, the latter based on political party affiliations. The first elections for the national council and the national assembly were held in December 2007 and March 2008. In 1999, the government commenced reforms that sought to promote good governance through measures enhancing efficiency, transparency, and accountability. Public finance and audit legislations were passed. Political reforms also gave greater decision-making powers and resources to local governments, which was to be accompanied by a devolution of a number of public services.

B. Government Development Strategies and Priorities

10. **Government development strategies during the report period.** The Eighth Five-Year Plan, 1997–2002³ supported the collective pursuit of gross national happiness, a philosophy based on achieving balanced spiritual and material advancement through sustainable socioeconomic development, conservation and sustainable use of the environment, promotion of culture, and good governance. However, only 39% of the targets under the plan were achieved in that period due to (i) procedural delays in finalizing projects; (ii) delays in obtaining external funds; (iii) lack of adequate and qualified human resources; (iv) lack of long-term master plans, particularly for education, roads, and civil aviation; and (v) lack of intersector coordination. To provide a long-term vision for development, the government formulated *Bhutan 2020: A Vision for Peace, Prosperity and Happiness*,⁴ released in 2000, which sets out the national goals, broad targets, and overall policy principles for the next 20 years. To further operationalize the concept of gross national happiness, the government prepared the 2004 National Poverty Reduction Strategy,⁵ which supported the Ninth Five-Year Plan, 2002–2007.⁶ This plan sought to (i) improve the quality of life and income, especially for the poor, by implementing rural access programs; (ii) promote private sector growth; (iii) strengthen governance and increase domestic revenues; (iv) promote culture and environmental conservation; and (v) achieve rapid growth and transformation. Fiscal decentralization and devolution of some public services and decision-making powers to the local level were key objectives of the plan.

11. The 10th Five-Year Plan, 2008–2013⁷ reaffirms the gross national happiness concept. Its overall objective is to reduce the poverty headcount rate from 23.2% in 2007 to 15.0% by 2013. The plan targets annual growth rates in excess of 8% and emphasizes the need to vitalize the economy through investments in hydropower, tourism, manufacturing, and information and communication technology (ICT); balance regional development and manage the rapid pace of urbanization; address the root causes of rural poverty, i.e., remoteness, marginal land holdings, and lack of commercial orientation of agricultural production through rural connectivity projects, distribution of royal land to the landless, and greater commercialization of agricultural production; invest in human capital; and ensure good governance. The government is also seeking to create employment opportunities outside of the hydropower sector for an additional 75,000 persons over the next 5 years.

12. Apart from tourism and ICT, the construction industry, export-oriented agriculture and horticulture (e.g., organic farming), and rural cottage industries have been identified as industries in which sustainable employment can be achieved based on competitiveness, employment generation capacity, and existing growth trajectory. The government recognizes that this will require addressing existing structural constraints through policy and regulatory changes, investment, and the introduction of new management approaches. Thus, a number of state entities and functions have been corporatized to enhance their efficiency.

13. The government also intends to strengthen the efficiency and effectiveness of public service delivery, starting with health care services. It aims to expand access to health care,

³ Planning Commission. 1998. *Eighth Five-Year Plan 1997–2002*. Thimpu.

⁴ Planning Commission. 1999. *Bhutan 2020: A Vision for Peace, Prosperity and Happiness*. Thimpu.

⁵ Ministry of Finance. 2004. *National Poverty Reduction Strategy*. Thimpu.

⁶ Planning Commission. 2002. *Ninth Five-Year Plan, 2002–2007*. Thimpu.

⁷ Planning Commission. 2008. *10th Five-Year Plan, 2008–2013*. Thimpu.

education, and electricity, and to improve road connectivity in rural areas to decrease poverty and to facilitate the attainment of nonincome Millennium Development Goals (MDGs).⁸ The recent global economic crisis has not significantly affected these objectives, as Bhutan has not been severely impacted despite some temporary declines in its tourist and steel industries. Nevertheless, the government is seeking to help businesses by reducing penalties on late payments of electricity bills, deferral of loan repayments, and a waiver of import duties on raw materials.

14. **Use of external aid.** While there has been a considerable increase in external grants and loans accruing to the country in absolute terms, Bhutan's dependence on official development assistance to finance its development expenditures has been decreasing steadily. Official development assistance as a percentage of total GDP declined to 27% at the end of fiscal year (FY) 2008 from levels in the 1980s that exceeded 50%.⁹ Nevertheless, external aid continues to play an instrumental part in financing key investment expenditures. External grants financed two thirds of the total Ninth Five-Year Plan capital expenditures. Budgetary grants and external borrowing account for 65% and 15%, respectively, of Bhutan's aggregate capital expenditures during the 10th Five-Year Plan, with 80% of these grants funding specific investment projects and the remainder constituting general budget support. Bilateral sources provided close to 90% of the country's development assistance from FY2000 to FY2008. India, which has mainly financed the construction of hydropower plants and roads, remained the country's major development partner, accounting for about 70% of all external assistance provided. Other large bilateral development partners included Austria (for the power sector and natural resources); Denmark (for social sectors, urban development, and governance); Japan (for infrastructure and social sectors); the Netherlands (for roads, finance, and tourism sectors, and governance); and Switzerland (for bridges, farm roads, social sectors, and governance). Among multilateral development partners, the United Nations (for soft sectors, agriculture, governance, and microfinance) was the largest development partner until 2004, when the World Bank (for agriculture, roads, social sectors, and public sector management) became the largest, followed by ADB.

C. ADB Strategies and Programs

15. **Country strategies.** The 2000 country operational strategy (COS) focused on supporting poverty reduction in Bhutan by promoting private sector-led economic growth while supporting government programs for social inclusiveness. Poverty reduction objectives were to be operationalized through ADB interventions, which were to help (i) improve the policy setting for private sector development and enhance the efficiency of financial intermediation, (ii) reduce physical infrastructure constraints, (iii) develop the domestic skills base, (iv) improve the urban environment, and (v) support the sustainable provision of quality social services.

16. In 2001, a country-specific poverty reduction strategy was adopted to guide future ADB operations in Bhutan. After the COS and country assistance program for 2001–2003 were prepared for Bhutan in 2000, ADB instituted a procedure that combined COSs and country assistance programs for each developing member country (DMC) into a country strategy and program (CSP). For Bhutan, CSP updates (CSPUs) were prepared for 2001, 2002, 2003, and 2004. The CSPUs maintained the strategic focus of the 2000 COS, but refocused ADB

⁸ Related government targets include 100% electrification and the provision of road access to all gewog centers by 2013.

⁹ Official development assistance includes multilateral and bilateral financial assistance, including loans and grants, with the exception of Government of India support for power generation projects.

assistance programs on addressing rural poverty in line with objectives of the country-specific poverty reduction strategy.

17. A full CSP was prepared in 2005, covering 2006–2010. The 2005 CSP has two strategic thrusts: (i) assistance for programs and projects in four core areas, i.e., transport, power (including rural electrification and renewable energy), urban infrastructure development, and finance and private sector development; and (ii) capacity development for overall development management and sectors of ADB operation. The 2005 CSP was prepared under a results-based framework, which grouped envisaged development outcome targets under three pillars (i.e., sustainable pro-poor economic growth, inclusive social development, and good governance) and linked them to specific ADB interventions. Recent CSPUs have adapted ADB operations in Bhutan to the decentralized approach taken by the government under its ninth and 10th five-year plans, and required that ADB intensify its dialogue with stakeholders both at national and local levels in setting project priorities and the policy reform agenda. Table A1.1 provides more details on the thrusts of the various country strategy documents.

18. **Country assistance.** During the 2000 and 2005 country strategies, 12 new projects were approved, comprising 12 Asian Development Fund (ADF) loans or grants in the amount of \$195 million, one ordinary capital resources (OCR) loan for \$51 million, three Japan Fund for Poverty Reduction grants for \$3.5 million, with 82% of all financial assistance being approved from 2006 to 2009. The energy sector received the largest share (46%) of ADB financial assistance, followed by transport and ICT (29%), finance and industry (11%), and water and other municipal infrastructure services (10%). Figure A2.1 shows the shift since 2006 in the sector allocation of financial assistance from transport to energy in Bhutan.

19. A similar change in sector allocations was seen in the technical assistance (TA) portfolio as a result of the 2005 CSP (Figure A2.2). The sectors that have received the largest share of TA funds since 2001 are energy (40%), finance and industry (26%) to support the implementation of sector reforms and institutional development, as well as public sector management (16%). It is noteworthy that relative TA allocations for transport and urban infrastructure stayed below relative financial assistance allocations for these sectors. From 2001 to 2009, TA projects totaling \$16.9 million were approved, with \$10.3 million for advisory TA projects and \$6.6 million for project preparatory TA projects. The following paragraphs provide an overview of ADB operations in Bhutan.

20. **Energy.** ADB's assistance program for the energy sector during 2001–2009 can be divided into three parallel, but complementary, thematic areas: (i) support for policy, institutional, and legal reforms to improve the commercial orientation and financial performance of power sector entities through related policy dialogue under loan covenants and a series of TA projects (\$2.8 million); (ii) financial assistance for an expansion of the distribution network to provide access to electricity for rural communities (\$36.4 million); and (iii) financial and advisory assistance for the ongoing construction of the Dagachhu hydropower project under a public–private partnership (PPP) model (\$80 million). In addition, another rural electrification project was completed in that period.

21. **Finance and private sector development.** During 2002–2003, the implementation of the first policy-based loan¹⁰ in support of finance and trade sector reforms and an associated

¹⁰ Details of these loans, grants and TA projects are found in Appendix 2. They are not footnoted when they are referred to in the text.

credit line for small and medium-sized enterprises (SMEs) was completed. Another finance sector development program, comprising a program loan and a TA loan, which is still ongoing, was approved in 2006 to improve the legal, regulatory, and supervisory framework of the finance sector; enhance the corporate governance of financial institutions, particularly the Bank of Bhutan and the Royal Insurance Corporation of Bhutan; establish an anti-money laundering surveillance system; develop reliable financial reporting; and improve credit information. With other sector TA, approved finance sector assistance amounted to \$15.3 million from 2000 to 2009. An equity investment in Bhutan National Bank was divested after 7 years in 2004. SME development has been aided through policy dialogue on the creation of conducive business development and market-based credit and advisory services for small businesses under the ongoing Micro, Small, and Medium-Sized Enterprise Sector Development Program (\$15.0 million). Further, several vocational training projects supported the transition to more market-based training systems and the expansion of vocational training capacity in urban and rural areas (\$10 million).

22. **Transport.** During 2001–2009, ADB approved financial assistance for upgrading national highways (\$12.5 million) and construction of feeder roads (\$14.8 million) under the ongoing Road Network Project, and the construction of the Southern East–West Highway (\$38.8 million) under the ongoing Road Network Project 2. A Japan Fund for Poverty Reduction grant for \$0.5 million was to improve the well-being of road workers. ADB also provided advisory TA to improve road planning and management, road safety, and asset management (\$0.4 million). In addition, the 2000 Road Improvement Project, which financed the resurfacing of the East–West Highway, was completed in 2006.

23. **Urban development.** Construction under the 1998 Urban Infrastructure Improvement Project, which provided mainly transport-related and flood protection infrastructure to two of the major urban centers, Thimphu and Phuentsholing, was completed in 2005. During 2000–2009, the Urban Infrastructure Development Project was approved (\$24.6 million), which will provide water and nonwater infrastructure in these cities, as well as in Dagana, a secondary town. Advisory TA for capacity development in urban infrastructure planning and management and housing sector reform was also approved (\$0.75 million).

24. **Other assistance areas.** ADB had limited operations outside the above four core sectors. The only new financial assistance project during the CAPE review period was for the South Asia Subregional Economic Cooperation Information Highway (\$4.7 million). ADB approved substantial amounts of TA for public sector management, in particular for strengthening statistical capacity, labor market reforms, debt and aid management, and public financial management. In addition, the 2000 Health Care Reform Program (\$10 million) was completed in 2002.

25. **Implementation of the current country strategy and program.** The current strategy has been largely implemented as planned regarding program focus. All new approved financial TA projects were fully in line with its objectives and pillars of broad-based growth through support for hydropower development, road network expansion, finance sector reforms, and micro and SME development; inclusive development through support for urban development; and good governance through support for capacity development (Tables A3.1 and A3.2). Overall, approved financial assistance volumes and actual resource transfers were higher than originally envisaged due to the increased availability of ADF resources and the approval of OCR funding for the Green Power Development Project, although some ADF resources were reallocated from other sectors to the power sector.

26. With regard to implementation performance, only one project was at risk, mainly due to delays in approval of finance sector legislation. Regarding operational effectiveness, indicators under ADB's development effectiveness results framework show that several areas may have difficulties meeting 2012 targets for ADF countries, including the overall disbursement ratio, the proportion of direct value-added cofinancing relative to approved loans and grants, and the proportion of projects with gender mainstreaming (Table A3.4). Only 36% of benchmark indicators in the original CSP results framework have been met. For another 16%, ongoing assistance efforts make attainment likely, albeit with possible delays in some cases. Twenty-seven percent of the original targets will not be achieved. For another 21% of indicators, compliance could not be determined due to insufficient clarity or data availability.

III. EVALUATION OF ADB ASSISTANCE

27. This section presents an assessment of ADB's lending and nonlending program during the CAPE period¹¹ according to the evaluation criteria of strategic positioning, program relevance, effectiveness, efficiency, sustainability, and impact, as outlined in Appendix 4. The analysis draws on more detailed sector assessments undertaken in conjunction with the CAPE, including sector assistance program evaluation findings for energy¹² and assessments for ADB support for transport, urban, finance, and private sector development (Appendixes 5, 6, and 7).

A. Strategic Positioning

28. The strategic positioning criterion assesses alignment of ADB strategies with government strategies; sector and geographic focus; internal coherence of sector operations; harmonization of assistance with other development partners; and the quality of the country partnership strategy results framework.

29. ADB's strategic positioning in Bhutan has been *satisfactory*, with high consistency of country and most sector strategies with country and sector development needs and with government priorities. Sector selectivity was highly satisfactory, and the logical sequencing and continuity of country assistance and coordination of strategies and interventions with other development partners was satisfactory. The only area that was less than satisfactory was the quality of sector and country results frameworks due to shortcomings in the selection of appropriate indicators that properly reflect sector or country outcomes, lack of baseline information, or difficulties in the continued monitoring of the selected indicators (paras. 104–108 for further analysis).

30. **Alignment.** Particularly the 2005 CSP and many associated sector strategies showed a high level of responsiveness to country or sector development needs, which were adequately identified and addressed. ADB's core operational objective in Bhutan of combating rural poverty through infrastructure-led growth has been consistent with the general thrust and themes of the government's development plans. There is a credible relationship between anticipated ADB outcomes and envisaged overall development results, i.e., broad-based economic growth, inclusive social development, and MDG attainment. ADB strategies and programs for the country have been flexible, readily accommodating changes in government strategies, policies, and external assistance priorities arising from differences in timing between ADB country strategies and the five-year plans. An example is the operational shift of assistance efforts

¹¹ The CAPE period covers all ADB operations from 2001–2009, i.e., 9 ADF/OCR-funded projects, 3 Japan Fund for Poverty Reduction grants, and 26 advisory TA projects approved during that period, as well as 5 ADF projects, one equity investment, and 9 advisory TA projects that were ongoing in 2001 and completed thereafter.

¹² ADB. 2010. *Sector Assistance Program Evaluation. Bhutan: Energy Sector*. Manila.

toward rural areas, which corresponded to the government's strategies of balanced regional development under its poverty reduction strategy and the 9th and 10th five-year plans. The provision of economic opportunities and public and social services has been at the heart of both government and ADB strategies.

31. **Sequencing and continuity.** Overall, the sequencing and continuity of ADB operations have been appropriate. There have been some efforts of placing sector assistance in the context of longer-term sector development plans and assistance strategies. In several cases, particularly with regard to roads, adequate analysis of underlying sector issues would have improved the quality of these documents and facilitated better pacing, resourcing, and coordination of investments. In other cases, constraints were properly identified but not addressed in time to affect the performance of investment projects. A number of roads and urban infrastructure investments were made despite unresolved issues in the relevant policy and institutional frameworks, which affected the selection, design, implementation, or maintenance of these investment projects and thus the efficiency and sustainability of ADB assistance.

32. Also, ADB provided credit lines, even when policy measures to improve the enabling environment for small private businesses and institutional reforms of the participating intermediary were not yet in place. The implementation of policy or institutional reforms in parallel with, rather than prior to, the implementation of investment and financial intermediation loans is not the ideal course of action, although financial assistance can provide an opening for related policy dialogue and help focus government attention on required measures. Further, particularly infrastructure investments have long lead times during which complementary institutional reforms can be completed. However, the continuity of ADB operations in the country has increased over time. Particularly in infrastructure sectors, repeat interventions have built upon and expanded the scope of earlier projects. The design of follow-up projects for urban infrastructure and rural electrification has also built on the achievements and experience gained with previous projects.

33. **Selectivity.** Overall, ADB's efforts to focus its operations strategically have been excellent, considering Bhutan's development needs and ADB's resource envelope, corporate priorities, and comparative advantage. The 2000 COS saw ADB engaged in the energy, finance, industry, transport, and municipal infrastructure sectors. With the 2005 CSP, ADB intensified its involvement in these core areas. Their selection for financial assistance has been fully in line with ADB's strategic priorities under its Medium-Term Strategy, 2001–2005 and Strategy 2020. Education and health, additional sectors included under the 2000 COS but not under the 2005 CSP, were in line with ADB's corporate strategies at the time.¹³ The government has continued to emphasize the development of these two sectors and to work with other development partners in these areas. Considering the critical need for infrastructure to support economic growth, ADB's expertise, and its limited resources, the shift away from social sectors under the 2005 CSP was valid. Nevertheless, ADB's current assistance program also includes a Japan Fund for Poverty Reduction grant for rural skills development, an extension of earlier ADB assistance for vocational skills development to rural areas.

34. Sector focus has strengthened. As of 31 December 2009, ADB had ongoing financial assistance in five sectors, with an average of 1.4 projects or 2.4 loans and ADF grants per

¹³ Both ADB. 2008. *Strategy 2020: Long-Term Strategic Framework of the Asian Development Bank, 2001–2015*. Manila; and ADB. 2001. *Medium-Term Strategy, 2001–2005*. Manila promoted the allocation of loan funds to projects with social and environmental objectives.

sector. By comparison, as of 31 December 2001, ADB was providing financial assistance for six projects in six sectors. There is also a comparatively tight focus within sectors, with usually only one or two subsectors per sector receiving support from ADB—the notable exception being assistance for financial sector development, which required a more broad-based approach. ADB has largely abstained from providing TA in sectors where it has no lending program, which has reinforced sector focus. The exception is TA for strengthening public sector management, one of the strategic pillars under the 2005 CSP.

35. Given the size of the country, geographic focus has not been fundamental to ADB's strategic positioning in Bhutan. ADB assistance was provided mainly for programs and projects with national coverage or for key infrastructure projects. Under the 2005 CSP, more emphasis was put on expanding the reach of sector interventions from national highways to rural feeder roads, from large urban centers to secondary towns, and to more remote locations for rural electrification projects. There has also been some attempt to target more areas in the poorer eastern region to help contain growing interregional disparities. The rural electrification projects covered eight *dzongkhags* (districts) with a poverty incidence of more than 23% (the national average) and poor populations in excess of 10,000, with the exception of Zhemgang. ADB-financed road projects covered 14 of 20 dzongkhags, including seven of the eight characterized by an above-average poverty incidence. Only Samtse, in the westernmost part of the country, which has a poverty incidence of 47% and 55,700 poor persons, was not included in the projects. The selection of project interventions and locations was not based on any in-depth analysis of relative poverty reduction effects, but rather responded to the government's desire to strengthen connectivity to some of the more rural areas and to draw them into the mainstream of development.

36. **Aid coordination.** Aid is coordinated through roundtable meetings organized by the Gross National Happiness Commission every other year. The coordination of ADB operations with those of other funding agencies has been effective, as overlap was largely avoided and scarce resources were well leveraged, although in a few cases, more synergies could have been created through joint policy dialogue on common issues such as capacity development and maintenance financing. With exception of the finance sector, where ADB has been the lead development partner of the government, all other sectors in which ADB has been engaged also had other active development partners, although the respective areas of responsibility were generally well allocated by the government. In several cases regarding rural electrification and urban development, where the World Bank is providing support for the development of North Thimphu and ADB for South Thimphu, the approaches of other development partners followed those first adopted by ADB.

B. Program Relevance

37. The relevance criterion assesses the translation of sector strategies into assistance programs, the responsiveness of such programs to sector development needs, the quality of project design, and the quality of design and monitoring frameworks. ADB assistance in Bhutan was *relevant*, meaning that its country and sector strategies were translated into assistance programs or projects in a meaningful manner. There were only few departures from original strategies due to changing government priorities (e.g., for feeder roads) and safeguard issues (e.g., cancellation of planned ADB assistance for an industrial estate in Pasakha and a dry port

in Phuentsholing).¹⁴ Also, areas identified for policy reform and institutional strengthening were not always adequately resourced or followed up. For a few projects, there were design issues, usually when technical or policy solutions were not sufficiently cognizant of, or adapted to, country conditions. Project and program design and monitoring frameworks were of acceptable quality, although their usefulness for monitoring purposes was reduced by a lack of data and/or resources to support continuous data collection and analysis, and the fact that many executing agencies showed little ownership in this area.

38. **Energy.** In the power sector, ADB's lending and nonlending interventions have been *relevant* regarding alignment and response to evolving challenges of the sector and consistency with the energy sector strategies of the 2000 COS and 2005 CSP. Advisory TA grants were designed to address specific objectives of institutional and policy reforms while providing financial support to rural electrification through lending operations. In response to the need for diversifying the sources of financing for the hydropower sector after the completion of the Tala hydropower project, ADB included a lending operation (i.e., the Green Power Development Project) to pilot test PPP transactions in the hydropower sector. While nonlending operations have been designed to address specific institutional weaknesses with a high degree of ownership from government counterparts, the lending operations for rural electrification have been designed incorporating lessons from past projects. ADB also undertook a comprehensive socioeconomic survey during the preparation of the Rural Electrification and Network Expansion Project to enable better targeting of project benefits to poor households for establishing the baseline socioeconomic conditions of project beneficiaries. It incorporated into the project design a mechanism for monitoring the benefits during project implementation. It was also noted that the design and monitoring frameworks for the Sustainable Rural Electrification Project and the Rural Electrification and Network Expansion Project lacked numerical targets with appropriate baseline data, but the quality of the framework for the Green Power Development Project is much better.

39. **Finance and private sector development.** ADB assistance for finance and private sector development has been generally *relevant*, including regarding their alignment with government initiatives. However, while supported policy reforms had buy-in from the respective executing agencies, policy implications were often not well understood and/or underlying principles and objectives were not widely shared by all decision makers. For example, prior to its approval, Royal Monetary Authority (RMA) legislation had been subject to long discussions among political decision makers on government involvement in the management and oversight of RMA. As the success of the Financial Sector Development Program will ultimately depend on greater RMA autonomy, related policy conditionality should have been structured to ensure that tranche releases are contingent on the approval of appropriate RMA legislation. Another example is foreign direct investment regulations, which, in their approved form, have not been actually conducive to foreign direct investment. Further, policy conditionality did not always specify what regulatory or legal changes were asked for from the government and why.

40. Although policy and TA recommendations were in line with best practices, not enough attention was often paid to country and sector conditions. Examples include support for interest rate liberalization, the development of the payments system, the establishment of one-stop agencies for enterprise registration rather than internet-based solutions, and the proposed registry for secured transactions. These would have benefited from more upfront analysis to

¹⁴ The industrial estate component was deferred indefinitely in June 2004 due to concerns that industrial and hazardous waste disposal may create pollution issues in India. At a very final stage of the project preparatory TA, the government also canceled the dry port component due to social safeguard concerns.

identify other underlying issues that ultimately reduced the effectiveness of adopted approaches.

41. **Transport.** In the transport sector, ADB lending and nonlending interventions have been *relevant* regarding alignment with changing government strategies and programs and response to evolving sector challenges. The 2000 COS focused on maintaining existing main roads, while the 2005 CSP focused on expanding the main road network. The other elements of the road strategy were similar, including (i) improving rural accessibility including, among others, through assistance for the construction of feeder roads, (ii) ensuring adequate budget resources to maintain the existing road network, (iii) promoting private sector participation, (iv) building institutional capacity, and (v) supporting regional and subregional links. However, expanding ADB assistance into feeder roads had been rejected in the 2000 COS in view of insufficient resource efficiencies. ADB thus undertook comprehensive socioeconomic surveys to help justify its involvement outside national highways. The design of the Road Network Project benefited from lessons identified in conjunction with the implementation of the Road Improvement Project, in particular through adoption of the more flexible rolling design approach. Although ADB recognized issues with regard to maintenance quality, no adequate measures were put in place to address these issues in subsequent projects. In view of the difficult and unusual terrain for road construction and maintenance, the design of ADB-financed road projects in Bhutan requires adjustment for country conditions. Design and monitoring frameworks were usually well designed, but relevant indicators have not been collected on a regular basis.

42. **Urban development.** Here, ADB assistance has been *relevant* considering the country's rapid urbanization process. After ADB initially focused mainly on transport-related infrastructure under its first assistance project to Bhutan, it is now following an integrated approach, inclusive of water supply and sewerage systems, solid waste management, transport, land development, and capacity building of urban management in line with best practices. This should enhance the effectiveness and sustainability of such assistance and allow for urban development in a coherent, well-coordinated fashion. Considering that the government largely depends on external assistance to finance capital investments and that counterpart capacity for urban planning is limited, ADB's integrated approach is logical and has also been adopted by the World Bank for its assistance in Northern Thimphu. However, more attention could have been paid to facilitating the devolution of urban services to city governments in terms of the timely development of their human and financial resources. Design and monitoring frameworks have usually been well designed, although relevant indicators have not been collected on a regular basis.

43. **Other assistance areas.** ADB operations in other sectors were *relevant*. ADB assistance for computerizing the budget and accounting system of the Ministry of Finance; linking the ministry with spending agencies in each dzongkhag; developing an intergovernmental fiscal transfer framework; strengthening debt management; strengthening the capacity of the Royal Audit Authority for performance, financial, and environmental audits; and strengthening the national statistical system with particular emphasis on national accounts and household surveys has been relevant given the need for and the government's commitment to improving economic and fiscal management. Equally relevant was assistance for conducting environmental impact assessments; policy support for strengthening funding and cost effectiveness of the health system; and support for Bhutan's participation in a regional fiber optic cable network, considering the country's poor infrastructure for international communications. ADB also promoted the adoption of international standard systems for statistical and debt management analysis.

C. Effectiveness

44. The effectiveness criterion assesses the achievement of expected outputs and outcomes. ADB operations in Bhutan were *effective*. Most anticipated outputs were delivered, although in a number of sectors, these did not translate into the full achievement of envisaged development outcomes.

45. **Energy.** The support provided by ADB to the energy sector has been *highly effective* in achieving the desired outcomes. The rural electrification projects (i.e., the Sustainable Rural Electrification Project and the Rural Electrification and Network Expansion Project) have made a significant contribution to the number of households electrified under the eighth and ninth five-year plans, as 67% of 25,000 households electrified during this period were electrified under ADB-financed projects, achieving an electrification rate of 57% by 2009 compared to 24% in 1999. The nonlending interventions supported through TA grants were highly effective in transforming Bhutan's power sector from a government department into a profitable utility, employing state-of-the-art utility management practices and consolidating export-oriented hydropower projects under a single corporate entity in 2008, which is already showing a high degree of professionalism. ADB also played a critical role in attracting private investments to the hydropower sector in the form of PPP transactions and formulating a policy framework for similar projects in the future.

46. **Finance and private sector development.** Overall, ADB assistance in this area has been *partly effective*. Several outputs, mainly pertaining to the approval of effective commercial legislation, were not achieved. Also, outputs have not always translated into meaningful outcomes. For example, despite the progress made in establishing the basic policy, regulatory, and institutional frameworks for market-based financial intermediation; developing banking and related supervision skills; setting up the credit information bureau; speeding up check clearing; and initiating the restructuring of the pension system and the state insurance company to enhance their sustainability, these measures have yet to enhance the commercial orientation and financial sustainability of financial institutions, spark interest rate competition among them, increase noncollateral-based lending, or institute effective oversight by RMA. Further, market development continues to be affected by policy distortions and financial governance issues that are slowly being addressed. However, recently approved RMA legislation indicates wider stakeholder commitment to the reform process. Additional reform measures and capacity development will be needed to ensure the development of sustainable financial intermediation mechanisms.

47. After providing less-than-fully effective credit lines for micro and SME development, ADB started to address underlying policy and institutional constraints affecting the business environment, including bureaucratic constraints and tax issues. Although it is too early to gauge the effects of related policy dialogue, the government has stated its commitment to reduce regulatory impediments to private and small businesses and to provide them with fiscal incentives in its 2010 Economic Development Policy.¹⁵ The policy also promotes changes to facilitate foreign direct investment and to simplify the import licensing regime. Earlier ADB policy dialogue on these issues had been ineffective. One of the impediments to enhanced business competitiveness and growth has been the lack of skilled human resources. However, additional capacity provided for vocational training with ADB financing has not been fully utilized due to the low attractiveness of jobs involving manual labor and difficulties faced by graduates in finding suitable jobs. While much remains to be done to transform the existing system for vocational

¹⁵ Royal Government of Bhutan. 2010. *Economic Development Policy of the Kingdom of Bhutan, 2010*. Thimpu.

and technical education into one with greater market orientation, a number of policy measures supported under ADB assistance have nevertheless provided the basis for further changes.

48. **Transport.** ADB assistance for the sector has been *less effective*. Anticipated outputs were not fully achieved. While 16 km of national highways and 66 km of feeder roads have been constructed so far, and 339 km of national highways have been resurfaced, 39 km of feeder roads and 43 km of resurfacing work had to be dropped due to cost increases and design changes. Improvements have led to travel time reductions of 20% to 50% for the two completed feeder roads under the Road Network Project and about 25% for the Road Improvement Project. However, savings in vehicle operating costs for the Road Improvement Project were not as high as they could have been due to construction and maintenance problems that reduced the quality of the road surface. Although ADB assistance helped improve the quality of road planning and safety standards and enabled the Department of Roads (DOR) to expand its road network, including through the increased use of private contractors, assistance to strengthen DOR maintenance capacity has been less effective. Ongoing TA is likely to be more effective. The Road Network Project is likely to achieve most project outputs and outcomes.

49. **Urban development.** Assistance has been *effective* in achieving envisaged outputs and outcomes. Specific outputs and outcomes under the only completed project included 12.5 km of new and improved roads including two bridges, which helped develop new areas and improve traffic flow benefiting 36,000 residents and 900 daily vehicle crossings; 13 km of drains and 6 km of river training works, which reduced the frequency and severity of flooding in Thimphu benefiting 28,000; 9.4 km of footpaths, reducing travel times and improving safety for 32,000 city dwellers; and 20,000 square meters of parking, improving revenues and smoothing traffic flows. However, capacity-building assistance was only partly effective. Only a few people were trained under the Urban Infrastructure Improvement Project, and none of those were available to participate in the follow-on project, although earlier ADB assistance helped establish basic capacity of the Department of Urban Development and Engineering Services and city corporation staff for urban planning, infrastructure design, and operation and maintenance of water and nonwater infrastructure. ADB assistance did contribute to the development of urban land policies and national housing strategies, which promote a commercialization of the housing sector and an increase in public land released for housing purposes. Policy dialogue on cost recovery for urban infrastructure services has yet to translate into adequate tariff increases.

50. **Other assistance areas.** ADB support for economic management was *effective*. ADB assistance for computerization of the national budget and accounting system and the debt recording and management system improved Ministry of Finance efficiency in preparing the budget as well as its capacity for debt management and planning, including debt sustainability analysis. Government capacity was also developed for undertaking living standard surveys and poverty mapping, which will help with the targeting of development investments. ADB assistance also increased funding for the health sector and improved its cost effectiveness and operational efficiency through the introduction of better targeting of interventions and results-based management.

D. Efficiency

51. The efficiency criterion assesses the efficiency of economic resources use and implementation efficiency. ADB's operations in Bhutan have been *efficient*. Resource efficiencies have been adequate. Nevertheless, the economic use of resources might become an issue for future rural electrification projects and for rural feeder roads, as more analysis is needed to confirm their viability.

52. Implementation has been comparatively efficient, with 80% of ADF projects experiencing closing delays, averaging 13.9 months during 2001–2005, and 75% of projects with average delays of 17.2 months during 2006–2009. Both indicators compared favorably with ADB averages during that period (Table A3.6). Closure of 37% of TA projects was delayed by more than 24 months.

53. **Energy.** Assistance in the sector has been *efficient*. Although the two completed lending operations to the rural electrification subsector (i.e., the Sustainable Rural Electrification Project and Rural Electrification and Network Expansion Project) had implementation periods of 15–22 months, both projects stayed within the original cost estimates, with project outputs in terms of connected households exceeding the appraisal estimates. The economic returns for these projects were also satisfactory according to assessments undertaken in conjunction with the energy sector assistance program evaluation. The economic efficiency of the rural electrification component of the ongoing Green Power Development Project is likely to be lower, as the unit cost of electrification is higher due to low consumer density and more difficult terrain, while the benefits are likely to be lower due to lower electricity consumption in the more remote areas included under the project. The hydropower generation component of this loan is currently under construction without any adverse developments, and it is likely to be efficient. Further, ADB's nonlending operations have been implemented in an efficient manner in Bhutan, without significant cost overruns or time delays, and with a high degree of participation of counterpart funds, enabling the leveraging of TA resources.

54. **Transport.** ADB assistance is *likely efficient* overall. Higher-than-anticipated construction costs, completion delays, less-than-expected reductions in road roughness, slightly lower-than-anticipated traffic flows, and shorter economic lives of investments have reduced the anticipated economic internal rate of return of 32% for the Road Improvement Project, although it should still be above the ADB efficiency threshold of 12%. A World Bank model for low traffic roads was adapted for determining the economic feasibility of feeder roads.¹⁶ While anticipated economic benefits are materializing on completed or nearly completed ADB-financed roads, education and health benefits appear to be less than projected, given the existence of primary schools and primary health care facilities in the project areas. Also, an assumption was made that the population within a 4-hour walk of the feeder roads would benefit from the project, which appears to be too generous given the topography of the country and the availability of alternative roads. In addition, construction costs and times are slightly higher than at appraisal, which should reduce returns and were estimated at appraisal at 12.6–17.6% for the feeder roads and at 17.4% for the national highway.

55. The Road Improvement Project and the TA for Road Planning and Management Strengthening were closed more than 13 months and 15 months, respectively, beyond their original closing dates, while the Road Network Project has been delayed by 9 months. The main reasons cited for the delays were (i) alignment and design change, (ii) consultant recruitment delays, and (iii) slow government land acquisition processes. The Road Network Project is experiencing delays, which are also due to problems with a contractor on one of the road sections.

56. **Urban development.** ADB assistance has been *efficient* overall. Resource efficiency is satisfactory. Although economic rates of return of the completed road and drainage works under the Urban Infrastructure Improvement Project averaged 24% (67% of appraisal estimates), the

¹⁶ The model was developed for rural roads with low traffic volumes and seeks to capture socioeconomic benefits associated with such roads.

project completion report rated the training component *less efficient*, due to low participation rates and the diversion of training funds for nonproject-related uses. The overall economic return for the ongoing project is projected to be 21%. Further, loan closing for the completed project was delayed by 14 months due to land acquisition and contractor performance issues. The ongoing project is about 2 years behind schedule due to land pooling issues, delays in obtaining transfer of land from the forestry reserve for the new water supply, and technical design issues. While the Urban Infrastructure Improvement Project was completed within the original cost estimates, the ongoing Urban Infrastructure Development Project is significantly exceeding cost original estimates mainly due to implementation delays.

57. **Finance and private sector development.** ADB support has been *less efficient* overall, although improving. There appears to be an acceptable relationship between resources allocated by ADB for various projects and project outcomes, possibly with exception of the payment system TA¹⁷ and the Basic Skills Development Project.¹⁸ The economic viability of subprojects financed under financial intermediation loans channeled through the Bhutan Development Finance Corporation was not assessed. In terms of implementation efficiency, while the Micro, Small and Medium-Sized Enterprise Sector Development Program is slightly behind schedule, the second tranche release for the ongoing Financial Sector Development Program has been delayed by 2 years, although the final tranche release is expected to be only 1 year behind schedule. Release of the second tranche of the Financial Sector Intermediation Facility program loan component was delayed by 3 years because of the time taken to comply with foreign direct investment-related conditionality, and the Basic Skills Development Project was delayed for more than 17 months due to land acquisition and contractor performance issues. Most TA projects were closed within reasonable time frames, with exception of the payments system TA.

58. **Other assistance areas.** Assistance for public sector management has been *less efficient*, mainly due to several outputs under initial TA for strengthening the national statistical system; debt management capacity not yielding meaningful results, which had to be rectified through follow-up TA; and implementation delays for the regional Information Highway Project that were outside the project's control.

E. Sustainability

59. The sustainability criterion assesses the likelihood of continued political commitment, availability of financial resources, and institutional capacity to sustain assistance outputs and outcomes. Overall, ADB assistance in Bhutan is *less likely sustainable* overall. However, except for the power sector, the continuity of project outputs and outcomes in the infrastructure sectors has been affected by insufficient maintenance due to lack of financial resources or poor organizational capacity.

60. **Energy.** ADB assistance in the energy sector is *likely sustainable*. The power sector entities set up with ADB assistance, which are responsible for operating the power transmission and distribution network, operating the hydropower plants, and for sector policy making, have

¹⁷ The truncated check system, which was introduced at an expense of \$605,000, reduced processing times by up to 1 week for about 11 checks per day that are cleared outside of Thimphu and Phuentsholing and by about 1–2 days for about 220 checks per day that are cleared within or between Thimphu and Phuentsholing.

¹⁸ No economic internal rate of return was calculated for the project, either at appraisal or during preparation of the project completion report. However, given the low utilization rates vocational training institute capacity, economic resource efficiencies might be an issue despite the project's success in lowering the institutes' recurring costs per student.

demonstrated a high degree of institutional competence as evident from their improved performance. These entities continue to invest in improving their managerial efficiencies to meet the challenges associated with managing the expanding power sector in Bhutan and maintaining generation and distribution facilities. Improvements in the operational efficiency of the sector also indicate adequate maintenance regimes.

61. However, the financial sustainability of the domestic power supply, including the rural electrification projects, depend on the continued availability of domestic electricity—in the form of royalty energy—at a deep discount. The consumption by residential consumers, charged at the lifeline tariff, is likely to increase with the connection of more rural households under the ongoing projects. Hence, the government must continue the present policy of providing royalty energy to Bhutan Power Corporation at a discount or direct subsidies to the power sector by diverting part of the hydropower export earnings to Bhutan Power Corporation to maintain the financial sustainability of the projects.

62. **Transport.** ADB operations in this sector are *less likely sustainable*. Regarding roads, inadequate construction quality has increased the need for enhanced maintenance and more frequent resurfacing. Constructed roads are often not maintained or repaired on a timely basis, requiring costly reconstruction once they become impassable. While expansion of the national road network to increase socioeconomic development is a high priority, maintenance of the existing road infrastructure should be equally important. For example, although ADB assistance helped resurface the East–West Highway in 1997 and 2005, the current bituminous surface at almost all road sections has deteriorated, requiring urgent maintenance. However, the current budget allocation under the 10th Five-Year Plan makes the resurfacing of deteriorated sections unlikely.

63. There are also other capacity issues. Related ADB assistance has so far failed to produce a functioning road asset and maintenance management system due to inappropriate advice and lack of adequate TA resources. Promising ongoing TA is assisting DOR in piloting performance-based maintenance systems for selected sections of the national highways system. Maintenance of feeder roads will pose even larger problems. No special provisions were made under the ongoing Road Network Project in this regard, despite the majority of existing government-funded feeder roads in poor condition due to neglect.

64. **Urban development.** Here, ADB operations are *less likely sustainable*. The Independent Evaluation Mission's review of several works completed under urban infrastructure projects found them to be in good condition, although potholes in small sections of some roads are becoming apparent. To date, DOR has been maintaining the roads and drains in Thimphu, although the transfer of this responsibility to Thimphu City Corporation is in progress. Such transfer has already occurred in Phuentsholing, and there are some questions as to whether the funds and equipment transferred from DOR to Phuentsholing City Corporation, along with the devolution, are sufficient to carry out proper maintenance. Once water treatment, distribution, and solid waste management facilities are completed under the ongoing ADB-financed infrastructure project, operation and maintenance needs and associated budget requirements will substantially increase. However, city corporations have a limited funding base and utility tariffs are not cost-reflective (i.e., do not cover any capital costs and not all of the operation and maintenance costs) and would need to be substantially increased to reflect operating costs for wastewater and solid waste treatment. The only component under the first urban development project with positive financial returns of 24.3% and 18.7%, respectively, was the construction of parking lots in Thimphu City Corporation and Phuentsholing City Corporation. The Thimphu City

Corporation tendered the operation to a private operator, and related revenues are a good source of profit.

65. **Other assistance areas.** Policy-based assistance that was effective is also *likely sustainable*. Finance sector- or health sector-related policy reforms have not been reversed by the government. However, the sustainability of ADB support for strengthening financial institutions in Bhutan depends partly on their financial sustainability, which is facing substantial risks.¹⁹ Measures to strengthen banking competition and supervision supported under the Financial Sector Development Program, if fully implemented and enforced, will be instrumental in containing such risks. Despite efforts to strengthen its deposit mobilization and credit and risk management systems, it is difficult for Bhutan Development Finance Corporation to be financially sustainable under current conditions, given its development mandate. Cost recovery mechanisms for vocational training institute services, which were to be introduced under an ADB project to enhance the financial sustainability of the training institutes, have yet to be introduced, given the current low uptake of courses. Also, the lack of spare parts and training materials has been affecting training delivery.

F. Impact

66. The following section analyzes ADB contributions to short- and long-term sector impact, and cross-sector development results (i.e., economic growth and social development, including MDGs). The overall rating for the impact of ADB assistance in Bhutan is *modest to substantial*, which reflects the ongoing nature of bigger projects with potentially more significant impact, and the fact that more could have been done to maximize cross-sector impact through better coordination of sector assistance. More details are contained in the sector-based results frameworks for ADB assistance prepared by the Independent Evaluation Department (IED) in Appendix 8.

1. Sector-Specific Impact

67. **Energy.** The impact of ADB energy sector operations in Bhutan has been *substantial*. ADB assistance for institutional reforms contributed to the high degree of competence demonstrated by power sector entities in acting as effective counterparties in the development of Bhutan's hydropower resources; operating the existing hydropower plants in an efficient, sustainable manner; and managing the domestic power distribution and transmission network while expanding access to electricity. ADB assistance has, therefore, enabled Bhutan's power sector to become the main driver of economic growth during the CAPE period.

68. After the spike in growth in FY2007 and FY2008, fuelled by the commissioning of the Tala hydropower station, the rate of economic expansion decelerated in FY2009 to an estimated 5.7%, reflecting the high base effect and constant electricity production. In the construction phase, the hydropower projects have boosted growth via the construction and services sector; once working, they contribute through power generation. Although ADB has been financing only one smaller hydropower project directly, it is expected that some of the planned generation projects will be developed under the PPP model devised with ADB assistance for the Dagachhu Hydropower Project, a joint venture between Druk Green Power

¹⁹ First, financial institutions are frequently noncompliant with RMA prudential regulations, and enforcement is weak. Second, nonperforming loan rates, while not at the extraordinary levels reached in the mid-1990s, are still unsustainably high and volatile, and provisioning for losses is low. Third, credit to the private sector has been growing at the very high rate of 30% per year. Lastly, the banks' portfolios tend to be highly concentrated by sector and by firm.

Corporation of Bhutan and the Tata Power Company in India. Revenues from electricity exports increased from Nu3,606 million in 2005 to Nu11,033 million in 2008, and are expected to reach Nu12,750 million in 2014.

69. Rural electrification projects improved living conditions, including better health and education outcomes for rural communities. Results of the IED impact evaluation of ADB's second and third rural electrification projects indicate a significant impact on the incidence of respiratory diseases and increases in educational study time.²⁰ Impact evaluation findings also suggest economic benefits associated with the productive use of electricity for income-generation activities, particularly nonfarm activities. Income levels, compared to nonelectrified areas, have increased, albeit more for better-off beneficiaries than for the poor, although the exact transmission mechanism could not be established due to the availability of data. In addition, there have been environmental benefits as a result of reductions in fuelwood consumption, which has led to a reduction in the share of population using solid fuels. Nevertheless, environmental benefits have stayed below expectations, as about 20% of electrified households continue to use fuelwood as the main energy source for cooking and use electricity mainly for lighting purposes. While an expansion of rural electrification coverage generally increased total rural electricity consumption levels, household consumption in the project areas has been significantly lower than the average rural consumption level, reflecting that more remote villages in poorer regions are being electrified, compared to the first rural electrification project.

70. **Finance and private sector development.** ADB assistance has had a *modest* impact on development so far. The government continues to play a dominant role in most subsectors. Changing this will require an adjustment in mindset—historically, the country has not had an entrepreneurial culture, and the public sector, including its employment opportunities, has had much higher status. More competition is needed, including through foreign direct investment, divestment of direct and indirect state ownership in some subsectors, and further improvements in the overall business environment. Pertinent policy measures have been initiated with ADB support, but will take time and further support to come to fruition.

71. SME growth has been substantial in terms of number of newly registered companies, which has also been the result of simplified formalization requirements. However, their contribution to growth and employment remains comparatively small. Youth unemployment has been increasing, despite demand for more skilled and semi-skilled labor, which is instead being imported from India.

72. ADB-supported finance sector reforms have improved basic banking and banking supervision skills, although more efforts will be needed to improve resources and processes in line with best practices. Despite recent credit growth, the level of financial intermediation in Bhutan remains low by international standards, with the levels of financial depth and deposit mobilization as shares of GDP actually decreasing compared to 2000. The capital market also remains underdeveloped and illiquid.

73. **Transport.** The impact of ADB-financed road projects has been *modest to substantial* taking into consideration the modest impact of ADB assistance on sector development so far and the likely substantial socioeconomic impact of ongoing assistance. Resurfacing of the East–West Highway under the Road Improvement Project and earlier ADB assistance during the

²⁰ ADB. 2010. Impact Evaluation Study: How Does Electrification Influence Quality of Rural Life? Evidence from Impact Evaluation of Asian Development Bank's Assistance for Rural Electrification in Bhutan (draft). Manila.

1990s, as well as parallel government efforts to realign and widen road sections, made intraregional travel more comfortable and faster (by up to 4 hours from Thimphu to Trashigang), albeit for a limited period of only 5–7 years. For villages located along the eastern sections of the highway, travel time savings varied from 5 to 30 minutes for going to the dzongkhag headquarters, the next post office, market, hospital, and high school, and the average number of trips to these destinations increased slightly over the years, reflecting, at least in part, improved physical access to these facilities. For villages located in the central region, travel time savings were less pronounced. Nevertheless, traffic flows exceeded forecasts in the more prosperous central region (i.e., between Thimphu and Lobesa), whereas traffic volumes in the poorer eastern sections of the East–West Highway fell short of expectations.

74. Increases in income levels were substantial for surveyed households living along the highway in the central region, but not in the eastern region, reflecting general development levels and trends in these regions. Overall, average income levels of the survey population increased in real terms by 4% per year, mainly as a result of rising price and production levels for agricultural products. The fact that traffic flows and income increased more in the better-off regions closer to Thimphu, where travel time savings through road resurfacing had actually been lower, could be due to the comparatively small impact of road resurfacing projects on income levels, as well as the relative importance of other factors in determining development impact. The realization of additional economic benefits, particularly for the poor, will depend on the implementation of complementary efforts to develop the economic base of this eastern region. Nevertheless, taking into consideration that without timely resurfacing the country's main artery, which indirectly affects the lives of 60,000 people, might not now be in a passable condition, ADB assistance for maintaining this road is well justified. Construction of the Southern East–West Highway under the 2009 Road Network Project II will likely have a more substantial impact on economic growth and connectivity, as it will facilitate industrial development of the southern economic hubs and special economic zones, and improve cross-border transport and trade between Bhutan and India.

75. Feeder roads, financed by ADB, will have a direct impact on the lives of 3,000 persons, who prior to the new roads had to walk an additional 40–55 minutes to reach the next motorable road. The roads are at various stages of completion, with one road completed in 2009, and another one nearing completion, with sections already opened for the transport of agricultural products. Surveyed households in the vicinity of these new roads felt that the roads helped them sell their products at a higher price, either by cutting out the need for middlemen or by obtaining better prices from middlemen due to reduced transport costs. The transport of goods by road has also allowed producers to take advantage of higher prices in markets further away. In addition, there has been an increase in the number of shops along the roads and other nonfarm activities, such as transport services. Income levels are already starting to increase mainly as a result of higher agricultural prices, particularly for the Tekizam–Bjena feeder road, which is located in a region with higher agricultural productivity.

76. Most households own land, which has doubled or tripled in value along the new roads. As land is usually used as collateral, access to credit will likely improve. Interviewed households also found that, despite price increases, prices for food and consumer goods were fairer than before.²¹ In addition, fertilizer prices actually declined. However, as most villages in the project areas already had primary schools and health care units within a 30-minute walking distance, the actual impact on social indicators is likely to be less pronounced than originally presented,

²¹ Product prices vary considerably across Bhutan, which is not fully explained by differences in transport costs, but is also the result of lack of access to market information and other factors.

although the level of services could improve in the future as a result of better road connections. Nevertheless, most of survey respondents felt that water supply and sanitation (i.e., through improved procurement and transport of spare parts), as well as access to health care (particularly transport to hospitals in case of an emergency) and secondary schools, were improved by the feeder roads, which should facilitate the attainment of related MDG targets. Other perceived benefits included being able to see family members working or studying outside the village more often, and increased interactions with government officials, who found it easier to travel to their village. On the negative side, some households lost part of their wetlands to construction without, in their view, being properly compensated; irrigation channels were damaged or clogged through the construction work; and landslides were experienced in some places, with boulders falling onto fields.

77. Urban development. The impact rating is *modest to substantial* taking into consideration that ADB assistance has already had a beneficial impact, albeit at a small scale, given its limited involvement, and the prospects for more impact under the ongoing assistance. Provision of much-needed investments in urban infrastructure in Thimphu and Phuentsholing has improved the quality of life and environment of the more than 130,000 residents. ADB urban projects have increased pedestrian access, enhanced traffic flow, lowered driving times, reduced flooding, and improved parking in both cities. The construction of roads in Thimphu opened up new areas for residential and commercial development and helped the city cope with tripled traffic volume over the last decade. The ongoing Urban Infrastructure Development Project is expected to develop four more areas in Thimphu and Phuentsholing, benefiting about 63,000 persons; increase the proportion of urban population with access to sustainable water sources and improved sanitation by 61% and 67%, respectively; and increase the share of solid waste collected, disposed, recycled, and composted in Thimphu and Phuentsholing by 20%. All of these efforts will not only help absorb the increasing influx of additional migrants from rural areas in an orderly fashion, but also support urban-based economic activities, as well as tourism, a major revenue source for the country. New technologies and approaches to urban development in Bhutan applied under the ADB-financed projects will also be beneficial for the development of secondary towns in the future.

78. Other assistance areas. ADB support for economic and public sector management has enhanced government capacity for budget, debt, environmental, and health sector management, and statistical analysis. Given the small scale of ADB's involvement, overall impact is *modest to substantial*. Until recently, the fiscal position was managed by financing current expenditures almost entirely from domestic revenues, and adjusting capital expenditures in line with available external development assistance. However, the political transition to democracy and the devolution process have been creating spending pressures and increased public demand for infrastructure investments. Although domestic revenues, mainly from taxes and electricity sales, have grown as a result of improved fiscal management, a fiscal deficit above 4.5% is projected for FY2010 due to increased spending after budgetary surpluses during FY2007 and FY2008. Ongoing ADB assistance is likely to improve the budget planning process. Debt sustainability has improved, partly as a result of ADB support for underlying analysis. After increasing rapidly after 2000 and peaking at 82% of GDP during 2004, the ratio of total external debt to GDP declined to 55% at the end of FY2009. While the ratio is still high and expected to increase during the 10th Five-Year Plan—driven largely by borrowing for hydropower development—most of this debt is owed to India and serviced automatically by hydropower receipts. Also, external debt service as share of exports of goods and services was mostly below 10% during 2000–2007. See Table A9.2 for country economic indicators.

2. Cross-Sector Impact

79. **Contributions to broad-based growth.** Most ADB projects in Bhutan were classified as supporting economic growth. Bhutan's economy grew at an average rate of 8.9% per year during 2000–2008. Per capita GDP increased from \$752 in 2000 to \$1,978 in 2008. The top three drivers of economic growth were electricity exports, financial services, and manufacturing.²² By 2008, the contribution of the secondary sector rose to 39% of GDP, and that of the services sector to about 40% of GDP, whereas the primary sector (mostly agriculture) declined to 21%. Hydropower generation is now accounting for about 20% of GDP, 50% of gross exports, and 43% of domestic revenues. ADB support for capacity development in the power and finance sectors, as well as earlier ADB equity investment in Bhutan National Bank, likely facilitated some of this growth. ADB net resource transfers financed about 5% of Bhutan's average annual investment expenditures of about \$180 million during 2000–2009. Of the \$111 million funds disbursed under ADB projects in Bhutan during 2000–2009, 17% were provided as budgetary support under program loans, 80% under investment loans, and 3% under financial intermediation loans. ADB financed about \$42 million of local currency expenditures. The impact of ADB support on economic growth was most pronounced over the last couple of years, when most of the ADB funds were disbursed. Increased financial assistance levels and the nature of some of this assistance (e.g., the Dagachhu Hydropower Project and the construction of new roads, in particular the new Southern East–West Highway) will increase ADB's direct contributions to economic growth in the future through improved export revenues.

80. Overall economic growth has likely contributed to the reduction in poverty levels from 36.3% of total population in 2000 to 23.2% in 2007, although the exact transmission mechanisms need further study. Nevertheless, poverty levels continue to be high in many rural areas. In 2007, 98% of the poor in Bhutan lived in rural areas, and the incidence of rural poverty was about 31.0% as compared to only 1.7% in urban areas.²³ Disparities in income levels overall have been widening, as evidenced by an increase in the Gini index from 41.6 in 2004 to 46.9 in 2007. In 2008, the country ranked 132 on the Human Poverty Index, which was, nevertheless, ahead of most other South Asian DMCs, including India.

81. The impact of ADB assistance on poverty reduction in general, and rural poverty in particular, is difficult to quantify. However, as pointed out above, initial socioeconomic impact assessments for ADB rural electrification and road projects indicate a positive impact on income poverty, although the projects seem to generate larger income benefits for the less poor. ADB's increasing investments in rural infrastructure can thus be expected to contribute to the reduction of rural poverty, particularly if complementary measures to improve agricultural productivity and to develop nonfarming activities are put in place. Financial intermediation loans, which sought to facilitate micro and SME access to credit, helped finance more than 1,500 mostly new businesses of predominately first-time borrowers, although their contributions to economic growth or poverty reduction were not quantified.

82. **Contributions to inclusive social development.** In terms of the nonincome MDGs, Bhutan has made excellent progress and is on track to meet most targets, particular for health and education, with the aim of achieving the universal primary education MDG before 2015 (see Table A9.1 for country poverty and social indicators). Only ADB's two urban development projects were classified as having primarily social development objectives, although the health

²² The power sector accounted for 33% of real GDP growth, with an average real growth rate of 20%; financial services for 14% of real GDP growth, with an average real growth rate of 23%; and manufacturing for 10% of real GDP growth, with an average real growth rate of 11% from 2000 to 2008.

²³ The headcount poverty rate in 2003 was 38.0% in rural areas and 4.2% in urban areas.

and rural connectivity projects also facilitate the attainment of nonincome MDGs. Through its support for increased reproductive health services and expanded primary health care, the Health Care Reform Program contributed to a decline in fertility and infant mortality rates.²⁴

G. ADB Performance

83. ADB's overall performance was *satisfactory*. It managed its relationship with the government and with other stakeholders well; provided adequate levels of resources in line with development needs; proactively managed its loan portfolio; and provided value addition, particularly with regard to assistance for project design and implementation. However, ADB's role in aid coordination and project monitoring could be improved.

84. **Relationship management.** Overall, ADB's relationship management in Bhutan has been excellent. The only major issue is related to ADB safeguard policies as applied under the land-pooling scheme for the Urban Infrastructure Improvement Project (para. 87). The government has appreciated ADB's understanding of and support for emerging government development priorities. As requested, ADB has increased its support for rural connectivity projects in line with 10th Five-Year Plan objectives. ADB also responded to government requests for rehabilitation of damaged infrastructure assets soon after an earthquake struck Bhutan in 2009. The government felt a high degree of ownership of ADB-financed projects, indicating that stakeholders perceived these to be driven by the government's rather than ADB's agenda, and there were sufficient inputs from executing agencies into project design.

85. Recently, ADB has emphasized consulting with a variety of nongovernment stakeholders during project preparation and involving civil society organizations in the implementation of ADB-financed projects, although the scope for doing so is limited as only a few organizations exist and their experience is limited.²⁵ The only project that has used a local nongovernment organization was the Japan Fund for Poverty Reduction grant for rural electrician training to support off-grid energy connections. However, the project was not successful due to design flaws, lack of related expertise of the nongovernment organization, and lack of support from the relevant government entities. The need for proactive stakeholder consultation and information campaigns will likely increase in the future considering political changes and the changing nature of project activities, which require adequate community and stakeholder consultation during the project design stage to ensure full ownership and to facilitate politically difficult reforms.

86. In the 2009 ADB's Department of External Relations (DER) perception survey (Appendix 10), survey respondents described ADB as reliable, trustworthy, and competent, but also as bureaucratic. In a separate IED survey of government officials (Appendix 10), respondents identified ADB's key strengths as (i) the continuity of its assistance in key sectors, (ii) its good understanding of Bhutan, and (iii) its responsiveness to country development needs. The only key weakness identified was ADB's cumbersome procedures and stringent requirements for safeguards and procurement. This applies particularly to projects with resettlement and land acquisition issues because (i) ADB safeguard requirements, including compensation levels, can exceed those stipulated by national laws and practices; (ii) information needed for compliance is too detailed and time-consuming to obtain, and increases the cost of doing business; and (iii)

²⁴ The infant mortality rate declined from 68 per 1,000 live births in 2000 to 56 in 2007, while the fertility rate decreased from 68 per 1,000 live births to 56.

²⁵ The Bhutan Civil Society Organizations Act, which provides the legal basis for the formation of nongovernment organizations, was enacted in 2007.

safeguards are not customized to take into account country conditions, capacities, and the size and nature of projects or subprojects.

87. While ADB safeguard policies were generally considered to be useful in minimizing social and environmental project impacts and to permit projects to better safeguard environmental and social risks than government-funded projects, many survey respondents felt that conflicts between national laws and ADB requirements were not always resolved in mutual consultation and understanding. For example, ADB's requirement for 100% agreement of owners for land pooling under an ongoing project is considered onerous by the government and Thimpu City Corporation. While such concurrence was achieved for the pilot area in Thimphu, this was only possible through extraordinary intervention by the government.²⁶ The inability to reach 100% consensus in the remaining areas has led to extensive delays and complaints from landowners. At the time of the loan negotiations, the government had not yet issued an official policy on land pooling, but since then, a policy was approved that requires consent of only two thirds of affected parties to proceed. The government has requested ADB to accept this; thus, ADB and the government are working on a revised resettlement framework, which considers a two-thirds majority of consenting owners to be sufficient to proceed. Nonconsenting landowners would be paid for their land based on the Property Assessment and Valuation Agency land prices.

88. However, with exception of the land-pooling issue and cross-border compensation issues for a proposed dry port project,²⁷ only very minor problems related to the application of ADB safeguard policies were encountered during the CAPE period. With regard to ADB Procurement Guidelines (2007, as amended from time to time), some executing agencies felt that the guidelines did not help reduce costs nor improve the quality of procurement, and their application in Bhutan should take into consideration the limited number of qualified domestic contractors. Likewise, many surveyed executing agencies stated that ADB Guidelines on the Use of Consultants (2007, as amended from time to time) did not facilitate competitive pricing, but caused project implementation delays, which were considered to outweigh any potential benefits associated with their use. However, problems stemming from differences in national and ADB procurement policies have been largely rectified through a revision of national procurement guidelines that are generally based on best practices. The country has also taken important steps to deal with corruption and fraud issues, and the Royal Audit Authority uncovered alleged fraud by contactors under the Basic Skills Development Project.²⁸

89. **Resources.** In recognition of good governance, the high degree of effectiveness in aid utilization, and the growing investment needs under the Ninth Five-Year plan, a substantial increase in ADF funding from an annual average of \$8.7 million during 2001–2005 to \$32 million during 2006–2008 was programmed under the 2005 CSP. During the 2007 alignment of the

²⁶ The project management unit requested assistance from local representatives to lead consultants and thoroughly explain the land-pooling concept through official and peer pressure. Other interventions included extensive consultations led by Thimpu City Corporation and the use of media (Thimpu City Corporation website, newspapers, television) for information dissemination.

²⁷ Government policies would have only compensated landowners for the loss of their assets, but not other affected people (there were some tenants and shopkeepers on the dry port site). Livelihood restoration would have not been allowed. Also, national policies would not have compensated migrant wage workers and Indian vendors on the other side of the border, which ADB deemed affected persons.

²⁸ The country is considered as one of the least corrupt in the region. The government established the Anticorruption Commission in 2006 and approved the National Anticorruption Strategy in 2009, which seeks to improve public procurement, among other goals. There had been allegations of bribery and collusion in connection with public tenders and procurement; however, new procurement rules and regulations that are largely based on best practices were passed in 2009.

ADF and International Development Association grant frameworks, Bhutan became eligible for 100% grant financing due to its high-risk debt distress classification. Reflecting its good performance in the top 5% of eligible DMCs, Bhutan's ADF grant allocation has amounted to \$18.8 million per year during 2007–2010. Further, on an exceptional basis, OCR lending was approved for the high revenue earning Green Power Development Project, which generates net foreign exchange earnings above the foreign debt service requirement, albeit in nonconvertible currency. Of the \$111 million of ADB financing provided from 2000 to 2009, 90% of this assistance was in the form of ADF loans and 10% in the form of ADF grants. Going forward, currently estimated indicative allocations average \$29.0 million of ADF funds per year over the next 3 years, although debt service payments to ADB will increase to \$6.2 million per year over that period (Figure A3.1).

90. The proportion of direct value-added cofinancing relative to ADB loans and grants decreased from 27% during 2001–2005 to 17% during 2006–2009, which was below ADB averages of 29% for that period. Only two projects received cofinancing: the Green Power Development Project for which the Austrian Export Credit Agency (OeKB) provided \$55.5 million of debt financing, and the Basic Skills Development Project, for which the Government of Germany provided \$2.5 million to develop curriculum and vocational qualifications. However, delays and internal government coordination problems affected the implementation of the ADB-financed project components. The scope for cofinancing in other sectors has been limited, either because development partners wanted to play an active role themselves, have different sector priorities, or are reducing their funding for the country.

91. Comparatively low levels of staff resources were allocated to operations in Bhutan, which has been in line with low lending volumes per project. Despite lower staff–project ratios for Bhutan compared with other DMCs, loan processing missions were generally adequately staffed. However, staff involved in Bhutan operations also worked on other DMCs in South Asia, and often only spent a few days in Bhutan en route to other DMCs. Less time is spent on project administration missions to Bhutan (17.8 days per project compared to 26.5 days ADB-wide), although comparatively good project implementation performance has reduced the need for close supervision. With regard to staff quality, although the vast majority of processing missions were led by comparatively junior (i.e., level 4 or 5) staff members, the government generally appreciated the expertise and contributions of ADB staff. However, as in other DMCs, ADB tended to rely more on consultants than in-house expertise for detailed design and policy dialogue, which is appropriate provided that ADB staff has the necessary skills to supervise and manage the consultant effectively.

92. In some project preparatory TA, design issues were not identified by ADB. With the exception of these TA projects, the government was generally satisfied with the quality of consultants, although IED found a number of TA consultant reports to be lacking in quality. The management of TA consultants by ADB, rather than the relevant government agency, is an issue, as a number of government representatives feel that consultants are often paid regardless of whether expected services have been delivered to their satisfaction. Executing agencies would like to have a stronger role in the formulation of detailed terms of reference and the selection of consultants.

93. Cooperation among the various divisions within the South Asia Department with regard to Bhutan operations seems to have been working reasonably well. However, there is scope for further improving synergies between ADB interventions across different sectors, particularly with regard to assistance regarding the involvement of private sector entities in the financing, construction, and maintenance of infrastructure investments; the creation of a conducive

investment climate; rural development; and public sector management reforms and decentralization.

94. **Portfolio management.** With a rapid increase in financial assistance approvals after 2004, some portfolio indicators for Bhutan worsened, but still compared favorably with ADB averages. The share of loans with start-up delays increased from 33% (compared to a 60% ADB average) during 2001–2005 to 40% (compared to a 45% ADB average) of all loans during 2006–2009, with average start-up periods increasing from 4.4 to 5.7 months, which is closer to the ADB average of 6.3 months (Table A3.5).²⁹ Closing delays have also increased from 13.9 months on average during 2001–2005 to 17.2 months during the current CSP period, but are still below ADB averages (Table A3.6). An analysis of past implementation delays revealed three major causes: (i) changes in design or project scope (affecting 36% of ADB projects in Bhutan), (ii) poor performance of contractors or suppliers (affecting 36% of ADB projects),³⁰ and (iii) land acquisition issues (affecting 29% of ADB projects). Delays in procurement, obtaining environmental clearances or the implementation of policy measures also affected several ADB projects in the country.

95. Prior to 2002, disbursement ratios³¹ for loans to Bhutan were lower than ADB-wide disbursement figures (Figure A3.2). After significant improvements during 2002–2005, disbursement ratios again fell below ADB averages from 2006 onwards. This downward trend was caused partly by rapid increases in project loan approval volumes in 2003, 2006, and 2008. In 2009, the disbursement ratio increased to 23%, a level that was slightly below the ADB average for ADF loans. Contract awards and the contract commitment ratio substantially increased from \$7.3 million and 24.5% in 2001 to \$46 million and 72.0% in 2009. The 2009 contract awards ratio for Bhutan loans compared with an ADB-wide ratio of 38% (Figure A3.3). There was only one project at risk in 2009 due to difficulties in meeting tranche release conditions, representing 17% of all active ADB loans for the country (Table A3.3). ADB undertook country portfolio reviews with the government in 2005, 2006, 2007, and 2009, which agreed on specific actions to address identified portfolio issues.

96. **Aid coordination.** Other donors rated ADB's ability to work with partners as average. While ADB cooperated well with the Austria Development Cooperation and the Japan International Cooperation Agency, particularly with regard to power sector assistance, most bilateral agencies interviewed by ADB were unfamiliar with ADB activities and had limited interaction with ADB staff. For example, no joint CSP or country portfolio review missions were conducted with other development partners. In fact, the midterm review for the current CSP was delegated to a staff consultant. Apart from the formal roundtable meeting organized by the government every two years, informal coordination and information exchange mechanisms among development partners operating in Bhutan prevail, with the United Nations Development Programme arranging luncheons on topics of common interest drawing on visiting experts. ADB has not been a participant in those meetings. All interviewed development partners would welcome the establishment of a country office by ADB to facilitate information exchange and donor coordination. The government also felt that ADB should play a more proactive role in coordinating its assistance with that of other development partners.

²⁹ Start-up period covers the number of months taken from loan signing to effectivity.

³⁰ Problems with contractors and suppliers included (i) insufficient technical and management skills; and (ii) limited financial capacity and cash flow problems, which affected their ability to lease equipment or make timely payments to suppliers and subcontractors.

³¹ The disbursement ratio is the ratio of total disbursements in a given year over the net loan amount available at the beginning of the year plus the amount of newly approved loans that became effective during the year.

97. **Value addition.** In the 2009 DER perception survey, ADB's impact on the overall development of Bhutan was rated similarly to that of other development partners. Its staff understanding of the country situation, timely handling of projects, and financial resource capacity were rated highly, while only 40% of survey respondents rated its technical skills and abilities as excellent or good. Less than half of survey respondent rated ADB performance with regard to promoting gender equality, building partnerships with stakeholders, and promoting knowledge sharing and best practices to solve development problems as good or excellent. In the IED perception survey of government counterparts, respondents thought that ADB mainly added value by contributing needed financing at attractive terms, supporting policy reforms, and fostering participation and ownership of beneficiaries. Respondents felt that financial, SME, urban, and labor reforms would not have happened without ADB support. Surveyed government officials opined that ADB experience, support for project design and preparation, transparent procurement processes, and support for project implementation delivered the greatest benefits for their organizations. Given the size of the country, country-specific knowledge products mainly consisted of sector, governance, private sector, and gender assessments prepared in conjunction with the 2005 CSP. These reports were mainly used for internal purposes and had little impact on government thinking.

H. Overall Assessment

98. The overall rating for ADB country operations and programs in Bhutan is *successful*, which is based on largely successful sector (and cross-sector) ratings with the following composite ratings of *satisfactory* strategic positioning, *relevant*, *effective*, *efficient*, *less likely to be sustainable*, and *modest to substantial* impact (Table 1). The performance of ADB assistance for the energy sector, urban development, and public sector management was *successful*, while assistance for the transport sector, and finance and private sector development has been *partly successful* mainly due to less successful earlier interventions. Ongoing assistance for financial sector and road development has better prospects of being successful as it is addressing some of the identified shortcomings affecting previous ADB projects.

Table 1: Performance Ratings

Sector or Rating Criteria	Strategic Positioning	Program Relevance	Effectiveness	Efficiency	Sustainability	Impact	Overall
Energy	Highly Satisfactory	Relevant	Highly effective	Efficient	Likely	Substantial	Successful
Finance and private sector development	Satisfactory	Relevant	Less effective	Less efficient	Likely	Modest	Partly successful
Transport	Satisfactory	Relevant	Less effective	Efficient	Less likely	Modest to substantial	Partly successful
Urban Development	Satisfactory	Relevant	Effective	Efficient	Less likely	Modest to substantial	Successful
Others	Satisfactory	Relevant	Effective	Less efficient	Likely	Modest to substantial	Successful
Overall	Satisfactory	Relevant	Effective	Efficient	Less Likely	Modest to substantial	Successful

Note: Sector ratings have the following weights: energy (40%), transport (25%), finance and private sector development (20%), water and other municipal infrastructure and services (10%), and others (5%). Rating criteria have the following weights: strategic positioning (10%), relevance (10%), effectiveness (20%), efficiency (20%), sustainability (20%), and impact (20%).

Source: Independent Evaluation Department.

IV. KEY FINDINGS, LESSONS, ISSUES, AND RECOMMENDATIONS

A. Implementation of 2005 Country Assistance Program Evaluation Recommendations

99. The 2005 CAPE assessed ADB assistance as responsive and relevant to the government's development priorities of strengthening infrastructure, improving the quality of social services, ensuring good governance, generating employment, and preserving and promoting Bhutan's culture and environment. ADB was deemed to have played a pioneering role in the finance and energy sectors, where it provided essential support for strengthening related policy, legal, regulatory, and institutional frameworks, and in rural electrification. However, the ADB assistance program did not directly support its strategic objective of private sector development.

100. The consistency of ADB operations with evolving government development strategies was seen to have increased government ownership, and contributed to good portfolio performance and positive on-the-ground results. The continuity and coherence of many ADB interventions were deemed to have been another strength, and successful sector performance was found to be associated with recurrent assistance. However, for many ADB interventions, the following issues were identified: (i) lack of ownership on the part of some government agencies for TA; (ii) insufficient sensitivity of some project designs to cultural and religious beliefs; (iii) lack of flexibility in project designs; (iv) inadequate integration of projects with one another when there was potential for complementarities; (v) inadequate coordination with development partners; (vi) a narrow view of capacity development focused on short-term skills training, rather than on broader institutional capacity development; and (vii) project implementation delays resulting from lack of sufficient preparatory time and resources, inadequate local budget allocations, shortage of skilled local staff, frequent changes of project staff, weak procurement and contracting capabilities, insufficient delegation of authority, weak monitoring and coordination, and delays in consultant recruitment.

101. ADB Management agreed with most CAPE recommendations, particularly increasing annual allocations to Bhutan under performance-based allocation and the Asian Development Fund IX Grant Framework, having a sharper sector focus, enhancing cooperation with other development partners to increase program synergies, preparing the 2005 CSP under a results-based framework, and deepening ADB assistance for strengthening finance sector competitiveness and private sector development. ADB Management argued that the establishment of a resident mission was not a high priority for ADB considering Bhutan's strong portfolio performance, the availability of electronic communication facilities with development partners in Bhutan, and the increasing frequency of interaction among them.

102. Nevertheless, only about half of the recommendations made by the 2005 CAPE have been fully implemented (Table 2).

Table 2: Status of Implementation of 2005 Bhutan Country Assistance Program Evaluation Recommendations

Recommendation	Status
Benchmark best practices to guide changes in the policy and regulatory environment for private sector development.	Partly implemented. MSMESDP supports enterprise registration requirements to be lowered in line with best practices. Other development partners, especially the World Bank Group, have been benchmarking the business and investment climate, although these benchmarks are not used for ADB operations.

Recommendation	Status
<p>Improve the sustainability of institutional strengthening through (i) consistent involvement of ADB over longer periods of time, (ii) the provision of assistance for the implementation of TA recommendations, and (iii) maintaining the level of nonlending assistance.</p>	<p>Partly implemented. While ADB remained engaged in capacity development efforts for energy and finance sector institutions and the Ministry of Finance, systematically building on and complementing earlier assistance, TA support for transport and urban development declined over the current CSP period, as did average annual advisory TA approvals from \$1.3 million during 2001–2005 to \$1.1 million during 2006–2009. In many cases, there was no follow-on assistance for the implementation of policy, legal, or institutional reforms recommended under ADB TA.</p>
<p>Increase assistance to Bhutan within the performance-based allocation framework, consistent with ADB's policy of rewarding good performing policies.</p>	<p>Implemented. Average annual financial assistance approvals increased substantially from \$8.7 million during 2001–2005 to \$50.6 million during 2006–2009.</p>
<p>Deepen partnerships with other members of the development community, improve efforts to mobilize cofinancing, improve knowledge sharing, and widen access to technical resources.</p>	<p>Not implemented. No discernable increase in donor coordination efforts took place (para. 96), the amount of cofinancing generated per dollar of ADB financing decreased (para. 90).</p>
<p>Establish a set of measurable output and outcome target indicators for each sector in the next country partnership strategy to ensure that it is results-based, can be monitored through updates, and adjusted as conditions require.</p>	<p>Partly implemented. While a result-based framework was used for the 2005 CSP, many indicators used data that are not being collected on a regular basis by government agencies or ADB, making them difficult to monitor (paras. 104–108).</p>
<p>Select sectors for assistance based on (i) strategic issues, (ii) portfolio performance, (iii) priorities of other funding agencies, (iv) government priorities, (v) ADB comparative advantage, and (vi) long-term commitment for continuous involvement.</p>	<p>Implemented. The 2005 CSP and ensuing assistance program have shown a high degree of selectivity and focus taking into consideration all of the recommended criteria on ADB strategic positioning (section III.A.).</p>
<p>Integrate environmentally and culturally friendly mechanisms in all ADB projects, especially those related to infrastructure.</p>	<p>Implemented. ADB projects complied with ADB safeguard policies. Environment friendly construction methods were used in road projects and cultural heritage was reflected in the construction of urban infrastructure.</p>
<p>Expand interventions to strengthen regulation and competition in the finance sector.</p>	<p>Implemented. The ongoing Financial Sector Development Program is focused on this issue.</p>
<p>Promote private sector development through direct support and assistance for the development of suitable advisory services, sustainable financial intermediation channels, and an enabling policy environment for informal enterprises and small formal sector enterprises.</p>	<p>Implemented. The ongoing MSMESEDP seeks to address all these areas, although its effectiveness cannot be determined at this stage.</p>
<p>Improve project monitoring, supervision, and review by ADB, especially for advisory TA projects, and develop measurable performance indicators to monitor progress and results of lending and nonlending assistance.</p>	<p>Partly implemented. Financial and technical assistance monitoring and supervision has been largely effective, although the quality of project performance reports needs further improvement in many cases. Greater attention also has to be paid by ADB to the effective supervision and management of project preparatory TA consultants.</p>
<p>Carefully assess the operational benefits and costs related to the establishment of an ADB resident mission in Bhutan.</p>	<p>Largely implemented. This issue was assessed by ADB in 2005, when it was considered that the size of ADB operations in Bhutan at the time would not warrant the establishment of a resident mission. However, this issue is being revisited by South Asian Department management in view of increasing assistance volumes.</p>

ADB = Asian Development Bank, MSMESEDP = Micro, Small and Medium-Sized Enterprise Sector Development Program, TA = technical assistance.

Source: Independent Evaluation Department.

B. Key Lessons

103. This evaluation identified several major lessons as follows.
- (i) Long-term commitment, continuity, adequate resource levels, and a comprehensive and strategic approach to addressing binding sector constraints have been most effective in delivering satisfactory development results.
 - (ii) Programs with high levels of government ownership have had better outcomes.
 - (iii) Country conditions need to be adequately reflected in project design. At the same time, it is important not to lose sight of established best practices. While there is a need for adaptation to suit local circumstances, there appear to be little grounds for exceptionalism.
 - (iv) The review of experiences from other sparsely populated countries or countries with similar topography might have benefited project selection and design for rural connectivity projects.
 - (v) Rural connectivity projects need to be accompanied by programs in other sectors that help maximize their socioeconomic benefits. Such programs need not be financed by ADB, but require integrated planning and a certain level of coordination of implementation activities.
 - (vi) Policy dialogue needs to be based on adequate analysis, a good understanding of various policy options, and mutual agreement on the nature and underlying principles and objectives of individual policy actions to be effective.
 - (vii) Capacity development should be addressed through sector-based institutional development strategies that take a comprehensive view of required policy and governance reforms to ensure that adequate incentives are in place for skills training and the application of new systems and processes. Some issues might not be sector-specific and must be addressed accordingly.
 - (viii) Particularly in a low-capacity environment, the selection and supervision of project preparatory TA consultants must ensure quality outputs.
 - (ix) ADB can add considerable value through support for project design and implementation and the introduction of best practices for project management, procurement, and financial management.
 - (x) It is difficult to achieve 100% concurrence for land pooling among hundreds of landowners. There is a need to design practical, feasible alternative arrangements in line with country conditions and the underlying principles of ADB safeguard requirements. Other underlying issues, such as poor title records and surveys that create uncertainty about land ownership, also must be addressed.

C. General Issues and Recommendations

104. **Improve the results-orientation of ADB strategies and programs.** ADB used a results-based framework for the 2005 CSP. However, the results framework was not used effectively to show ADB's contributions. At the midterm strategy review, ADB deleted a number of indicators. While some indicators were dropped due to lack of attainment, others were deleted for no apparent reason, as the review reported contributions relevant to deleted indicators. This suggests that ADB was not focused on reporting its contributions. With an incomplete and incoherent report of contributions, it is likely that some contributions were left out, and so the results framework in the midterm review could underestimate ADB's actual contributions.

105. One problem with the reporting on indicators is the format of the results framework. The results framework is not set up to clearly associate indicators, status, and contributions; instead,

the indicators, status, and contributions are presented as separate lists with no indication of how the status ("key achievements") or contributions relate to the indicators. A simple solution to the problem of poor reporting is to revise the format of the results framework. Each indicator could be listed on a separate row, with its status and ADB's contribution reported in corresponding columns on the same row. That format would compel ADB to report specific status and contributions, and would ideally promote more thorough and detailed thinking about ADB's contributions.

106. Poor reporting is not the only problem with the indicators. The indicators themselves are flawed, with many lacking baselines and deadlines, and some of them so vague that no credible evidence on status or contributions could be reported. Among the 30 indicators in the midterm review, only 10 have clear baselines, targets, and deadlines; five lack deadlines, but the deadline could presumably be the end of the country strategy (the results framework does specify that). Among the remaining 15 indicators, three quantitative indicators lack baselines. The other 12 indicators are vague with no baselines, targets, or deadlines; for example, such indicators include establishment of microenterprises in rural areas, improved access to social services, or increased use of cost-recovery mechanisms to finance urban development. In other cases, data for the selected indicators are not regularly collected by ADB or the government, making their use for monitoring purposes difficult. For a number of five-year plan indicators, updated data were not available. The other 26 indicators in the original results framework have similar flaws.

107. This was one of the first results-based country strategies. In formal reviews of the draft CSP, ADB Management and Board were satisfied with the results framework. The lack of baselines, vagueness of some indicators, and practicality of such a large number of indicators was not questioned. During the midterm country partnership strategy review, South Asia Department made an effort to update and modify the results framework, although ADB's contributions to identified development results were not clearly reported. The real problem with the results framework is that it is not being used to judge ADB's progress or to guide management decisions.

108. Revising the format of the results framework would make it potentially useful, but that potential would be wasted without an actual use for it. Current government efforts to introduce results-based management should be systematically supported by ADB in the key sectors of its operations through assistance for the development of results-based government sector investment and institutional development strategies and dialogue on the selection of appropriate benchmark indicators. The results framework should be improved by measuring ADB's contributions to sector investment and institutional outputs and by linking sector outputs to sector outcomes in a meaningful manner, as suggested in the new ADB guidelines for preparing results frameworks and monitoring results. Indicators need to be identified to track the performance of ADB assistance. Such indicators should be regularly updated and reflected in project performance reports.

Recommendation	Timeframe
1. Provide assistance for the development of results-based government sector investment and institutional development strategies,	2012
2. Select meaningful and monitorable indicators for assessing the performance of key sectors and related ADB assistance, and	From 2010 onward
3. Prepare a meaningful country partnership strategy results framework linking and measuring ADB contributions to the achievement of sector outcomes	Next country partnership strategy

109. **Enhance the effectiveness of ADB support for capacity development.** Capacity development efforts have had mixed results. The best outcomes have been achieved in the power sector, due to (i) comparatively high levels of counterpart expertise and skills prior to its assistance, which allowed executing agencies to play a proactive role in the identification of assistance needs, formulation of terms of reference, leveraging of consultant inputs, and discussion of TA recommendations; (ii) significant levels of TA over long periods; (iii) adoption of a comprehensive approach to capacity development that was not limited to technical advice and training but also addressed institutional powers, organizational structure, management systems, and financial resources; and (iv) a strong link between lending and TA operations. Similar conditions also applied to the finance sector, although some institutional development outcomes have stayed below expectations mainly due to lack of adequate regulatory powers, resources, organizational change, and institutional or staff incentives. ADB TA has helped RMA draft various pieces of crucial financial legislation and regulations, but approval for many of these has been slow, in part due to a lack of ADB follow-on support throughout the approval process. Despite their major role in ADB's financial assistance portfolio in Bhutan and continued weaknesses in project management and the subsequent maintenance of project assets, the relevant departments under the Ministry of Public Works and Human Settlement and the city corporations did receive comparatively little assistance from ADB. The assistance that they did receive was not fully effective due to design and institutional incentive issues, which remained unaddressed.

110. ADB advisory TA approved over the last decade for Bhutan mainly included components for classroom training (82% of all TA projects), system improvements (41%), design of policy reforms (39%), development of sector strategies or programs (36%), and strengthening technical capacity (33%). By comparison, relatively little assistance was provided to help with on-the-job training (28%) or the implementation of policy reforms (8%). Also, assistance for organizational change (18%), the development of a human resources strategy (10%), or organizational performance measurement (8%), which could enhance institutional and staff incentives to apply knowledge acquired through training and advisory services, was relatively limited.

111. With regard to training itself, a number of interviewees felt that not always the right kind of staff member who could benefit the most from the training (i.e., staff members with day-to-day responsibilities for the areas covered by the training and the necessary skills set to learn from the training) were selected for training events, particularly if these training events were held overseas. Most survey respondents found in-house training to be more useful than external training. Lack of funds and incentives for training were seen as the largest obstacles to building staff skills.

112. In a number of sector agencies, staff rotation schemes prevented the institutionalization of knowledge acquired under TA or in conjunction with the management of ADB-financed projects. ADB assistance did not aim to develop a core group of sector specialists, who can transfer such knowledge to subsequent projects. For example, in the water and other municipal infrastructure and services sector, the project monitoring unit and project implementation units for one ongoing project have no staff members who were trained under previous ADB TA or who worked in the project implementation units for the last project. Further, although such staff members tend to be from the respective government department or agency, they might not stay with the department or agency for long.

113. Twenty-one percent of government respondents rated ADB contributions to strengthening institutional capacity as *substantial*, 64% as *significant*, and 14% as *moderate*,

with energy and transport departments and agencies considering ADB contributions to be significant, financial and urban development institutions considering ADB contributions to have been moderate to significant, and the Ministry of Finance considering these as moderate. While a large number of executing agencies opined that ADB had contributed critically or substantially to the design of organizational development, strategic and business planning, or governance, most agencies outside the energy sector felt that ADB only contributed "somewhat" toward the implementation of such institutional reform areas. Only 29% of survey respondents stated that they had substantially benefited from ADB assistance for capacity building, whereas 64% felt that they had benefited somewhat. Forty-three percent felt that support for organizational changes was substantially beneficial, another 43% had benefited somewhat, and 14% found the benefits negligible.

114. With a few exceptions in the energy and finance sectors, ADB did not undertake systematic upfront assessments of institutional capacity and capacity constraints. Often assistance was ad hoc and not part of a larger capacity development strategy for the sector. In a few cases, TA associated with loans appeared to have been added to address Board concerns about absorptive capacity or sustainability. In other cases, linking capacity development support with financial assistance programs for investments provided an impetus for institutional, policy, or legal changes (e.g., in the case of assistance for the development of a PPP framework, which was applied under the Green Power Development Project).

115. In the future, capacity development will become more important in light of recent government initiatives for results-based management and the continuing decentralization of public service delivery channels, all of which will pose additional challenges that need to be addressed. Findings on Bhutan operations confirm earlier IED conclusions of a special evaluation study on capacity development³² on the importance of the following drivers of successful capacity development: (i) adequate and comprehensive capacity assessments that assess and address all aspects of institutional performance; (ii) strategic direction of capacity development efforts, including their incorporation in sector strategies; (iii) clear results frameworks to measure and monitor capacity development; (iv) long-term continuity of capacity development approaches; (v) appropriate mix of modalities; (vi) mainstreaming of project management and implementation unit activities; (vii) participatory approaches, with strong agency commitment and ownership; and (viii) cooperation and harmonization with other development partners. In addition, holistic approaches to capacity development that also cover organizational and contextual issues—apart from strengthening technical capacity—should be utilized. With regard to training, on-the-job training provided by long-term advisors on an intermittent basis might be a suitable mechanism for some agencies.

Recommendation	Timeframe
1. Undertake comprehensive assessments of institutional capacity development needs at central and local government levels in key sectors of ADB operations. 2. Incorporate identified capacity development requirements in results-based sector assistance strategies and programs including adequate TA allocation and policy dialogue to address any problems related to institutional and staff incentives including corporate governance, statutory powers, management systems, human resource policies and financial resources	2011 Next country partnership strategy

³² ADB. 2008. *Special Evaluation Study: Effectiveness of ADB's Capacity Development Assistance—How to Get Institutions Right*. Manila.

116. **Improve mainstreaming of thematic concerns in ADB operations.** Given the limited resources and the activities of other development partners in Bhutan, ADB's strategy of mainstreaming thematic objectives in its sector operations rather than through stand-alone assistance has been appropriate. However, thematic concerns need to be more effectively incorporated in project design and implementation through better upfront analysis on related project impact and improved targeting and monitoring of gender, environmental, and private sector development benefits.

117. **Gender.** None of the ADF projects approved during the current CSP period included gender mainstreaming (i.e., gender mainstreaming categories I and II) compared to 40% of projects approved during 2001–2005. The 2005 CSP did not see any need for gender projects in Bhutan given the comparatively high degree of equality enjoyed by Bhutanese women. It was assumed that most programmed projects would also benefit women, albeit indirectly. There is some evidence that this has been the case for the rural electrification projects, which helped reduce the incidence of respiratory smoke-related diseases in women and increased time available for other activities through a reduction in women's daily collection of fuelwood.

118. The Micro, Small and Medium-Sized Enterprise Sector Development Program claimed some gender benefits by allocating at least 10% of the financial intermediation loan for female entrepreneurs. Considering the female participation rate in the labor force and the high level of land ownership by women, however, this threshold would do little to increase existing levels of access of credit for women. Going forward, rural connectivity projects and micro and SME-related projects should carefully analyze gender issues, particularly with regard to income opportunities and access to finance, and address underlying constraints to ensure that women maximize benefits arising from ADB-financed projects, which might also facilitate the achievement of overall project outcomes.³³

119. The two category II projects that were approved during the 2000 COS period, i.e., the Basic Skills Development Project and the Health Sector Reform Program, set specific targets for increasing numbers of female staff members in basic health care units to encourage more visits by women and of female participants in vocational training courses, as maternal mortality rates and female enrollment in secondary and tertiary schooling had been among the unmet MDGs. While the Ninth Five-Year Plan indeed included a target of one to two female health care workers per health unit, it is unclear to what extent this target was actually achieved. Although 28% of vocational training institute graduates in 2008 were female, unemployment rates for graduates from 2003 to 2009 were more than twice that of male graduates, at 22%. Female graduates attributed this to continuing prejudices about women in male technical jobs. In addition, the ADB-funded project mainly supported an expansion of capacity for technical training courses, rather than other types of commercial or ICT-related subjects that might have been more conducive to finding employment for the majority of female students. No special help was provided to female graduates in terms of company placements during the courses and upon graduation. Different approaches to addressing female youth unemployment should have been considered, incorporating market demands and preferences of female students.

120. Two of the three Japan Fund for Poverty Reduction grants included specific gender components. Assistance for improving the well-being of road workers, among other things, sought to train predominantly female workers as road health workers and ensure at least 50% female enrollment in project education facilities for road workers' children. No data were

³³ For example, in the case of rural electrification projects, fuelwood consumption could have been further decreased through a targeted information campaign promoting the use of electricity for cooking purposes.

available to verify achievement of these targets. Assistance for training rural women as solar energy technicians failed for a number of reasons unrelated to its gender orientation (para. 85).

121. **Environment.** None of the financial assistance projects approved under the 2000 COS or the 2005 CSP had environmental sustainability as a theme. Other than TA for improving the regulatory basis for environmental management, the 2005 CSP did not have any special provisions for any other assistance in this area, although environmental degradation and climate change is seen by DER survey respondents as the largest threat to Bhutan's economic and social development. ADB's two TA projects for this theme over the last decade have been very effective in building institutional capacity of the National Environment Commission for environmental assessments. New capacity development TA also seeks to build the commission's capacity in dealing with climate change.³⁴

122. While Bhutan itself is a net sequesterer of greenhouse gases (due to vast forest cover and limited industrialization), it is highly vulnerable to the impacts of climate change. More erratic and unpredictable rainfall patterns and fewer snow periods will affect water catchments, impacting agriculture yields and water availability for hydropower generation. Vulnerability assessments, which take into account impact from a glacial lake outburst flood, variable rainfall, and seasonal changes, are required on a sector-by-sector basis (i.e., agriculture, hydropower, and domestic) to help quantify potential socioeconomic impact and identify ramifications and implications for ADB-supported projects. Other areas, which need assistance and would help facilitate safeguard requirements for ADB-financed investments, include an expansion of past capacity-building efforts for the National Environment Commission, with particular focus on training staff at the district environmental offices and line agencies in environmental assessments and monitoring; the revision and development of new sector guidelines; cumulative impact assessments, especially for hydropower projects; and a review of national regulations governing resettlement planning, land acquisition, and biodiversity management to establish consistency of approach when providing compensation to affected peoples.³⁵ It is likely that large-scale development of hydropower potential would also spur increasing attention to environmental and social issues in the coming years. Capacity development support is needed for river basin management and for monitoring and managing the environmental impact of large hydropower projects.

123. The treatment of hazardous waste also requires further attention, and ADB has included a waste management component under ongoing urban development projects. Additional assistance for the implementation of the 2009 Waste Prevention and Management Act should be considered. With the rapid growth of urban centers in the last 5 years, a review of existing ambient, emission, and discharge standards and recommendations for any appropriate amendments and adoption of the same would be timely. In addition, ADB has been seeking to promote environmentally sound investments through the use of its safeguard standards. While all reviewed projects were in compliance with ADB safeguard policies, the following issues were identified for further resolution: (i) spoils disposal, which is a challenge due to steep terrain and narrow right of ways (Road Network Project and Urban Infrastructure Development Project);³⁶ (ii) vegetation clearance, where required, with careful planning and attention to avoid erosion

³⁴ ADB. 2009. *Technical Assistance to the Kingdom of Bhutan for Capacity Building of the National Environment Commission in Climate Change*. Manila (TA 7405-BHU, approved on 7 December).

³⁵ These include the Land Act (1979), Forest and Nature Conservation Act (1995), Bhutan's Land Pooling Manual and Biodiversity Act (2003), and Guidelines of Land Acquisition and Satshab Allotment (2005).

³⁶ Spoil resulting from construction, especially the initial formation cutting, is not adequately disposed of and results in rock debris falling in water courses, leading to their narrowing and impacting existing beneficial uses. Also, the only spoil disposal site in Thimphu is at full capacity already.

and landslides (Road Network Project);³⁷ and (iii) the potential environmental impact of construction camps (Road Network Project and Green Power Development Project).³⁸

124. **Governance.** Governance is one of the components of the Gross National Happiness concept. The country has put in place mechanisms to support governance, enhance transparency and discourage corruption. As a result, Bhutan ranks highest in South Asia on international governance and anticorruption indexes. ADB has been supporting this process through its assistance for the establishment of accounting and auditing standards and systems and performance audits, which should enhance financial transparency. ADB support for capacity development has contributed to improvements in public sector management, although more needs to be done, particularly at the local government level. A number of public services including for farm roads and urban infrastructure services are to be devolved to the local government levels, where there is currently limited capacity to take over these functions. ADB needs to provide support for fiscal decentralization and devolution by building the capacity of local government for investment planning, financial management, and asset management. In the future, the government will have to deal with structural economic changes, reductions in external grant financing, and the challenges associated with translating hydropower revenues into broad-based economic and social development. Going forward, additional capacity development will be required for prudent and transparent financial management and improvements in conditions and support for private sector investment and operations. ADB should continue its engagement in related areas.

125. **Private sector development.** The vast majority of the DER survey respondents considered the private sector to be the key driver of future growth in Bhutan. However, private sector development did not rank highly in government officials' priority areas for ADB assistance. None of the projects during the 2000 COS had private sector development as a theme, whereas 50% of the projects approved under the current CSP have. Apart from seeking to address constraints to small businesses under the ongoing Micro, Small and Medium-Sized Enterprise Sector Development Program and to facilitate more private finance sector institutions and intermediation under the ongoing Financial Sector Development Program, ADB also supported skills development and promoted PPP in hydropower and conducted policy dialogue on expanding the use of private contractors in the other infrastructure sectors.

126. There appears to be scope for more policy dialogue on further reducing government involvement in the finance sector as a result of new legislation that limits individual shareholdings in banks, and for more capacity development support for the domestic construction industry, one of the largest private sector activities in the country. ADB had earlier provided assistance for procurement standards and the contractor classification system. However, while the number of contractors has expanded to several thousand, the majority of contractors have very limited technical and financial capacity. There is a small pool of qualified local contractors who can compete for ADB contracts, who have not had sufficient incentives to upgrade their capacity and to compete with each other on price. ADB should study how contracting arrangements under its projects in Bhutan can be adapted to encourage the development of the domestic construction industry without sacrificing construction quality. For example, the size of individual contract packages could be raised, as current contract amounts

³⁷ During any excavation, topsoil should be scraped and stored separately to be reused in the future for bioengineering purposes, although contractors have not done this.

³⁸ In the Road Network Project and the Green Power Project, up to 1,000 workers are mobilized at the site at peak construction times. Storm water run-off from construction and worker activity has the potential to impact the surrounding environment.

are assessed to be too small to encourage the development of contractor capacity in terms of assets and in-house skills.

127. Going forward, ADB should also consider assistance for emerging government initiatives to promote private sector development including support for private investments in promising economic sectors, e.g., tourism, hydropower-related industries, and information and communication technology, as well as PPPs in hydropower, transport and urban infrastructure services.

128. **Regional cooperation and integration.** While no projects under the 2000 COS had regional cooperation and integration as a theme, the share of such projects under the 2005 CSP went up to 33%. Both the Green Power Development Project, which exports its electricity output to India, and the construction of the Southern East–West Highway under the second Road Network Project, which will facilitate cross-border trade with India, are in this category. In addition, Bhutan is participating in the South Asia Subregional Economic Cooperation Information Highway Project, which supports the installation of a fiber optic cable across Bangladesh, Bhutan, India, and Nepal. Given the country's location, sharing land borders only with India and the People's Republic of China, its geopolitical orientation, and general issues limiting the potential for subregional initiatives in South Asia,³⁹ there appears to be little scope for expanding ADB infrastructure operations in Bhutan beyond projects that support bilateral trade and communications, although tourism could be an area where closer cooperation with countries in the region other than India might occur. There might also be a larger role for ADB in supporting initiatives involving regional public goods that would benefit Bhutan, especially programs on climate change. Facilitation of investment and trade with other countries in the region, as well as regional cooperation in technical and vocational qualification standards are other areas ADB could support, which would also assist private sector development. Government officials ranked regional cooperation and integration lowest among possible assistance areas for ADB in Bhutan.

Recommendation	Timeframe
1. Mainstream gender concerns in ADB-assisted projects in line with ADF targets.	New and ongoing projects
2. Consider additional assistance for private sector development including support for the implementation of the Economic Development Policy; PPPs for hydropower development, and urban and transport infrastructure and services; and procurement arrangements that facilitate the development of private domestic contractors.	Next country partnership strategy
3. Provide assistance for strengthening capacity for environmental impact assessments and management, in particular for the hydropower sector and at dzongkhag level.	Next country partnership strategy
4. Explore potential for assisting regional cooperation in tourism, trade and climate change.	Prior to next country partnership strategy
5. Provide capacity development support for local service delivery.	2010

129. **Enhance economic efficiency of rural connectivity projects.** Given the topography of the country and low population density, which result in comparatively high construction costs per beneficiary, equivalent to several times of annual GDP per capita, resource efficiency is a particular issue for rural connectivity projects in Bhutan. Although completed rural electrification investments financed by ADB in Bhutan have had adequate levels of economic feasibility, this will not necessarily be the case for connections in more remote areas, which will require comprehensive cost-benefit calculations to establish the most appropriate way of meeting the

³⁹ ADB. 2010. Validation Report: South Asia Regional Cooperation Strategy and Program, 2006–2008 (draft). Manila.

government's target of providing electricity to all by 2013 in line with ADB's energy policy.⁴⁰ Electricity requirements for lighting and other applications need to be carefully analyzed taking into consideration the ability and willingness of households to switch from fuelwood or kerosene to electricity. Furthermore, issues related to maintenance of off-grid electricity supply equipment would also need to be identified, and costs attributed to such issues (for instance, training program for local inhabitants, investment in spare-parts inventory and supply-chain etc.) to the extent possible.

130. For rural roads with low traffic flows, the validity and applicability of assumptions about the level of noneconomic benefits and the size of the project impact areas need to be carefully assessed and adjusted on a case-by-case basis as necessary, taking consideration findings from completed projects. For road resurfacing projects, the overall economies of short-cycle maintenance versus reconstruction programs also need to be considered.

131. General IED studies and findings of this CAPE indicate the need for coordinating rural infrastructure investments with other efforts to support rural income opportunities and social development to maximize socioeconomic impact. This does not imply that ADB should be providing such assistance, but rather, that its support for rural infrastructure development be coordinated with government and other development partners during project planning, design, and implementation.

Recommendation	Timeframe
1. Review and adapt the economic analysis for rural roads in line with country conditions.	For new road projects
2. Consider alternatives to grid-connections in remote areas based on comprehensive cost-benefit analysis.	For new rural electrification projects
3. Ensure coordination with complementary support programs to increase rural productivity and income opportunities.	For new rural connectivity projects

132. **Improve the sustainability of ADB operations.** Sustainability of ADB-financed projects is a major issue that needs to be addressed. Lack of adequate budget allocations and technical capacity for preventive maintenance threaten the continued achievement of envisaged project outputs and outcomes in the transport and urban sectors. ADB contributed little toward the development of operation and maintenance capacity in the urban sector. While recognizing the problem in the road subsector, ADB had problems identifying adequate solutions (para. 63). Operation and maintenance capacity needs to be improved sector-wide through support for training of core staff at central and local levels, the procurement of relevant equipment, and the establishment of adequate processes and systems. Post-completion monitoring of ADB-finance projects can also help draw attention to any sustainability issues.

133. In addition, maintenance components should be incorporated in ADB-financed projects. This could include financing performance-based management contracts for contractors to not only build, but also to maintain, infrastructure. Doing so would provide better incentives for good construction quality, which by itself would reduce maintenance requirements and costs. Also, beneficiaries of rural connectivity projects could be more actively involved in routine maintenance tasks, provided that they are given the necessary training and resources to do so. Undertaking maintenance work could also be a good income source for members of rural communities.

⁴⁰ See ADB. 2009. *Energy Policy*. Manila. The policy seeks to help DMCs provide reliable, adequate, and affordable energy for inclusive growth in a socially, economically, and environmentally sustainable way.

134. There would also appear to be a need for more systematic policy dialogue on budget allocations for maintenance as opposed to new construction, possibly as a condition for future financial assistance for sector investments.⁴¹ High levels of subsidies for electricity consumption and micro and SME credit schemes, which in the case of the energy sector amounted to \$46 million or 3% of GDP in 2009, also pose inherent risks for the fiscal sustainability of these programs, should there be any fiscal problems or resources reallocated for other purposes.

Recommendation	Timeframe
1. Conduct policy dialogue on adequate budget provisions for operation and maintenance of infrastructure	In conjunction with new infrastructure projects
2. Provide adequate TA for building institutional capacity for operation and maintenance	Next country partnership strategy
3. Include specific project provisions/assurances and financing of maintenance equipment	New infrastructure projects
4. Conduct policy dialogue on enhancing the financial sustainability and self-financing capacity of sector institutions	In conjunction with new infrastructure projects
5. Provide capacity development support for local service delivery	2011
6. Implement post-completion monitoring mechanisms.	From 2010 onward

135. **Strengthen the implementation efficiency of ADB operations.** Although ADB's assistance program in Bhutan has been implemented in an efficient manner, increasing project volumes and complexities coupled with a lack of counterpart and domestic contractor capacity will likely pose extra challenges in the future. Apart from related capacity development support, in the short run, efforts need to be made to recruit well-qualified project preparatory TA and project implementation consultants, which might require the use of quality-based selection methods. Project design changes can be minimized through better consideration of country conditions during project preparation and the use of realistic implementation arrangements and schedules. For policy reform programs, upfront consultations with and capacity development for a wider range of stakeholders including parliamentary standing committees can facilitate the implementation of required policy actions later on, as can the provision of adequate TA resources.

136. All interviewed government counterparts and development partners advocated the establishment of a resident mission by ADB. The main benefits were seen to be strengthening ADB's understanding of country realities, strengthening ADB's partnerships within the country, increasing the speed of decision making, and improving the government and development partners' understanding of ADB operations. An in-country presence would also facilitate logistical arrangements such as visa clearances, travel permits, and workshop organization, which are currently handled by the Ministry of Finance, and simplify direct communications between executing agencies and ADB. It would help strengthen portfolio management and client responsiveness. Given the current size of ADB's program in Bhutan and the growing complexity of its operations, ADB should at least establish a resident office with national staff to facilitate logistics, communications, and coordination with development partners. If a full-fledged mission with international staff is considered, the availability of macroeconomic expertise is seen as the most useful technical skill for the government. Finally, if no resident mission can be

⁴¹ Although recurrent and capital expenditures have been of similar magnitude in Bhutan, this balance has not been achieved for each sector. In the roads subsector, capital expenditures over the last 4 years have been several times the volume of recurrent expenditures. Assurances under the Road Network Project stipulate that the government will provide sufficient budget for routine and periodic maintenance of the entire road network every year throughout project implementation, and that the amount of deferred maintenance will be reduced to a maximum 20% of the national highway network length by 30 June 2007 and to maximum 7% by 30 June 2010. These targets are unlikely to be met.

established, interviewees prefer to continue interacting directly with ADB headquarters rather than through a regional resident office.

Recommendation	Timeframe
1. Establish an in-country presence.	2011
2. Select quality PPTA and implementation consultants.	For new projects
3. Adequately consider country conditions in project design and implementation arrangements and timing	For new projects
4. Provide adequate support for policy analysis, discussion, and implementation.	In conjunction with new program loans
5. Provide capacity development support for domestic construction industry.	2011
6. Provide capacity development support for construction supervision and project monitoring systems.	In conjunction with new investment projects

137. **Assess long-term assistance needs.** Going forward, a provisional annual ADF allocation of \$29 million for Bhutan was included in the 2011–2013 Planning Directions.⁴² Most of this assistance is programmed for additional rural connectivity projects. With regard to the role of ADB in the longer term, Bhutan expects to be largely financially self-reliant by 2020 and be less dependent on external aid. Already, some bilateral development partners (e.g., the governments of Denmark and the Netherlands) have begun to reduce their assistance. Likely changes in Bhutan's country classification and the resulting impact on the nature of future ADB support are not seen as limiting the scope for cooperation in the years to come, but rather as leading to a more proactive use of assistance by the government in the current assistance sectors.

138. The basic physical and service infrastructure for the country will have been established by the end of the 11th Five-Year Plan. Maintenance of constructed infrastructure will be the prime challenge going forward. The government considers the development of secondary urban centers as a potential area for ADB involvement in new infrastructure. Also, although most of the envisaged hydropower investments and related transmission lines will be developed with assistance from the Government of India, there may be a role for ADB in participating in joint ventures for smaller hydropower projects (i.e., outside of the India-financed investment program) under PPPs. Bhutan is anticipating to eventually graduate to mixed ADF–OCR borrower status once power export revenues increase. The government does not rule out borrowing under OCR terms for revenue-generating projects in the future, although mechanisms must hedge foreign exchange risks, if the revenues are in nonconvertible currency. As in other DMCs that have moved up the income curve, nonlending-related ADB services will become increasingly more important in Bhutan. There is also likely going to be more scope for private sector operations, and—with increasing capacity—programmatically approaches to sector assistance.

D. Sector-Specific Issues and Recommendations

139. **Energy.** By 2009, the power sector entities in Bhutan had achieved an adequate level of institutional maturity and sophistication, with the possible exception of the power sector regulatory agency, which has neither been able to recruit nor retain competent staff members at senior levels—although its chief executive officer is now in place. Bhutan is now committed to the ambitious agendas of achieving 100% electricity access by 2013, and setting up over

⁴² Actual allocations will depend on the outcomes of the next country performance assessment, updated debt sustainability analysis, adjustments to ADF commitment authority, and the next ADF replenishment exercise.

10,000 megawatts of hydropower capacity (along with associated transmission facilities) with assistance from the Government of India. To the extent the country's abundant hydropower potential is to be developed further in the foreseeable future, and hydropower projects are planned to be set up outside the 10,000 megawatts program with India, it may be worthwhile for Bhutan to consider the PPP mode.

140. The Renewable Energy Policy that is under preparation is expected to address the policy and institutional barriers to increased private sector investments in grid connected wind and small hydropower (i.e., below 25 megawatts) projects. There is a critical need for undertaking feasibility studies for such projects to identify potential project sites to facilitate soliciting investments in a transparent manner. Given the relatively underdeveloped capital markets in Bhutan, there is a need for external financing especially for debt financing to compliment equity financing by the private sector. The transmission connectivity also needs to be strengthened and network coverage expanded to facilitate the evacuation of power from the renewable energy projects.

141. Institutional reform and corporatization of the sector has facilitated the successful implementation of the rural electrification program thus far. However, the targeted 100% rural electrification objective—the current electrification rate is 60%—would require a judicious mix of various available technological off-grid technologies, in addition to grid extension.

Recommendation	Time Frame
1. Provide transaction advisory services and financial assistance to facilitate additional hydropower projects in the PPP mode, as required.	From 2011 onwards
2. Support preparation of renewable energy master plan and consider financial support for grid-connected renewable energy projects	2013 TA and next country partnership strategy

142. **Finance and industry sector development.** Given the importance of an effective finance sector regulator and strong risk management skills of financial institutions, continued policy dialogue and other capacity development support will be required in these areas. Capacity also needs to be built for SMEs and rural finance, although how access to credit can be further expanded in a sustainable, cost-effective manner must be carefully assessed. Considering the limited potential for domestic capital market development, ADB could help the government assess to what extent integration with other capital markets is feasible and desirable. With regard to the planned development of a market for debt securities, a comprehensive strategy for the introduction of underlying interest rate and liquidity mechanisms and the establishment of the overall debt management framework should be prepared, which takes into consideration country conditions. The key future challenge for the government will be to facilitate private sector engagement in new areas of economic activity such as tourism, ICT, and export-oriented agriculture and horticulture (e.g., organic farming), which will help create new jobs. With external advice from McKinsey, the government is currently developing industry strategies to guide and support such development. ADB should assess how it can best assist in the implementation of these initiatives. ADB's support for micro and SME development also needs to be integrated into such strategies. This would also require the provision of advisory services to help identify and develop relevant SME linkages. Despite mixed success so far, ADB should stay engaged in vocational training, but help to make it more demand-driven to meet industry needs for skilled labor. Vocational training components could also be a feature of ADB-supported infrastructure development projects.

Recommendation	Time Frame
<ol style="list-style-type: none"> 1. Intensify support for capacity development of the regulator and financial market participants, particularly non-bank financial institutions. 2. Strengthen capacity for SME lending. 3. Study options for improving the financial viability of rural credit. 4. Assess the scope and best approaches for developing government securities and interbank and money markets. 5. Assess the scope for external cooperation on capital market development. 6. Integrate SME development support with other government industry initiatives. 7. Continue policy dialogue on strengthening market orientation of vocational training institutions and provide related TA support as required. 	<p>Under FSDP and 2011 TA</p> <p>Under MSMESDP</p> <p>Under MSMESDP</p> <p>Next country partnership strategy</p> <p>Next country partnership strategy</p> <p>Under MSMESDP</p> <p>Ongoing country partnership strategy</p>

FSDP = Financial Sector Development Program, MSMESDP = Micro, Small and Medium-Sized Enterprise Sector Development Program.

143. **Transport.** ADB assistance for roads has been characterized by a piecemeal approach to investment planning. The East–West Highway has been resurfaced twice with ADB funds over a period of 8 years, which was complemented by the widening and realignment of various road sections under ADB or government financing. Lack of comprehensive front-end geological investigation, alignment survey, designing, and planning for major investment projects resulted in cost overruns and delays in the physical implementation of civil works for the Road Improvement Project. There have also been significant problems with construction quality. The financial and technical capacity of the domestic private construction firms is still limited, which has affected the implementation of all ADB projects. For example, ADB could seek to enhance their capacity by requiring that each bid by an international company includes any necessary capacity development support for domestic subcontractors. Maintenance issues, due to financial and human resources constraints, are expected to intensify with increasing road use by overloaded trucks in conjunction with hydropower investments and other construction projects.

144. Previous ADB TA failed to substantially improve DOR's maintenance systems, although current assistance for the introduction of performance-based maintenance contracts looks more promising. However, funding remains a constraint, with a mismatch between construction and maintenance expenses, and available resources are insufficient to reduce the backlog of deferred resurfacing. The economic viability of new feeder roads also needs to be more clearly established. Further, public transport services, particularly in remote areas, are either inadequate or unreliable and it should be assessed whether there is any need for ADB assistance in this area.

Recommendation	Time Frame
<ol style="list-style-type: none"> 1. Prepare a road map for strengthening DOR capacity for long-term investment planning, road design, construction supervision, and maintenance. 2. Conduct meaningful policy dialogue on and raise public awareness for adequate budget allocations to finance maintenance requirements. 3. Support capacity development of domestic contractors. 4. Review assumptions and validity of the World Bank–DOR model for determining the economic feasibility of feeder roads. 5. Consider assistance for public transport. 	<p>2012</p> <p>In conjunction with ongoing and new road projects</p> <p>2011 or 2012</p> <p>Prior to new project involving feeder roads</p> <p>Next country partnership strategy</p>

145. **Urban development.** ADB's continued involvement is key to meeting the municipal service requirements of rapidly growing urban populations (Thimphu's annual growth is estimated at 8%, and Phuentsholing and regional centers at more than 3%). The ability of Thimphu City Corporation and Phuentsholing City Corporation to plan budgets, manage operation and maintenance, and supervise private sector service providers requires

considerable capacity development efforts. Both also have low revenue bases, barely sufficient to meet routine operation and maintenance requirements, but not enough to provide preventative maintenance or finance any expansion. Land taxes, water tariffs, and solid waste disposal fees need to be increased to meet future capital and recurrent costs. Land pooling is essential for expansion of these cities, but there are problems due to poor records and past surveys, which need to be addressed. Housing for poor and low-income residents is a growing problem, as private builders are focusing on the mid- to higher-income groups, while the government has provided housing for civil servants.

Recommendation	Time Frame
<ol style="list-style-type: none"> 1. Expand assistance for integrated urban development within Thimphu, Phuentsholing and secondary urban growth centers. 2. Provide support for improving cities' capacity for preventive maintenance. 3. Include expenses for maintenance equipment under new urban development projects. 4. Support the implementation of the municipal finance policy to facilitate the gradual introduction of cost-reflective utility tariffs and user fees. 5. Support capacity development of domestic contractors. 6. Provide support for the development of appropriate modalities for outsourcing construction and maintenance of urban infrastructure 7. Strengthen the selection and supervision of project preparatory TA and project implementation consultants. 8. Consider assistance for low-income housing. 	<p style="text-align: center;">From 2011 onward</p> <p>In conjunction with next investment project New urban development projects</p> <p>In conjunction with next investment project In conjunction with next investment project</p> <p style="text-align: center;">2012</p> <p style="text-align: center;">For new urban development projects In conjunction with next country partnership strategy</p>

ADB COUNTRY STRATEGIES DURING THE COUNTRY ASSISTANCE PROGRAM EVALUATION PERIOD

Table A1: Major Thrusts of ADB Country Strategies and Programs in Bhutan

	2000 Country Operational Strategy	2001, 2002, 2003, and 2004 Country Strategy and Program Updates	2005 Country Strategy and Program	2006, 2007, and 2008 Country Operations Business Plans
Overall Thrusts	<ul style="list-style-type: none"> • The 2000 COS recognized the overarching objective of poverty reduction in the strategic theme of improving the quality of life for all. • ADB's strategy was to assist the government in the process of structural transformation and role transition, and, at the same time, to support the government's traditional commitment to its social programs and to socioeconomic equity. It focused on (i) strengthening the capacity of government agencies for economic management, governance, and development administration; (ii) improving physical and social infrastructure; (iii) promoting private sector development; (iv) improving the efficiency of public service and cost recovery; and (v) protecting the environment. • ADB's concern for poverty reduction was addressed through the income and employment generation impact of private sector-led development, brought about by an improved policy setting and more efficient financial intermediation. Specifically, ADB interventions aimed to (i) reduce physical infrastructure 	<ul style="list-style-type: none"> • The overall thrusts of the CSPUs that were released from 2001 to 2004 were consistent with the COS 2000. • Although the strategic focus remained the same, the design and implementation of projects took into account the nature and distribution of poverty based on a poverty assessment study prepared by the government (with ADB assistance) in 2001. • The CSPUs also emphasized the consistency of the 2000 COS with the Ninth Five-Year Plan (which was launched in 2002) for strengthening infrastructure, improving the quality of social services, ensuring good governance, promoting private sector growth, generating employment, and preserving and promoting Bhutan's culture and environment. • The lending and nonlending programs were geared to assist the government in meeting its priority development objectives through continued and follow-on interventions for the development of road infrastructure, rural electrification, and promotion 	<ul style="list-style-type: none"> • Poverty reduction through economic diversification is the overarching goal of the 2005 CSP. • The CSP has two strategic thrusts: (i) assistance for programs and projects in core sectors, and (ii) capacity development in the operation sectors as well as for the overall management of the development process. ADB is providing a range of lending and nonlending assistance to the government to address binding constraints to poverty reduction. These include isolation, a narrow economic base, an underdeveloped private sector, underserved urban areas, and the limited reach of basic economic infrastructure and financial services. • ADB assistance is focused in four areas: (i) transport; (ii) power, including rural electrification; (iii) urban development; and (iv) finance and private sector development. 	<ul style="list-style-type: none"> • No material changes in the strategic thrusts and focus areas as stated in the 2005 CSP.

	2000 Country Operational Strategy	2001, 2002, 2003, and 2004 Country Strategy and Program Updates	2005 Country Strategy and Program	2006, 2007, and 2008 Country Operations Business Plans
	<p>constraints, (ii) develop the domestic skills base, (iii) improve the urban environment, and (iv) support sustainable provision of quality social services.</p> <ul style="list-style-type: none"> • It was envisaged that ADB's strategy would be limited to five sectors: (i) energy, (ii) road transport, (iii) finance, (iv) human resources (e.g., education and health), and (v) urban development. 	<p>of the private sector.</p>		
A. Sector Priorities				
1. Energy	<ul style="list-style-type: none"> • ADB's strategy was to provide further assistance to expand rural electrification if satisfactory progress was made toward the financial viability of the Department of Energy. • The investment focus was on expanding transmission and distribution. • The policy focus was to support policy and legal framework for private sector participation in hydropower development. 	<ul style="list-style-type: none"> • No material changes from the 2000 COS. 	<ul style="list-style-type: none"> • ADB aims to promote sector efficiency and assist in the expansion of the rural electrification network. • ADB continues to provide assistance for rural electrification and second-generation reforms in the power sector, including fostering public-private partnerships in the sector and cluster capacity-building assistance covering the Department of Energy (policy planning), Bhutan Power Corporation (transmission, distribution, and supply), and Bhutan Electricity Authority (regulation). 	<ul style="list-style-type: none"> • No significant changes since the adoption of the 2005 CSP.
2. Transport and information and communication technology	<ul style="list-style-type: none"> • The medium-term strategy focused on the maintenance of existing (main) roads rather than on construction of new ones. • The investment focus was to improve the road network and access to markets as well as to 	<ul style="list-style-type: none"> • No material changes from the 2000 COS. 	<ul style="list-style-type: none"> • ADB's strategic objectives for the road subsector are to (i) continue to enhance the main road network, (ii) ensure adequate maintenance of the existing road network, (iii) improve rural accessibility, (iv) strengthen sector institutions, 	<ul style="list-style-type: none"> • No significant changes since the adoption of the 2005 CSP.

	2000 Country Operational Strategy	2001, 2002, 2003, and 2004 Country Strategy and Program Updates	2005 Country Strategy and Program	2006, 2007, and 2008 Country Operations Business Plans
	<p>promote a regional transport network.</p> <ul style="list-style-type: none"> The policy and institutional focus was on (i) capacity building of private sector contractors, (ii) sustainable budget provision to maintain existing roads, and (iii) institutional development for technical capacity on road maintenance. 		<p>(v) promote private sector participation, (vi) improve road technology and productivity, and (vii) support subregional links.</p>	
3. Finance	<ul style="list-style-type: none"> The strategic objectives were to strengthen the efficiency of financial intermediation and to broaden access to investment funds to support the development of private sector activity. Specific interventions were to support the government's efforts in (i) rationalization and strengthening of banking and financial institutions; (ii) liberalization of foreign trade, exchange, and investment regulations; (iii) liberalization of interest rates; and (iv) preparation of transparent legislation and regulatory procedures. 	<ul style="list-style-type: none"> No material changes from the 2000 COS. 	<ul style="list-style-type: none"> ADB is providing assistance to strengthen the institutional capacity of key nonbank financial institutions (including Royal Insurance Corporation of Bhutan and National Pension and Provident Fund), to strengthen Royal Monetary Authority's banking supervision and insurance regulation functions, and to improve legal and regulatory framework for the nonbank finance sector. ADB is providing assistance to improve policy, institutional, and market access to sustainable microcredit through a sector development program loan. 	<ul style="list-style-type: none"> No significant changes since the adoption of the 2005 CSP.
4. Urban development	<ul style="list-style-type: none"> The strategic objectives were to develop the managerial capacity, policy setting, and physical needs of urbanization (especially in Thimphu and Phuentsholing), and to support the articulation of a sustainable housing policy. There was possible investment to support the implementation 	<ul style="list-style-type: none"> Assistance for urban housing development, which was originally planned for 2004, was deferred to 2006 (but subsequently dropped from the pipeline). 	<ul style="list-style-type: none"> ADB support for urban development includes targeted provision of municipal services for the nonserved urban poor, follow-on improvements of urban infrastructure facilities such as expansion of the sites and services provided to support small businesses, SMEs, and other sources of 	<ul style="list-style-type: none"> No significant changes since the adoption of the 2005 CSP.

	2000 Country Operational Strategy	2001, 2002, 2003, and 2004 Country Strategy and Program Updates	2005 Country Strategy and Program	2006, 2007, and 2008 Country Operations Business Plans
	of housing policy and urban development plans.		employment for the poor in urban areas. <ul style="list-style-type: none"> Geographically, ADB strategy for urban development continues to focus on the development of Thimphu and Phuentsholing, and possibly three regional towns. 	
5. Education	<ul style="list-style-type: none"> The strategic objectives were to develop the country's skills base to provide its labor with more productive job opportunities, to enhance private sector development, and to stimulate gross domestic product growth. 	<ul style="list-style-type: none"> No material changes from the 2000 COS. 	<ul style="list-style-type: none"> No support envisaged. 	<ul style="list-style-type: none"> No support planned.
6. Health and social protection	<ul style="list-style-type: none"> The strategic objective was to place the long-term financing of the health sector on a sustainable footing, as a means of (i) allowing the wider provision of health services, and (ii) improving the quality of health services. The investment focus was on policy-based lending to pursue the necessary policy and institutional development for the establishment of a health trust fund. 	<ul style="list-style-type: none"> No material changes from the 2000 COS. 	<ul style="list-style-type: none"> No support envisaged. 	<ul style="list-style-type: none"> No support planned.
B. Thematic Priorities				
1. Private sector development	<ul style="list-style-type: none"> ADB aimed to promote private sector investment by (i) supporting an improved policy setting and more efficient financial intermediation; (ii) improving road transport and expanding power transmission and distribution; and (iii) strengthening vocational, technical, and basic skills. 	<ul style="list-style-type: none"> In the CSPU 2003, to stimulate private sector investment and facilitate employment generation, a new program for SME development was included in the assistance program. 	<ul style="list-style-type: none"> ADB is focusing on improving the enabling and regulatory environment for private sector development. It is providing assistance to improve the efficiency of financial institutions (bank and nonbank), strengthen the regulatory regime that governs the operations of financial 	<ul style="list-style-type: none"> No significant changes since the adoption of the 2005 CSP.

	2000 Country Operational Strategy	2001, 2002, 2003, and 2004 Country Strategy and Program Updates	2005 Country Strategy and Program	2006, 2007, and 2008 Country Operations Business Plans
			<p>institutions, improve the enabling environment for SMEs, extend the reach of microfinance services in rural areas, and foster public–private participation in the development of Bhutan’s energy sector resources.</p> <ul style="list-style-type: none"> • Efforts to build capacity also includes the skills, knowledge, and managerial base of the private sector and organizations that act on its behalf. 	
2. Environmental sustainability	<ul style="list-style-type: none"> • ADB continued to monitor environmental progress, particularly in those forces that cause a rise in environmental stress, and to ensure that its interventions were environmentally sustainable. 	<ul style="list-style-type: none"> • No material changes from the 2000 COS. 	<ul style="list-style-type: none"> • ADB is assisting the government in improving the regulatory basis for environmental management, such as the National Environment Commission to draw up guidelines and devise suitable institutional arrangements for implementing the Environment Assessment Act (2000). • It also complements the core environmental support of the other development partners by mainstreaming development initiatives into public sector operations. 	
3. Governance	<ul style="list-style-type: none"> • ADB continued to build on past initiatives on a needs basis, but particularly for promoting strengthening of public sector resources management and aid coordination by (i) working in close contact with the other aid agencies in these fields; (ii) further enhancement of the sector capacity for project 	<ul style="list-style-type: none"> • No material changes from the 2000 COS. 	<ul style="list-style-type: none"> • ADB assistance in this area is focused on the areas of the economic infrastructure, energy, urban development, and private sector and finance sector development. 	<ul style="list-style-type: none"> • No significant changes since the adoption of the 2005 CSP.

	2000 Country Operational Strategy	2001, 2002, 2003, and 2004 Country Strategy and Program Updates	2005 Country Strategy and Program	2006, 2007, and 2008 Country Operations Business Plans
	<p>implementation; and (iii) further improvement in economic statistics, notably in prices, national income accounts, and elected demographic issues.</p> <ul style="list-style-type: none"> • ADB supported government initiatives in decentralizing decision making and planning to the district level. 			
4. Gender equity	<ul style="list-style-type: none"> • The overall gender strategy was to ensure that the fruits of economic growth and modernization are spread equally between men and women. • Approaches included (i) paying special attention to gender considerations in all ADB projects in Bhutan, (ii) emphasizing helping poor women, and (iii) promoting new knowledge on gender. 	<ul style="list-style-type: none"> • No changes from the 2000 COS. 	<ul style="list-style-type: none"> • ADB is assisting the government in addressing gender-related issues by helping expand livelihood opportunities for women, both directly in ADB-assisted projects and indirectly through improvements in the policy, regulatory, and institutional setting. Through policy dialogue and advocacy efforts, ADB supports implementation of a gender plan of action and the inclusive development efforts of the National Commission for Women and Children. • ADB public sector loans will ensure that women have equal opportunities to participate in design and implementation and that the special interests and requirements of girls and women are adequately addressed. 	<ul style="list-style-type: none"> • No significant changes since the adoption of the 2005 CSP.
5. Regional cooperation and integration	<ul style="list-style-type: none"> • ADB promoted greater subregional cooperation to capitalize on intrasubregional complementarity and deriving extra subregional benefits. • Major areas for subregional cooperation were energy, 	<ul style="list-style-type: none"> • No changes from the 2000 COS. 	<ul style="list-style-type: none"> • Through regional cooperation initiatives, ADB is working to establish better road and border–trade connections with neighboring countries, and promote cooperation in energy, trade, and investment 	<ul style="list-style-type: none"> • No significant changes since the adoption of the 2005 CSP.

	2000 Country Operational Strategy	2001, 2002, 2003, and 2004 Country Strategy and Program Updates	2005 Country Strategy and Program	2006, 2007, and 2008 Country Operations Business Plans
	multimodal transport and communications, trade and investment facilitation and promotion, tourism, natural resources use, and the environment.		facilitation, tourism, and communications.	

ADB = Asian Development Bank, COS = country operational strategy, CSP = country strategy and program, CSPU = country strategy and program update, SMEs = small and medium-sized enterprises.

Sources: ADB country operational strategies, country strategy and programs and updates, and country operational business plans.

**ADB PROJECTS IN BHUTAN DURING THE COUNTRY ASSISTANCE PROGRAM
EVALUATION PERIOD**

Table A2.1: Financial Assistance

Sector	Loan/ Grant No.	Project Name	Fund Type	Amount (\$ million)	Date Approved	Date Closed	PCR Rating^a	IED Rating^a
A. ADF and OCR Loans								
1. Education								
Technical Education and Vocational Skills Training								
	1830	Basic Skills Development	ADF	7.0	21 Jun 01	27 Aug 08	S	PS
2. Energy								
Electricity Transmission and Distribution								
	1712	Sustainable Rural Electrification	ADF	10.0	25 Nov 99	12 Jan 06	S	S
	2009	Rural Electrification and Network Expansion	ADF	9.4	30 Sep 03	19 Dec 06	HS	HS
Renewable Energy								
	2463	Green Power Development	OCR	51.0	29 Oct 08	Ongoing		
	2464	Green Power Development	ADF	29.0	29 Oct 08	Ongoing		
3. Finance								
Finance Sector Development								
	1565	Finance Sector Intermediation Facility (Policy Loan)	ADF	4.0	23 Oct 97	23 Dec 02	S	PS
	1566	Finance Sector Intermediation Policy (Development Finance Loan)	ADF	4.0	23 Oct 97	19 Jan 03	S	PS
	2279	Finance Sector Development Program (Program Loan)	ADF	11.0	7 Dec 06	Ongoing		
	2280	Finance Sector Development Program (Project Loan)	ADF	2.0	7 Dec 06	Ongoing		
4. Health and Social Protection								
Health Systems								
	1762	Health Care Reform Program	ADF	10.0	21 Sep 00	27 Sep 02	S	S
5. Transport and Information and Communication Technology								
Road Transport								
	1763	Road Improvement	ADF	9.6	3 Oct 00	8 Aug 06	S	PS
	2187	Road Network	ADF	27.3	30 Sep 05	Ongoing		
6. Water and Other Municipal Infrastructure and Services								
Urban Sector Development								
	1625	Urban Infrastructure Improvement	ADF	5.7	30 Jul 98	30 Jun 05	S	S
	2258	Urban Infrastructure Development	ADF	24.6	27 Sep 06	Ongoing		
				Subtotal (A)	204.6			
B. ADF-Funded Grants								
1. Energy								
Renewable Energy								
	0119	Green Power Development	ADF	25.3	29 Oct 08	Ongoing		

Sector	Loan/ Grant No.	Project Name	Fund Type	Amount (\$ million)	Date Approved	Date Closed	PCR Rating ^a	IED Rating ^a
	0141	Green Power Development	ACEF	1.0	29 Oct 08	Ongoing		
2. Industry and Trade								
Small and Medium-Sized Enterprise Development								
	0088	Micro, Small, and Medium-Sized Enterprise Sector Development (Program)	ADF	6.0	21 Nov 07	Ongoing		
	0089	Micro, Small, and Medium-Sized Enterprise Sector Development (Project)	ADF	9.0	21 Nov 07	Ongoing		
3. Transport and Information and Communication Technology								
Information and Communication Technology								
	0098	South Asia Subregional Economic Cooperation Information Highway	ADF	4.7	17 Dec 07	Ongoing		
Road Transport								
	0174	Road Network Project II	ADF	38.8	10 Nov 09	Ongoing		
Subtotal (B)				84.7				
C. JFPR-Funded Technical Assistance Grants								
1. Education								
Technical Education and Vocational Skills Training								
	9093	Rural Electricians Training Program		1.0	25 May 06	Ongoing		
	9103	Rural Skills Development		2.0	15 Jan 07	Ongoing		
2. Transport and Information and Communication Technology								
Road Transport								
	9069	Improving the Well-Being of Road Workers		0.5	9 Aug 05	Ongoing		
Subtotal (C)				3.5				
Total				292.8				

ACEF = Asian Clean Energy Fund, ADF = Asian Development Fund, HS = highly satisfactory, IED = Independent Evaluation Department, OCR = ordinary capital resources, PCR = project completion report, PS = partly satisfactory, S = satisfactory.

^a Cells are left blank for projects where no rating exists.

Sources: ADB grant, loan, and technical assistance databases.

Table A2.2: Private Sector Operations

Sector	Investment No.	Project Name	Type	Amount (\$)	Date Approved	Date Closed	PCR Rating	IED Rating
A. Equity Investment								
1. Finance								
Banking Systems								
	7139	Bhutan National Bank	Equity	533,000	22 Oct 97	2004	S	S
Total				533,000				

IED = Independent Evaluation Department, PCR = project completion report, S = satisfactory.

Sources: ADB grant, loan, and technical assistance databases.

Table A2.3: Technical Assistance Grants

Sector	TA/ Grant No.	Project Name	Type	Amount (\$)	Date Approved	Date Closed	TCR Rating ^a	IED Rating ^a
A. Technical Assistance Grants from TASF, JSF, and Other Sources								
1. Agriculture and Natural Resources								
Land-Based Natural Resources Management								
	4120	Strengthening Environmental Sector Capacity	AD	150,000	27 May 03	15 Apr 05		S
	4636	Capacity Building to Implement Environmental Assessment Procedures	AD	200,000	22 Aug 05	31 Oct 06	S	S
2. Education								
Technical Education and Vocational Skills Training								
	3340	Basic Skills Development	PP	450,000	14 Dec 99	30 Apr 01		
	3525	Institutional Development of the National Technical Training Authority	AD	300,000	27 Oct 00	31 Oct 01	S	PS
3. Energy								
Electricity Transmission and Distribution								
	3307	Corporatization of Division of Power	AD	600,000	25 Nov 99	31 Mar 02	HS	S
	3825	Rural Electrification and Network Expansion	PP	700,000	21 Dec 01	14 Sep 04		
	4188	Capacity Building of the Bhutan Electricity Authority	AD	400,000	30 Sep 03	21 Jun 07	S	PS
	4189	Establishing the Druk Hydropower Corporation	AD	500,000	30 Sep 03	29 May 06	S	S
	4766	Accelerated Rural Electrification	AD	700,000	28 Feb 06	Ongoing		S
Energy Sector Development								
	3112	Policy and Legal Framework for Power Sector Development	AD	500,000	8 Dec 98	31 Mar 01	S	HS
	4599	Capacity Building for the Bhutan Power Corporation	AD	400,000	16 Jun 05	25 Jul 07	HS	
	4916	Bhutan Power Development	PP	1,600,000	29 Jan 07			
Renewable Energy								
	7157	Promotion of Clean Power Export Development	AD	1,488,000	29 Oct 08	Ongoing		
	7318	Rural Renewable Energy Development	PP	900,000	27 Jul 09	Ongoing		
4. Finance								
Banking Systems								
	3212	Strengthening the Banking Supervision Function of the Royal Monetary Authority	AD	600,000	30 Jun 99	31 Aug 01	S	S
	3596	Project Appraisal and Portfolio Management for Financial Institutions	AD	400,000	19 Dec 00	31 Jul 04	PS	PS
	3910	Institutional Development of the Bhutan Development Finance Corporation	AD	200,000	27 Aug 02	31 Aug 03	S	PS
	4386	Strengthening of the Payment and Settlement System	AD	275,000	7 Sep 04	24 Mar 09		PS
	4386	Strengthening of the Payment and Settlement System (Supplementary)	AD	300,000	15 Dec 05	25 Mar 09		

Sector	TA/ Grant No.	Project Name	Type	Amount (\$)	Date Approved	Date Closed	TCR Rating ^a	IED Rating ^a
	4386	Strengthening of the Payment and Settlement System (Supplementary)	AD	30,000	13 Aug 07	26 Mar 09		
	7084	Strengthening of the Credit Information Bureau	AD	350,000	27 May 08	Ongoing		S
		Finance Sector Development						
	2902	Capacity Upgrading of Finance Sector Infrastructure and Entrepreneurial Development	AD	500,000	23 Oct 97	21 Aug 03	S	PS
	3687	Finance Sector Review	AD	300,000	23 Jul 01	22 Feb 05	S	S
	4615	Finance Sector/Nonbank Financial Institutions Reform Program	PP	500,000	17 Jul 05	31 Jul 08		
	4885	Institutionalizing Skills and Capacity Development	AD	250,000	7 Dec 06	Ongoing		S
		Insurance and Contractual Savings						
	3111	Upgrading the Royal Insurance Corporation of Bhutan, Restructuring the Government Employees Provident Fund and Introducing a Pension Scheme	AD	500,000	7 Dec 98	12 Aug 04	S	PS
	3796	Institutional Development of the National Pension and Provident Fund Bureau	AD	300,000	12 Dec 01	16 Nov 04	S	S
		Microfinance						
	4837	Small and Medium-Sized Enterprise/Microenterprise Development Program: Financing Component	PP	500,000	11 Sep 06	Ongoing		S
		Money and Capital Markets						
	3905	Strengthening the Capacity of the Royal Monetary Authority and Royal Securities Exchange of Bhutan	AD	334,000	23 Aug 02	12 Feb 05	S	S
5.		Health and Social Protection						
		Health Finance						
	3186	Health Care Financing and Reform Program	PP	150,000	16 Apr 99	29 Feb 04		
6.		Industry and Trade						
		Large and Medium Industries						
	4019	Industrial Estate and Dry Port Development	PP	700,000	6 Dec 02	31 Jan 05		
		Small and Medium-Sized Enterprise Development						
	4412	Small and Medium Enterprise Development	AD	300,000	8 Oct 04	30 Nov 07	S	S
7.		Public Sector Management						
		Economic and Public Affairs Management						
	2860	Strengthening the Central Statistical Organization	AD	400,000	9 Sep 97	23 Apr 01	GS	
	3443	Poverty Assessment and Analysis	AD	100,000	19 May 00	Incomplete		
	3669	Strengthening the National Statistical System	AD	600,000	7 Jun 01	31 Dec 04		S

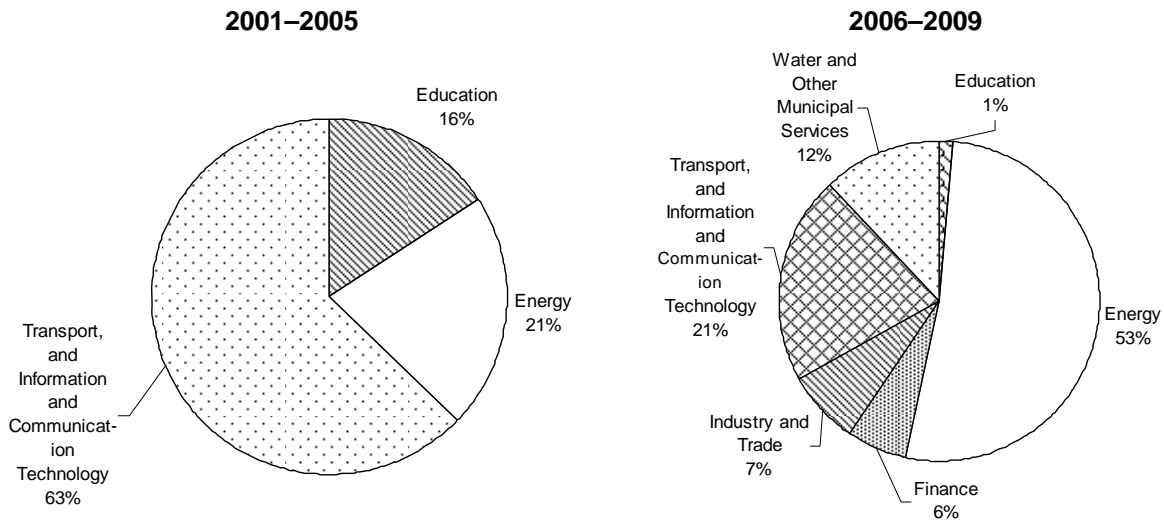
Sector	TA/ Grant No.	Project Name	Type	Amount (\$)	Date Approved	Date Closed	TCR Rating ^a	IED Rating ^a
	3790	Institutional Development of the Department of Employment and Labor	AD	200,000	7 Dec 01	31 Oct 03		S
	4424	Strengthening the National Statistical System Phase 2	AD	250,000	5 Nov 04	31 Jul 07		S
	4914	Capacity Development for the Department of Labor	AD	300,000	16 Jan 07	Ongoing		
Public Expenditure and Fiscal Management								
	3513	Public Sector Resource Management	AD	300,000	6 Oct 00	31 Dec 04	S	S
	3893	Strengthening the Debt Management Capacity of the Department of Aid and Debt Management	AD	116,000	4 Jul 02	16 Nov 04		S
	4398	Strengthening the Debt Management Capacity of the Department of Aid and Debt Management	AD	225,000	28 Sep 04	29 Nov 07	S	S
	4871	Capacity Building of the Department of Aid and Debt Management's Debt Management Unit	AD	200,000	20 Nov 06	31 Jul 08		
	7032	Strengthening Public Financial Management	AD	750,000	14 Dec 07	Ongoing		
8. Transport and Information and Communication Technology								
Road Transport								
	3107	Road Transport Network Development	PP	650,000	3 Dec 98	15 Mar 01		
	3470	Road Planning and Management Strengthening	AD	954,000	20 Jul 00	16 Dec 03	GS	S
	4138	Road Network Expansion	PP	500,000	2 Jul 03	15 Jun 06		
	4658	Capacity Building in Road Safety and Road Asset Management	AD	300,000	30 Sep 05	Ongoing		PS
	7128	Road Network II	PP	650,000	10 Sep 08	Ongoing		
	7374	Capacity Building of the Department of Roads	AD	100,000	10 Nov 09	Ongoing		
9. Water and Other Municipal Infrastructure and Services								
Slum Upgrading and Housing								
	4042	Housing Sector Reform	AD	500,000	18 Dec 02	13 Oct 04	S	S
Urban Sector Development								
	4533	Urban Infrastructure Development	PP	600,000	23 Dec 04	28 Mar 07		
	4844	Capacity Building in Urban Infrastructure Planning and Management	AD	250,000	27 Sep 06	Ongoing		
Total				23,322,000				

AD = advisory, IED = Independent Evaluation Department, JFPR = Japan Fund for Poverty Reduction, JSF = Japan Special Fund, GS = generally successful, HS = highly successful, PP = project preparatory, PS = partly successful, S = satisfactory, TA = technical assistance, TASF = Technical Assistance Special Fund, TCR = technical assistance completion report.

^a Cells are left blank for projects where no rating exists.

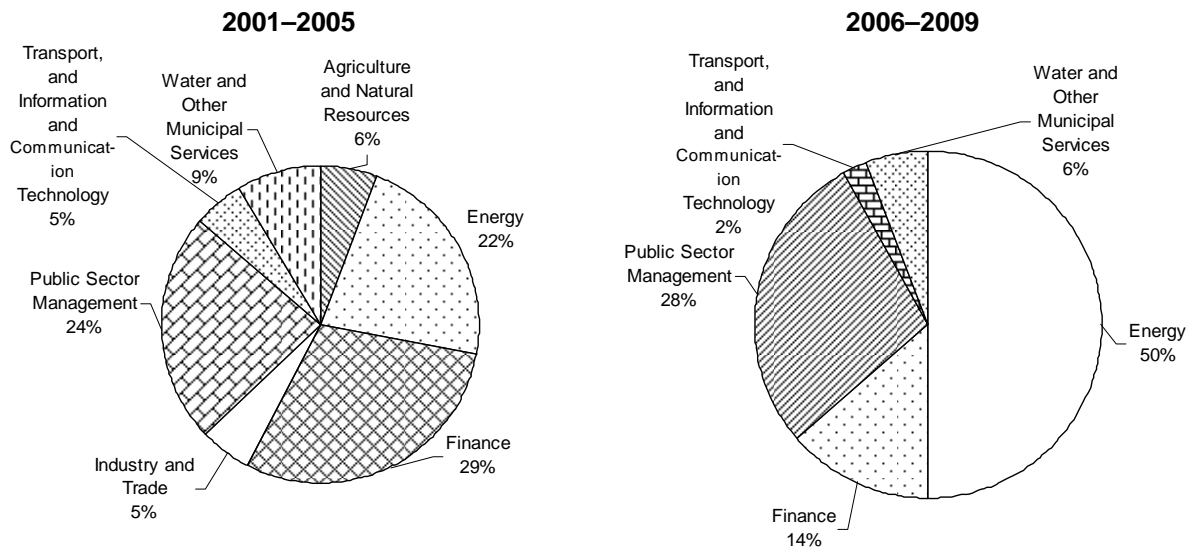
Sources: ADB grant, loan, and technical assistance databases.

Figure A2.1: Comparative Sector Distribution of ADB Ordinary Capital Resources and Asian Development Fund Loans and Grants to Bhutan by Amount (2001–2005 vs. 2006–2009)



Sources: ADB databases on equity, grant, loan, and technical assistance approvals.

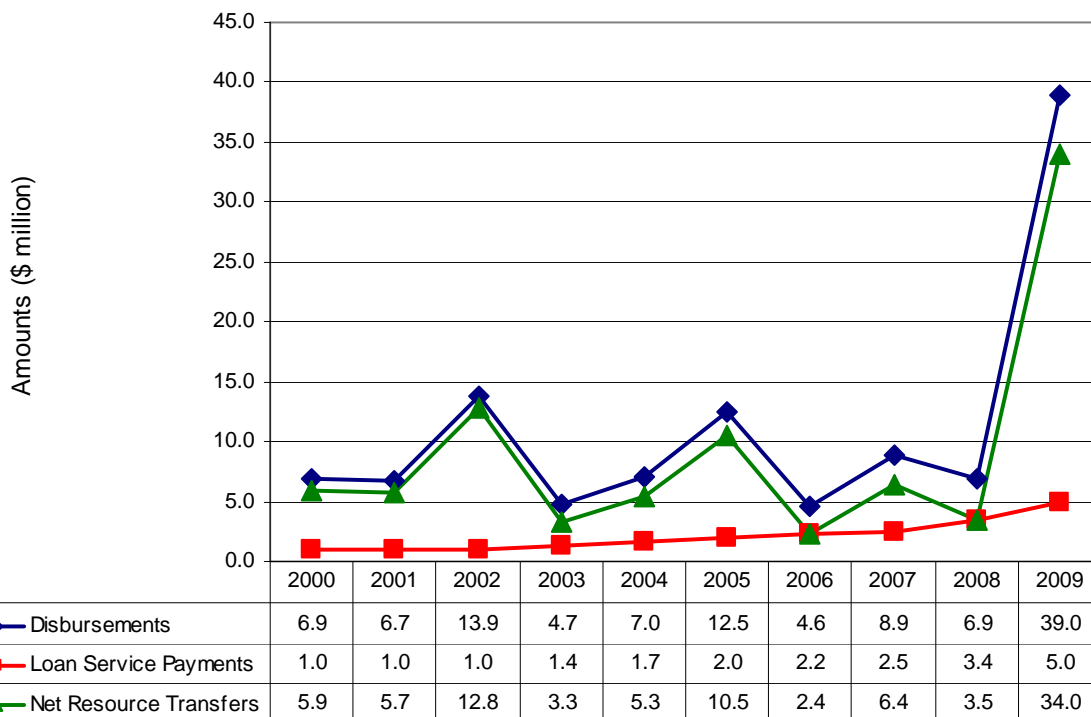
Figure A2.2: Comparative Sector Distribution of ADB Advisory Technical Assistance Projects to Bhutan by Amount (2001–2005 vs. 2006–2009)



Sources: ADB databases on equity, grant, loan, and technical assistance approvals.

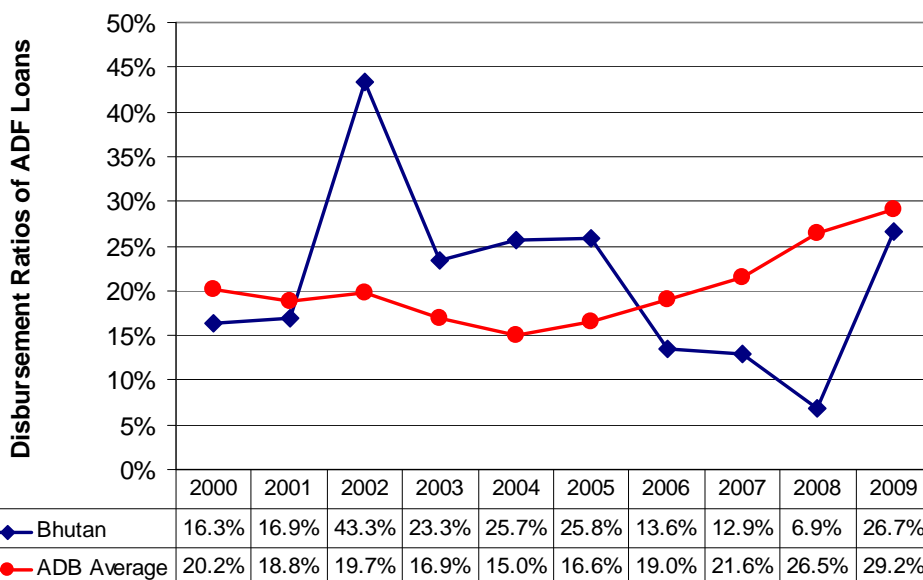
DATA ON ADB OPERATIONS IN BHUTAN

Figure A3.1: ADB Net Resource Transfers to Bhutan, 2000–2009



Source: Central Operations Services Office.

Figure A3.2: Disbursement Ratios of Asian Development Fund Loans, Bhutan vs. ADB Average, 2000–2009



ADB = Asian Development Bank, ADF = Asian Development Fund.

Source: ADB loan and grant financial information services.

Table A3.1: Thematic Classification of Projects by Strategy Years, 2001–2009
(by loan/grant amount, \$ million)

Thematic Classification	Strategy Years		Total amount of ADB loans and grants supporting theme	% Share of total
	2001–2005	2006–2009		
Previous Theme List^a				
Economic growth	9.40		9.40	3.8
Human development	7.00		7.00	2.8
Good governance	0.00		0.00	0.0
Environmental protection	0.00		0.00	0.0
Gender and development	0.00		0.00	0.0
Private sector development	0.00		0.00	0.0
Regional cooperation	0.00		0.00	0.0
July 2004–December 2008 Theme List				
Sustainable economic growth	27.30	163.60	190.90	77.6
Inclusive social development	0.00	4.70	4.70	1.9
Governance	0.00	13.00	13.00	5.3
Environmental sustainability	0.00	0.00	0.00	0.0
Gender and development	0.00	0.00	0.00	0.0
Private sector development	0.00	134.30	134.30	54.6
Regional cooperation	0.00	106.30	106.30	43.2
Capacity development	0.00	24.60	24.60	10.0
January 2009 Theme List				
Economic growth		38.80	38.80	15.8
Social development		0.00	0.00	0.0
Governance		0.00	0.00	0.0
Environmental sustainability		0.00	0.00	0.0
Gender equity		0.00	0.00	0.0
Private sector development		0.00	0.00	0.0
Regional cooperation		38.80	38.80	15.8
Capacity development		0.00	0.00	0.0
Consolidated, 2001–2009				
Economic growth			239.10	97.2
Social development			11.70	4.8
Governance			13.00	5.3
Environmental sustainability			0.00	0.0
Gender equity			0.00	0.0
Private sector development			134.30	54.6
Regional cooperation			145.10	59.0
Capacity development			24.60	10.0
Total			246.10	

Note: A project may have two or more themes.

^a Project classification used prior to 30 June 2004.

Sources: Reports and recommendations of the President, Asian Development Bank database.

Table A3.2: Thematic Classification of Projects by Strategy Years, 2001–2009
(by number of loans)

Thematic Classification	Strategy Years		Total	% Share
	2001–2005	2006–2009		
Previous Theme List^a				
Economic growth	1		1	11.1
Human development	1		1	11.1
Good governance	0		0	0.0
Environmental protection	0		0	0.0
Gender and development	0		0	0.0
Private sector development	0		0	0.0
Regional cooperation	0		0	0.0
July 2004–December 2008 Theme List				
Sustainable economic growth	1	5	6	66.7
Inclusive social development	0	1	1	11.1
Governance	0	1	1	11.1
Environmental sustainability	0	0	0	0.0
Gender and development	0	0	0	0.0
Private sector development	0	3	3	33.3
Regional cooperation	0	1	1	11.1
Capacity development	0	1	1	11.1
January 2009 Theme List				
Economic growth		1	1	11.1
Social development		0	0	0.0
Governance		0	0	0.0
Environmental sustainability		0	0	0.0
Gender equity		0	0	0.0
Private sector development		0	0	0.0
Regional cooperation		1	1	11.1
Capacity development		0	0	0.0
Consolidated, 2001–2009				
Economic growth			8	88.9
Social development			2	22.2
Governance			1	11.1
Environmental sustainability			0	0.0
Gender equity			0	0.0
Private sector development			3	33.3
Regional cooperation			2	22.2
Capacity development			1	11.1
Total			9	

^a Project classification used from 1992 to 30 June 2004.
Sources: Reports and Recommendations of the President.

Table A3.3: Portfolio Management Indicators Bhutan, 2001–2009

Indicators	Unit	2001	2002	2003	2004	2005	2006						
A. Public Sector Loans													
1. Loan Portfolio													
a. Active Loan Portfolio	No.|\$M	7	48.0	6	40.1	5	44.1	5	44.9	5	64.7	6	84.6
i. Project Loans	No.|\$M	4	30.7	4	32.4	5	44.1	5	44.9	5	64.7	5	73.4
ii. Program Loans	No.|\$M	2	13.5	1	3.9	0	0.0	0	0.0	0	0.0	1	11.2
iii. DFI/Credit Loans	No.|\$M	1	3.8	1	3.8	0	0.0	0	0.0	0	0.0	0	0.0
iv. Combined Projects and DFIs Loans	No.|\$M	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
b. Average Age of the Active Loan Portfolio	Years		2.4		3.6		3.1		4.1		3.7		1.7
c. Inactive Loan Portfolio	No.|\$M	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2. Start-Up Compliance													
a. Loans Approved During the Year	No.|\$M	1	7.0	0	0.0	1	9.4	0	0.0	1	27.3	3	37.6
b. Loans Not Yet Signed	No.		0.0		0.0		0.0		0.0		0.0		2.0
c. Loans Awaiting Effectiveness	No.		0.0		0.0		1.0		0.0		0.0		1.0
d. Average Time from Approval to Signing	Months		3.1		3.4		2.2		2.2		1.6		1.5
e. Average Time from Signing to Effectivity	Months		1.6		1.7		1.8		2.2		1.7		2.6
f. Loans that Became Effective more than 90 Days after Signing	No.|%	2	28.6	2	33.3	1	25.0	2	40.0	1	20.0	1	33.3
3. Financial Performance													
a. Contract/Commitment Achievement	\$M		7.3		14.6		7.5		9.6		2.5		2.6
b. Contract/Commitment Ratio ^a	%		24.5		59.0		36.4		65.1		8.7		4.2
c. Disbursement Achievement	\$M		6.7		13.9		4.7		7.0		12.5		4.6
d. Disbursement Ratio	%		16.9		43.3		23.3		25.7		25.8		13.6
e. Imprest Fund Turnover Ratio ^b	%		0.6		1.0		1.5		3.1		4.3		1.6
f. Submission of APA and AFS (PC & NC)													
i. =< 6 months overdue	No.|%	1	25.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ii. > 6 =<12 months overdue	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
iii. > 12 months overdue	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
g. Loan Service Payments	\$M		1.0		1.0		1.4		1.7		2.0		2.2
h. Net Resource Transfer	\$M		5.7		12.8		3.3		5.3		10.5		2.4
4. Portfolio Performance													
a. Project Ratings (no. of Loans)													
i. Highly Satisfactory	No.|%	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0	1	16.7
ii. Satisfactory	No.|%	6	85.7	5	83.3	4	80.0	5	100.0	5	100.0	5	83.3
iii. Partly Satisfactory	No.|%	1	14.3	1	16.7	0	0.0	0	0.0	0	0.0	0	0.0
iv. Unsatisfactory	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0

Indicators	Unit	2007	2008	2009	Region 2009	ADB 2009					
A. Public Sector Loans											
1. Loan portfolio											
a. Active loan portfolio	No. | \$M	5	77.7	6	148.5	6	149.5	184	15,774.3	517	44,979.4
i. Project loans	No. | \$M	4	66.0	5	137.0	5	137.9	157	12,168.4	456	36,826.8
ii. Program loans	No. | \$M	1	11.6	1	11.5	1	11.6	18	2,570.9	41	5,213.0
iii. Direct foreign investment or credit loans	No. | \$M	0	0.0	0	0.0	0	0.0	7	1,001.0	13	1,260.4
iv. Combined projects and direct foreign investment loans	No. | \$M	0	0.0	0	0.0	0	0.0	2	33.9	7	200.0
b. Average age of the active loan portfolio	Years		2.4		1.7		2.7		3.8		3.7
c. Inactive loan portfolio	No. | \$M	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
2. Start-up compliance											
a. Loans approved during the year	No. | \$M	0	0.0	2	80.0	0	0.0	36	3,278.1	102	12,780.2
b. Loans not yet signed	No.		0.0		2.0		0.0		14.0		39.0
c. Loans awaiting effectiveness	No.		0.0		0.0		0.0		6.0		19.0
d. Average time from approval to signing	Months		1.9		1.9		2.5		3.2		3.8
e. Average time from signing to effectivity	Months		2.6		2.6		2.6		3.9		3.9
f. Loans that became effective more than 90 days after signing	No. | %	1	20.0	1	25.0	1	16.7	81	49.4	257	56.0
3. Financial performance											
a. Contract or commitment achievement	\$M		13.4		18.8		75.6		3,200.5		10,784.1
b. Contract or commitment ratio	%		21.6		15.2		72.2				38.4
c. Disbursement achievement	\$M		8.9		4.3		31.0		2,763.2		9,649.8
d. Disbursement ratio	%		12.9		6.9		22.6				31.0
e. Imprest fund turnover ratio	%		0.6		1.0		2.2				1.8
f. Submission of APA and AFS (PC and NC)											
i. 6 months or less overdue	No. | %	0	0.0	2	66.7	0	0.0	44	31.0	83	23.1
ii. 6–12 months overdue	No. | %	0	0.0	0	0.0	1	33.3	8	5.6	12	3.3
iii. More than 12 months overdue	No. | %	0	0.0	0	0.0	0	0.0	4	2.8	5	1.4
g. Loan service payments	\$M		2.5		3.4		5.0		844.0		3,877.6
h. Net resource transfer	\$M		6.4		0.9		26.0		1,919.1		5,772.0
4. Portfolio performance											
a. Project ratings (no. of loans)											
i. Highly satisfactory	No. | %	0	0.0	0	0.0	0	0.0	4	2.2	7	1.4
ii. Satisfactory	No. | %	5	100.0	6	100.0	5	83.3	167	90.8	480	92.8
iii. Partly satisfactory	No. | %	0	0.0	0	0.0	1	16.7	7	3.8	20	3.9
iv. Unsatisfactory	No. | %	0	0.0	0	0.0	0	0.0	6	3.3	10	1.9

Indicators	Unit	2001	2002	2003	2004	2005	2006						
b. Projects at risk (no. of loans)	No.|%	1	14.3	1	16.7	0	0.0	0	0.0	0	0.0	0	0.0
i. Problem projects (IP or IO is rated PS or U)	No.|%	1	14.3	1	16.7	0	0.0	0	0.0	0	0.0	0	0.0
ii. Potential problem projects (4 or more problem flags)	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
iii. Problem projects													
a. Implementation progress (PS and U)	No.|%	1	14.3	1	16.7	0	0.0	0	0.0	0	0.0	0	0.0
b. Impact and outcome (PS and U)	No.|%	1	14.3	1	16.7	0	0.0	0	0.0	0	0.0	0	0.0
c. Risk ratios													
i. Project implementation delays	No.|%	1	16.7	2	40.0	0	0.0	1	20.0	1	20.0	0	0.0
ii. Loan utilization delays	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
iii. Established, staffed, and/or operation of PMU and/or PIU	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
iv. Fielding of consultants	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
v. Environmental or social problems	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
vi. Poor compliance with APA and AFS	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
vii. Poor compliance with other covenants	No.|%	0	0.0	0	0.0	0	0.0	1	20.0	0	0.0	0	0.0
viii. Shortage of counterpart funds or cofinancing	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
ix. Unsettled cost overrun	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
x. Significant disbursement delays	No.|%	2	28.6	1	16.7	2	40.0	2	40.0	2	40.0	1	16.7
xi. In risk sector or country with history of problems	No.|%	3	42.9	4	66.7	0	0.0	0	0.0	0	0.0	0	0.0
xii. Project fielded missions	No.|%	2	28.6	0	0.0	3	60.0	0	0.0	4	80.0	4	66.7
d. Overall risk ratio of the portfolio	%		12.3		12.1		9.1		7.3		12.7		8.1
E. Portfolio supervision													
a. Proactivity index	No.|%	0	0.0	0	0.0	1	100.0	0	0.0	0	0.0	0	0.0
b. Average supervision intensity (staff-days per project)	days		32.1		13.7		17.0		17.0		8.3		14.6
c. Loans with settled cost overruns	No.		0.0		0.0		0.0		0.0		0.0		0.0
d. Loans with changes in project scope	No.		0.0		1.0		1.0		0.0		2.0		0.0
e. Loans with changes in implementation arrangements	No.		0.0		0.0		0.0		1.0		0.0		1.0
f. Loans with extensions	No.		0.0		1.0		1.0		2.0		2.0		1.0
g. Loan cancellations	\$M		0.0		0.0		0.0		0.0		0.1		0.3
II. Technical assistance													
1. Active TA portfolio	No.|\$M	19	8.7	19	8.3	17	6.7	14	5.4	12	4.8	15	5.7
2. Average time from approval to signing of TA letter	Months		1.4		1.4		1.3		1.2		1.6		1.5
3. TA completed but not financially closed	No.|\$M	7	0.4	7	0.6	5	0.3	3	0.3	1	0.2	0	0.0

Indicators	Unit	2007	2008	2009	Region	2009	ADB 2009				
b. Projects at risk (no. of loans)	No.|%	0	0.0	0	0.0	1	16.7	16	8.7	38	7.4
i. Problem projects (IP or IO is rated PS or U)	No.|%	0	0.0	0	0.0	1	16.7	13	7.1	30	5.8
ii. Potential problem projects (4 or more problem flags)	No.|%	0	0.0	0	0.0	0	0.0	3	1.6	8	1.5
iii. Problem projects											
a. Implementation progress (PS and U)	No.|%	0	0.0	0	0.0	1	16.7	13	7.1	30	5.8
b. Impact and outcome (PS and U)	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	4	0.8
c. Risk ratios											
i. Project implementation delays	No.|%	0	0.0	0	0.0	1	16.7	57	32.2	114	22.6
ii. Loan utilization delays	No.|%	0	0.0	0	0.0	0	0.0	27	300.0	2	10.0
iii. Established, staffed, and/or operation of PMU and/or PIU	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	20	4.2
iv. Fielding of consultants	No.|%	0	0.0	0	0.0	0	0.0	11	6.2	22	4.4
v. Environmental or social problems	No.|%	0	0.0	0	0.0	0	0.0	0	0.0	12	2.6
vi. Poor compliance with APA and AFS	No.|%	0	0.0	0	0.0	1	20.0	1	0.6	35	7.4
vii. Poor compliance with other covenants	No.|%	0	0.0	0	0.0	0	0.0	2	1.1	26	5.0
viii. Shortage of counterpart funds or cofinancing	No.|%	0	0.0	0	0.0	0	0.0	5	2.8	7	1.4
ix. Unsettled cost overrun	No.|%	0	0.0	0	0.0	0	0.0	6	3.8	6	1.3
x. Significant disbursement delays	No.|%	0	0.0	1	16.7	1	16.7	4	2.2	134	25.9
xi. In risk sector or country with history of problems	No.|%	0	0.0	0	0.0	0	0.0	1	0.5	30	5.8
xii. Project fielded missions	No.|%	4	80.0	4	66.7	2	33.3	26	14.1	143	27.7
d. Overall risk ratio of the portfolio	%		7.8		8.1		8.1		7.3		10.1
E. Portfolio supervision											
a. Proactivity index	No.|%	0	0.0	0	0.0	0	0.0	7		29	80.6
b. Average supervision intensity (staff-days per project)	days		22.2		19.8		24.0		27.3		29.0
c. Loans with settled cost overruns	No.		0.0		0.0		0.0		6.0		40.0
d. Loans with changes in project scope	No.		1.0		0.0		1.0		11.0		60.0
e. Loans with changes in implementation arrangements	No.		0.0		2.0		1.0		31.0		88.0
f. Loans with extensions	No.		1.0		0.0		0.0		68.0		146.0
g. Loan cancellations	\$M		0.3		0.9		0.0		94.6		582.1
II. Technical assistance											
1. Active TA portfolio	No.|\$M	12	6.2	12	7.7	14	4.6			877	1049.5
2. Average time from approval to signing of TA letter	Months		1.1		1.0		1.0				2.7
3. TA completed but not financially closed	No.|\$M	1	0.0	0	0.0	0	0.0			32	8.9

\$M = million dollars, AFS = agency financial statements, APA = audited project accounts, DFI = development finance institution, IO = implementation objectives, IP = implementation progress, NC = not complied, No. = number, PC = partly complied, PIU = project implementation unit, PMU = project management unit, PS = partly satisfactory, TA = technical assistance, U = unsatisfactory.

Source: Central Operations Services Office.

Table A3.4: Selected Indicators of Operational Effectiveness of ADB Assistance to Bhutan by Strategy Period

Item	2000 CSP (2001–2005)	2005 CSP (2006–2009)	2001–2009	2012 Target for ADF Countries	Remarks
Operational Quality and Portfolio Performance					
Quality-at-entry of CSP (% satisfactory)		0%	0%	80%	The 2005 Bhutan CSP was included in the 2006 QAE assessment and was rated <i>marginally satisfactory</i> . It received <i>satisfactory</i> ratings in country diagnostics, performance indicators, and the CSP preparation process, but was rated <i>marginally satisfactory</i> in identification of lessons, country strategy, country program, and risk assessment and mitigation. (Source: 2006 Quality-at-Entry report.)
Project performance rating at implementation (% satisfactory)	94%	96%	95%	90%	Average annual percentage of projects with <i>satisfactory</i> or <i>highly satisfactory</i> ratings during the period. (Source: COSO portfolio management indicators.)
Perception on ADB effectiveness regarding reducing poverty (% with excellent and good perception)		73%	73%	60%	Based on responses of excellent and good to question 17 of 2009 ADB Stakeholders' Perception Survey (Bhutan subset). Perception of ADB effectiveness in reducing poverty was higher among Bhutan respondents (73%) than all respondents (50%). (Source: 2009 ADB Perception Survey.)
Finance Mobilization					
Overall disbursement ratio for sovereign operations (ADF only, %)	27%	15%	22%	20%	Bhutan's average of 27% during 2001–2005 was higher than the ADB average of 18%, but its average of 15% during 2006–2009 was lower than the ADB average of 24%. Bhutan's average of 22% during 2001–2009 was slightly higher than the ADB average of 20%. (Source: ADB loan and grant financial information services.)
Proportion of direct value-added cofinancing relative to ADB loans and grants approved annually (%)	33%	17%	22%	20%	Based on number of projects with direct value-added cofinancing. Figures for Bhutan were higher than the ADB average of 25% for 2001–2005 but lower than the ADB averages of 29% for 2006–2009 and 27% for 2001–2009. (Sources: RRP; ADB cofinancing database; and ADB loan, TA, grant, and equity approval database.)
Strategic Focus in Operations					
Proportion of financing for Strategy 2020 core operational areas (%)	100%	93%	94%	No target	Based on approval amount of projects supporting Strategy 2020 priority areas. (Source: RRP.)

Item	2000 CSP (2001–2005)	2005 CSP (2006–2009)	2001–2009	2012 Target for ADF Countries	Remarks
Proportion of projects supporting private sector development (%)	0%	50%	33%	No target	Based on number of approved projects with private sector development as a theme. (Source: RRP.)
Proportion of projects supporting regional cooperation (%)	0%	33%	22%	No target	Based on number of approved projects with regional cooperation as a theme. (Source: RRP.)
Proportion of projects supporting environmental sustainability (%)	0%	0%	0%	No target	Based on number of approved projects with environmental sustainability as a theme. (Source: RRP.)
Proportion of projects with gender mainstreaming (%)	33%	0%	11%	50%	Based on number of approved projects that have category I or II gender mainstreaming ratings. (Source: RRP.)
Partnership					
Proportion of sovereign operations with nongovernment organization and/or civil society organization participation (%)	0%	17%	11%	80%	Based on number of projects with nongovernment organization and/or civil society organization participation. (Source: RRP.)
Proportion of CSP and CPR missions conducted jointly with at least one other development partner (% annually)	0%		0%	60%	No joint CSP or CPR mission was conducted during 2000–2005. However, the 2005 CSP states that ADB closely cooperates with all major development partners during the preparation of CSPs and CSP updates. No CPS or CPR mission was conducted during 2006–2009.
Business Processes and Practices					
Average sovereign operations processing time (months from fact-finding to approval)	5.6	5.2	5.4	20.0	(Sources: Project completion reports, back-to-office reports, and project performance reports.)
Average time from approval to first disbursement in sovereign operations (months)	10.2	10.7	10.5	12.0	(Sources: Project completion reports, loan and grant financial information services.)

ADB = Asian Development Bank, ADF = Asian Development Fund, COSO = Central Operations Services Office, CPR = country portfolio review, CSP = country strategy and program, RRP = report and recommendation of the President.
Sources: As indicated in "Remarks."

**Table A3.5: Start-Up Periods of Loans that Became Effective during 2001–2009
by Strategy Period**

Item	2001–2005		2006–2009	
	Bhutan	ADB	Bhutan	ADB
Total number of loans that became effective during period ^a				
OCR	0.0	145.0	1.0	156.0
ADF	3.0	235.0	4.0	171.0
Total	3.0	380.0	5.0	327.0
Average number of months from approval to signing				
OCR	0.0	4.6	3.6	3.7
ADF	1.7	3.0	2.7	3.0
OCR and ADF	1.7	3.6	2.8	3.3
Average number of months from signing to effectivity				
OCR	0.0	3.9	2.7	2.5
ADF	2.6	4.8	2.9	3.4
OCR and ADF	2.6	4.5	2.9	3.0
Average start-up period in months ^b				
OCR	0.0	8.5	6.2	6.2
ADF	4.4	7.9	5.6	6.4
OCR and ADF	4.4	8.1	5.7	6.3
Percentage of loans with start-up delays ^c				
OCR	0.0	63.0	100.0	45.0
ADF	33.0	59.0	25.0	45.0
OCR and ADF	33.0	60.0	40.0	45.0

ADB = Asian Development Bank, ADF = Asian Development Fund, OCR = ordinary capital resources.

^a Excludes loans that were canceled due to lapse of approval or termination of loan agreement.

^b Loan approval to loan effectivity.

^c Percentage of loans with start-up periods beyond 6 months.

Source: ADB loan financial information system.

**Table A3.6: Delays of Asian Development Fund Loans Closed during 2001–2009
by Strategy Period**

Item	2001–2005		2006–2009	
	Bhutan	ADB	Bhutan	ADB
Total number of ADF loans closed during period ^a	5.0	171.0	4.0	192.0
Number of ADF loans with closing delays	4.0	155.0	3.0	159.0
% of ADF loans with closing delays	80.0	91.0	75.0	83.0
Average delay in months ^b	13.9	22.8	17.2	24.4

ADB = Asian Development Bank, ADF = Asian Development Fund.

^a Excludes loans that were canceled due to lapse of approval or termination of loan agreement.

^b Number of months beyond original closing date based on actual closing date.

Source: ADB loan financial information system.

EVALUATION APPROACH, METHODOLOGY, AND RATINGS

A. Methodology and Data

1. The preparation of the country assistance program evaluation (CAPE) follows the revised *Guidelines for the Preparation of Country Assistance Program Evaluation Reports*¹ of the Asian Development Bank (ADB). This evaluation methodology combines assessments of the relevance, effectiveness, efficiency, sustainability, and impact of sector operations, with assessments of ADB's sector-based and overall strategic positioning, impact, and performance. The assessment of sector operations focuses on assistance areas in which ADB has been most active, i.e., energy, transport, urban development, and finance and private sector development. The latter comprises assistance for the development of the finance sector, micro, small, and medium-sized enterprises, vocational training, as well as labor market reforms and accounting.

2. The approach for the CAPE differs from the one used for the 2005 CAPE because (i) it assesses the performance of ADB operations in key sectors, ADB's strategic positioning, and its development impact; (ii) it provides an overall rating for ADB assistance to Bhutan; and (iii) it uses a results framework to assess ADB's contributions to the achievement of sector outcomes and development results.

3. The evaluation is based on perception surveys, interviews with government officials and other stakeholders, review of project documents, evaluations, and feedback obtained from relevant ADB staff members, field visits to project sites, focus group discussions with project beneficiaries, and stakeholder surveys. The CAPE utilizes findings from available project performance evaluation reports and project completion reports, assessments of key sectors, and the ongoing Independent Evaluation Department (IED) impact assessment of ADB rural electrification assistance. The CAPE has been prepared in consultation with ADB South Asia Department to facilitate a meaningful coordination of the CAPE and country partnership strategy processes.

4. The CAPE process involved interactions between the CAPE team and ADB operations staff in the respective sectors, and also with the country partnership strategy team, government staff, executing agencies, and other stakeholders. CAPE findings were discussed and disseminated internally and externally, including through an in-country workshop prior to finalization of the CAPE report.

B. Limitations

5. Even in a small country like Bhutan, formal attribution of ADB assistance to development results is extremely difficult because of the multiplicity of factors that affect development outcomes and impacts at the country level. Therefore, the assessment of assistance program results focuses on determining whether ADB has made a contribution to key results or outcomes that is both plausible and meaningful, and on identifying the main drivers of the outcomes, taking into consideration the role played by ADB in the development of the various sectors.

¹ ADB. 2006. *Guidelines for the Preparation of Country Assistance Program Evaluation Reports*. Manila.

6. Considering the lack of available baseline studies, limited resources for undertaking the CAPE, and the nature of ADB programs and projects in the country, the direct socioeconomic impact of ADB assistance in most sectors is mainly assessed using qualitative methods. The use of rigorous impact evaluation approaches is limited to ADB rural electrification projects.

C. Performance Ratings

7. The overall CAPE rating comprises ratings for ADB's strategic positioning (accounting for 10% of the overall rating), relevance (10%), effectiveness (20%), efficiency (20%), sustainability (20%), and sector and development impacts (20%). Subcriteria follow those proposed under the revised CAPE guidelines. ADB performance is assessed but not included in the overall rating. To arrive at the overall rating, performance scores for each sector are weighted, taking into consideration their relative importance in terms of lending and technical assistance volumes: energy (40%), transport (25%), finance and private sector development (20%), urban development (10%), and all others (5%). Table A4.1 contains a detailed rating table for ADB assistance to Bhutan.

D. Independent Evaluation Department Project Ratings

8. Project ratings are based on IED rapid assessments under the above sector evaluations, as well as project performance evaluation reports for the Financial Sector Intermediation Facility² and the Sustainable Rural Electrification Project. The comparatively low success rate for loan projects in Bhutan (63%) (Table A4.1), is due mainly to implementation and sustainability problems experienced with the Road Improvement Project, lack of adequate legal and regulatory reforms under the Finance Sector Intermediation Facility, and effectiveness and efficiency issues related to the Basic Skills Development Project. This compares to an average project success rate for post-evaluated projects ADB-wide of 68% over the last 5 years. Based on project performance so far, ongoing assistance is likely going to be more successful. Advisory technical assistance projects have had a higher success rate (i.e., 79%) than financial assistance.

Table A4.1: Project Ratings

Sector/Assistance Area	Public Sector Projects Ongoing or Completed during CAPE Period (No.)	Projects Assessed by IED (No.)	IED Ratings				ADTA Grants Ongoing or Completed during CAPE period (No.)	ADTA Grants Assessed by IED (No.)	IED Ratings				
			HS	S	PS	U			HS	S	PS	U	
Transport, and information and communication technology	4	1			1		4	2		1	1		
Energy	3	2	1	1			7	5	1	3	1		

² Details of these loans, grants and TA projects are found in Appendix 2. They are not footnoted when they are referred to in the text.

Sector/Assistance Area	Public Sector Projects Ongoing or Completed during CAPE Period (No.)	Projects Assessed by IED (No.)	IED Ratings				ADTA Grants Ongoing or Completed during CAPE period (No.)	ADTA Grants Assessed by IED (No.)	IED Ratings			
			HS	S	PS	U			HS	S	PS	U
Finance and private sector development	7	3		1	2		14	12	8		4	
Urban development	2	1		1			2	2		2		
Public sector management							8	6		6		
Others	1	1		1			2	2		2		
Total	17	8	1	4	3		37	29	1	22	6	

ADTA = advisory technical assistance, CAPE = country assistance program evaluation, HS = highly successful, IED = Independent Evaluation Department, PS = partly successful, S = successful, U = unsuccessful.

Sources: Various operations evaluation missions.

Table A4.2: CAPE Performance Ratings

Item	Financial and Private Sector					Total
	Energy (40%)	Transport (25%)	Development (20%)	Urban Development (10%)	Others (5%)	
Strategic Positioning (10%)	2.8	2.2	1.8	2.4	1.8	2.36
Alignment	3	3	2	3	2	
Sequencing and Continuity	3	2	1	2	2	
Selectivity	3	3	3	3	2	
Aid Coordination	3	2	2	2	2	
Quality of CPS Framework	2	1	1	2	1	
Program Relevance (10%)	2.2	2	2	2.3	1.8	2.10
Responsiveness of Programs to Sector Development Needs	3	3	2	3	3	
Translation of Sector Strategies into Assistance Programs	2	2	2	2	1	
Design Quality of Assistance Programs	2	1	2	2	2	
Quality of DMFs	2	2	2		1	
Effectiveness (20%)	2.7	1.3	1.3	1.7	1.7	1.92
Achievement of Outputs	3	2	1	2	2	
Achievements of Institutional Outcomes	2	1	2	1	2	
Achievement of Investment Outcomes	3	1	1	2	1	
Efficiency (20%)	1.75	2	1.5	1.75	1.5	1.70
Resource Efficiency	2	2	2	2	1	
Implementation Efficiency	1.5	2	1	1.5	2	
Sustainability (20%)	2	1.0	1.7	1	2	1.59
Availability of Financial Resources to sustain Project Outputs and Outcomes	2	1	2	1	2	

Item	Financial and Private Sector					Total
	Energy (40%)	Transport (25%)	Development (20%)	Urban Development (10%)	Others (5%)	
Institutional Capacity to sustain Project Outputs and Outcomes	2	1	1	1	2	
Political Commitment to sustain Project Outputs and Outcomes	2	1	2	1	2	
Impact (20%)	2	1.5	1	1.5	1.5	1.60
Contribution to Sector Impacts	2	1	1	2	1	
Contribution to Cross-sector Impacts	2	2	1	1	2	
Total	2.19	1.58	1.48	1.66	1.70	1.82

Note: The performance is rated successful *highly successful* if the rating is greater than or equal to 2.7, *successful* if the rating is less than 2.7 but greater than or equal to 1.6, *partly successful* if the rating is less than 1.6 but greater than or equal to 0.8, and *unsuccessful*, if the rating is less than 0.8.

Source: Independent Evaluation Department.

ASSESSMENT OF ADB ASSISTANCE FOR THE TRANSPORT SECTOR

A. Sector Development Context and Government Strategies

1. Sector Development Needs and Challenges

1. Bhutan is a landlocked country that does not have any railways, inland waterways, seaports, or domestic air traffic. Thus, its transport system is almost totally dependent on the road network. Further, because of its mountainous terrain, the land suitable for agriculture is very limited, scattering the population among remote settlements, which also makes the construction and maintenance of roads difficult and extremely costly. The national road network has expanded to about 5,982 kilometers (km) of roads, including 6.2 km of an expressway, 1,710 km of national highways, 491 km of district roads, 911 km of feeder roads, 207 km of urban roads, 1,361 km of farm roads, 533 km of forest roads, 568 km of access roads, and 196 km of power-tiller roads. About 92% of national highways, 93% of district roads, 92% of urban roads, and 19% of feeder roads are paved. Almost all roads, excluding the expressway and some urban roads, are narrow and built along steep hillsides, which are prone to landslides. The vehicle fleet has grown rapidly from a total of 19,463 vehicles in 2000 to over 42,697 as of June 2009, a growth rate of over 12.5% per year. Vehicle ownership reached 77 vehicles per 1,000 people nationwide in 2009.

2. The road subsector in Bhutan has been developing at a steady pace since the late 1950s. Until the early 1990s, most of the country's main road network was constructed and maintained by India's Border Roads Organisation through Dantak (an organization under the Indian Army Corps of Engineers) and financed by the Government of India on a grant basis. Dantak still maintains 560 km of Bhutan's main road network with Government of India funding. The Department of Roads (DOR) in the Ministry of Works and Human Settlement of Bhutan has direct responsibility for 2,681 km, including the 6.2-km expressway, 1,230 km of national highways, 429 km of district roads, 895 km of feeder roads, and 121 km of urban roads in Thimphu. DOR established eight field offices during the Eighth Five-Year Plan, 1997–2002, and 80%–90% of roadwork has been transferred to and is implemented by these eight field offices. Remaining roads, such as farm roads, forest roads, access roads, and power-tiller roads, are administrated by the Ministry of Agriculture.

3. Lack of access to roads and transport is a critical obstacle to boosting agricultural production, because high transport costs raise input costs and reduce farmers' incentives to produce and market surplus crops. Further, rural communities are poorly connected to basic social and economic services, which are mostly concentrated in *gewog* (village group) centers. In some communities, students have to walk for 2–3 hours each way to reach the nearest primary school. As a result, parents tend to defer enrollment of children from the primary entry age of 6 years until the children have gained adequate physical stamina to make the long commute. Furthermore, as the economy has developed and moved from a subsistence to a market orientation, there has been a corresponding increase in demand for reliable road transport services. In a market economy, businesses and people need safe, market-responsive road transport to get goods to market, ensure timely delivery of inputs, and have access to social services.

2. Government Sector Development Strategies

4. For a small, landlocked, and underdeveloped economy like Bhutan, the expansion of strategic infrastructure is requisite for the country's broader economic and social transformation.

The transport sector received the third-largest share (10%) of the government's Ninth Five-Year Plan, 2002–2007 budget. The seventh, eighth, and ninth five-year plans emphasized upgrading and maintenance of existing roads, rather than the construction of new ones.

5. In the 10th Five-Year Plan, 2008–2013, the strategic infrastructure priorities are those that have the greatest potential to multiply and expand economic opportunities in both rural and urban areas of the country, promote equitable access, and alleviate conditions of poverty. An important strategic infrastructure target is to ensure that three quarters of the rural population lives on less than half a day's walk from the nearest roadhead. This target is to be achieved through the double laning, realigning, resurfacing, and building of national highways and constructing thousands of km of feeder roads, access roads, suspension bridges, and district roads. The key objectives of the 10th Five-Year Plan for roads and bridges are (i) providing road access to all gewog centers; (ii) reducing poverty incidence and improving the quality of life of the rural population through enhanced rural accessibility; (iii) enhancing national security and solidarity through an improved and expanded road network; (iv) enhancing road connectivity to facilitate accelerated hydropower development; (v) consolidating environmentally friendly construction practices to minimize impacts on the environment; (vi) enhancing reliability, economy, safety, ease, and comfort of road travel by reducing travel time, road user costs, transport costs of goods and services, and traffic accidents; (vii) promoting private sector participation in the construction and maintenance of road and bridge infrastructure; and (viii) building professionalism and engineering capacity in the planning, design, monitoring, quality control, and cost-effective construction of road and bridge infrastructure works. The overall budget of the Ministry of Works and Human Settlement under the plan is Nu13,708 million.

B. ADB Assistance Strategies and Programs

6. Total commitments by the Asian Development Bank (ADB) to Bhutan's transport sector from 1983 to 2009 reached \$91.5 million, making this sector the second-largest recipient after energy. There have been five loans and grants, totaling \$85.4 million; eight advisory technical assistance (TA) projects, totaling \$3.9 million; and six project preparatory TA projects, totaling \$2.3 million. During the country assistance program evaluation (CAPE) period, ADB assistance to the transport sector comprised two loans and one grant, totaling \$75.7 million; four advisory TA projects, totaling \$2.2 million; and three project preparatory TA projects, totaling \$1.8 million.

7. The 2000 country operational strategy (COS)¹ for Bhutan focused on maintenance of existing main roads, rather on construction of new ones. It also emphasized policy and institutional strengthening, including capacity building of private sector contractors, sustainable budget provision to maintain existing roads, and development of institutional technical capacity for road maintenance. The main difference in the road subsector strategy of the 2000 COS and the 2005 country strategy and program (CSP)² was the focus of the 2000 COS on improving the existing main road network while that of the 2005 CSP was on enhancing the main road network. The other elements of the road subsector strategy were very similar, including (i) improving rural accessibility, (ii) ensuring adequate maintenance of existing road network, (iii) promoting private sector participation, (iv) building capacity, and (v) supporting regional and subregional links.

¹ ADB. 1999. *Country Assistance Plan 2000–2002: Bhutan*. Manila.

² ADB. 2005. *Country Strategy and Program 2006–2010: Bhutan*. Manila.

8. **Improving the main road network.** Most roads in Bhutan are narrow, along steep hillsides, and difficult to use during the winter months and rainy seasons. Such poor roads make journeys longer and more difficult. ADB has continued its support of the government's plans to improve the main road network, by providing assistance for developing national highways under the Road Improvement Project,³ the Road Network Project, and Road Network Project II. Under the Road Improvement Project, ADB sought to improve the East–West Highway, which connects Trashigang in the east to Thimphu in the west, and is the only means of transport between the two cities. The ongoing Road Network Project is financing upgrading of sections of the Gelephu–Trongsa national highway, which is a north–south road that will provide a link to India in addition to the existing link via the Thimphu–Phuentsholing road in the west and Trashigang–Samdrukjongkhar road in the east. The Road Network Project II is financing the construction of the Southern East–West Highway, which will connect to border access points between Bhutan and India. The Southern East–West Highway will be an alternative to the East–West Highway, which is still vulnerable to natural disasters. Both public and private sectors had demanded an alternative east–west corridor.

9. **Improving rural access.** To improve physical access, reduce the walking time to the nearest road, and integrate remote areas and communities into the national transport network, ADB has supported the government in improving rural access under the Road Network Project through the construction of new feeder roads. The project is financing the construction of four feeder roads: Mirchim–Bongo (17.5 km) and Tekizam–Bjena (6.5 km) in the west, and Garbagtang–Autsho (51.0 km) and Khardungla–Kangpara (28.0 km) in the east. Single-lane carriageways (3.5 meters [m] wide) with 0.5 m-wide shoulders will be built. The road sections within the vicinity of villages, and for 500 m on both sides, will be bituminous surfaced to reduce dust pollution. The design period is 20 years, and the recommended design speed is 40 km per hour.

10. **Strengthening sector institutions.** When ADB began its operations in Bhutan in 1983, responsibility for construction and maintenance of the road network rested entirely with the Border Roads Organisation. Bhutan did not have any agencies involved in road construction and maintenance activities, nor any local contractors capable of providing road construction and maintenance services. In the last decade, responsibility for the road network has been gradually transferred to DOR. ADB has provided support for DOR capacity development, including for the preparation of legal frameworks for road administration, planning, design, maintenance, and safety. ADB assistance has also been designed to make use of and enhance the capabilities of domestic contractors in the transport sector. The Road Network Project II is funding equipment for more comprehensive capacity building and enhancing overall sector management capacity by providing (i) equipment necessary for the road subsector to enhance capacity in areas such as quality survey, design, and construction; road safety; and control of overloading and vehicle emissions; (ii) on-the-job training for social and environmental requirements through detailed design and construction supervision consultants; and (iii) TA to support DOR capacity building, including enhancing knowledge of and skills in modern road technologies, especially with environmental considerations; and enhancing and optimizing the road asset management systems.

11. **Strengthening subregional links.** ADB's South Asia Regional Cooperation Strategy and Program for 2006–2008⁴ supports activities in improving regional transport connectivity by

³ Details of these loans, grants and TA projects are found in Appendix 2. They are not footnoted when they are referred to in the text.

⁴ ADB. 2006. *Regional Cooperation Strategy and Program (2006–2008): South Asia*. Manila.

reducing transport costs, increasing the region's competitiveness, and facilitating the movement of goods and people, thus promoting economic development. ADB is assisting the Government of Bhutan in strengthening international road links with neighboring countries, improving customs and transshipment facilities, and developing trade facilitation systems at the principal border crossing points to reduce transport costs and customs processing delays.

12. **Implementation of ADB assistance.** The Road Improvement Project was completed in 2006, and the Road Network Project and Road Network Project II are ongoing. ADB TA for Road Planning and Management Strengthening was completed in December 2003. TA for Capacity Building in Road Safety and Road Asset Management, and for Capacity Building of the Department of Roads are ongoing. In addition, TA for Improving the Well-Being of Road Workers, financed by the Japan Fund for Poverty Reduction, was completed in December 2009. Table A5.1 shows ADB lending and nonlending activities in the transport sector approved since 1998.

Table A5.1: Road Transport Projects Approved for Bhutan, 1998–2009

Project Name	Project Cost (\$)	ADB Contribution (\$)	Approval Date	Closing Date	Delay in Completion
Loan: Road Improvement Project	12,800,000	9,600,000	3 Oct 00	8 Aug 06	13 months
Loan: Road Network Project	34,100,000	27,300,000	30 Sep 05	31 Dec 10 ^a	9 months
Grant: Road Network Project II	54,320,000	38,760,000	10 Nov 09	31 Dec 14 ^a	
TA: Road Planning and Management Strengthening	1,127,000	954,000	20 Jul 00	3 Dec 03	24 months
TA: Capacity Building in Road Safety and Road Asset Management	376,000	300,000	30 Sep 05	30 Apr 10 ^a	39 months
TA: Capacity Building of the Department of Roads	500,000	400,000	10 Nov 09	31 May 10 ^a	
TA: Improving the Well-Being of Road Workers	652,000	500,000	9 Aug 05	31 Dec 09	19 months

ADB = Asian Development Bank, TA = technical assistance.

^a Ongoing project.

Sources: ADB project documents; ADB project and TA performance reports.

13. The original scope of the Road Improvement Project was to resurface 371 km of the East–West Highway. However, the scope was changed after project approval because the original design did not account for the impact of extreme climate conditions. Additional roadside drains had to be added to protect the road pavement from water saturation. Further, road deterioration was underestimated, so the subgrade and roadbed needed to be improved as well.⁵ Some road sections were also widened or realigned. These changes caused cost overruns and a 17-month delay of physical implementation of the civil works. The completed works for the East–West Highway were only 88% of the target in length (328.3 km), because two procurement packages (totaling 64 km of the East–West Highway) were dropped by the Ministry of Works and Human Settlement. The ministry instead wished to widen these sections

⁵ The deterioration of the road increased for about 2 years between appraisal and the first contract award.

rather than resurface them with ADB funding. For the slope stability works, based on the cost figures, only 56% of the original target was achieved, because the ministry dropped two road sections that were far from the East–West Highway due to difficulty with supervision. The final cost of the road works were 12% over the appraisal estimate, and the average cost per km was \$34,390, which was 26% higher than the appraisal estimate of \$27,210.

14. Improvement of the Trongsa–Kungarapten section of the Road Network Project commenced in December 2007, and the original completion date was February 2010. However, the section has been seriously delayed due to the contractor's financial problems. The contractor has been unable to mobilize the required equipment and workforce, abandoning the work for 2 years. Both sides of a 23-km section have been excavated, and drains were set back for road improvement. Road users are forced to drive this narrow, unsafe road, which remains under construction. The Trongsa *dzongkhag* (district) government requested faster implementation during the CAPE mission.

15. The Gelephu–Trongsa section of the Road Network Project was divided by seven contracts. The progress of civil works of the seven contracts was 9.2%–81.3% as of 31 December 2009. The project also supports the construction of four feeder roads totaling 103 km. The Gumrang–Chali section (24.0 km) of the Garbagtang–Autsho feeder road (51.0 km) and the Growan Chhu–Kangpara section (15.0 km) of the Khardungla–Kangpara feeder road (28.0 km), however, were dropped from the project because of insufficient funds due to an overrun brought about by increased project costs. Thus, the total length of the feeder roads is likely to be 64.0 km. The Tekizam–Bjena feeder road (6.5 km) was completed in September 2009. The other three feeder roads (i.e., Garbagtang–Autsho, Khardungla–Kangpara, and Mirchim–Bongo) remain under construction, and the progress of the civil works was 16.4%–38.4% as of 31 December 2009.

16. TA for capacity building in road safety audit and road asset management has been delayed by 39 months. The international consultant recruited for the road asset management component submitted a 16-page final report, excluding the executive summary and appendixes, to DOR and ADB in September 2009. The scope of this component has entirely changed, because it was designed with the premise that DOR was equipped with data-processing spreadsheets for a road maintenance management system and that a comprehensive road information system was going to be in place, which was not the case.

C. Outputs and Outcomes

17. During the CAPE period, the only completed lending and nonlending activities are the Road Improvement Project and the TA for road planning and management strengthening. TA for improving the well-being of road workers was completed in 31 December 2009, but a TA completion report had not yet been prepared as of 31 May 2010. The other loan and TA projects are ongoing.

1. Improve National Highways

18. The Road Improvement Project resurfaced and improved 328.3 km of the East–West Highway and carried out slope stabilization to preserve the national highway network.

2. Improve Feeder Roads for Access to Basic Infrastructure

19. Under the Road Network Project, the Tekizam–Bjena feeder road (6.5 km) was completed in September 2009. The Khardungla–Kangpara feeder road is close to completion.

3. Enhance Transport Sector Capacity

20. ADB provided support for improving governance by building the capacity of road administration. TA for road planning and management strengthening was completed in June 2002, and it helped draft the proposed Road Act, which was passed by the National Assembly in 2004.⁶ The government was pleased with the TA recommendations and used them in preparing the Ninth Five-Year Plan. All aspects of the terms of reference were covered properly, and the TA helped identify the role and responsibilities of all government agencies for the road subsector.

21. TA for capacity building in road safety audit and road asset management helped equip DOR with the capacity for road safety audits by developing a road safety audit manual and toolkit, and provided the concept of road asset management and guidance for management tools, including training on road maintenance planning in Thailand. Since the scope of the road asset management component entirely changed (para. 16), the TA could not achieve its original objectives of collecting and analyzing required data for road maintenance and preparing an optimal road maintenance and development program. Now, DOR has started to collect road data applicable to the World Bank's Highway Development and Management Model 4 with its own funds.

4. Improve Livelihoods of Workers

22. A grant by the Japan Fund for Poverty Reduction to improve the well-being of road workers aimed to reduce poverty among road workers and their children, one of the most vulnerable populations in the country, through provision of appropriate basic needs. The TA fulfilled this objective through (i) implementation of health education programs, including training-of-trainers as road health workers; (ii) renovation and improvement of road workers' dwellings; (iii) provision of solar power and water supply units and latrines for their dwellings; and (iv) dormitories for road workers' schoolchildren. Quantitative data of the actual TA achievements were not available during the CAPE mission. The final outputs, outcome, and impact should be indicated and evaluated in a TA completion report.

D. Evaluation of ADB Assistance

23. The standard evaluation criteria of strategic positioning, relevance, effectiveness, efficiency, sustainability, and development impact were used to evaluate ADB assistance. Since the Road Network Project II and the TA for capacity building of DOR was approved in 10 November 2009, the evaluation considered these only for strategic positioning and relevance.

24. **Strategic positioning.** ADB transport sector development support in Bhutan was in line with its transport sector strategy for Bhutan, and has been well positioned. The delivery of social services is hampered by the population's isolation and the country's lack of basic infrastructure. Transport infrastructure is a crucial way of improving access to quality social services and

⁶ ADB recruited an international consultant for several weeks to support DOR in drafting a Road Act amendment in 2009. This is likely to be passed in 2010.

reducing isolation, especially regarding rural areas. ADB has had dialogues with the other development partners in the sector and harmonized with assistance provided by these other partners. For example, while ADB has focused on strengthening the large-scale road network, the Japan International Cooperation Agency focused on bridges and construction equipment and the World Bank focused on rural access and supporting farm road construction. More importantly, ADB has also been responsive to the country's evolving needs, priorities, and plans as articulated in its eighth, ninth, and 10th five-year plans. Specifically, the following elements of ADB's CSP are consonant with those of the five-year plans: (i) enhancing the main road network, (ii) improving rural accessibility, (iii) strengthening sector institutions, (iv) improving road technology and productivity, and (v) supporting subregional links.

25. **Relevance.** The project objectives were in line with the ADB transport sector strategy and have been *relevant*. The key objectives of the three projects and four TA activities are consistent with sector development needs and strategies. The projects and TA are likely to improve the main road network, rural accessibility, and subregional links, and strengthen the weakness of the road subsector institutions, such as the legal system for road administration and maintenance. The project designs were well organized and of good quality to provide timely support to DOR. However, the project performance monitoring system for the feeder roads of the Road Network Project needs to be strengthened.

26. ADB financed the East–West Highway Maintenance Project before the Road Improvement Project, which focused on urgent periodic maintenance work for 259 km of the East–West Highway. It was approved in 1993 and completed in 1997. The East–West Highway was expected to be in passable condition for 5–7 years after the project (i.e., until 2002–2004). With proper and adequate road maintenance, including resealing of the bituminous surface during the fifth year, the service life of the road could be extended up to 9–10 years (i.e., until 2006–2007)⁷. However, almost all of these same road sections were resurfaced and improved by the Road Improvement Project, as the bituminous surface had already deteriorated. Further, the Road Improvement Project design failed to analyze or address the causes of this rapid deterioration of the road surface.

27. **Effectiveness.** ADB transport sector assistance has been *less effective* so far, as anticipated outputs were not fully achieved. So far, 16 km of national highways and 66 km of feeder roads have been constructed, and 339 km of national highways have been resurfaced. Travel times for completed roads were reduced by 20–50% for the completed feeder roads and by up to 25% for the Road Improvement Project. Due to cost increases and design changes, 39 km of feeder roads and 43 km of resurfacing work had to be dropped, however. Vehicle operating costs for the Road Improvement Project were not as high as they could have been due to construction and maintenance problems, which reduced the quality of the road surface.

28. As previously mentioned, TA for road planning and management strengthening drafted the Road Act. The Road Act provides a sound foundation for policy making by (i) defining rights and responsibilities of road users and affected communities; (ii) establishing suitable standards and safeguards for construction, rehabilitation, maintenance, and use of roads, and (iii) identifying the agencies responsible for monitoring and enforcing the provisions of the legislation. It also helped improve DOR capacity for road administration, particularly planning and policy aspects, and identified the role and responsibilities of all government agencies for the road subsector. The government could also prepare the 10th Five-Year Plan with the help of the

⁷ ADB. 2007. *Completion Report: Road Improvement Project in Bhutan*. Manila.

same TA. However, assistance to strengthen DOR's maintenance capacity has been ineffective so far, although ongoing assistance is likely to change this.

29. **Efficiency.** ADB transport sector activity is likely *efficient*. An economic internal rate of return (EIRR) for the Road Improvement Project at appraisal was estimated at 32%. However, actual costs were 12% over the appraisal estimate, and the project was completed with a 13-month delay. The reduction of vehicle operating costs was also less than at appraisal, because the international roughness indicator was 7.4–9.4 after completion in 2005, falling short of the targeted 5.0 at appraisal. Thus, less-than-expected reductions in road roughness and higher costs per km resulted in a lower EIRR of 19% at completion. Further, roughness measurements undertaken in conjunction with the CAPE in April 2010 indicate a further deterioration of road surface quality.

30. Actually measured traffic volumes in 2010, were higher in the western section of the East–West Highway and lower in the more remote eastern section than at project completion in 2004. The initial economic evaluation estimated a 7-year periodic resurfacing cost of Nu165 million, but, based on the average resurfacing unit cost (Table A6.2) from the Ninth Five-Year Plan, Nu315 million is actually required. Due to lower savings in vehicle operating costs as a result of higher road roughness, higher resurfacing costs, and slightly lower traffic flows, the EIRR for the Road Improvement Project is likely to be lower than the 19% calculated at completion, but higher than 12%.

31. The World Bank model was adapted for determining the economic feasibility of feeder roads under the Road Network Project. Developed for rural roads with low traffic volumes, the model seeks to capture socioeconomic benefits associated with such roads. While anticipated economic benefits are materializing on completed or nearly completed ADB-financed roads, education and health benefits appear to be less than projected given the existence of primary schools and primary health care facilities in the project areas. Also, an assumption was made that the population within a 4-hour walk of the feeder roads would benefit from the project, which appears to be too generous given the topography of the country and the availability of alternative roads. The estimated EIRRs at appraisal were already quite low—13.4% for Mirchim–Bongo (17.5 km), 17.6% for Tekizam–Bjena (6.5 km), 12.6% for Garbagtang–Autsho (51.0 km), and 12.8% for Khardungla–Kangpara (28.0 km)—and probably will be lower upon completion.

32. The Road Improvement Project and TA for road planning and management strengthening were closed more than 13 months and 15 months, respectively, beyond their original closing dates, while the Road Network Project is delayed by 9 months. The main reasons cited for the delays were (i) alignment and design change, (ii) late consultant recruitment, and (iii) slow government land acquisition processes. Road Network Project delays are also due to problems with a contractor on one of the road sections (para. 14).

33. **Sustainability.** The Road Improvement Project is *less likely sustainable*. The current bituminous surface on almost all road sections has deteriorated, and urgent maintenance is required. In addition to proper routine and periodic maintenance, construction quality is key to the sustainability of road projects. The project failed to achieve the targeted international roughness indicator (IRI) of 5.0 upon completion. For example, the average IRI for the highway section between Trashigang and Mongar increased from 10.4 before the project in 2002 to 8.3 just after resurfacing in 2005. In April 2010, measurements conducted under the CAPE determined an average IRI of 10.5 indicating further deterioration. Long-term sustainability depends on adequate maintenance of the road, and the 10th Five-Year Plan plans to resurface

only about 1,000 km of roads (Table A5.2). Thus, it is unlikely that all deteriorated sections of the East–West Highway will be resurfaced within this period.

34. **Development impact.** The actual impacts of ADB transport sector assistance have been *moderate to substantial* so far. The Road Improvement Project facilitated economic activity and generally improved the quality of life in the project areas. The overall cash income in villages along the East–West Highway increased by 61%, from Nu57,922 in 2004 to Nu93,345 in 2009. During the same period, cash income increased by 101% in Bumthang, 33% in Mongar, 45% in Thimphu, 12% in Trashigang, 95% in Trongsa, and 102% in Wangdue. The analysis on the average cash income by quartile shows that cash income for all quartiles increased. Poorer income groups had the largest percentage increase in income, albeit from a very low base, whereas higher income groups had the largest increases in value terms.

35. The Tekizam–Bjena feeder road of the Road Network Project was completed and opened to the public in 2009. There are 85 households (including 5 households from seasonal migration) in the 45-minute walking radius from this feeder road. For the CAPE, 77 households were surveyed. Sale of potatoes is the main source of income there, contributing to about 68% of the total cash income in 2009. After construction of the feeder road, villagers were able to benefit from increases in product prices due to their improved ability to deliver goods faster and to markets that are farther away. Thus, the average household income increased by 86%, mainly as a result of increased potato prices. Some households have also started to move into nonfarm activities, such as new grocery shops and physical distribution services by buying new trucks. Most residents felt that water supply, sanitation, and access to health care and secondary schools were improved by the feeder road. The CAPE mission interviewed 13 households along the Tekizam–Bjena feeder roads, and these reported that the average travel time to access to markets, hospitals, secondary schools, and government offices was reduced by 33% and that the number of their trips increased by three times.

36. The Road Network Project II is likely to facilitate and integrate industrial development in the southern economic hubs and special economic zones, and improve cross-border transport, thus improving regional cooperation between Bhutan and India.

37. **Overall assessment.** The overall rating for ADB's assistance is *partly successful* based on the above composite ratings. The rating is on the high side of *partly successful* and could improve in the future if project sustainability can be enhanced. Ongoing assistance is likely to be more effective than completed assistance.

E. Issues and Recommendations

38. Infrastructure is needed to improve access to safe, reliable, affordable, convenient, environmentally friendly, responsible, and high-quality transport; thus, ADB should continue its operations in this sector. To help finance the massive fiscal investment requirements and to ensure the sustainability of operations, several issues need to be addressed.

1. Planning, Design, and Supervision

39. **Planning issues.** Improvement of the East–West Highway had been a high priority for the government, as the East–West Highway is the only means of transport between the western and eastern regions and is critical to support socioeconomic activities in Bhutan. According to

Vision 2020,⁸ which was approved in 1999, the government aims to upgrade current national roads, including this highway, to withstand 30-ton trucks. Overloading is an emerging problem in Bhutan, as the size of vehicles increases as the economy grows. It is expected that the East–West Highway will be damaged by overloaded trucks, and the speed of road deterioration will be much faster. As ADB has supported the short cycle of maintenance of the East–West Highway rather than a longer-term investment (i.e., ADB's East–West Highway Maintenance Project and Road Improvement Project worked on the same road sections), improved strategic and long-term investment planning are required to facilitate efficient decision making.

40. **Design issues.** The design changes in the Road Improvement Project resulted in cost overruns (para. 13) and an extension of the loan closing date by 13 months. To minimize the risks associated with major design changes, the Road Network Project introduced a 10–15 km rolling design approach by which a new road section is designed and constructed after construction of the adjacent road section has been completed. The risk of design changes was further reduced through full consultation with local communities and local government officials. The advantages of this new approach should be reviewed after project completion to assess its feasibility for future operations.

41. **Supervision issues.** The design and monitoring framework of the Road Improvement Project targeted an international roughness indicator under 5.0 as the condition of project road surface for at least 6 years. It was not achieved, leading to a reduction in the EIRR. In addition, road construction was reported to have destroyed the irrigation channels for the feeder road of the Road Network Project. These issues were caused not only by the low quality of contractors' work but also by the lack of proper and careful monitoring and supervision of the implementing agency. Thus, the importance of professional construction supervision should be stressed, as this instills a sense of ownership and responsibility in the implementing agency.

42. For major investment projects in Bhutan, such as roads, comprehensive front-end geological investigation, alignment surveys, designing, planning, and required social and environmental assessments are a prerequisite to delivering successful projects and achieving sector performance targets effectively and efficiently. Continuing weaknesses in road planning and design greatly hinder the quality and progress of road construction. There is an acute shortage of qualified and trained engineers in the areas of survey, road engineering, structural engineering, geology engineering, contract management, and monitoring and supervision of civil works in Bhutan. However, there is also a need to further increase the number of engineers and levels of skills and knowledge in DOR. Thus, all ADB loans and TA have included capacity-building assistance. Yet it is necessary to go beyond the project-based approach for capacity development and to assess the overall capacity of sector institutions to meet the increasing demand for transport infrastructure. A comprehensive road map for institutional strengthening should be proposed for efficient capacity development in road planning, design, construction supervision, and maintenance.

2. Construction Quality

43. DOR had constructed roads by itself until mid-1990s, and the Ministry of Works and Human Settlements has since developed policies and procedures for contracting out road development to the private sector. It has been phasing itself out of direct involvement in construction works and is also contemplating a larger role for private contractors in road maintenance activities. The capacity of private construction firms is still limited, however, which

⁸ Planning Commission. 1999. *Bhutan 2020: A Vision for Peace, Prosperity and Happiness*. Thimpu.

affected the progress of ADB projects (para. 14). Among the highest priorities in the transport sector are the improvement of the quality of contractors and the creation of employment opportunities for the population. The government and other infrastructure sector institutions, including the Construction Development Board, need help in improving institutional capacities for project management and providing training courses to improve contractor capacity, such as in financial management, construction management, labor management including local labor, applicable skills for road construction, knowledge for specialist equipment, environment protection, safety operations, and construction monitoring and reporting.

3. Monitoring and Evaluation

44. The benefit streams for the feeder roads of the Road Network Project comprise (i) the transport sector, including vehicle operating costs and time savings; (ii) increased production in other sectors;⁹ (iii) reduced need for trail maintenance; and (iv) improved access to health care facilities and education. The economic model used to evaluate the project was developed by the World Bank and DOR through the Rural Access Project in Bhutan. The World Bank–DOR model is based on the following assumptions: (i) the construction of feeder roads in close proximity to national highways can be expected to bring more benefits than just traditional transport savings; (ii) production potential in rural areas without road access is presently untapped; and (iii) post-construction, the economies of newly connected rural areas will become similar to rural communities already enjoying road access. The economic assessment for the Road Network Project said that a 2–3-day walk to the nearest road is usual in Bhutan’s rural areas. The economic analysis presumed that villages within a 1-day walk fell within the direct beneficiary zone of the project feeder roads, and the economies in the villages would become similar to those rural areas already enjoying road access.

45. The completed 6.5 km of the Tekizam–Bjena feeder road provided significant benefits to the residents within the 45-minute walking radius. The economic impact of feeder roads is still unclear at this early stage, as it has yet to translate into changes in economic activities and production. Most of residents felt that the water supply, sanitation, and access to health care and schools were improved by the feeder road. Further in-depth evaluation of economic impacts of the feeder roads and justification of applicability of the current World Bank–DOR model is needed. A review, undertaken after the roads have been operational for a few years, would be a good reference for other road projects financing feeder roads. During the CAPE mission, DOR could not provide assumptions and calculations for the feeder road economic evaluation model but raised concern that the impact radius is not as large as the 1-day walking distance but, at most, a 2.5-hour walking distance. ADB needs to review the assumptions and model for feeder roads, and if necessary, revise the methodology and evaluation.

4. Sustainability

46. While expansion of the national road network to increase socioeconomic activities is a high priority, maintenance of the existing road infrastructure is equally important. The government has a good record of financing road development, but maintenance has been lagging. The importance of proper maintenance of road infrastructure and maintenance work is not well understood by the public and political decision makers, as DOR requests for higher

⁹ The additional benefits other than the transport sector from feeder road construction were estimated with the elasticity of expenditure on transport to expenditures in other sectors of the rural economy. These other sectors are expected to realize benefits as follows: increased agriculture production, increased mining and quarrying activities, increased activity in the electricity and gas sectors, increased activity in the construction sector, increased trade activities, and increased finance sector activities.

maintenance budgets are usually turned down. Table A5.2. shows allocated budget for road maintenance (routine maintenance and resurfacing) from 2002 to 2008.

47. Resurfacing is required every 5–7 years. DOR allocated Nu1,215 million and resurfaced 1,296 km of paved roads during the Ninth Five-Year Plan. However, assumed the resurfacing period is 7 years, it is estimated that the required resurfacing is 1,612 km during the Ninth Five-Year Plan, as the backlog of resurfacing roads has increased by 20% (316 km).¹⁰ Resources remain insufficient to reduce the backlog of deferred resurfacing, and it would be difficult for the government to ensure maintenance of the Road Network Project.¹¹ Taking into account that overloaded trucks will increase in Bhutan, periodic maintenance should be enforced rigorously. Otherwise, road structures will be damaged, and DOR will incur even further maintenance costs for reconstructing the damaged roads.

48. As previously stated, under the East–West Highway Maintenance Project and the Road Improvement Project, ADB supported the short cycle (5–7 years) of maintenance of the East–West Highway rather than a longer-term investment. Since road administration was transferred from the Border Road Organisation in 1990s and the government needed immediate ADB support for maintenance, supporting short-cycle maintenance work could be justified. Although it is time for the government to have sufficient capability and budget for road maintenance, ADB support for capacity building failed to realize a significant impact for road maintenance (para. 53).

Table A5.2: Allocated Budget to the Department of Roads and Actual Expenditure for Road Maintenance

Item	Ninth Five-Year Plan						Tenth Five-Year Plan		
	2002	2003	2004	2005	2006	2007	Total	2008	Total
Routine Maintenance									
Allocated budget (Nu million)	102.5	90.4	103.1	115.4	115.4	102.6	629.3	110.4	784.0 ^a
Maintained length (km)	2,307	2,307	2,307	2,307	2,307	2,307	2,307	...	...
Resurfacing									
Allocated budget (Nu million)	62.9	275.8	402.0	213.3	149.3	137.9	1,241.2	177.4	1,389.0 ^a
Resurfaced length (km)	...	...	...	...	...	...	1,296	...	1,000 ^a

... = data not available, km = kilometer.

Notes: The fiscal year in Bhutan is from July 1 to June 30. The average resurfacing cost during the Ninth Five-Year Plan was Nu0.96 million.

^a Targets of the 10th Five-Year Plan.

Source: Asian Development Bank estimates.

49. Routine maintenance is entirely funded from domestic resources. DOR's actual expenditure for routine maintenance has remained stable, around Nu100 million, during the ninth and 10th five-year plans. The benchmarks of the routine maintenance budget per km per year are Nu60,000 for expressways, national highways, and district roads; Nu90,000 for urban

¹⁰ If the resurfacing period is set as 5 years, the required resurfacing during the Ninth Five-Year Plan was 2,257 km, and the backlog of resurfacing increased by 43% (961 km). DOR revised the road standard structure in 2008. The road sections designed based on the previous standards require frequent maintenance.

¹¹ The government will provide sufficient budget for routine and periodic maintenance of the entire road network every year throughout project implementation. The amount of deferred maintenance will be reduced to a maximum of 20% of the national highway network length by 30 June 2007 and to the maximum of 7% by 30 June 2010.

roads; and Nu26,000 for feeder roads. DOR needed Nu125.0 million for routine maintenance against the allocated Nu110.4 million in fiscal year 2008.

50. Known as the muster-roll-based maintenance system, DOR's routine maintenance system is unique. It was established when the responsibility of the road administration was transferred from the Border Road Organisation to the Government of Bhutan. Road workers, usually those who do not own property and are among the poorest in Bhutan, are mobilized by the government to reduce unemployment and rural poverty. DOR recruits a road worker for every 1.5 km of expressway, national highway, district road, and urban road for routine maintenance. The road workers receive a daily base salary of Nu100 per day. DOR stated that there are more than 4,000 road workers, and it provides about 600 dwellings for them at every 5–10 km along the roads. The road workers, with their families, can live in these dwellings. DOR also provides subsidized food items under a public distribution system, transport to work sites, and transport for their schoolchildren to schools. A Japan Fund for Poverty Reduction grant for improving the well-being of road workers was well accepted by DOR and road workers.

51. The maintenance system cleans roads and drains and removes fallen rocks and other dangerous objects from roads. However, many workers do not have sufficient knowledge, skills, nor equipment for difficult routine maintenance work such as patching and sealing cracks and holes on roads. Some of workers are truant, due to infrequent monitoring by DOR staff, reducing the efficiency of the system. It is not easy for DOR to find good replacements.

52. In 2009, DOR began performance-based maintenance systems for urban road maintenance in Thimphu. The trial succeeded in saving maintenance costs by 15%–20%. ADB project preparatory TA for the Road Network Project II is supporting preparation of draft legal contracts for the performance-based maintenance system. DOR will implement 2-year pilot performance-based maintenance projects for selected sections of national highways in the eight DOR field divisions. The 2-year pilot projects are expected to facilitate a switch to this system from the muster-roll-based maintenance system. The progress of the pilot projects should be carefully monitored under the road asset management component of the TA for DOR capacity building, particularly whether performance-based management will provide efficient and effective road maintenance and contribute to the sustainability of road maintenance. However, application of performance-based management should be harmonized with the current system to ensure the continued recruitment of poor workers.

53. ADB has financed three advisory TA projects to strengthen DOR capacity for road maintenance, including asset management: (i) TA for Development of a Maintenance Management System, (ii) TA for the Capacity Building in Road Safety Audit and Road Asset Management, and (iii) TA for Capacity Building of the Department of Roads. The first developed the road asset management system, but it was excessively complicated to use after the departure of the consultants. Lack of attention toward DOR needs diluted the sense of TA ownership, and DOR no longer uses the system. For the second, the scope had to be changed (para. 15), and the TA only ended up providing guidance for the road asset management system. It is recommended that the third TA carefully review the current status and conduct policy dialogue on road maintenance, detail how its outputs will meet with DOR and stakeholder needs, and outline how the outputs will be used for DOR administration. In addition to building DOR capacity for maintenance, ongoing ADB TA should seek to conduct meaningful policy dialogue and to promote public awareness of the importance of adequate maintenance financing and systems.

5. Public Transport

54. Rapid socioeconomic development has also led to greater demand for better, more efficient transport services and facilities. Despite the key role of the transport sector to support socioeconomic development, public transport services, especially in remote areas, are inadequate and unreliable, mainly due to high operating costs because of narrow and winding roads, seasonal flow of passengers, and low earnings. Thus, there is a need to strengthen public transport in Bhutan. Established in 1997, the Road Safety and Transport Authority is responsible for administration of vehicle registration, roadworthiness program, driver licensing, emission control, and monitoring of public transport services. Public transport services are available in 18 of the 20 dzongkhags, with the exception of Gasa and Pemagatshel. For intercity public transport, 40 private operators are operating about 200 buses on 68 routes under the Road Safety and Transport Authority. In Thimphu, the Bhutan Postal Corporation operates about 20 buses on nine routes. The average trip frequency varies from 30 to 90 minutes.

55. Central and local governments need support for (i) constructing and renovating bus terminals and sheds for better service coverage; (ii) increasing the number of city buses and route coverage; (iii) optimizing urban bus route planning; (iv) exploring the feasibility of introducing public–private partnership schemes for nonprofitable routes; (v) developing and enforcing service standards and basic facilities in passenger transport vehicles; (vi) achieving better compliance to laws, rules, and regulations and ensuring fair and effective enforcement; and (vii) training staff to acquire appropriate skills for efficient public service delivery. ADB focused on providing infrastructure in the road subsector but has been silent on public transport. TA for public transport could be a priority in the ADB pipeline, as it supports the government to (i) promote urban public transport; (ii) improve accessibility, equity, and affordability of passenger transport services, especially in rural areas; and (iii) enhance efficiency of administration and improve the public service delivery system.

ASSESSMENT OF ADB ASSISTANCE FOR URBAN DEVELOPMENT

A. Urban Development Context and Government Strategies

1. Sector Development Needs and Challenges

1. Urban development in Bhutan is a relatively new area for Asian Development Bank (ADB) support. Traditionally, Bhutan is a subsistence agrarian society, mostly isolated from the world. However, since embarking on a modernization process in the early 1960s, it has strived to modernize its economy, with emphasis on retaining its unique cultural heritage and pristine mountainous environment. The government's overall development plan was set out in Vision 2020,¹ through the National Poverty Reduction Strategy,² and subsequent five-year plans.

2. This modernization has led to the inevitable growth of the larger urban centers. Over the past two decades, the pace of rural to urban migration has increased and is expected to continue for the foreseeable future. The current rate of growth in Thimphu, the capital and largest city, is more than 8% and that in Phuentsholing and the other 18 regional centers is 3% or higher. At the current rate of urbanization, more than one half of the country's population will reside in urban centers by 2020.

3. Rapid growth of the urban centers has put severe pressure on their already minimal basic services: water, sewerage, solid waste, roads, and parking. In addition, the rapid influx of rural migrants has resulted in an urgent need for more housing, especially for lower-income workers. There is a pressing need to expand basic municipal services and access to affordable housing. In addition, regional towns, such as Dagana, and other provincial centers have very low levels of urban services, intermittent power and water supplies, no sewage collection, and poorly developed solid waste management.

4. The water supply and sanitation services in Phuentsholing and Thimphu are inadequate for the present population. Water supply is intermittent, ranging from 2 to 12 hours per day in most areas, and sewerage collection covers less than 20% of the population. The wastewater treatment plants are overloaded and being operated as anaerobic facilities with low treatment efficiency, especially during winter months, resulting in poor-quality effluents that pollute the receiving streams. Odor is a major issue, especially in Thimphu when the wind blows from the south. Collection of solid waste is being carried out by the cities, but neither disposal site is operated properly; there is no compaction or daily cover. These sites are also not lined, potentially causing pollution of the groundwater, which could seep into streams used by downstream populations. The lack of daily cover of deposits and lack of fencing is also causing windblown garbage to be scattered over the surrounding areas.

5. All of these issues are exacerbated by a low revenue base. Land taxes have not been raised since 1992, and many of the areas inside the recently expanded urban boundaries are still zoned as agricultural, meaning the land tax is only a nominal amount. Tariffs for water supply and sanitation services are low and are barely enough to cover basic operation and maintenance, fees for solid waste management are a fraction of the actual cost and revenue from various licenses, and permits and parking are insufficient to outsource services or fund expansion of services. Overriding all of these challenges is the lack of funds available from the government due to budgetary constraints.

¹ Planning Commission. 1999. *Bhutan 2020: A Vision for Peace, Prosperity and Happiness*. Thimphu.

² Ministry of Finance. 2004. *National Poverty Reduction Strategy*. Thimphu.

6. Traditionally, urban centers have relied on various government agencies to provide basic services. However, the government has now passed various laws to make the Thimphu City Corporation (TCC) and Phuentsholing City Corporation (PCC) autonomous, and is in the process of transferring responsibility for provision of all municipal services to them. With Thimphu's urban population expected to reach 150,000 by 2025, TCC must develop comprehensive plans for land use, zoning, land development, water supply and sanitation, solid waste management, city management and administration, revenue generation, and human resources development. Similarly, TCC, PCC, and other smaller urban centers need to improve their outdated, undersized municipal facilities and find land for housing, institutional, and commercial development. Because of the topography in Bhutan, neither TCC nor PCC hold much developable land, although there are substantial tracts of government land, which are often underutilized and could be made available to ease the shortage of land. This shortage is driving up land prices beyond affordability for average citizens; in Thimphu, only about 25% of residents own their homes.

2. Government Sector Development Strategies

7. Until 1999, urban development in Bhutan was the responsibility of the Ministry of Works and Human Settlements. Planning and design for Phuentsholing and Thimphu were provided by the Department of Urban Development and Engineering Services (DUDES) under the ministry. However, since that time, more responsibility has been turned over to TCC and PCC, although new investments for urban development will continue to be funded by the government, financed from external sources, and be executed by a project management unit (PMU) located within the ministry and overseen by DUDES. The government has updated laws and policies to address the rapid urbanization of Phuentsholing Thimphu and other urban centers. These include the following.

- (i) **Bhutan Municipal Act (1999).** This Act enabled the establishment of Municipal Corporations as legal entities.
- (ii) **Local Government Act (2009).** This Act repealed the City (Thromde) Act (2007), which had repealed the Bhutan Municipal Act (1999). It provided for further powers and authority to be given to decentralized bodies and elected representatives at local level. The Act classifies urban centers into class A cities, class B towns, and local administrative centers according to population, income-generating capacity, density, and availability of developable land. It empowers local governments with regard to administration and management of resources and services. Thimphu and Phuentsholing will have formally elected mayors with city councils due to this act. Until then, mayors for these cities were appointed by the government. Only TCC is fully autonomous, while PCC is semi-autonomous. Dagana and other provincial centers still remain under the jurisdiction of the district administrator. PCC has taken over the operation and maintenance of all municipal facilities, including roads, while TCC is in the process of taking over the construction, operation, and maintenance of its road network from the Department of Roads (DOR).
- (iii) **Municipal Finance Policy (2009 draft).** This policy, to be approved in 2010, was prepared with technical assistance (TA) from the Danish International Development Agency (DANIDA). Local authorities consider this to be the principal guide for management and administration of municipal finance and revenues. It focuses on basic policies for operating a city corporation, comprising a human resources development strategy, provision of tools for TCC and PCC, and enhancement of revenue generation. The policy also proposes privatization of city services through public-private

- participation for parking, water supply and sanitation, and solid waste management, and through service providers for maintaining roads and other basic facilities.
- (iv) **Spatial Planning Act (2009 draft).** This act, to be approved in the next parliamentary session, sets out goals and procedures for preparation of a national physical development plan. It also outlines procedures for preparation of local development plans and their approval process. It legitimizes the land-planning system, zoning rules, and planning techniques such as land pooling. It facilitates public participation in the planning process, including consultation of all relevant stakeholders. A hearing process with regard to development issues is clearly detailed, including the responsibilities and function of the Planning Review Board.
 - (v) **Building Act (draft).** This has been drafted for consideration by Parliament to better enforce building codes, with a focus on earthquake-resistant measures, building permits, plumbing and electrical installation codes, architectural control to maintain cultural aspects, and inspections of building contractors' work.
 - (vi) **Land Act (amended 2007).** The Act allows the government to acquire registered land for public use and gives the government the option to provide compensation in the form of substitute land or cash payment, or both. This act effectively allows city corporations to conduct land pooling to obtain land for basic road networks and underground infrastructure. All affected landowners must contribute land in varying amounts, not to exceed 30%, to make room for roadways and other service rights of way, but do not have any choice regarding the location of substitute land.

8. The government's Eighth Five-Year Plan, 1997–2002³ recognized the population's growing migration to the larger towns and cities, and stressed that improvements were required to provide basic urban services. The Ninth Five-Year Plan, 2002–2007⁴ emphasized alleviation of poverty as a major target, including addressing housing needs for low-income urban dwellers. It built on the concept of devolution of responsibility to local government levels and introduced the concept of more participation in local government by the public. The government's 10th Five-Year Plan, 2008–2013⁵ focuses on improving urban services management through appropriate legislation and granting of autonomy to municipalities. The plan also targets establishment of Thimphu and Gelephu as national cities and improvement of urban services in all cities, 5 regional growth centers, 16 district centers, 12 medium towns, 23 small towns, and 4 corridors linking cities and regional centers. The proposed capital outlay for the urban sector is Nu5,411 million (\$123 million).

9. Both TCC and PCC have developed various plans to guide development in their respective jurisdictions: city development master plans, water supply and sanitation and solid waste management master plans, along with land-use designations and zoning plans. Due to rapid growth, however, these plans need to be continuously updated and renewed. Preparation and updating of these plans were incorporated in ADB loan projects in the 1980s, which financed sewerage treatment facilities in Gelephu, Phuentsholing, and Thimphu. In 1996, the United Nations Development Programme (UNDP) and the United Nations High Commissioner for Refugees provided support for a 2-year period to develop decentralization, community participation, and human resources in Bhutan's urban sector. The outputs included the Thimphu Urban Development Strategy and the Thimphu Structural Plan. Starting in 1998, DANIDA provided the Urban Development Sector Support Program, which ran through 2004 to develop

³ Planning Commission. 1998. *Eighth Five-Year Plan 1997–2002*. Thimphu.

⁴ Planning Commission. 2002. *Ninth Five-Year Plan, 2002–2007*. Thimphu.

⁵ Planning Commission. 2008. *10th Five-Year Plan, 2008–2013*. Thimphu.

capacity in TCC and PCC for all aspects of corporatizing the cities. The Government of India has also provided similar support.

10. TCC is now developing the 10 new housing areas incorporated under the Thimphu Structural Plan (2001), and expanding water supply and sanitation and solid waste management with assistance from ADB and the World Bank. PCC is also improving existing urban facilities with help from ADB and has developed a major land reclamation scheme with support from DANIDA. PCC is working on finding a private sector developer to fund related works in return for a portion of the reclaimed land. Both cities have appealed to the government for release of underutilized government land, which is usually in desirable locations for both commercial and housing development. Both cities have also requested further assistance from ADB and the World Bank to expand all urban services and to develop further areas for housing.

11. As previously mentioned, a key strategy is the devolvement of responsibility for planning, implementation, operation, and maintenance of all urban infrastructure to the city corporations. While this has successfully taken place in Phuentsholing, the transfer of urban roads from DOR to TCC is still ongoing. However, the capacity of TCC and PCC, both in terms of human and financial resources, remains a concern. Although both Executive Secretaries expressed confidence that capacity is sufficient, they agree that their revenue generation needs to be increased, despite more than their 90% collection rates of land taxes and water tariffs. The Thimphu Executive Secretary indicated that substantial new revenues would accrue once new area development was completed in South Thimphu from the current Nu600,000 (\$13,600) to Nu6 million (\$136,000). The Phuentsholing Executive Secretary indicated that PCC had requested a 10% increase in land tax, which has remained fixed since 1992, based on classification of dwellings, not value. The government has yet to agree to this.

12. DANIDA also indicated that despite a strong focus on revenue generation during its long-term support to TCC for the Local Government Act and the related Municipal Fiscal Policy, its advice has not yet been acted upon.⁶ ADB is proposing a TA focusing on updating TCC master plans for water and sewerage; evaluating TCC and PCC readiness for private sector participation in operation and maintenance of urban infrastructure; and developing the human resources of TCC, PCC, and government agencies that are involved with urban development. Government policy and that of PCC and TCC is to issue service contracts for routine maintenance. However, since the current land tax is low and water tariffs barely cover very basic operation and maintenance, it is questionable whether either PCC or TCC can afford to hire such contractors.

B. ADB Assistance Strategies and Programs

13. ADB has been assisting Bhutan with loans since 1983. ADB's 2000 country operational strategy for the urban sector stressed poverty alleviation through investments in basic services and strengthening of responsible government agencies. It also introduced possible ADB participation in housing, specifically for low-income groups. The 2005 country strategy and program (CSP)⁷ is focused on poverty reduction through economic diversification. ADB's investment program and TA have been for rural electrification, road network expansion, infrastructure in regional centers including PCC and TCC, and capacity building of responsible government staff. ADB's urban development strategy for Bhutan aims to achieve orderly,

⁶ The water and wastewater tariff in Thimphu is Nu4.00 (\$0.09) per cubic meter. In Phuentsholing, it has only recently been increased to Nu2.30 (\$0.05). This is much lower than South Asian norms.

⁷ ADB. 2005. *Country Strategy and Program: Bhutan, 2006–2010*. Manila.

sustainable urbanization through the development of urban management systems and the provision of financing for urban infrastructure.

14. Based on these country strategies, the overarching strategic objective of poverty alleviation in Bhutan will be tackled through inclusive social development. Specifically, ADB will support development of municipal infrastructure such as water supply and sanitation, solid waste management, and roads; land development for additional housing; development of institutional and small and medium-sized enterprises; development of good urban governance and planning; cost recovery of urban services; and development of opportunities and readiness for private sector involvement in urban services. Crosscutting issues include strengthening gender, environmental, and private sector inclusion in urban development. The 2009 CSP midterm review⁸ reiterated the need for a regulatory framework to mainstream urban governance, introduction of cost recovery measures for urban services in a phased manner, and development of government and local government sector institutions.

15. During the country assistance program evaluation period, ADB provided two ADF loans to finance urban infrastructure and training, two advisory TA projects for capacity development and urban housing reforms,⁹ and two project preparatory TA activities to conduct detailed feasibility studies. ADB's support to the urban sector was increased substantially through the Urban Infrastructure Improvement Project, which was completed in June 2005.¹⁰ This intervention was followed by the much larger Urban Infrastructure Development Project, which is still under implementation. Both loans focused on Phuentsholing and Thimphu.

16. The Urban Infrastructure Improvement Project focused on improving and expanding drainage, flood control and river training, upgrading existing roads, replacing bridges, improving roadside and off-road footpaths for safe pedestrian use and all-weather access on steep grades for schools, developing shopping areas, and reducing parking problems in commercial areas. The Urban Infrastructure Development Project is focusing on a new water supply, expansion of the wastewater treatment facility, rehabilitation of the existing solid waste disposal site, and local area infrastructure development in South Thimphu. In Phuentsholing, the project is improving roads, drainage, fire protection, and public recreation facilities. In Dagana, it is constructing a new water supply system, improving key road sections with drainage, and building sewers to collect overflow from septic tanks in high population-density areas. The project also provides implementation support, and an associated TA to train staff from Dagana, PCC, and TCC. Specifically, the TA prepared a solid waste management strategy and action plan for Thimphu, geotechnical studies for slope stability in Dagana, leak detection for PCC and TCC, and public consultations for land pooling and managing urban facilities.

17. Both ADB loan projects incorporated cross-cutting issues in their design and implementation. In the Urban Infrastructure Improvement Project, public health and environmental aspects were enhanced through provision of more than 10 kilometers (km) of drainage and 6 km of river training works, which has reduced flooding and (in conjunction with regular cleaning of drains) has stopped the build-up of roadside sludge, reducing odor and improving general hygiene along sidewalks and footpaths. In addition, more than 10 km of

⁸ ADB has extended the existing CSP until 2012 so that the next country partnership strategy will coincide with Bhutan's 10th Five-Year Plan.

⁹ ADB. 1998. *Technical Assistance to the Kingdom of Bhutan for Capacity Building in the Urban Sector*. Manila (TA 3022-BHU); and ADB. 2002. *Technical Assistance to the Kingdom of Bhutan for Housing Sector Reform*. Manila (TA 4042-BHU).

¹⁰ Details of these loans, grants and TA projects are found in Appendix 2. They are not footnoted when they are referred to in the text.

footpaths were constructed, improving pedestrian access. Regarding private sector development, the 20,000 square meters of parking developed along major thoroughfares has led to a successful private sector contract in Thimphu; TCC will receive Nu15.8 million (\$360,000) in revenue for 2010 and 2011. The ongoing project will continue environmental improvements through water supply and sanitation and solid waste management infrastructure. TCC is considering privatization of its solid waste management through support from the TA attached to project. There are no specific targets for direct poverty alleviation or gender aspects.

18. Implementation of both projects and all associated TA follows the standard procedure that ADB requires for its urban loans to most borrowing countries. A national-level project steering committee chaired by the secretary of the Ministry of Works and Human Settlement provides policy guidance, high-level reviews of loan covenant progress to ensure that government and ADB policies are applied, and monitors overall project progress. The committee includes representatives of other involved government ministries, PCC, and TCC. In addition, local steering committees in Dagana, Phuentsholing, and Thimphu were established.

19. The executing agency is DUDES, which has established a PMU to oversee the Urban Infrastructure Development Project in all three participating cities. DUDES provides overall management of the project, including of project accounts; ensures provision of counterpart funds; and is responsible for the overall implementation. The PMU is supported by a project management consultant and an international consulting firm with a national partner. The PMU is responsible for planning, monitoring, and reporting on the project, as well as cost and quality control. It also (i) serves as the secretariat for the project steering committee; (ii) provides interagency coordination; (iii) supervises city-level project implementation units (PIUs); (iv) maintains project accounts; (v) oversees procurement to ensure compliance with government and ADB policies and procedures; (vi) prepares the quarterly, annual, midterm review, and completion reports; and (vii) liaises with ADB.

20. The PIUs, established at the city corporation level, are responsible for the day-to-day implementation of the project. Specifically, the PIUs are accountable for (i) detailed design, specifications, schedules of quantities, prebid cost estimates, and contract documentation; (ii) issuing tenders, and receiving and participating in evaluation of bids and awards of contracts; (iii) preparing project budgets; (iv) supervising, monitoring, and administering contracts; (v) ensuring that the contractors conduct quality control sampling and test measuring; (vi) measuring and certifying as-built quantities and preparing as-built drawings; and (vii) preparing the technical progress reports for the PMU. The PIUs are supported by the design and supervision consultants, and an international firm with a local partner.

21. The Urban Infrastructure Improvement Project experienced a 12-month delay. As reported by the government, the additional time was due in part to that taken for consultant recruitment and procurement that had to follow ADB's procedures. Thus, some contracts had to be retendered. The Urban Infrastructure Development Project is also at least 1 year behind schedule, because of the same reasons, the time taken for transferring land from the forestry reserve for the water treatment plant site, and the long time required for land pooling.

C. Outputs and Outcomes

1. ADB Support for Capacity Development

22. In terms of the results from the TA for urban sector capacity building, the achievement of the outputs was generally considered successful. The TA trained 20 staff members in urban

infrastructure planning, design, implementation, operation, and maintenance; assessed related legislation, staffing, organization, and financial management of urban services; and prepared urban planning manuals, which were later approved by the Ministry of Communications and are utilized by DUDES, PCC, and TCC. In addition, a number of specific ordinances were developed for Thimphu including those related to the Planning and Zoning Board, an urban development plan, zoning and land use mapping, coordination of building construction, and a housing strategy. These were all adopted into the Bhutan Municipal Act (1999). Another just-completed capacity building TA focused on (i) solid waste management strategies for PCC and TCC, recommending separation at source, recycling, and privatization of waste collection; (ii) unaccounted-for water reduction in PCC and TCC, which will be implemented through system metering and equipment to be provided under the Urban Infrastructure Development Project; (iii) geotechnical studies and recommendations for slope stabilization in Dagana, which has been completed using government funds; and (iv) assistance on land pooling through training.

23. In addition to the above TA activities, 18 middle- and high-level officials and 4 executive level-officials from the Ministry of Works and Human Settlements and TCC also participated in capacity building on urban water management under a regional TA. This training was based on a training needs survey, conducted in Thimphu under the regional TA. The actual training was conducted from 12 to 25 July 2009 in Daejeon, Republic of Korea.

24. However, DUDES indicated that training components under ADB TA projects and loans had trained fewer participants than planned and that it would be difficult to ascertain any long-term increase in capacity in the participating government departments. This may also be due in part to the job rotation scheme, which reassigns working-level officers and staff every 2–3 years.¹¹ DUDES stressed that in some cases, the wrong people were selected for training programs (often senior people or individuals who were not directly involved with routine work), and the short-term nature of the training made it difficult for the participants to absorb all of the ideas. Also, DUDES indicated that on-the-job training approaches might have been more effective.

25. ADB also provided training under the Urban Infrastructure Improvement Project, but only 58% of the budget allocated for training was used. According to the project completion report, this was because it was TCC's first experience with project implementation (to this point, the government had provided and operated most urban services). At the time, TCC had few staff members, who were all overworked during the early days of devolution, and was unable to assign experienced staff to the PIU or for training. Only 15 people were trained; 11 from the PMU and DUDES and only 2 from Phuentsholing and Thimphu. According to the project completion report, the project did create a small cadre of design engineers in Phuentsholing; however, none were found to be involved with the Urban Infrastructure Development Project. With respect to this project, PIUs include staff members who are seconded from the technical cell of Dagana district administration, PCC, and TCC. However, no current PIU staff members were involved in the Urban Infrastructure Improvement Project. The PIUs are dependent on the design and supervision consultant to provide the technical input.

26. ADB's involvement in the urban sector has led to a number of changes in the way the related government agencies implement their own projects. The director of DUDES and the executive director of the Construction Development Board stated that they have adopted many ADB procedures for government-funded projects and now recognize the need for and benefits

¹¹ The Independent Evaluation Department country assistance program evaluation mission found that there was no staff in the current PMU or PIUs who had worked on the earlier project.

of project consultants and monitoring of contractors. A major impact of ADB's requirements for specification and quality control of local construction practices has been the introduction of mechanization,¹² using backhoes, compactors, asphalt batch plants, rock crushers, and paving machines. The quality of works has improved substantially, and maintenance needs are much less. Mechanization has also reduced the time required for installation of underground water, sewer, drainage, and utility piping.

27. It is difficult to ascertain specific impacts of capacity building, but there is growing awareness of urban sector issues and operation and maintenance aspects among government, PCC, and TCC officials.¹³ However, how this translates into improved function in day-to-day works is hard to measure.

28. With respect to the TA for housing sector reform, the government considered this successful. The director of the National Housing Development Corporation and secretary of the Ministry of Works and Human Settlement both indicated that this TA was considered an excellent guide for market-based housing development in PCC and TCC. The TA produced seven action plans in (i) institutional, legal, and regulatory reform; (ii) incremental land release; (iii) formation of apartment owners' association; (iv) sale of publicly owned apartments; (v) support for low- and middle-income housing by densification; (vi) National Housing Development Corporation strategy; and (vii) housing finance mechanism. However, while these are recognized as valuable recommendations, actual implementation has been limited to corporatization of the national housing board during 2010. Anticipated commercial funding for low-income housing is unlikely to be forthcoming, and public funding for implementing public housing programs is likely to be needed. The National Housing Development Corporation indicated that it would be addressing such issues as part of its new mandate.

29. ADB's policy dialogue on revenue enhancement in PCC and TCC has yet to be implemented. However, both projects have contributed to awareness and capacity for integrated land development under which underground services are installed before road surfaces, transparency and fairness of land pooling, and procurement and quality of works in line with ADB procedures.

2. Support for Urban Infrastructure Investments

30. The outputs of the completed Urban Infrastructure Improvement Project were basically as envisaged at project appraisal. The physical works were generally designed and constructed as planned, though there were some changes required reflecting ground realities, including some works being taken up under other funding sources. However, the projected improvements in urban infrastructure, as summarized in the project framework, were achieved.¹⁴ Specific outputs included (i) 12.5 km of improved roads, including two bridges benefiting 36,000 persons with 8,000 and 900 daily vehicle crossings, respectively; (ii) 13 km of drains benefiting 36,000 persons; (iii) 9.4 km of footpaths benefiting 32,000 persons; (iv) 6 km of river training works benefiting 28,000 persons; and (v) 20,000 square meters of parking. The project works improved traffic flows in the busier commercial areas by installing a second carriageway and specified parking areas. The improved grades and drainage facilitate storm run-off, reducing flooding and ensuring longer pavement life.

¹² Required by ADB Procurement Guidelines (2007), as amended from time to time) and the need for specifications and quality control.

¹³ Based on Independent Evaluation Department mission meetings and interactions.

¹⁴ This was confirmed by the Independent Evaluation Department mission through site visits.

31. With respect to the ongoing Urban Infrastructure Development Project, the Executive Secretary of Phuentsholing reported that the initial scope of work proposed by the project preparatory TA consultant, as included in the draft project report, had to be adjusted by PCC, as it did not fully reflect what was required. He indicated that the consultant did not spend enough time in Phuentsholing, nor followed the input of PCC staff. DUDES felt that due to the inexperience of PCC and TCC staff, as well as the dynamic growth that led to changes in scope during the project preparatory TA period, it was difficult to finalize the scope, but did concur that the project preparatory TA consultant was difficult to work with.¹⁵

32. In Phuentsholing, the scope is as planned during appraisal (after the changes to the project preparatory TA report by PCC), and the works are well underway, with the last contract tendered in June 2010. The PIU indicates that the PCC subproject will be completed within the original completion date. In Dagana, works under the project have not yet been tendered, as Dagana has just completed slope stabilization, which was essential before construction of roads and underground infrastructure could commence.

33. The major change in scope for the Thimphu subproject has been the decision to not expand the capacity of the wastewater treatment plant. The project preparatory TA report recommended installation of mechanical surface aerators in the existing facultative treatment ponds and lagoons.¹⁶ However, after a detailed review of this option by the project management consultant and design and supervision consultant (including an independent evaluation by wastewater experts from Japan), it was determined that this option will not be effective during the cold winter months. Thus, a mechanical treatment plant will need to be planned and designed, which will have much higher capital costs. As a result, expansion of the wastewater treatment plant has been deferred to the proposed next ADB loan for urban development, scheduled for 2013. As the project was planned in 2005, the long delay in tendering the works in Thimphu has resulted in costs exceeding the physical and price contingencies. The PIU reports a 20% increase in the cost in current bids, which is likely to increase further for future works.

34. With respect to local area infrastructure development in four areas in South Thimphu, delays have been caused by the need for TCC to obtain agreement from landowners of privately owned land for the rights of way for roads and underground infrastructure (i.e., water, sewer, drainage, power, and telecommunications). ADB did require that 100% of the affected persons agree with the land pooling. This was finally achieved for the first pilot area, but has taken a long time in the remaining three areas.¹⁷ The government has since approved a land-pooling policy, which requires only two-thirds concurrence. A revised resettlement framework is being discussed by ADB and the government.

D. Evaluation of ADB Assistance

35. **Strategic positioning.** The strategic positioning of ADB assistance in the urban sector was *satisfactory*. ADB's involvement in the urban sector in Bhutan is considered essential by senior government officials and the Executive Secretaries of Phuentsholing and Thimphu. Currently, ADB is the major lender for the urban sector, though the World Bank is also providing financing for area development in Thimphu.¹⁸ Donor coordination is working well, with ADB

¹⁵ ADB staff report that the project preparatory TA consultant did have problems with performance.

¹⁶ Due to land constraints, it is not possible to expand the facultative ponds.

¹⁷ The World Bank has adopted the same approach for the two local area developments in North Thimphu.

¹⁸ ADB, the government, and the World Bank currently have an agreement that ADB will focus on South Thimphu, while the World Bank supports North Thimphu.

focused on South Thimphu and the World Bank focused on North Thimphu. The only other major donor, DANIDA, is no longer involved in the urban sector as of 30 June 2010.

36. Currently, ADB urban sector initiatives generally follow ADB's development objectives as per the current CSP, the overarching poverty alleviation policy, and its longer-term strategic objectives. ADB's involvement is focused on Phuentsholing and Thimphu, though the ongoing Urban Infrastructure Development Project includes a small component for Dagana. This focus is logical, as Phuentsholing and Thimphu will continue to grow rapidly. In the future, ADB will need to address the government's policy to also focus on improvements in the 20 provincial centers, beginning with the larger regional centers such as Dagana. While the main urban growth will continue to be in Thimphu, the smaller regional centers are likely to also grow, and their existing facilities and level of urban services are reported to be much below the government's policies and Millennium Development Goals. Thus, some investment in water supply and basic sanitation will likely be required.

37. **Relevance.** ADB assistance has been *relevant*. ADB is following an integrated approach, inclusive of water supply and sanitation, solid waste management, transport, land development, and capacity building of urban management including revenue enhancement. Since neither the government nor the cities have the financial resources for capital works, ADB's integrated approach is logical to ensure that the impacts of the investments are fully realized.¹⁹ Furthermore, due to the lack of capacity in the urban sector, ADB's coordinated approach, procedures, safeguards, and policy advice will continue to be vital to its support for urban infrastructure investments. The ongoing Urban Infrastructure Development Project is, by far, the largest intervention in Bhutan's urban sector to date; the scope of ADB's earlier loans was limited to road and drainage facilities.

38. The Urban Infrastructure Improvement Project was a learning experience for ADB, the responsible government agencies and city corporations, the project consultants, and especially Bhutanese contractors. Project design and implementation were flexible, and ADB responded positively to requests for change in scope as required by the ground realities.

39. The problems encountered with the lack of performance by the project preparatory TA consultants for the Urban Infrastructure Improvement Project did cause delays and led to some poor advice. The scope had to be adjusted by PCC and TCC, which included deletion of the wastewater treatment plant and a change in source for the new water system. The change in the water system has led to a major delay due to transfer of land from the forestry reserve. There is also some concern about the lack of historical hydrogeological data to confirm the minimum flow in the two streams. However, the government appreciates ADB support in rectifying these problems, and now hopes to obtain the additional financing from ADB to fund the revised scope.

40. ADB assistance has also addressed a number of capacity development needs. Particularly training would have been more effective through adequate consideration of incentives for participation. Also, more assistance could have been provided for the corporatization of PCC and TCC, especially for strengthening their capacity infrastructure management, service delivery, and tariff setting.

¹⁹ The various subcomponents of urban development are interdependent. Water supply causes wastewater; improved drainage not only reduces flooding but also lengthens pavement life; solid waste management not only improves public health, the environment, and aesthetics but also improves drainage; and water supply and sanitation piping should be constructed before road and pavement surfaces.

41. **Effectiveness.** ADB assistance was *effective*. The evaluation of effectiveness of loan projects is limited to the completed Urban Infrastructure Improvement Project,²⁰ and progress to date for the Urban Infrastructure Development Project, which is about 30% completed.²¹ The physical components under the completed project were constructed as planned at appraisal, were well constructed, and are fully utilized. Originally anticipated investment-related outcomes were achieved. However, PCC and TCC were unable to take advantage of the project and its training component to build a core of experienced planners and engineers, mainly due to a lack of staff to assign to the project. Other TA projects (footnotes 5 and 8) were effective in providing long-term benefits and impacts on the urban sector. Most of the recommendations were adopted into the various acts and legislation, and the manuals and procedures developed are being followed by TCC and PCC.

42. **Efficiency.** Sector assistance has been *efficient* so far. While the Urban Infrastructure Improvement Project did take 12 months longer than expected at appraisal, it was completed in 7 years, which is the average for urban projects in the region. The main reasons for the additional time were capacity constraints of the government, PCC, and TCC.

43. With respect to the ongoing Urban Infrastructure Development Project, progress to date has been slow. About 55% of the time has elapsed, and the project is currently 2 years behind schedule for tendering of the major works contracts, and cumulative commitments are at 24%, while disbursements are only at 11%. It has taken 2 years to obtain approval for transfer of land from the forestry reserve for the new water supply in Thimphu. The development of four areas in South Thimphu has been delayed due to difficulties in obtaining 100% concurrence by the affected landowners for the proposed land-pooling scheme. Both issues are now being resolved, and the remaining contracts should be issued within the next few months, but the original loan closing date will likely need to be extended. The progress in Phuentsholing is much better, with works well underway, and only one contract left to tender. The comparatively small works there will be completed by the original schedule. The Dagana component is also behind schedule, due to the need to conduct geotechnical slope stability evaluations, followed by slope stability works funded by the government, prior to implementation of the ADB-funded works. Dagana expects to also tender these works within this year, and since the construction schedule for these small works is only 16 months, these should be completed by the 2012 completion date.

44. In terms of resource efficiency, the Urban Infrastructure Improvement Project completion report determined economic internal rates of return (EIRR) of the completed road and drainage works in the 20%–24% range. At the time of appraisal, the estimated EIRR ranged from 16% to 36%. However, the report rates the training component *not efficient*, as the budget was exceeded but only 58% of the projected numbers of PCC and TCC staff participated. Training funds were diverted for nonproject-related uses, though these were not identified, nor could the current PMU or PIU clarify this aspect.

45. The overall economic return for the Urban Infrastructure Development Project is projected to be 21%. Except for subcomponents in Dagana, EIRRs are above 12%. The water supply subcomponent is expected to bring savings in resource costs spent obtaining water from a private or community water scheme or standpipe, savings in time spent treating water, and the value of incremental water supply available from the project. The sewerage subcomponent will bring savings in resource costs spent constructing and maintaining septic tanks, and reduced

²⁰ ADB. 2006. *Project Completion Report: Urban Infrastructure Improvement Project*. Manila.

²¹ ADB. 2010. *Project Performance Report: Urban Infrastructure Development Project*. Manila.

medical costs and productivity losses. The solid waste management subcomponent will bring savings in time spent disposing of wastes, and investment costs for a new landfill site. The road subcomponent will bring savings in travel times and vehicle operating costs.

46. **Sustainability.** ADB assistance is *less likely to be sustainable*. For the Urban Infrastructure Improvement Project, the PCR indicated that the financial impact on both PCC and TCC of maintaining the new facilities in the recurring budget would not be a significant problem. However, it was assumed that the proposals for revenue enhancement submitted by both cities to the government in 2005 would be approved, but these are still pending. Nevertheless, the parking component was particularly successful, with a financial return of 24.3% and 18.7%, respectively, in TCC and PCC. TCC tendered the parking to a private contractor that bid Nu3.5 million (\$80,000) in the first year and \$160,000 in the second year. The Thimphu Executive Secretary recently advised that it had just signed another 2-year contract for Nu15.8 million (\$360,000), which more than meets the operation and maintenance costs and is a good source of revenue. The Independent Evaluation Mission also inspected a number of the works completed under the project and found them in good condition, though some potholes in small sections of some roads are becoming apparent. Also, there is some question as to whether the funds and equipment transferred from DOR to PCC are sufficient to carry out proper maintenance. To date, DOR has been maintaining the roads in Thimphu, though transferring this responsibility to TCC is in progress.

47. In terms of the Urban Infrastructure Development Project, improvement works have not been completed, and there is no need for maintenance yet. However, when completed, the project will add substantial needs for operation and maintenance in the recurring budget, especially in Thimphu. The new water system includes a treatment plant with an increased cost for electricity to operate mechanical equipment, personnel, chemicals, and general maintenance. While the increasing number of consumers and consumption will lead to greater revenues, the low tariff²² is not sufficient to meet the future costs, and there will have to be substantial tariff increases. Because the project will now not provide a mechanical wastewater treatment plant, there will be no increase in operation and maintenance cost for that component. However, the need for a new treatment plant is urgent and will have to be included in the proposed third project from ADB planned for 2013. Once the new mechanical wastewater treatment plant starts operating by 2018, the water supply and sanitation tariff must be greatly increased (likely at least tripled to \$0.25–\$0.30 per cubic meter, which is the industry norm in Asia), to meet the cost of operating the new treatment plant.

48. The projected financial returns for water supply and sanitation at –29% and solid waste management at –4% reflect low tariffs and user fees. The TCC PIU also reports that costs for recently tendered contracts have come in at least 20% over the estimates, and this is expected to be higher for the remaining contracts. In some cases, only one bid was received, almost 100% over the estimate, which led to rebidding. TCC estimates that the current cost of solid waste management is Nu135 (\$3.00) per person per year, but the actual recovery is only Nu8 (\$0.18) as advised by the Thimphu Executive Secretary. TCC is considering privatizing the operation, along with separation at source, recovery, and recycling, but is struggling with how to proceed. An ongoing TA from ADB is helping TCC evaluate the alternatives.

49. **Impact.** ADB assistance has already had a beneficial impact, albeit at a small scale so far, given its limited involvement in the urban sector. The impact rating is *modest to substantial*. It provided much-needed investments in urban infrastructure in Phuentsholing and Thimphu,

²² The \$0.09 tariff includes a 50% tariff for wastewater collection and treatment.

which has improved the quality of life and environment of the more than 130,000 residents. ADB's urban projects have also improved pedestrian access, enhanced traffic flow, reduced driving time, lessened flooding, and improved parking in both cities; improved quality of works through better specifications, procurement procedures, requirement for mechanization by the contractors, quality control, and oversight of contractors; and improved the TCC approach to land pooling, making it more transparent and fair, by introducing the holding of public consultations and publication of owners and land holdings in local media.

50. **ADB performance.** All government, PCC, and TCC senior staff advised the ADB Independent Evaluation Department mission that ADB's performance in the urban sector is *satisfactory*. The government staff commented positively on the support and help provided by ADB staff. As previously mentioned, however, there have been issues with regard to ADB safeguard requirements for land-pooling schemes, which have yet to be fully resolved.

51. As indicated earlier, the government had concerns about the performance of the project preparatory TA consultant for the Urban Infrastructure Development Project. Also, the PMU and PIUs indicated that ADB's procedures for consultancy selection take a long time. Further, while they were satisfied with the design and supervision consultant, there had been some issues with the project management consultant, and the team leader had to be replaced. The government also indicated that the design and supervision consultants should be there full time, rather than intermittently. The lack of continuity puts more responsibility on the local consulting partner and PCC and TCC staff.

52. **Overall assessment.** The overall rating for ADB assistance for urban development is *successful* based on above composite ratings.

E. Issues and Recommendations

1. Issues

53. **Consultant quality.** There was concern expressed by the PMU, PIUs, and Phuentsholing Executive Secretary that the project preparatory TA consultant for Urban Infrastructure Development Project had not interacted sufficiently with TCC and PCC, had not listened to the requirements stated by the local technical cells, nor properly investigated the requirements, resulting in an improper scope in the initial draft of the project preparatory TA report.²³ In addition, in Thimphu, the project preparatory TA consultant's recommendation for expanding the capacity of the existing wastewater treatment plant was later found to be incorrect as advised by the design and supervision consultant and project management consultant, and confirmed independently by an ADB consultant. A new mechanical plant is required, with substantial increase in cost, causing the wastewater treatment plant upgrading to be dropped from the project scope due to lack of funds. This is now a serious issue, as the treatment plant is severely overloaded and at least 5 years will pass before it can be upgraded. Furthermore, the completion of land development in the four areas in South Thimphu will result in a substantial increase in loading to the wastewater treatment plant.²⁴ Proper scope is required for timely project implementation, which entails employing experienced project preparatory TA consultants. Thus, during the evaluation of consulting proposals, the PMU and ADB need to carefully consider technical capacity and rank firms accordingly. There was also general

²³ ADB later sanctioned the firm for poor performance.

²⁴ The World Bank has decided to construct local package wastewater treatment plants for the each of the two areas it is financing.

concern about the quality of some of the international consultants. Consultant contracts should be performance-based to produce a good project, and terms of reference should be indicative and not describe exact responsibilities.

54. **Project implementation arrangements.** Both Executive Secretaries felt that there were several layers of government involved in the ongoing Urban Infrastructure Development Project²⁵ and would like to see the implementation arrangements simplified. In particular, the role and need for a project management consultant and the regional steering committees were questioned by PCC and TCC.

55. **Procurement.** There are only a few local contractors who can meet ADB procurement requirements. Often, only two or three bidders are qualified, leading to prices higher than the cost estimate. This has, on occasion, led to retendering, with the resultant loss of time and increased costs. There is a need to expand the pool of eligible Bhutanese contractors.

56. **Land pooling.** ADB's requirement for 100% agreement of owners for land pooling under the Urban Infrastructure Development Project is considered onerous by the government and TCC. While this was achieved for the pilot area in Thimphu, this was only possible through extraordinary intervention by the government.²⁶ Inability to reach 100% consensus in the remaining areas has led to extensive delays and complaints from landowners. At the time of the loan negotiations, the government had not yet issued an official policy on land pooling, but since this is now in place and requires only a two-thirds majority to proceed, the government has requested ADB to accept this. A revised resettlement framework is being worked on by ADB and the government, which stipulates that a two-thirds majority of owners is sufficient for a contract to be awarded. The government will pay replacement value for nonagreeing plot owners before any works are done on their plots. Rezoning remains an option that will further reduce the need to acquire land.

57. The government has indicated that some of the problems are caused by poor records and surveys.²⁷ Landowners who continue to disagree will be paid for their land based on Property Assessment and Valuation Agency land prices.²⁸ The experience gained with the Urban Infrastructure Improvement Project shows the difficulties associated with obtaining 100% concurrence among hundreds of landowners for land pooling and a need to design practical and feasible alternative arrangements in line with country conditions and regulations, and the underlying principles of ADB safeguard requirements.

58. **Sustainability of the city corporations.** The government has devolved all responsibility for provision of urban infrastructure and services to PCC and TCC. However, neither city has the financial capability to fund needed expansion of basic services and continue to be dependent on the government for all capital works. Similarly, the cities have neither the technical nor physical capacity to maintain such facilities; their staff resources are limited, and they have little or no mechanical equipment. The cities are expected to either develop public-private partnerships, which may be possible for solid waste management, or issue service

²⁵ Urban Development Division, South Asia Department (SAUD) staff indicated that this may be a reference to the regional-level steering committees, which in retrospect had little value added.

²⁶ The PMU and PIU had requested assistance from local representatives to lead consultants and thoroughly explain the land-pooling concept through official and peer pressure. Other interventions included extensive consultations led by TCC and the use of media (TCC website, newspapers, television) for information dissemination.

²⁷ Past surveys were done manually, without the benefit of modern technology. Some plots were smaller than indicated and had different boundaries than shown on the titles.

²⁸ SAUD project staff.

contracts for maintenance works. However, due to the lack of sufficient revenue, there are no funds to pay for such contracts. However, PCC and TCC do not control increases in taxes or tariffs, as these continue to have to be approved by the central government. Neither city seems to understand the need for preventative maintenance and believe that having enough revenue to pay for salaries and consumables is sufficient. Similarly, the importance of maintaining data and records as tools of good administration needs to be inculcated in the city administration.²⁹ Without preventative maintenance, various infrastructures will deteriorate much more quickly, eventual repair costs will be much higher, and the service life of the infrastructure will be much less.

59. **Revenue enhancement.** PCC and TCC assess and collect land taxes, water supply and sanitation tariffs, solid waste management fees, building permits, and other licensing fees. Both Executive Secretaries indicate that this is sufficient for meeting their basic operation and maintenance requirements and, with the exception of a request for a 10% increase in fees, feel that current charges are sufficient. Despite extensive policy dialogue by ADB, DANIDA, UNDP, and World Bank, there appears to be a lack of understanding that the current level of revenues are too low to meet proper operation and maintenance requirements, particularly if such requirements are to be done through service contracts. There may also be reluctance by current officials to make commitments, due to the pending elections of mayors and councils. Based on water supply and sanitation tariffs elsewhere in South Asia, the tariffs and land taxes in Phuentsholing and Thimphu are less than half of the sector norms.

60. **Capacity development.** ADB has provided a number of TA activities, one urban loan, and now the ongoing Urban Infrastructure Development Project, all with capacity-building components. While the TA activities have been well received and recognized as providing excellent advice, leading to adoption of new legislation and procedures, they have not been able to develop a core group of urban specialists in the government departments, PCC, or TCC. The PMU and PIUs for the ongoing project have no staff from the earlier TA or from the PIUs from the Urban Infrastructure Improvement Project.

61. The capacity-building component under this first project was underutilized. Capacity building of city corporations is a particularly difficult aspect of ADB's urban sector activities. The technical understanding of the concepts of basic municipal administration by various staff levels is insufficient for improvement. Based on extensive experience in South Asia, local mayors and councils must be progressive and willing to consider recommendations from ADB's policy dialogue and TA. Otherwise, these will not be adopted and mainstreamed. Assistance involving capacity building should focus on appropriate staff with the skills to learn from the training and who will remain in their positions for the medium to long term. However, involving the political level in the TA is also required.

62. **Housing.** With the exception of the earlier TA that developed a blue print for sector reforms, ADB has not directly supported housing development, though the road development in the Urban Infrastructure Improvement Project and the provision of services and roads in the four areas under the Urban Infrastructure Development Project will provide landowners with access and services that will lead to the construction of hundreds of houses.³⁰ However, although the private sector has started to build hostel-type accommodations, most new housing is upscale

²⁹ Lack of this skill is exemplified by the inability of TCC to complete the data sheets requested by the Independent Evaluation Mission.

³⁰ Houses in Phuentsholing and Thimphu are large multilevel and multifamily dwellings with typically 8–10 units in each house.

and unaffordable to low-income and poor families. While the National Housing Development Corporation is charged with provision of public and low-income housing, it does not have land or funds for this purpose.

2. Recommendations

63. ADB should continue support to Bhutan in the urban sector, as this is more essential now considering the reduced engagement of other development partners in the sector.³¹ This should include further loans to PCC and TCC to help improve and expand their basic services to meet the requirements of the existing and rapidly growing population.³² Concurrently, or as a separate component under loans to PCC and TCC, ADB should consider financing improvement and expansion of urban services in the larger provincial centers in line with realistic demand projections that take into account the migration toward economic opportunities. A coherent long-term strategy to improve and expand infrastructure and urban services, in line with increasing demand, should be developed to facilitate investment planning and resource mobilization and make the scope of succeeding projects more focused and manageable. ADB's involvement is further essential, because currently the government does not have funds for urban development. However, policy dialogue on increasing revenues of city corporations needs to be an integral part of any future assistance (para. 59).

64. The loans for capital works should include mechanical equipment to enable PCC and TCC to conduct operation and maintenance, street sanitation (e.g., sweepers, drain cleaners, high-pressure washers, and vacuum trucks), road maintenance (e.g., excavators, asphalt batch plants, gravel crushers, trucks, pavers, and compactors), water supply and sanitation (e.g., leak detection and repair, spare system and service connection meters, main tapping and saddles for new service connections, and backhoes and mechanical compactors to restore road surfaces), and solid waste management (e.g., compactor trucks, transfer stations, and solid waste compactors). While the policy of the government, PCC, and TCC is to issue service contracts for such maintenance, local contractors do not have such equipment, and PCC and TCC have insufficient revenues to pay such private service providers. This would also provide PCC and TCC with the opportunity to lease equipment for contractors of capital works, and perhaps help reduce the cost of new construction or future operation and maintenance service contracts. Indirectly, an equipment inventory with PCC and TCC will help to expand the pool of eligible and interested contractors, improve competition for contracts, and control prices.

65. Further, there is urgent need to support PCC and TCC with capacity building to strengthen their management and administrations. This includes development of recurring budgets for operation and maintenance, human resources, and revenue enhancement. The current land taxes, water supply and sanitation tariffs, and solid waste management fees need to increase over the next few years, as they are too low to cover the increasing operation and maintenance expenses of the new facilities being constructed. By instituting a gradual land tax and tariff increase now, with the help of proposed ADB TA, PCC and TCC will be better able to manage the new systems when they come on line by 2012–2013. The gradual introduction of

³¹ Future World Bank lending will be focused 60% on budget support and policy-based lending and 40% for project lending, with likely emphasis on health and education. Furthermore, DANIDA indicated that its involvement in the urban sector ended on 30 June 2010. Its programs have shifted to health and education with a gender and environmental focus. In the opinion of the government and the city corporations, this leaves ADB as the main source of future funds for the urban sector.

³² With the more than 8% population growth in Thimphu and more than 3% in Dagana, Phuentsholing, and some of the other provincial centers, demand for basic services is urgent, both to improve public health and the quality of life for existing residents, and also to slow migration to Thimphu.

cost-reflective tariffs should be a condition for future ADB financial assistance. With regard to an appropriate mechanism for institutional strengthening support, ADB should review DANIDA's approach to capacity building in the urban sector in Bhutan, and consider incorporating identified lessons in future TA.³³ In addition, ADB should request that experienced staff and or PCC and TCC staff who have participated in various training programs be assigned to work on future ADB-financed projects to help develop a cadre of experienced urban professionals. Such staff should be assigned for the project duration, if possible.³⁴

66. ADB should consider discussing support for the housing sector with the government under future projects taking into consideration recommendations developed under the TA on housing sector reform, as appropriate. This must specifically address housing for nongovernment low-income workers. While there are land constraints, the government should consider transferring vacant or underutilized land to PCC and TCC to relieve land shortages. Such transfers should have the provision that a reasonable percentage should be set aside for institutional buildings, schools, hospitals, health clinics, recreational areas, and low-income housing.

67. ADB should formalize the land-pooling procedures developed during the implementation of the ongoing loan, to be included as the required procedure in the next loan involving land acquisition. ADB's involvement in land development should also require PCC and TCC to set aside a percentage of the total land area for low-income housing.

68. The selection of project preparatory TA, project management, and design and supervision consultants should be carefully monitored to ensure capable firms and individuals are engaged. ADB should continue the ongoing strong support provided by its Urban Development Division of the South Asia Department to the PMU and the PIUs, as urban development is new to Bhutan and government and city corporation staff rely on ADB for advice and support.

69. ADB should work with the government and the Construction Development Board to develop more local contactors who are able to meet ADB procurement requirements. This would introduce more competition and reduce the dependence on international contractors. An alternative to provision of construction equipment to PCC and TCC is to help build the equipment inventory of the Construction Development Corporation Limited, and make it mandatory for it to lease such equipment to Bhutanese contractors involved in urban contracts financed by ADB.

70. ADB could also consider support to facilitate outsourcing of the development and operation of urban infrastructure facilities to the private sector, as appropriate.

³³ DANIDA found capacity-building support to be successful in the urban sector in Bhutan. However, DANIDA's approach was to provide long-term support (2–3 years) on a day-to-day, hands-on basis by embedding the trainers in the office of the trainees. This enabled the trainees to continue their regular work, while being advised and trained by the trainer. Over time, this engendered trust and confidence to apply new knowledge despite resistance by the bureaucracy, and resulted in measurable improvement in carrying out their duties. However, in some cases, it was found that the trainer ended up doing much of the work. To encourage the trainees to not become dependent, DANIDA has now changed the approach so that trainers spend 1 month, leave for 2–3 months, and then return for another 1 month. DANIDA indicates that this revised approach to training works well.

³⁴ There were four different project managers under the Urban Infrastructure Improvement Project.

ASSESSMENT OF ADB ASSISTANCE FOR FINANCE AND PRIVATE SECTOR DEVELOPMENT

A. Sector Development Context and Government Strategies

1. Sector Development Challenges

1. A 2002 Asian Development Bank (ADB)-funded review of Bhutan's finance sector¹ identified sector challenges. These included (i) a weak framework for private business with multiple constraints, and a tendency to rely on administrative controls rather than market-based approaches;² (ii) limited public financial literacy and unfavorable attitudes to private business that were reinforced by public policy;³ (iii) poor access of small and medium-sized enterprises (SMEs) to credit, especially outside the main towns; (iv) macroeconomic constraints, including the limited use of fiscal instruments and the narrow scope for independent monetary policy in a pegged exchange rate regime, which effectively requires an alignment between prices and interest rates in Bhutan and India; (v) weaknesses in legislation governing business transactions and financial institutions, and the courts' limited capability to apply and enforce the laws; (vi) lack of adequate accounting and auditing standards and practices;⁴ (vii) lack of an entrepreneurial culture and technical skills; (viii) labor shortages and an absence of a suitable related regulatory framework; (ix) lack of competition, including foreign competition;⁵ (x) lack of autonomy for the Royal Monetary Authority (RMA), which increases the potential for conflicts of interest arising from government ownership⁶ and regulation and supervision of financial institutions and resulting in weak enforcement; (xi) incentive problems from the ownership structure of financial institutions and their impact on competition; (xii) low levels of financial intermediation; (xiii) absence of an interbank market, resulting in liquidity issues for the system and individual institutions; (xiv) lack of adequate credit appraisal and risk management skills contributing to high interest rate levels, short loan maturities, and high collateral requirements; (xv) lack of focus by specialized institutions with specific briefs—e.g., the Bhutan Development Finance Corporation (BDFC) and the Royal Insurance Corporation of Bhutan (RICB)—including staying within their mandates and not competing with commercial banks; (xvi) gaps in financial services infrastructure in areas such as payments, settlements, and credit information; (xvii) lack of investment options for the National Pension and Provident Fund (NPPF) and RICB; and (xviii) the small size of Bhutan's economy that needs greater openness to the world economy and more regional and global integration of financial institutions.

¹ Details of these loans, grants and TA projects are found in Appendix 2. They are not footnoted when they are referred to in the text.

² Framework weaknesses and constraints to growth in the private sector, including hindrances to foreign investment, taxation rules that penalize the private sector relative to the public sector, constraints on expatriate workers, cumbersome import licensing requirements, and overregulation of commerce, have resulted in Bhutan having one of the lowest ratings worldwide with regard to the ease of doing business.

³ For example, there were caps on private sector salaries but not on public sector salaries.

⁴ Bhutan does not have its own accounting standards, and there are no professional accounting firms in Bhutan that can follow international financial reporting standards. Audits are usually undertaken by Indian accounting firms who largely apply Indian standards.

⁵ As of December 2000, the finance sector was dominated by the only two commercial banks, Bank of Bhutan and Bhutan National Bank, which together accounted for 87% of financial institutions' total assets. The two nonbank financial institutions, the Bhutan Development Finance Corporation (BDFC) and the Royal Insurance Corporation of Bhutan (RICB), accounted for the remainder. There was one pension fund, the National Pension and Provident Fund (NPPF).

⁶ In 2000, the state owned 80.0% of the Bank of Bhutan (the State Bank of India owned the other 20.0%). The state owned only 27.2% of the shares of the Bhutan National Bank directly, but public sector organizations controlled by the government raised the public sector holding to 51.0%. Eighty-seven percent of BDFC was directly owned by the state and much of the remainder indirectly. Only in RICB did the state have a minority stake of 40.0%.

2. All of these constraints are interrelated. The lack of a vibrant private sector has inhibited finance sector development, and the finance sector has failed to play a proactive role in mobilizing financial resources and allocating them efficiently for productive purposes.

2. Government Sector Development Strategies

3. The government has had a wide choice of strategic options for economic development, which also have implications for finance sector development. First, it could fully integrate with the Indian economy. Bhutan already had a customs union with India, effectively a single currency because of the one-to-one peg of the ngultrum to the Indian rupee, and a dominant trading relationship with India in goods and services. It would have been economical and efficient to integrate the economies, but would have involved a higher risk of spillovers from any difficulties experienced by India. Second, Bhutan could create a market-driven economic system and finance sector, which would involve deregulation, privatization, and opening the sector to competition and investment by domestic and foreign investors. This option could have further evolved toward the full integration with India option, or it could have led to a more diverse set of participants, including institutions from other countries. Lastly, the government could choose a government-owned and -controlled economy and finance sector, but with minor elements of competition. This last strategy was selected and pursued almost exclusively up to 2009. Competition has been gradually introduced, however, to encourage evolution toward an efficient system but to avoid shocks.

4. After the banking system experienced high levels of nonperforming loans (NPLs) in the 1990s precipitated by directed, subsidized credit schemes, the government decided to facilitate a commercialization of the financial system by taking NPLs out of bank balance sheets, divesting some of its shareholdings in financial institutions, and permitting foreign participation (initially ADB and Citicorp as minority shareholders in Bhutan National Bank). At the same time, the government focused on strengthening the financial system and reducing the potential for systemic risk. It did this by improving the legislative and regulatory framework for financial services and the supervision of financial institutions, strengthening financial institutions,⁷ and enhancing the transparency and efficiency of financial transactions with assistance from development partners.

5. Starting in 2009, Bhutan's financial system has been opened up to more competition, although government ownership and control of key financial institutions remains extensive. Given country conditions, restructuring state institutions while encouraging private sector entry is the best way to enhance competition and commercialize sector operations. Going forward, the government seeks to diversify its economy to reduce reliance on hydropower development and to increase employment. This is to be accomplished by strengthening the enabling environment for private sector activity, improving access to finance, and building institutional capacity and resources. The government has looked to micro and SMEs, particularly in rural areas, to provide off-farm employment opportunities, and has supported related financing programs and business development services. BDFC is also to focus on underserved market segments, particularly small borrowers in rural areas.

6. The acute shortage of locally trained personnel at all skill levels, the heavy reliance on foreign labor, and rising youth unemployment have been major government concerns.

⁷ The government has sought to restructure state financial institutions by encouraging reforms to corporate governance and improving their human resources, skills, and operating systems. The financial institutions are to strengthen their management, establish proper asset liability frameworks, improve credit assessment, improve product development and customer service, and upgrade information technology.

Government strategies recommend (i) developing short-term technical, vocational, and professional courses; (ii) strengthening training institutions, including technical and vocational education and training institutions in conjunction with employment counseling services; and (iii) encouraging private sector participation, including the Bhutan Chamber of Commerce and Industry.

B. ADB Assistance Strategies and Programs

7. ADB has sought to support private sector development in Bhutan through its assistance for the creation of a conducive business environment,⁸ the strengthening of finance sector operations,⁹ the introduction of public–private partnership modalities in the power sector, and the provision of credit lines for micro and SMEs.

8. **Enterprise development.** The Micro, Small, and Medium Enterprise Sector Development Program (MSMESDP) seeks to improve the enabling environment for private business by developing a policy, strategy, and institutional framework for micro and SME development; preparing regulatory impact assessments for draft enterprise registration and SME-related legislation; simplifying the business formalization process to less than 30 days for larger companies; introducing quality control and product standards; and increasing the access to market-based financing for micro and SMEs. The policy agenda was prepared through technical assistance (TA) for Small and Medium Enterprise Development.

9. **Finance sector development.** During 2000–2010, ADB had the following active programs and projects in the finance sector in Bhutan: two policy-based program loans to support sector reforms; two financial intermediation loans to finance micro and SME development, which were supported by TA to develop BDFC's capabilities for microfinance and a business strategy; and an equity investment in Bhutan National Bank that was divested in 2006. While ADB's policy dialogue under the 1997 Financial Sector Intermediation Facility (FSIF) promoted the rationalization and strengthening of banking and financial institutions; liberalization of foreign trade, exchange, and investment regulations; interest rate liberalization; and preparation of transparent commercial legislation and regulatory procedures, the ongoing Financial Sector Development Program seeks to improve the legal, regulatory, and supervisory framework of the finance sector; enhance the corporate governance of financial institutions, particularly the Bank of Bhutan and RICB; establish an anti-money laundering and combating the financing of terrorism (AML/CFT) surveillance system; develop reliable financial reporting;¹⁰ and improve credit information. ADB also provided TA loans and grants to RMA to support the design and implementation of sector policy reforms, including assistance for drafting relevant laws and regulations, strengthening its supervision function, and improving other aspects of its operations through support for the establishment of an automated payment and settlement system and credit information bureau. ADB has also supported the development of nonbank

⁸ The 2000 country operation strategy (COS) emphasized the need to develop the country's vocational and technical skills base to facilitate employment and private sector development. The 2005 country strategy and program (CSP) focused on improving the private sector enabling environment, in particular for SMEs.

⁹ The 2000 COS sought to strengthen the efficiency of financial intermediation and broadening access to investment funds, and the 2005 CSP emphasized strengthening financial sector regulation and supervision and improving policy and institutional conditions for microfinance.

¹⁰ ADB TA and policy dialogue are supporting the gradual introduction of international financial reporting standards with the development of the national audit profession. World Bank. 2009. *Report on Observance of Standards and Codes for Accounting and Auditing*. Washington, DC found that the absence of properly defined standards resulted in the preparation of financial statements and conduct of audits that were incomplete, not uniform, and not in line with internationally accepted standards.

financial institutions through TA for the Royal Securities Exchange, the Government Employee Provident Fund, and the NPPF.

10. **Vocational training.** ADB supported vocational training under the Basic Skill Development Project and Rural Skills Development Project and provided TA for the institutional strengthening of the National Technical Training Authority. It sought to help improve the quality and capacity of vocational training programs and achieve greater alignment with private sector needs through policy dialogue on improved labor market information systems, better collaboration with private industry, use of cost-sharing arrangements between state vocational training institutes and private sector enterprises, strengthening of qualification standards, and introduction of private training institutions. The Japan Fund for Poverty Reduction-funded Rural Skills Development Project seeks to increase the net income of rural communities by providing basic training in construction skills.

11. **Other assistance.** In 2002, ADB provided preparatory TA for the development of an industrial estate in Pasakha and a dry port in Phuentsholing. While the project preparatory TA provided useful recommendations for appropriate customs and industrial policies (including SME diversification strategies) to operate future industrial estates and dry ports, the planned ADB loans for the industrial estate and dry port were subsequently cancelled due to safeguard concerns.¹¹ ADB also provided advisory services for labor legislation to facility labor mobility by creating a framework for private sector employment.

C. Outputs and Outcomes

12. **Enterprise development.** Implementation of the MSMESDP is ongoing. As of February 2010, a white paper for SME development had been drafted, which was being discussed with various stakeholders, including from the private sector. Two pilot regulatory impact assessments were also being finalized. The implementation of other activities was slightly behind schedule as of February 2010. This is, in part, due to the fact that policy measures identified under the TA for SME development are being reviewed by the government in light of changing country conditions and advice provided by consultants under the Micro, Small, and Medium Enterprise Sector Development Project. For example, the establishment of physical one-stop shops for business registration is being reconsidered, as very small businesses in the main commercial centers can already be set up within 3 weeks with comparatively little bureaucratic requirements. However, the process currently takes about 46 days for larger enterprises, but can take up to 6 months depending on the need for sector and environmental clearances.¹² Various options are being looked at to further reduce this period. Further, the recently approved Economic Development Policy of the Government stipulates that cottage and small service businesses will not be required to obtain licenses to start operations. The policy also includes tax waivers for interest earned by financial institutions on preferential lending programs. Finally, it promotes direct fiscal incentives for small and cottage industries. Ministry of Economic Affairs is also still working on one of the other micro and SME policy actions, the establishment of performance targets for regional trade and industrial offices.

¹¹ The industrial estate component was deferred indefinitely in June 2004 due to concerns that industrial and hazardous waste disposal may create pollution issues in India. At a very final stage of the project preparatory TA, the government also canceled the dry port component due to social safeguard concerns. Government policies would have only compensated landowners for the loss of their assets, but not other affected people (there were some tenants and shopkeepers on dry port site). Livelihood restoration would have not been allowed. Also, national policies would not have compensated migrant wage workers and Indian vendors on the other side of the border, which ADB deemed affected persons.

¹² Median time required according to the World Bank Doing Business 2010 database.

13. Policy dialogue under the MSMESDP has also been covering the restructuring of BDFC, which had initially been set up as an industrial development finance institution in 1988 with the help of ADB. Despite substantial TA in the past from ADB¹³ and others, it has been suffering from corporate governance issues, lack of a funding base, high staff turnover, and portfolio quality problems stemming from weak credit and risk management systems. BDFC is to transform itself into a sustainable, efficient financial institution dedicated to micro and SMEs and rural lending. The project has been promoting an improved governance structure, a new human resources strategy, the preparation and implementation of a 5-year business strategy and plan with performance benchmarks, and related capacity development. However, the project performance evaluation report (PPER) for the FSIF found that as of early December 2009, 19% of the BDFC loan portfolio was nonperforming, which was not in line with business plan commitments of 8%, although the officially reported NPL levels as of 31 December 2009 were only 14%. NPL levels for small individual and group loans and its agricultural loan portfolio have been in excess of 30%, compared to an average NPL level in single digits for commercial loans. Thus, the overall rate of NPLs appears to be higher than what BDFC loan margins can sustain.

14. Although the credit line component of \$4 million under the FSIF was fully disbursed over almost 5 years, it is unclear to what extent the subloans made an incremental difference to overall SME access to credit and contributed to the growth of the private sector and employment in Bhutan.¹⁴ The MSMESDP credit line component to BDFC is likely to disburse comparatively quickly, however.¹⁵ Most of the subloans have been in the range of Nu50,000–Nu100,000 and have been used to finance agricultural (i.e., poultry and dairy production) and service ventures (i.e., repair and maintenance shops and restaurants) in rural areas. Yet results of a survey of the first batch of subborrowers indicate potential credit quality problems, with 39% of respondents anticipating problems in repaying their loans on time. Perceived key threats to their businesses included price changes, lack of demand, competition, and policy changes. Borrowers of agricultural- and construction-related loans had the greatest concerns.¹⁶ Given the large share of agricultural lending, animal and plant diseases were also seen as risks. BDFC is trying to address such concerns through the planned introduction of livestock insurance for its clients.¹⁷

15. The credit line was supposed to complement a cost-sharing facility under the project, which was to cofinance the provision of consulting services to subborrowers under the BDFC

¹³ BDFC considers that without TA to improve its operations, its financial performance would have been worse. It would also not have been able to improve its overall portfolio quality compared to 1998, when it had 36% NPLs.

¹⁴ About 90% of the 281 subloans in terms of value and numbers were given to new businesses. It is unclear how many of these businesses are still operating. For the remainder, there has been no measurement of the degree of expansion or increase in productivity of the SMEs that received loans under the ADB line. While the project completion report (PCR) stated that 1,830 incremental jobs were created by the SMEs that received loans under the credit line, the PPER found this metric to be unreliable. The data were based upon unverified claims by the borrowers and BDFC officers. While the 2004 PCR stated that five visited subprojects had 75 staff members in total, the 2010 PPER found staff to be fewer than half of this number. Clearly, the simple idea of a “job created” does not always fit the reality. For example, site visits undertaken in conjunction with the PPER for the FSIF found that some of the labor used by some of the SMEs was in fact temporary or seasonal, and, in part, comprises Indian workers provided by labor agents who are working without security for low wages, sometimes in unsafe conditions. Also, BDFC selected the best cases from its applicant flow for the ADB credit line.

¹⁵ By February 2010, BDFC had disbursed 1,233 subloans for \$2.5 million, 50% of the total ADB credit line of \$5.0 million.

¹⁶ About 73% of the subborrowers who used credit to purchase livestock, 50% of the subborrowers who used credit for construction purposes, and 42% of the subborrowers who used credit to finance the production of cash crops anticipated repayment problems.

¹⁷ BDFC has discussed potential policy options with RICB and found that associated premiums would not be affordable for most subborrowers without a subsidy, which BDFC expects to be shouldered by the government.

line. However, BDFC has been using ADB funds to provide credit mainly for agricultural and land development and construction purposes, while the nature of services to be provided under the cost-sharing facility is more suitable for SMEs in urban areas. As a result of BDFC customer selection and delays in operationalizing the cost-sharing facility, the scope for potential synergies has been considerably reduced.

16. **Finance sector development.** With the International Monetary Fund (IMF), ADB supported new regulations on foreign transactions under the FSIF, which helped Bhutan move closer to current account convertibility. Policy dialogue under the facility also promoted the liberalization of the interest rate structure and removal of administered sector interest rate controls.¹⁸ However, there has not been any real change in interest rate levels, nor any competition in the setting of rates. The FSIF also required the creation of a credit information bureau, but ADB decided that loan clearance certificates that left the onus on the borrower to collect and to provide a certificate of assurance were appropriate measures to satisfy this conditionality. Further, ADB's equity investment in the Bhutan National Bank, which was terminated in 2006, was effective in stabilizing that bank and facilitating its partial privatization. However, the private sector partner did not play any role in the management of the bank, and the anticipated organizational changes fell short of expectations.

17. Implementation of the Financial Sector Development Program (FSDP) is ongoing. The second tranche release, originally envisaged for June 2008, has been delayed. Conditionality that was outstanding as of June 2010 included approval of a rationalization plan for RICB,¹⁹ approval of a business plan for the Bank of Bhutan,²⁰ and the establishment of an effective anti-money-laundering regime.²¹

18. Key achievements under the FSDP and associated TA include the preparation of legislation and regulations to strengthen the supervisory framework for the finance sector,²² the establishment of a credit information bureau, and the reconstitution of the Accounting and Audit Standards Board.²³

19. FSDP-supported central bank legislation, the RMA Act, was approved in June 2010. It strengthens the autonomy of RMA and enhances its ability to conduct monetary policy and oversee the operations of the finance sector. During parliamentary discussion of the draft law, it

¹⁸ Related policy conditionality is required to allow financial institutions to determine deposit and lending rates, while keeping their interest spreads initially at a maximum of 6% until sufficient competition exists between financial institutions.

¹⁹ RICB management is considering various restructuring options presented by the TA consultant. However, while a greater focus on its core insurance business is desirable, the scope of reducing its corporate lending activities is limited by the lack of alternative investment opportunities outside of government securities. RICB investments in the Indian capital market are currently not feasible given the limited availability of Indian rupee reserves. As a start, accounts have been separated for the various business lines. Although a step into the right direction, this will not significantly ameliorate the risks that are involved in RICB conducting insurance and other financial services businesses as a composite company.

²⁰ The Bank of Bhutan board has approved the bank's business plan. A memorandum of understanding between bank management, the Ministry of Finance, and Druk Holdings and Investment (the state asset management company) agreeing on performance benchmarks for the bank to support its commercialization process still has to be signed, which is expected in July 2010.

²¹ A financial intelligence unit was setup within RMA in April 2010. Related assistance under the ADB TA to define reporting requirements and supervision procedures is scheduled to commence in late 2010, given other RMA work priorities and capacity development requirements.

²² The preparation of FSA legislation was supported by the TA for preparing the financial sector and nonbank financial institutions reform program. With IMF, ADB also engaged in policy dialogue with RMA on RMA legislation.

²³ The Accounting and Auditing Standards Board was reconstituted with more private sector and industry representation with Cabinet approval in May 2010.

was proposed that the RMA board be chaired by a government appointee rather than the RMA Governor, which would have effectively reduced the scope of RMA autonomy and subjected its decision making to political considerations. The matter was resolved in discussions between the upper and lower houses, and the joint session of Parliament passed the RMA Act, which stipulates that the RMA governor, who will be appointed by the King on the recommendation of the Prime Minister, will chair RMA's seven-member board.

20. The FSDP-supported Financial Services Act (FSA) was submitted to the National Assembly in April 2010, which finished its deliberations of the Act in July 2010. FSA legislation will provide RMA officials with immunity from prosecution, give RMA the necessary powers to amend securities-related provisions of the Companies Act, ban insider trading, introduce a deposit protection scheme and an insurance guarantee scheme, and limit company (including state holding company) ownership in banks.²⁴

21. New licensing regulations promoted under the project have facilitated the entry of two new commercial banks (Tashi Bank and Druk Punjab National Bank), which is expected to change the fundamentally oligopolistic behavior of the current banking system and lead to a wider range and more efficient services for banking clients. All banks interviewed by the Independent Evaluation Mission anticipate greater competition for the best customers, which has begun to translate into greater differentiation of lending rates, staff movements, the introduction of various consumer finance products, and efforts to expand the deposit business.

22. Revised prudential regulations for financial institutions were approved in April 2010. Among other things, they included changes to loan classification standards in line with international standards, which will have to be complied with by 31 December 2010.²⁵ Other key changes relate to investment limits for banks and non-bank financial institutions (NBFIs), shareholdings in banks and NBFIs, related party definitions and related lending limits, and information on financial transactions, all of which have been tightened.²⁶ The introduction and implementation of new regulations for the supervision of capital markets and insurance operations has been pending due to capacity constraints.²⁷ Also, with ADB assistance, RMA is drafting corporate governance regulations, including a fit-and-proper test for its board of directors; structure and composition of the board (which will comprise a minimum of 50% private sector); and conflict-of-interest rules and restrictions on cross-shareholdings, which should help enhance the commercial orientation of the country's mainly state-owned financial institutions.

²⁴ The National Assembly directed the finance ministry to redraft a provision that would restrict shareholdings of by companies in financial institutions to 30% of total shares as this would require a reduction of the government holding company's current 80% stake in the Bank of Bhutan within a year. Opponents of this provision argued that government holdings should be treated differently from holdings by private companies.

²⁵ Under previous loan classification standards, banks only had to classify a loan as "doubtful" when it was more than 1 year in arrears, and as "loss" when it was more than 2 years overdue, leading to systematic underprovisioning for loan losses. This has now been reduced to 90 and 180 days, respectively. Also, suspended loans now need to be fully provisioned for.

²⁶ Exposure limits remain an issue given the structure of Bhutan's economy and its financial system. Although prudential regulations require a 30% ceiling on exposure to single borrowers, in infrastructure industries, single exposure can be up to 40% of bank capital.

²⁷ With regard to insurance supervision, RMA draft regulations define solvency margins and admissible assets and mandate improved reporting standards and formats. With regard to capital market transactions, RMA prepared procedures for onsite inspection of the stock exchange and brokers, and defined rules for various operations of the securities exchange, including matching buyer and seller obligations, defining the point of transfer of beneficial ownership, disclosing control and related party relationships, expanding remedies for defective disclosure, and introducing internal controls and inspections of the depository.

23. RMA credits ADB TA for strengthening its banking supervision function. The TA financed the services of a long-term banking supervision advisor who participated in onsite supervision and provided on-the-job training to RMA staff. While this and, to a lesser extent, subsequent TA enhanced RMA supervision capacity, limited staff resources and lack of adequate regulatory powers are affecting the quality of its supervision efforts.²⁸ Also, capacity for the supervision of nonbank financial institutions remains limited. Under FSDP, RMA commenced onsite inspections of all brokerage firms.

24. Further, relevance and efficiency of TA for the development of a check-clearing system suffered from a lack of related expertise on the part of RMA and ADB staff, and relied entirely on consultants for the selection and implementation of the new system. The resulting check-truncation system has enabled earlier payments and settlements through the use of check-imaging technology. Although check-clearing times were reduced from up to 2 weeks under the previous mail-based system to T+1 for clearing between branches within the three clearing centers and up to 1 week for other locations, system functionality stayed below stated TA outcomes. Further, additional funds are required to purchase a back-up system to ensure system stability. Currently, only 300–400 checks clear per day. RMA is in the process of implementing an electronic funds transfer and clearing system with assistance from the Reserve Bank of India, which will also facilitate financial transactions with India. It is expected that the volume of checks will reduce further once electronic transfers increase.

25. ADB also provided TA for the establishment of a credit information bureau within RMA in late 2009, which collects positive and negative information on bank borrowers.²⁹ System design generally followed best practices. It is expected that the new system will also help improve the quality of underlying information kept by banks on borrowers.³⁰ The credit information bureau covered 80% of total outstanding loans of Bank of Bhutan, BDFC, Bhutan National Bank, NPPF, and RICB as of 1 July 2010.

26. With regard to nonbank financial institutions, ADB provided TA for the stock exchange, the NPPF, RICB, and to strengthen the regulatory framework for the Royal Securities Exchange of Bhutan (RSEB).³¹ It is expected that FSA legislation, once enacted, will help address governance and transparency problems.³² However, ADB provided little direct assistance for enhancing the capacity of RSEB. FSDP helped create a website for RSEB, prepare a feasibility study for its information technology development, and provided securities training for stock exchange officials and market participants. Nevertheless, RSEB's technical capabilities are limited; it remains illiquid and largely inactive. With regard to the NPPF, FSIF tranche release conditions required ending all subsidies of the Government Employee Provident Fund, including

²⁸ For example, the frequency of onsite supervision of banks is being reduced from once a year to once every 2 years. In a related performance indicator, ADB originally expected that the number of onsite supervision activities would increase to twice a year. Further, FSA legislation should enhance RMA enforcement powers and facilitate the implementation of adequate prudential standards. However, RMA expects bank compliance with exposure limits to continue to be a problem, given the structure of the banking sector.

²⁹ The TA also helped draft a Credit Information Bureau Act and regulations, and an operational plan to de-link Credit Information Bureau from RMA.

³⁰ The FSIF PPER found that individual lenders had poor records of their clients' borrowing histories.

³¹ The TA for Capacity Upgrading of Financial Sector Infrastructure and Entrepreneurial Development made recommendations for central depository regulations, which have been reflected in the draft FSA Law. The TA on strengthening the capacity of RMA and RSEB, among others, helped draft the FSA legislation, which incorporates revised rules and regulations to govern the operations of RSEB as a securities exchange, clearing house, and depository.

³² The exchange is subject to conflicts of interest, with the financial institutions owning the brokerages, sitting on the board of the exchange, and/or listing their stocks on the exchange.

the guarantee by RICB of a 10% fixed annual rate of return to the investments of the fund. ADB also required that this fund be restructured and made independent of RICB, so subsidies were thus discontinued.

27. In 2000, the NPPF was established and took over Government Employee Provident Fund operations from RICB. The NPPF includes a defined benefit pension plan (tier 1) and a defined contribution provident fund (tier 2). ADB supported the NPPF under TA on institutional development, which was expected to produce a medium-term master plan for the NPPF, make recommendations on its corporate governance, improve actuarial skills, and prepare a public awareness campaign. Although the master plan failed to meet expectations,³³ the proposed actuarial model was subsequently used, being regarded as superior to that developed earlier under the TA for upgrading RICB. Further, the Government Employees Provident Fund was restructured and a pension scheme introduced. The TA helped the NPPF assess the pension plan and evaluate its sustainability.

28. **Vocational training.** The Basic Skills Development Project helped prepare the new policy framework for technical and vocational education and training, and financed the construction of new vocational training institutes (VTIs), which increased VTI enrollment capacity from 400 persons at project appraisal to 1,193 persons at completion. VTIs, including those supported by ADB, have had difficulties attracting trainees and were operating at less than 50% capacity in 2009. In fact, a number of service centers that are attached to the VTIs were being closed down due to lack of demand. A survey of graduates indicated that VTI attendance was usually contemplated by those who had difficulty finding gainful employment. Only half of the participants had a strong interest in learning a particular skill. Despite most of the VTIs providing free accommodation, board, and tuition, VTI attendance, particularly in more expensive locations such as Thimphu, can pose a financial burden on students' families.

29. Several factors were identified that seem to adversely affect enrollment: (i) the low status of vocational work; (ii) training courses that do not match potential student demands; (iii) the lack of bridging courses to enable VTI graduates to pursue diploma courses and bachelor's degrees upon graduation; (iv) a perceived lack of relevance and low-quality training at VTIs; (v) the lack of a national skills certificate recognized by industry, which hampers employment; (vi) poor working conditions in the private sector; and (vii) lack of knowledge about VTIs and graduates' success.

30. The ADB-supported policy framework, which was approved in 2006, encompasses national vocational qualifications and promotes equitable access and private sector partnerships. The latter is being implemented through an apprentice training program, for which the government subsidizes 50% of the on-the-job training costs for 1–2 years, and the dual training system, under which second-year students are attached to private workshops for 1 year, with costs shared between the VTIs and industries. According to a government tracer study of about one third of surveyed former vocational trainees, 18% of VTI graduates and 5% of program participants since 2003 were unemployed as of October 2009. The actual unemployment rate for all graduates is likely to be higher, however.

31. Due to the technical nature of most courses offered, female enrollment has averaged only 22% since 2003. Female VTI graduates experienced difficulties in finding employment after

³³ The NPPF attributed the less-than-satisfactory results to the poor health of the team leader and consultants' lack of understanding of specific issues in Bhutan. However, ADB's completion report noted that other reasons may have also come into play, including the limited capacity of the NPPF to evaluate and absorb the plan.

graduation, with only 72% of the study sample having jobs as of October 2009. Nevertheless, according to a survey of 20 major employers in Bhutan, the dual system appears to be more useful to employers than the apprentice training program due to its more structured approach and provision of relevant of theoretical training.

32. In the course of project implementation, the government and ADB agreed to support the establishment of five school-based vocational clubs and the procurement of basic tools for 29 schools with which secondary school students carry out minor building maintenance under the instruction of VTI graduates. There are plans to expand the scheme to 400 schools from the current 53, which might help students to gain an interest in and appreciation of vocational work. The Basic Skills Development Project also contributed to an expansion and diversification of the government's village skills development program, which is aimed at providing basic skills training to young school leavers and rural villagers to provide income-earning opportunities in idle farm seasons. Preliminary findings for the ongoing ADB-supported Rural Skills Development Project indicate a much-higher-than-expected uptake of offered training programs by villagers, demonstrating a high demand for such training. However, the training has not led to higher income levels, due to lack of job opportunities or of knowledge about available jobs, and mobility issues, with the exception of earthquake-affected areas, which have experienced an increased demand for construction and renovation services.

33. **Other assistance.** Policy dialogue under the FSIF helped clarify the regulatory framework for commercial transactions through the publication of regulations on the commercial sales of goods. However, the outcome of this policy action is unclear. ADB also supported the issuance of new import licensing regulations in line with more liberal foreign exchange regulations, and the number of import permits issued has increased. However, it is unknown whether the regulations facilitated imports or merely formalized existing imports, as economic growth would have increased imports as well. The costs and time periods associated with imports are very high in Bhutan compared to other South Asian countries. Although this is, in large part, due to its location, enterprise surveys indicated continued problems with the revised importing licensing system, which is still perceived to be restrictive, cumbersome, costly, and time-consuming.³⁴

34. ADB policy dialogue also supported the issuance of policies and regulations regarding foreign direct investment. Such a policy was formulated in 2002, after a 3-year delay, and was declared to be a regulation to comply with an ADB tranche release condition. Regulations were not really published until 2005. The 2002 policy was so restrictive as to be, in effect, a ban on foreign investment. There is consensus among government officials that this policy was unsuccessful in mobilizing foreign direct investment, so revised policies are currently under consideration.

35. ADB also supported the approval of the Movable and Immovable Property Act (1999), Bankruptcy Act (1999), and Negotiable Instruments Act (2000), as well as amendments to the Companies Act (2000). All of these laws were passed and provide a basic legal framework for commercial transactions. While contract enforcement in general has been comparatively efficient in Bhutan, movable and immovable property and bankruptcy legislation have not been as effective in improving debt recovery due to inherent weaknesses³⁵ and the absence of

³⁴ See Moktan, S. 2007. Development of Small and Medium Enterprises in Bhutan: Analysing Constraints to Growth. *South Asian Survey*. 14: 251–282.

³⁵ According to the World Bank Doing Business 2010 database, property legislation does not (i) allow businesses to grant a non-possessory security right in a single category of revolving movable assets, without requiring a specific description of the secured assets; (ii) allow businesses to grant a non-possessory security right in substantially all

required implementing regulations. There is no registry for secured transactions, although the credit information bureau will be used for this purpose. There is also little capacity for implementing and enforcing bankruptcy legislation.

36. ADB assistance under TA activities for Institutional Development of the Department of Employment and Labor and for Capacity Development of the Department of Employment and Labor were instrumental in the introduction of labor legislation and regulations and related institutional capacity. The Labor Act (2007) prohibits forced labor, discrimination, sexual harassment, and child labor. It also removes the 12-month limit on fixed-term contracts, eases restrictions on night work, and eliminates mandatory pay premiums for daytime overtime. In an enterprise survey commissioned by the World Bank in Bhutan during 2008–2009, labor regulations were perceived as a major constraint to businesses after access to finance and tax rates.³⁶ Assistance efforts for accounting reforms are ongoing, and an implementation plan is still being worked out under the leadership of the Ministry of Finance with the help of TA consultants. It is expected that a number of the easier international financial reporting standards will be introduced. Such standards will likely be adopted for listed companies and public interest entities. For other private companies, adapted standards will likely be introduced at a later stage to ensure an adequate build-up of in-country accounting and audit expertise.

D. Evaluation of ADB Assistance

37. **Strategic positioning.** ADB's strategic positioning was *satisfactory* overall despite some shortcomings in the selectivity and continuity of its assistance. ADB's strategies for finance and private sector development in Bhutan were aligned with government priorities and generally responsive to the country's development needs. A sound finance sector is essential to the stability of an economy and to the growth of the private sector, while real sector reforms are drivers of economic and finance sector growth.

38. In 2001–2002, ADB assisted RMA in undertaking a review of the finance sector. At the same time, the Ministry of Trade and Industry completed a review of the private sector with the assistance from the World Bank.³⁷ The recommendations of these studies—removing impediments to domestic and foreign private investment and developing the necessary legal, regulatory, and institutional framework for financial markets to support private sector and rural development—have guided subsequent government strategies and ADB support.

39. In terms of selectivity, ADB assistance covered all aspects of finance sector development, rather than specific subsectors. This is, in part, due to the broad-based nature of ADB support for the sector during the 1980s and 1990s, in particular its support for the establishment of BDFC and the stock exchange, which put the onus on ADB to provide follow-on assistance. The potential advantage of this approach was that it enabled ADB to be broadly influential in the finance sector and to address potential links among subsectors more

of its assets, without requiring a specific description of the secured assets; (iii) extend a security right to future or after-acquired assets, or automatically extend it to the products, proceeds, or replacements of the original assets; (iv) permit a general description of debts and obligations in collateral agreements, so that all types of obligations and debts can be secured by stating a maximum amount rather than a specific amount between the parties; (v) grant secured creditors absolute priority to their collateral in or outside bankruptcy procedures; and (vi) exempt secured creditors' claims from an automatic stay on enforcement during reorganization.

³⁶ See www.enterprisesurveys.org.

³⁷ Ministry of Trade and Industry, Bhutan Chamber of Commerce and Industry, United Nations Development Programme, and World Bank. 2001. *Bhutan: Private Sector Survey*. Thimphu. (December).

effectively. The potential disadvantage was inadequate depth and follow-up in any single subsector given limited TA resources.

40. Nevertheless, despite the broad coverage of ADB policy dialogue, the majority of ADB TA projects during the country assistance program review period focused on banking sector issues, while only cursory support was provided for nonbank financial institutions, with the exception of BDFC. This was appropriate given the development stage of Bhutan's finance sector and related counterpart absorptive capacity. Further, ADB's involvement in the industry and trade sector during the same period was largely limited to the SME sector. As SME development in Bhutan is also constrained by issues that affect enterprises regardless of size, these have to be addressed as well. Lack of human resources has been one of the key impediments to economic growth and private sector development. ADB support for vocational training was thus important.

41. There have been some issues with regard to the sequencing of ADB assistance, particularly with regard to the timing of SME credit lines, which have been largely disbursed ahead of meaningful policy or institutional reforms, thereby reducing their impact. The timing of ADB assistance for VTI expansion, which commenced prior to the effective restructuring of the technical and vocational education and training system because of delays in related GTZ assistance, reduced its effectiveness. Continuity of programming was not as strong as it could have been, with substantial time gaps between the policy-based loans in the finance and industry and trade sectors that were a decade apart. While there was a logical connection between ADB support for finance sector reforms despite some duplications and loose ends, there was little continuity of policy dialogue on industry, trade, and legal reforms, which were only partially implemented under the FSIF.

42. ADB has been the main development partner in the finance sector, with the exception of central banking-related matters for which IMF has acted as key external advisor to RMA, and the new electronic payments system, for which assistance has been obtained from the Reserve Bank of India and the World Bank. The World Bank Group has also had policy dialogue on improving the business environment and has conducted a number of enterprise surveys to assess key impediments, which informed ADB policy dialogue on SME policies. The Basic Skills Development Program received parallel assistance from German development cooperation through GTZ for curriculum and vocational qualification development. However, delays in this component led to sequencing problems.³⁸ The government subsequently asked the Danish International Development Agency and the Japan International Cooperation Agency develop occupational skills standards and course curricula for four main trades: masonry, plumbing, carpentry, and automobile engineering. The lack of effective coordination between the ADB-financed project and the activities of GTZ was in part due to the fact that different units in the Ministry of Labor and Human Resources were responsible for implementing the respective projects.

43. **Relevance.** ADB assistance programs have been *relevant* in many aspects, including their alignment with government initiatives. However, while supported policy reforms generally had buy-in from the respective executing agencies, there were a number of instances when policy implications were not well understood and/or underlying principles and objectives were not widely shared by all decision makers. For example, RMA legislation had been subject to substantial discussion among political decision makers on government involvement in the management and oversight of RMA. As the success of FSDP will ultimately depend on greater

³⁸ For example, training equipment was procured under the ADB project ahead of the curriculum being finalized.

RMA autonomy (para. 20), related policy conditionality should have been structured to ensure that tranche release is contingent on the approval of appropriate RMA legislation. Another example is foreign direct investment regulations, which, in their approved form, had not been conducive to such investment.

44. Policy and TA recommendations were in line with best practices. However, in a number of cases, not enough attention was paid to country conditions. Examples include support for interest rate liberalization,³⁹ the development of the payments system,⁴⁰ the establishment of one-stop agencies for enterprise registration rather than internet-based solutions, and the promotion of private sector-based approaches to the provision of vocational training despite the lack of adequate industry skills. In other cases, such as policy conditionality requiring that the import licensing system be made consistent with foreign exchange regulations, it was unclear what regulatory changes were asked for from the government and why.⁴¹ In addition, ADB's proactive role in the establishment of the stock exchange and BDFC determined the direction of its support for finance sector development and effectively precluded the consideration of other options that might have been more appropriate, such as listing of Bhutanese companies on other exchanges in the region or developing microfinance institutions. Also, in the case of the proposed registry for secured transactions, underlying legal issues need to be resolved as well. Most of these relevance issues could have been addressed through better upfront analysis.

45. **Effectiveness.** ADB support for finance and private sector development has been *partly effective* so far. In the finance sector, ADB support has helped establish the basic policy, regulatory, and institutional frameworks for market-based intermediation; develop basic banking and supervision skills; set up the credit information bureau; speed up check clearing; and initiate measures to enhance the sustainability of the pension system. However, these measures have yet to significantly enhance the commercial orientation and financial sustainability of financial institutions, spark interest rate competition among them, increase noncollateral-based lending, or institute effective oversight by RMA. Recently approved RMA and pending FSA legislation have the potential of addressing the last point and also reduce government influence in finance sector operations. It is too early to determine the effectiveness of micro and SME-related support, as most policy actions are yet to be implemented.

46. ADB's financial intermediation loans have had mixed results. While they provided longer-term funding to micro and SMEs, their impact on micro and SME development or employment generation appears to have been limited. Further, a large share of the ongoing credit line has been allocated by BDFC for agricultural lending. Earlier support for changes in the industrial and import licensing systems has not achieved the desired outcomes, and current regimes are still deemed to be in need of further simplification. Supported foreign direct investment regulations failed to encourage significant foreign investment, and support for the development of commercial legislation and improvements in Bhutan's import licensing system did not achieve intended outcomes. ADB support for vocational training increased the available capacity, course options, and outreach of VTIs; initiated more demand-driven approaches to vocational training;

³⁹ There was insufficient analysis of interest rate setting in Bhutan to underpin ADB's requirement that the administered rate system be discontinued. In retrospect, several factors made it unlikely that simple deregulation of administrative rate setting would be conclusive, including (i) the oligopolistic structure of the financial system, (ii) a lack of supervision and lack of constraint on collusive rate setting, and (iii) the peg of the ngultrum against the Indian rupee that complicates the relationship between Bhutanese and Indian interest rates.

⁴⁰ Design of the truncated check system should have been preceded by (i) a cost-benefit analysis, given low transaction volumes; and (ii) the preparation of a blueprint for the development of the automated payments and settlement system.

⁴¹ Since Bhutan essentially has a customs union with India, and almost all imports are from India, it is unclear why ADB supported a modified import licensing system rather than an open-market system.

and supported the establishment of occupational standards. However, enrollment in VTIs, as well as employment rates of VTI graduates, has continued to stay below expectations. Assistance for vocational training will only be fully effective if additional measures are put in place to increase enrollment and improve cooperation with private sector employers.

47. **Sustainability.** ADB's sector support is *likely sustainable*. There have not been any significant reversals of policy reforms that were adopted by the government. However, the sustainability of ADB's support for strengthening financial institutions in Bhutan depends partly on their financial sustainability, which is facing substantial risks.⁴² Measures to strengthen banking competition and supervision supported under the FSDP, if fully implemented and enforced, will be instrumental in containing such risks. Despite efforts to strengthen its deposit mobilization and credit and risk management systems, it is difficult for BDFC to be financially sustainable under current conditions given its development mandate.⁴³ It appears to have been dependent on government subsidies,⁴⁴ tax holidays, and periodic infusions of new capital to cover write-offs. Further, cost recovery mechanisms for VTI services that were to be introduced under the ADB project to enhance the financial sustainability of the training institutes have yet to be introduced given the current low uptake of courses. Also, the lack of spare parts and training materials has been affecting training delivery.

48. **Efficiency.** ADB support has been *partly efficient*. There appears to be an acceptable relationship between resources allocated by ADB for the various projects, and economic benefits associated with project outcomes, possibly with exception of the payments system TA⁴⁵ and the Basic Skills Development Project.⁴⁶ The economic viability of subprojects financed under financial intermediation loans channeled through BDFC was not assessed. In terms of implementation efficiency, while the MSMESDP is slightly behind schedule, the second tranche release for FSDP has been delayed by 2 years.⁴⁷ The release of the final tranche of the FSIF was delayed by 3 years because of the time taken to comply with foreign direct investment-related conditionality. However, most TA projects were closed within reasonable periods, with up to 1-year delays, with the exception of the payments system TA, which implemented over a period of 4.5 years. Nevertheless, in a number of cases, subsequent implementation of TA

⁴² First, financial institutions are frequently in noncompliance with RMA's prudential regulations and enforcement is weak. Second, NPL rates, while not at the extraordinary levels reached in the mid-1990s, are still unsustainably high and volatile, and provisioning for losses is low. Third, credit to the private sector has been growing at about the very high rate 30% per year. Lastly, the banks' portfolios tend to be highly concentrated by sector and by firm.

⁴³ Although there is scope for increasing its lending rates given the high rates charged by money lenders, it is not considered politically feasible for BDFC to set lending rates in line with inherent risks. On the contrary, in 2004, interest rates on rural loans were reduced from 13% to 10% as per National Assembly decision. Although interest rates for agricultural loans increased to 15% as of April 2010, which is higher than for other rates for other purposes, interest rate margins do not fully cover credit risks. Its operating and loan default costs, increasing borrowing costs, and high non-interest paying reserve requirements make it difficult for the bank to operate profitably. BDFC management stated that even without any loan write-offs—an unlikely scenario—it can only achieve a 1% return on assets.

⁴⁴ Government subsidies for BDFC increased from Nu25.9 million in 2007 to Nu30.5 million in 2008.

⁴⁵ The truncated check system, which was introduced at an expense of \$605,000, reduced processing times by up to 1 week for about 11 checks per day that are cleared outside Thimphu and Phuentsholing and by about 1 or 2 days for about 220 checks per day that are cleared within or between Thimphu and Phuentsholing.

⁴⁶ No EIRR was calculated for the project, either at appraisal or during preparation of the PCR. However, given low VTI utilization rates, economic resource efficiencies might be an issue despite the project's success in lowering the institutes' recurring costs per student.

⁴⁷ The delay was in part due to a reprioritization of non-FSDP-related legislation for parliamentary discussion including the Election Act, Local Government Act, Parliamentary Act, National Assembly Act, and Public Election Fund Act which supported Bhutan's transformation from a constitutional monarchy to parliamentary democracy during 2007–2008. As a result, several important interventions of FSDP, including the discussion and submission of RMA Act and FSA, were delayed.

recommendations by the government took extended periods of time, which was in part due to lack of follow-on TA support, particularly for seeing complex draft legislation through the approval process and obtaining buy-in from key stakeholders.

49. **Sector impact.** ADB's impact in the finance, industry, and trade sectors in Bhutan has been *modest*. While the body of TA advanced government thinking on the sector development and reform agendas and helped build basic institutional capacity, there has been limited success so far in one of the most important areas—improving RMA's supervision of financial institutions, although new RMA and FSA legislation should help change this. Banking sector competition has been increasing lately, which has contributed to a rapid expansion of credit, albeit sometimes at the expense of credit quality.⁴⁸ Also, the larger number of banks in the system has yet to translate into reductions in interest rate costs for borrowers. Despite recent credit growth, the level of financial intermediation in Bhutan remains low by international standards, with the levels of financial depth and deposit mobilization as a share of gross domestic product (GDP) actually decreasing compared to 2000 levels.

50. The ultimate impact of ADB interventions on private sector development is difficult to assess. While credit to the private sector has increased substantially, although from a narrow base, it still only accounted for 24% of GDP in 2008, which was far below the levels for other lower middle-income groups and other South Asian countries. It is noteworthy that data for Bhutan overestimate bank lending to the private sector due to classification problems.⁴⁹ The underlying problems of limited access to credit remain in place (e.g., high interest rates, short loan terms, and excessive collateral requirements coupled with low valuations of collateral assets). Private sector activity has grown in recent years, but it is difficult to quantify the extent of this growth given the absence of reliable data. Enterprises with direct and indirect⁵⁰ state ownership still dominate the economy,⁵¹ and the private sector share in gross capital formation has been slightly decreasing. Despite accounting for 99% of all industrial enterprises, SMEs account for a small part of the economic output and may be further overshadowed by hydropower as large projects come into production over the next decade. While it is too early for ADB SME-related support to show any impact, it is notable that ADB policy dialogue has not fully addressed some of the key impediments to SME development such as the lack of transparent rules and regulations, tax requirements, and business and import restrictions.⁵²

⁴⁸ While outstanding loans grew from Nu21.0 billion to Nu25.4 billion from September 2008 to September 2009, the ratio of NPLs to total loans and advances also increased from 10.5% to 15.6% during the same period, with most NPLs arising from the manufacturing sector largely because of the impact of lower commodity prices on a number of industries (e.g., ferroalloy and steel), as well as from the tourism and construction sectors in the aftermath of the global economic crisis. Although outstanding NPLs improved toward year-end to 7% of outstanding loans, there are questions to what extent portfolio improvements will be sustainable considering that credit growth averaged about 30% over the last decade and that credit is concentrated in personal loans, construction, trade, and manufacturing.

⁴⁹ For FY2009, financial institutions classified about 90% of their outstanding domestic credit as "claims on private sector", despite the relatively small share of private sector activity in the economy. In 2009, IMF recommended that a list of government units and nonfinancial public enterprises be shared with reporting financial institutions to avoid misclassifications.

⁵⁰ A considerable number of larger enterprises that are classified as "private" have substantial shareholdings by RICB and the NPPF.

⁵¹ For example, only 8% of corporate income taxes during FY2009 came from private enterprises. The book value of total assets of state-owned companies amounted to Nu98.5 billion (or 171% of GDP) by the end of 2008.

⁵² For 2010, the World Bank ranked Bhutan 126th out of 183 countries for ease of doing business. Bhutan was rated as the worst country out of 183 in terms of the ease of closing a business, and 153th in ease of trading across borders. See World Bank. Doing Business. <http://www.doingbusiness.org>.

51. The Royal Securities Exchange has not been a significant source of enterprise funding. There have been 14 initial public offerings, some in conjunction with partial divestments of state-owned enterprises, and one rights issue from 2001–2008. The initial public offerings mobilized a total of Nu1.1 billion during that period, which is substantially less than new bank credit extended during that period. The exchange is unprofitable to its brokers, closely held by the small number of financial institutions in Bhutan, illiquid,⁵³ not self-regulating and not yet effectively regulated by RMA, and has limited ability to provide information and analysis to the public on stock offerings. The bond market is in its infancy, and the first treasury bills were auctioned in December 2009.

52. Furthermore, the lack of domestic capital market development has also constrained the restructuring and development of institutional investors, which are, instead, providing credit to individuals and enterprises to generate adequate returns. Youth unemployment rates have been increasing and ADB assistance for vocational training has done little to increase the share of youth in vocational education or make them more employable.

Table A7: Development of Indicators in the Finance, Industry, and Trade Sectors in Bhutan

Item	2000	2008
Financial depth (M2/GDP)	49.9%	44.6%
Total financial systems deposits/GDP	48.4%	47.7%
Domestic credit to private sector/GDP	8.1%	23.9%
Nonperforming loans/total gross loans		15.6% (Sept 2009) 7.0% (Dec 2009)
Commercial bank loan–deposit ratio	21.4%	52.4%
Interest rate spreads (average rates for term loans to industries minus savings deposit rate)	7.5% (2002)	7.7% (Jun 2009)
Equity market capitalization/GDP	12.9% (2001)	12.8%
Number of listed stocks	13.0	19.0
Gross insurance premiums/GDP		0.8%
Number of small and medium-sized enterprises in industry and service sectors	452.0	2192.0
Number of microenterprises	8,525.0	25,790.0
Youth unemployment rate (for age 15–24 years)	2.6% (1998)	12.9% (2009) 8.7% (2006)
Private foreign direct investment/GDP	...	2.5%
Gross fixed private capital formation/GDP	33.7%	25.0%

... = not available, GDP = gross domestic product, M2 = broad money.

Source: Independent Evaluation Department.

53. Nevertheless, ADB support for the private sector in economic development and the opening of the economy and the finance sector to foreign investment seem to have been influential. The government has been moving gradually toward more market-driven approaches and is in the process of transforming itself into a facilitator of economic activity. The Economic Development Policy commits the government to pursuing corporatization of its entities where feasible, outsourcing or privatizing functions that can be delivered more efficiently and economically by private entrepreneurs, and promoting further trade and foreign direct investment-related reforms. Further, there are plans to offload 30% of the government's holding in the Bank of Bhutan, although the scope for further privatizations outside of the telecommunications sector is limited by the comparatively small size of direct ownership stakes by the government and the strategic nature of sectors such as energy. The government,

⁵³ During 2001–2008, the turnover ratio (i.e., turnover value–market capitalization) declined from its peak of 2.5% in 2004 to 0.4% in 2008.

instead, has pursued a state holding company approach along the lines of Temasek to manage its assets efficiently and in 2007 established the Druk Holding and Investment Company Limited for this purpose.⁵⁴ Considering that the process of becoming a more market- and private sector-based economy only started a few decades ago, achievements so far have been significant and ADB contributed and provided value addition through its financial and policy support as well as TA.

54. **ADB performance.** Sector agencies expressed satisfaction with ADB's institutional and staff performance, although changes in staff implementing the vocational training and labor law projects contributed to delays. This was compounded by restructuring and staff changes on the government side, leading to weak financial supervision of the Basic Skills Development Project, which facilitated an alleged misappropriation of project funds.⁵⁵ Nevertheless, there has generally been a comparatively high degree of continuity in terms of ADB project staff during the current country strategy and program period, who dealt with a range of different aspects of Bhutan's development agenda and facilitated a more coordinated, consistent approach. ADB consultants were mostly considered to be competent, and TA outputs were mostly delivered in line with executing agency expectations.

55. However, in a number of cases, executing agencies were insufficiently familiar with the subject matter to have clear expectations of reasonable TA outputs. Some executing agencies perceived TA terms of reference to be too inflexible, particularly in areas where low counterpart expertise at the design stage prevented an active role in TA formulation. ADB relied on consultants for policy dialogue and implementation in several policy areas, particularly those related to technical or legal issues. Also, staff sometimes had difficulties controlling consultant performance. The level of TA resources attached to policy loans was on the low side, given the sector's substantial capacity development needs and the nature of the reform agenda.

56. **Overall assessment.** The overall rating for ADB's assistance is *partly successful*, based on the previous composite ratings.

E. Issues and Recommendations

1. Finance Sector

57. **Intensify support for capacity development of the regulator and financial market participants.** Bhutan's finance sector is exposed to high systemic risks arising from weak governance, with the government acting as owner and regulator; inadequate enforcement; lack of national accounting and auditing policies and standards; lack of transparency and insufficient information disclosure; comparatively high and volatile NPL ratios; rapid credit growth; concentration of lenders' loan portfolios in a relatively small number of sectors, companies, and groups of companies; new entrants;⁵⁶ limited investment options that pose special risks for pension funds and insurance companies; and high and volatile liquidity that varies greatly

⁵⁴ Temasek owns and manages the Singapore Government's direct investments. Guided by an independent board, it operates autonomously on commercial principles to maximize long-term returns.

⁵⁵ This was confirmed by the Royal Audit Authority, who uncovered these irregularities during its 2009 audit. Seven court cases have been brought against responsible officials, with no decisions yet.

⁵⁶ The finance sector's risk profile has been altered by new entrants in 2009–2010. In the long term, its diversification and increased competition should ameliorate risk, but in the short term, market adjustments to competition might increase volatility and risk. Care has to be taken to avoid a "race to the bottom," where the market share is built without due regard for proper risk management and inherent costs.

between institutions that can put stress on the system.⁵⁷ While the FSDP is starting to address some of the underlying policy constraints, risk is also compounded by a lack of adequate risk management. The capacity of both financial regulators and market professionals requires further enhancements.

58. Although credit assessment skills and portfolio management skills, for example, have started to improve over time with ADB assistance, more efforts are needed to bring them up to international standards. While more autonomy for RMA is indispensable in this regard, further capacity enhancement through systems and process improvements, and skills development through the use of long-term advisors and effective training approaches that incorporate on-the-job training, is required to enhance market regulation and supervision, improve liquidity management, facilitate the introduction of new products and services, and improve risk management skills. Bhutan has not actively participated in Asia-Pacific Economic Cooperation training initiatives for financial market regulation and supervision. Doing so would be helpful for networking with other regulators from small economies that are facing similar issues.

59. **Strengthen bank capacity for enterprise lending.** Private businesses, especially those outside of the three main towns of Paro, Phuentsholing and Thimphu, believe that they have not been well served by financial institutions. They cite high interest rates, short loan terms, high collateral requirements coupled with low collateral asset valuations, and a risk-averse lending culture. The Bhutan Chamber of Commerce and Industry, in mid-2009, noted that most small businesses find it difficult to access finance, due to the high levels of collateral asked by financial institutions.⁵⁸ Similarly, a survey of 248 firms in June 2009 found that access to credit was one of the main constraints to business development.⁵⁹ The banks are risk-averse based partly on their disastrous NPL experiences, mainly in the 1990s but continuing still at unsustainable levels today, and prefer to loan to larger clients. For 2010, the World Bank rated Bhutan 177th out of 183 countries in the ease of getting credit.⁶⁰

60. ADB's involvement in development finance in Bhutan over 20 years, delivered through BDFC, has made little difference to the essential problems of SME finance in Bhutan. They include high interest rates, short loan terms, reliance on collateral rather than business prospects for lending decisions, high collateral requirements coupled with low collateral asset valuations,⁶¹ and weak credit distribution systems outside the main towns. The FSDP and MSMESDP are seeking to improve credit information and the registration of secured interest, although some of the underlying issues with regard to the quality of loan files and the legal basis for enforcing secured interest also need to be addressed. Equally important will be the development of bank capacity for noncollateral-based lending and adequate risk management, including the introduction of standardized underwriting criteria, credit scoring, relationship banking approaches, and improvements in operational efficiency, all of which require additional external assistance. Also, although increased lending to SMEs is an implicit objective under the

⁵⁷ The Bank of Bhutan has had high liquidity, partly because it is the government's transaction bank and thus must manage high variations between transaction peaks and troughs. There has been an unresolved policy debate about whether, as a response to variations in liquidity, RMA should control and/or be an intermediary for interbank lending and whether it should restrict intercorporate lending. While IMF suggested that RMA should not act as an intermediary in the interbank market, it also opined that RMA should nevertheless help market development, for example by developing a liquidity framework and allowing the use of T-bills as collateral for interbank transactions.

⁵⁸ Bhutan Chamber of Commerce and Industry. www.bcci.org.bt.

⁵⁹ World Bank. 2009. *Investment Climate Assessment*. Washington, DC.

⁶⁰ World Bank. 2009. *Doing Business 2010*. Washington, DC.

⁶¹ The value of collateral usually is two to three times the loan. It is also noteworthy that micro and SME subborrowers tend to have savings accounts with Bhutan National Bank and Bank of Bhutan, not with BDFC.

MSMESDP, no concrete data are collected on SME lending to measure progress in this regard. ADB should ask RMA to collect and report such data.

61. **Study options for improving the financial viability of rural credit.** Although less than half of its current lending portfolio in terms of value comprises rural loans, according to its business plan, BDFC intends to intensify its rural lending operations in the future and expand its network of 25 branches in 20 districts to the *gewog* (a group of villages in Bhutan) level, offering deposit and lending services. Only 6% of the rural population currently has accounts with the bank, although BDFC now has more than 18,000 borrowers in rural areas, covering about 20% of rural households. There are plans to expand the number of rural borrowers to 57,820 by 2013, covering 12% of the rural population and about two thirds of rural households.

62. However, the BDFC experience with rural microcredit has not always been good. NPL rates remain very high, and BDFC's cost structure has generally made microfinance loans unprofitable. With assistance from United Nations Capital Development Fund, BDFC has been introducing various new lending products and approaches to service such clients, including schemes that provide increasingly larger credit amounts for repaying customers, group loans, nucleus farming concepts, and mobile banking services. The experience with these schemes has been mixed. While monthly mobile banking services have greatly enhanced deposit mobilization and loan repayment, group lending has not taken off and has low repayment rates, due to lack of attention paid to group composition, inadequate monitoring, and poor advisory services. All schemes have been associated with very high administrative costs. Also, most microfinance loans have been made on a longer-term basis, which has impeded loan recycling and has not always been in line with business cash flows.

63. BDFC has been cross-subsidizing its agricultural and most of its rural credit operations through its commercial credit operations in a nontransparent manner. This is undesirable for many reasons, but especially because of ensuing incentive and accountability problems. In its ongoing policy dialogue, ADB needs to promote more transparency with regard to the profitability of individual business lines. Once costs and returns are known, more meaningful decisions can be made on how to increase profitability, and BDFC managers will have better incentives to perform. The profitability of major economic activities of rural and other small enterprises also needs to be assessed to ascertain the scope for related lending. Ideally, microfinance should be undertaken in a way that does not require subsidies, as subsidies tend to create economic inefficiencies. If subsidies are deemed unavoidable, they should be made transparent.

64. Some consideration should also be given to establishing a minimum threshold below which cash transfers become a more efficient way of addressing financing problems of poor borrowers. Efforts should be made to improve the enabling environment for micro enterprise activities, including through the provision of complementary advisory and information services, and to develop cost-effective delivery mechanisms. How insurance and savings needs of the rural population should also be studied to discover how they can be better met. With the economy opening up and legal changes facilitating the creation of nongovernment organizations and cooperatives, new players may emerge in the microfinance area. Thus, an adequate regulatory framework needs to be created, and any undue competitive advantages for BDFC discontinued.

65. **Assess the scope and best approach for developing government securities and interbank and money markets.** RMA has been taking steps to manage liquidity, with the aims of strengthening monetary transmission, reducing excess liquidity, and improving finance sector

resource allocation. For the first time, T-bills were issued in December 2010 through auction to absorb excess liquidity in the system.⁶² The availability of T-bills for use as collateral for interbank transactions should facilitate the development of such a market and redistribute liquidity among the financial institutions. Further, the planned introduction of a repo facility could promote market-based lending rates. In addition, intercorporate borrowing will be permitted within 2010, paving the way for the development of a commercial paper market. However, the introduction of market-based interest rates will also depend on other factors, including the level of competition, market orientation, and capacity among financial institutions. For example, the entire issue of T-bills was taken up by one state bank. It will take some time before the discount rate on T-bills can become an effective signal of the policy rate and guide deposit rates.

66. Moreover, market development will be affected by macroeconomic policy conditions that are relevant to interest rates, including the ngultrum–Indian rupee peg and fiscal policy considerations.⁶³ Although the government is committed to the development of debt security markets, the size of the Bhutanese market and its development stage might make this a long-term rather than a short-term goal. A holistic, strategic approach that considers the debt market within the context of overall financial system development is required to support market development proactively. It is also important to assess what measures are feasible under prevailing conditions in Bhutan.

67. **Assess scope for external cooperation on capital market development.** Bhutan's capital market is subscale and, based on international experience, could have difficulties generating enough liquidity to make it an effective, efficient source of funding for companies. It might be worth exploring to what extent arrangements with other stock exchanges and regulators, as well as subcontracting of certain back-office services, can reduce overhead costs, and listings and institutional investments in other markets in the region are feasible and desirable.⁶⁴

2. Enterprise Development

68. **Integrate enterprise development efforts with other government industry initiatives.** The government has identified tourism, construction, export-oriented agriculture and horticulture (e.g., organic farming), rural cottage, and information and communication technology as industries in which sustainable employment can be achieved based on competitiveness, employment-generation capacity, and existing growth trajectory. Strategies and programs that help develop these industries are being prepared, albeit without ADB support. ADB's policy dialogue on SME policy and support mechanisms needs to ensure that SME-specific concerns are adequately incorporated in such industry strategies. As part of these strategies, potential value chains involving products and services should be identified and developed through well-targeted business development services support programs in close cooperation with private sector stakeholders and private business development services providers, which can build capacity to sustain and disseminate such programs.

⁶² The monthly auctioning of the 91-day T-bills will replace the current RMA bills.

⁶³ Monetary policy consistency, with the Indian rupee peg, is important for macroeconomic stability. The implicitly required alignment of interest rates with those in India restricts RMA's scope for independent monetary policies.

⁶⁴ ADB. 2008. *Special Evaluation Study: ADB Assistance for Domestic Capital Market Development*. Manila.

3. Vocational Training

69. **Continue policy dialogue on strengthening market orientation of vocational training institutes.** The project completion report for the Basic Skills Development Project⁶⁵ made a number of pertinent recommendations on how to improve the effectiveness of the vocational training system, including improving VTI partnership with private industries, introducing qualification standards for VTI instructors, marketing technical education and vocational jobs, diversifying the supply of job-relevant courses, and improving career counseling. A survey of VTI graduates and potential employers confirmed these recommendations. Potential employers indicated that formal training combined with industry attachments was the best option for vocational training.

70. However, the provision of vocational training through private training institutions was not supported by surveyed employers. Employers also suggested more relevant training content as an area for improvement and were prepared to play a more active role in the development of new training curricula. The introduction of a competency-based training system should also help VTIs respond to industry needs in a more flexible, efficient manner. Employers supported closer relationships with secondary schools, for example through internships, which could help raise the profile and acceptance of technical job streams. Respondents also stated that financial incentives through tax credits would induce them to hire more unemployed young people. Employers probably also require additional nonfinancial support for effective in-house training.

71. Graduates' suggestions for improving the effectiveness of VTIs included more practical training content, better teaching through the use of more experienced instructors, and assistance in finding jobs after graduation. Placement of VTI graduates could be improved through more direct interactions between VTIs and employers. Youth unemployment in Bhutan is likely to grow, while a large number of skilled labor continues to be imported from India. Vocational and technical training will play an important role in bridging domestic demand supply gaps. Government strategies for employment generation until 2013 foresee the creation of 50,000 jobs that require some vocational and technical training including in new subjects, like information technology and tourism. Thus, ADB should continue its involvement in this area through advisory services and policy dialogue, taking into consideration lessons identified so far. TA could, for example, support public-private partnerships in technical and vocational training to facilitate curriculum restructuring in line with market demand, the utilization of VTIs and their facilities for in-service training and training by private providers, on-the job training schemes, and the placement of graduates. Greater involvement of the private sector in the management of VTIs, e.g., through representation of the private sector on the Board, might be helpful in this regard. In addition, vocational training will have to be better integrated with the overall system for technical education, e.g., through recognition of vocational qualifications or the inclusion of practical training in engineering curricula.

⁶⁵ ADB. 2010. *Project Completion Report: Basic Skills Development Project (Bhutan)*. Manila.

RESULTS FRAMEWORKS FOR ASSISTANCE AREAS

Table A8.1: Results Framework for ADB Assistance for Power Sector Development in Bhutan, 2001–2009

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector	ADB Interventions (inputs)	List of Key Development Partners
Sector-Specific Impacts	Sector-Specific Outcomes	Investment Projects		
<p>Annual rural electricity consumption increased from 27.4 GWh in 2004 to 51.2 GWh in 2009. <i>However, household consumption in RE2 and RE3 project areas is lower than the average rural consumption level (65 kWh/month compared to 90 kWh/month).</i></p> <p>Evolving: Increase in revenues from electricity exports from Nu3,606 million in 2005 to Nu12,750 million in 2014.</p>	<p>Number of electrified rural households increased from about 22,000 in 2000 to 47,750 in 2009 (66% financed by ADB).</p> <p>Rural electrification rate increased from about 25% in 2000 to about 55% in 2009.</p> <p>Demonstrated feasibility of PPP modality for additional sector investments.</p> <p>Evolving: Electricity generation capacity increased from 417 MW in 2000 to 1,612 MW in 2014 (10% financed by ADB).</p>	<p>Electrification of 16,880 rural households from 2000 to 2009</p> <p>Evolving: Financing of 114 MW Dagachhu hydropower project under PPP modality (completion expected in 2014)</p>	<p>ADB's share of total investments from 2000 to 2012 in rural electrification is about 70%, and 5% in power generation.</p> <p>Completed:</p> <p>Loan No. 1712,^a \$10.0 million Loan No. 2009, \$9.4 million</p> <p>Ongoing:</p> <p>Loan No. 6463, \$51.0 million Loan No. 6464, \$29.0 million Grant No. 0119, \$25.3 million Grant No. 0120, \$1.0 million</p>	<p>The governments of Austria, India, and the Netherlands financed the electrification of 7,450 rural households from 1999–2008.</p> <p>Austria and Japan will finance 800 and 15,000 rural households, respectively, during the 10th Five-Year Plan.</p> <p>Austria and India financed hydropower projects with 64 and 1,083 MW capacity, respectively.</p> <p>India has committed to finance at least another 1,096 MW.</p>

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector	ADB Interventions (inputs)	List of Key Development Partners
Cross-Sector Impacts	Institutional Development Outcomes	Policy Reforms and TA Interventions		
<p>Living conditions, including better health and education outcomes for rural communities, improved (i.e., survey results for RE2 and RE3 indicate a significant impact on the incidence of respiratory diseases, increases in study time, and a reduction in fuelwood use and associated environmental degradation compared to nonelectrified areas).</p> <p>Income opportunities increased in rural areas (i.e., survey results for RE2 and RE3 indicate a moderate impact on nonfarm income compared to nonelectrified areas).</p> <p>Proportion of population using solid fuels reduced from 75% (2000) to 70% (2005).</p> <p>Contributions of electricity (and water) sector to real GDP growth averaged 33% from 2000 to 2008.</p>	<p>Expansion of power sector capacity and rural electrification on schedule.</p> <p>System losses reduced from 16.3% in 2005 to 6.8% in 2009.</p> <p>Number of power interruptions per customer per year fell from 38 in 2005 to 8 in 2009. Hours of power interruptions per customer per year reduced from 25 in 2005 to 17 in 2009.</p> <p>Increased proportion of private sector power generation from 0% in 2010 to 7% by 2014.</p> <p>Off-grid technology used in areas that are uneconomic for grid connections (7,276 households by 2014).</p>	<p>Power sector restructured with delineated responsibilities for utility management, regulation, and policy formulation</p> <p>Hydropower plants consolidated under DGPC.</p> <p>Power sector institutions functional and operational.</p> <p>Tariff for industrial and institutional users is being increased to cost-reflective levels (i.e., subsidy for unit of electricity consumed by high-voltage consumers reduced from Nu1.36/kWh in 2005 to Nu0.64/kWh in 2009. However, subsidy for low-voltage consumers increased from Nu3.64/kWh to Nu3.91/kWh during this period.</p> <p>Policy framework for mobilizing private sector financing in hydropower project established.</p> <p>New technical approaches for off-grid connections being introduced.</p>	<p>Policy dialogue and advisory services for sector restructuring and the establishment of the necessary legal and regulatory framework</p> <p>Advisory services for corporatization of the power utility function of the Department of Power, the establishment of a sector regulator, policy formulation, and the consolidation of hydropower plants</p> <p>Policy dialogue and advisory services for tariff restructuring</p> <p>Advisory services for the introduction of PPP modalities and the preparation of specific transactions</p> <p>Advisory services for the introduction of off-grid renewable energy technologies</p>	

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector	ADB Interventions (inputs)	List of Key Development Partners
			TA 3112, 3307, 4188, 4189, 4599, 4766, and 7157, for a total of \$4.6 million	

ADB = Asian Development Bank, DGPC = Druk Green Power Corporation, GDP = gross domestic product, GWh = gigawatt-hour, kWh = kilowatt-hour, MW = megawatt, PPP = public-private partnership, RE2 = second rural electrification project, RE3 = third rural electrification project.

Note: **Bold** words denote actually achieved outputs, outcomes, or impacts; words in normal script denote planned outputs, outcomes, or impacts that are expected to be achievable; and *italicized* words denote originally anticipated outputs, outcomes, or impacts that were not achieved.

^a Details of these loans, grants and TA projects are found in Appendix 2. They are not footnoted when they are referred to in the text.

Source: Independent Evaluation Mission.

Table A8.2: Results Framework for ADB Assistance for Transport Sector Development in Bhutan, 2001–2009

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector	ADB Interventions (inputs)	List of Key Development Partners
<p>Sector-Specific Impacts</p> <p>Connectivity improved between national highway system and district and feeder roads.</p> <p>Intercity and rural traffic volumes increased.</p> <p>Cross-border traffic increased.</p>	<p>Sector-Specific Outcomes</p> <p>Travel costs, times, and safety on project roads improved (i.e., vehicle operating cost reduction of 10% to 25%, reductions in travel times from 20% to 50%, and fatality rate on project roads not exceeding average fatality rate of 5 per 10,000 vehicles).</p> <p><i>Project roads maintained with international roughness index below 5 (paved roads) and at an all-weather standard (gravel roads).</i></p> <p><i>Periodic maintenance contracts for East-West Highway completed on time and within budget (delays and cost overruns experienced).</i></p> <p>Proportion of rural households increased from 40.2% to 53.0% within less than a 1-hour walk to road points, and within a 6-hour walk from 83.5% to 90.0%.</p>	<p>Investment Projects</p> <p>16 km of national highways constructed; another 141 km planned by 2012 and 180 km by 2014.</p> <p>339 km of national highways resurfaced.</p> <p>66 km of feeder roads constructed; another 62 km planned by 2012.</p>	<p>ADB's share of total sector investments is about 30% during 2002–2012.</p> <p>Completed: Loan No. 1763,^a \$9.6 million</p> <p>Ongoing: Loan No. 2187, \$28.7 million; Grant No. 0174, \$38.8 million</p>	<p>Government of India</p> <p>Japan International Cooperation Agency</p> <p>World Bank</p> <p>United Nations Development Programme</p>
<p>Cross-Sector Impacts</p> <p>Living conditions improved, including better health and education outcomes for rural communities through better access to hospitals and secondary schools.</p> <p>Income opportunities increased in rural areas (i.e., increase in farm and nonfarm income in road</p>	<p>Institutional Development Outcomes</p> <p>Regulatory framework for road use, construction standards, right-of-way, and use levies and penalties</p> <p>Expansion of road network on schedule</p> <p><i>Delays of obtaining quarry site clearances decreased from 8 to 4 months.</i></p>	<p>Policy Reforms and TA Interventions</p> <p>Road master plan approved.</p> <p>Mechanisms and training of road planning tools strengthened.</p> <p>Road Act approved.</p> <p>Road asset management system to have 100% data coverage for road inventory, road conditions, and traffic for national highways</p>	<p>Advisory services for improved road network planning</p> <p>Ongoing: Advisory services for road survey, design, and construction</p> <p>Advisory services for asset management</p> <p>Policy dialogue on more</p>	

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector	ADB Interventions (inputs)	List of Key Development Partners
<p>project areas that have a population of about 70,000 in the East–West Highway corridor and about 2,000 in the areas affected by completed feeder roads).</p> <p>Evolving:</p> <p>Living conditions improved in project areas under RNP1 and RNP2.</p> <p>Economic development of southern Bhutan improved.</p>	<p>DOR capacity for road maintenance improved.</p> <p><i>Share of road network with deferred maintenance reduced to 8% by 2010 (estimated by Independent Evaluation Mission to be much higher).</i></p> <p><i>Share of road maintenance and resurfacing budget in total road expenditures decreased to 21% in 2009.</i></p> <p><i>Financing of road maintenance and resurfacing from road subsector revenues. At Nu149 million, 2009 road subsector revenues are well below \$9.3 million target for 2010.</i></p> <p>Share of road construction work undertaken by private sector increased to 47% in 2009 (no baseline available).</p> <p>Improved road safety (fatality rate reduced from 14 per 10,000 vehicles in 2000 to 9 per 10,000 vehicles in 2009).</p>	<p>system.</p> <p>Performance-based maintenance contracts piloted.</p> <p>National contractor registration and classification system implemented.</p> <p>Road safety manual and tools developed.</p>	<p>efficient allocation of budgetary funds for road maintenance and improved cost recovery</p> <p>Advisory services for capacity development of private contractors</p> <p>TA 3470, 4658, 7374, and 9069 for \$1.9 million</p>	

ADB = Asian Development Bank, km = kilometer, RNP I = Road Network Project, RNP II = Road Network Project II.

Note: **Bold** words denote actually achieved outputs, outcomes, or impacts; words in normal script denote planned outputs, outcomes, or impacts that are expected to be achievable; and *italicized* words denote originally anticipated outputs, outcomes, or impacts that were not achieved.

^a Details of these loans, grants and TA projects are found in Appendix 2. They are not footnoted when they are referred to in the text.

Source: Independent Evaluation Mission.

Table A8.3: Results Framework for ADB Assistance for Private and Finance Sector Development in Bhutan, 2001–2009

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector	ADB Interventions (inputs)	List of Key Development Partners
Sector-Specific Impacts	Sector-Specific Investment Outcomes	Investment Projects		
<p>Share of private sector credit of GDP increased from 8% (2000) to 24% (2009)</p>	<p>1,514 micro and SMEs financed, mostly new businesses.</p> <p><i>Number of additional VTI graduates below expectations due to low capacity utilization (47%) of VTIs.</i></p>	<p>\$6.3 million of micro and SME credit lines disbursed.</p> <p>VTI capacity increased from 400 to 1,193.</p>		
<p><i>Increase financial intermediation; financial depth actually decreased from 50% (2000) to 45% (2008).</i></p> <p><i>Equity market capitalization as share of GDP and turnover ratio unchanged at 13.0% and 0.4%, respectively.</i></p> <p>Time taken to register a business reduced from 62 days to 43 days, but short of 30 day target for 2010.</p>	<p>Institutional Development Outcomes</p> <p><i>Interest rate margins have further increased from 7.5% (2002) to 7.7% (2009) due to lack of competition.</i></p> <p><i>Basic regulatory framework established, however, regulations not always enforced due to lack of RMA powers.</i></p>	<p>Policy Reforms and TA Interventions</p> <p>Interest rates deregulated.</p> <p>RMA staff trained in offsite and onsite supervision of banks; basic technical skills, processes, and systems in place for banking supervision, but not for nonbanking financial institutions.</p>		

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector	ADB Interventions (inputs)	List of Key Development Partners
		<p>RMA act with improved regulatory RMA powers drafted, but approval of RMA autonomy provisions pending.</p> <p>FSA legislation and regulations drafted in lines with best practices</p>		<p>Development Agency, Japan International Cooperation Agency, GTZ</p>
Cross-Sector Impacts				
<p>Number of registered SMEs increased from 452 (2000) to 2,192 (2009).</p> <p><i>Increased role of private sector in economic development; share of gross fixed private capital formation in GDP actually decreased from 34% (2000) to 25% (2009).</i></p> <p><i>Reduction in youth unemployment rate; rate actually increased from 2.6% (1998) to 12.9% (2009).</i></p>	<p>Financial institutions increased from two to four banks and one to two insurance companies.</p> <p>Financial sustainability of RICBL and NPPF improved.</p> <p>Nonperforming loan levels decreased to 7% (2009), but are still volatile.</p> <p>Rural lending increased in BDFC's loan portfolio, but performing less well than rest of portfolio.</p> <p>New systems and lending products introduced, with greater customer orientation of banks.</p> <p>Check clearing times reduced by several days.</p> <p>Use of negotiable instruments increased.</p>	<p>New licensing regulations approved.</p> <p>NPPF established; restructuring of RICB initiated.</p> <p>36 bank staff members trained in project appraisal and monitoring.</p> <p>BDFC capacity development for micro and SME lending initiated.</p> <p>Performance-based business plans outlining measures for strengthening systems, policies, processes, and governance structures for BOB and BDFC approved.</p> <p>Credit information system established (30% of credit data submitted by banks so far).</p> <p>Truncated check clearing system established.</p> <p>Legal basis for negotiable instruments established.</p> <p><i>Property legislation approved, but not effective; bankruptcy legislation approved, but not implemented.</i></p>	<p>Advisory services for restructuring RICBL and establishing NPPF</p> <p>Policy dialogue and advisory services for capacity development of financial intermediaries</p> <p>Policy dialogue and advisory services for establishment of finance sector infrastructure</p> <p>Policy dialogue on approval of property, bankruptcy, and negotiable instruments legislation</p>	

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector	ADB Interventions (inputs)	List of Key Development Partners
		<p><i>Import licensing and foreign direct investment regulations revised, but regimes still too restrictive.</i></p> <p>Basic policy framework for SME development drafted, and business registration process simplified.</p> <p>Labor and Employment Act facilitating private sector employment approved.</p> <p>Strategic framework for market-based TVET approved, and implementation initiated.</p>	<p>Policy dialogue on removal of foreign exchange, investment, and trade restrictions</p> <p>Advisory services and policy dialogue on micro and SME development</p> <p>TA for preparation of labor law</p> <p>Policy dialogue on TVET system reform</p>	

ADB = Asian Development Bank, BDFC = Bhutan Development Finance Corporation, BOB = Bank of Bhutan, FSA = Financial Services Authority, GDP = gross domestic product, NPPF = National Pension and Provident Fund, RICBL = Royal Insurance Corporation of Bhutan Limited, RMA = Royal Monetary Authority, SMEs = small and medium-sized enterprises, TA = technical assistance, TVET = technical and vocational education, and training, VTI = vocational training institute.

Note: **Bold** words denote actually achieved outputs, outcomes, or impacts; words in normal script denote planned outputs, outcomes, or impacts that are expected to be achievable; and *italicized* words denote originally anticipated outputs, outcomes, or impacts that were not achieved.

^a Details of these loans, grants and TA projects are found in Appendix 2. They are not footnoted when they are referred to in the text.

Source: Independent Evaluation Mission.

Table A8.4: Results Framework for ADB Assistance in Other Sectors in Bhutan, 2001–2009

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector	ADB Interventions (inputs)	List of Key Development Partners
Sector-Specific Impacts	Sector-Specific Outcomes	Investment Projects		
<p>Life expectancy increased from 66 years (1999) to 68 (2008).</p> <p><i>Decrease in maternal mortality rate; rate actually increased from 420 per 100,000 live births (2000) to 440 (2005)</i></p> <p>Infant mortality rate decreased from 68.4 per 1,000 live births (2000) to 56.2 (2007).</p> <p>Contraception prevalence rate increased from 31.0% (2000) to 35.4% (2007); total fertility rate decreased from 3.7 (2000) to 2.7 (2007).</p> <p>Fiscal management improved (i.e., overall budgetary surplus, including grants and net lending from 2006 to 2008, although a fiscal deficit above 4.5% is projected for FY2010).</p>		<p>Evolving: Regional fiber optic cable network and 30 village networks or community information centers established.</p>	<p>Ongoing: Grant No. 0098, ^a \$4.7 million</p>	<p>Japan International Cooperation Agency</p>
	<p>Institutional Development Outcomes</p> <p>Role of new financing sources increased in funding health expenditures.</p> <p>Cost effectiveness improved in delivery of health services.</p> <p>Results-based management introduced (e.g., in 2009, the Ministry of Health was one of the first government entities to sign a 3-year target-based performance contract).</p> <p>Ministry of Finance efficiency improved in preparing the budget.</p> <p>Capacity for debt management and planning improved.</p>	<p>Policy Reforms and TA Interventions</p> <p>Limited user charges introduced for medical services; Bhutan Health Trust Fund established.</p> <p>Health Management Information System upgraded; poverty targeting improved; Bhutan health unit maintenance program developed; and primary health care budget strengthened to 50% of total recurrent sector expenditures.</p> <p>Focal points for quality assurance and public health regulation established; medical and health council established; number of female health workers in BHUs increased; number of hospitals providing comprehensive reproductive health services increased</p> <p>Computerized national budget and accounting system</p> <p>Computerized debt recording and management system (CS-DRMS), which also does debt sustainability analysis</p>	<p>Policy dialogue on improving the efficiency and effectiveness of health services, particularly in areas relevant to child and maternal health</p> <p>Loan No. 1762. \$10 million</p> <p>TA 3156, 3443, 3669, 4424, 3513, 3893, 4398, 4871, 7032, 4120, and 4636, for \$3.7 million</p> <p>Advisory services for public sector resource management</p> <p>Advisory services for strengthening debt management capacity</p>	<p>World Bank</p> <p>United Nations Development Programme</p> <p>International Monetary Fund</p>

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector	ADB Interventions (inputs)	List of Key Development Partners
Debt sustainability improved (although external debt as share of GDP has been comparatively high, external debt service as share of exports of goods and services was mostly below 10% during 2000 to 2007, but has been increasing to more than 14% during the last 2 years).	Government capacity improved for fiscal management, treasury management, and public sector audits.	Regulations revised for budget management, multiyear rolling budget framework introduced, financial management accounting and reporting strengthened, cash management operations developed, and capacity of the Royal Audit Authority developed.	Advisory services for strengthening public financial management	
Cross-Sector Impacts				
Average sustainable GDP growth of about 8.8% per annum during 2000 to 2009	Bhutan conducted a 2007 living standards survey, which provides a basis for further development strategies.	<i>A revised statistics law was redrafted, but approval has been pending.</i>	Advisory services for strengthening the national statistical system	
Poverty incidence reduced from 36.2% (2000) to 23.2% (2007).	Poverty reduction was recognized as a strategic objective in ninth and 10th five-year plans.	First poverty assessment and mapping	Advisory services for poverty assessments and analysis	
Proportion of land area covered by forest maintained at 72.5%; ratio of protected area to surface area increased from 26% (2000) to 29% (2007).	Capacity of the National Environment Commissions, district environmental units, and line agencies improved for conducting environmental impact assessments.	Sector-based EIA guidelines, codes of practice, training manuals. and EIA training developed.	Advisory services for environmental management and implementation of safeguards	

ADB = Asian Development Bank, EIA = environmental impact assessment, FY = fiscal year, GDP = gross domestic product, TA = technical assistance.

Note: **Bold** words denote actually achieved outputs, outcomes, or impacts; words in normal script denote planned outputs, outcomes, or impacts that are expected to be achievable; and *italicized* words denote originally anticipated outputs, outcomes, or impacts that were not achieved.

^a Details of these loans, grants and TA projects are found in Appendix 2. They are not footnoted when they are referred to in the text.

Source: Independent Evaluation Mission.

Table A8.5: Results Framework for ADB Assistance for Urban Development in Bhutan, 2001–2009

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector (Assumes that Ongoing Project Will Achieve Projections)	ADB Interventions (inputs)	List of Key Development Partners
Sector-Specific Impacts	Sector-Specific Outcomes	Investment Projects		
<p>Living conditions improved for urban population.</p> <p>Share of urban population increased with access to sustainable water sources from 80% in 2005 to 100% in 2013.</p> <p>Share of urban population increased with access to improved sanitation from 12% in 2005 to 25% in 2013.</p> <p>Wastewater treatment capacity will not be expanded until the follow-on project planned for 2013.</p>	<p>96,000 people living in areas in Thimphu and Phuentsholing with infrastructure access developed under ADB projects.</p> <p>Traffic flow improved (i.e., no traffic jams despite increases in registered vehicles from 21,697 to 36,488 during 2002–2008 in Thimphu and Phuentsholing).</p> <p>Flooding lessened (i.e., parts of Thimphu and Phuentsholing that are flooded during monsoon periods reduced from 30 to 10).</p> <p>Size of population in Thimphu and Phuentsholing increased with access to sustainable water sources from 90,000 in 2005 to 145,000 in 2012 (year of project completion).</p> <p>Size of population in Thimphu and Phuentsholing increased with access to improved sanitation from 30,000 in 2005 to 50,000 in 2012 (year of ongoing project completion).</p> <p>Share of solid waste collected and disposed in Thimphu and Phuentsholing increased from 30% in 2005 to 50 % in 2012 (year of project completion).</p>	<p>8 areas in Thimphu developed through road access provided under ADB projects.</p> <p>42.4 km of urban roads constructed.</p> <p>10.6 km of footpaths constructed.</p> <p>20,000 square meters of parking areas constructed (1,000 parking stalls).</p> <p>6 km of river training works constructed.</p> <p>42.4 km of drains constructed.</p> <p>Water distribution systems increased by 19 km.</p> <p>Water treatment capacity increased by 6,300 cubic meters per day.</p> <p>Wastewater collection networks increased by 16.5 km.</p> <p><i>Wastewater treatment capacity increased by 4,000 cubic meters per day. This will be added to next project. due to lack of funds under ongoing project.</i></p> <p>Landfill capacity increased by 10 years of life, through improved site, compaction, and recycling.</p>	<p>ADB's share of total sector investments was 70% during 2000 to 2009 (estimated).</p> <p>Loan No. 1625, ^a \$5.7 million</p> <p>Loan No. 2258, \$24.6 million</p>	<p>World Bank</p> <p>Danish International Development Agency</p> <p>United Nations Environment Programme</p> <p>Government of India</p>

Development Impacts Contributed to by ADB's Achievement of Sector Outputs	Achievement of Sector Outcomes Resulting Mainly from Outputs of ADB's Cumulative Interventions in the Sector	Outputs of ADB's Cumulative Interventions in the Sector (Assumes that Ongoing Project Will Achieve Projections)	ADB Interventions (inputs)	List of Key Development Partners
	Share of solid waste recycled and composted in Thimphu and Phuentsholing increased from 10% in 2005 to 30% in 2012 (year of project completion).	Waste management and recycling capacity increased by 20%.		
<p>Cross-Sector Impact</p> <p>Urban poverty incidence decreased from 4.2% in 2003 to 1.7% in 2007.</p> <p><i>Financial sustainability of city corporations improved.</i></p>	<p>Institutional Development Outcomes</p> <p>Capacity for urban planning and construction management improved.</p> <p><i>Adequate capacity and resources for maintaining urban services in Thimphu and Phuentsholing</i></p> <p>Unaccounted for water reduced from 34%–50% to 15%–20% by 2013.</p> <p>Policy and regulatory reforms increase private capital flows to housing sector.</p> <p><i>Cost recovery for urban services improved.</i></p>	<p>Policy Reforms and TA Interventions</p> <p>20 of DUDES and city corporation staff trained in urban planning, infrastructure design, and operation.</p> <p>Solid waste management strategy for Thimphu developed.</p> <p>15 of TCC and PCC staff trained in operations and maintenance of nonwater infrastructure.</p> <p>20 of TCC and PCC staff trained in operations and maintenance of water supply and sewerage systems.</p> <p>Time-bound action plan for implementing National Housing Policy developed.</p>	<p>TA 3022, 4042, and 4844 for \$1.25 million</p> <p>Advisory services for strengthening urban planning</p> <p>Advisory services for capacity development of city corporations</p> <p>Advisory services and policy dialogue on sustainable urban housing policy</p> <p>Policy dialogue on cost recovery for urban infrastructure services</p>	

ADB = Asian Development Bank, DUDES = Department of Urban Development and Engineering Services, km = kilometer, PCC = Phuentsholing City Corporation, TA = technical assistance, TCC = Thimphu City Corporation.

Note: **Bold** words denote actually achieved outputs, outcomes, or impacts; words in normal script denote planned outputs, outcomes, or impacts that are expected to be achievable; and *italicized* words denote originally anticipated outputs, outcomes, or impacts that were not achieved.

^a Details of these loans, grants and TA projects are found in Appendix 2. They are not footnoted when they are referred to in the text.

Source: Independent Evaluation Mission.

COUNTRY DEVELOPMENT INDICATORS

Table A9.1: Poverty and Social Indicators

Indicators	1990	2000	Latest Year
A. Population Indicators			
1. Total population (million)	548.8	561.2	686.8 (2008)
2. Annual population growth rate (% change)	1.0	2.9	1.6 (2008)
B. Social Indicators			
1. Total fertility rate (births per woman)	5.7	3.7	2.6 (2008)
2. Maternal mortality rate (per 100,000 live births)	1,600.0	420.0	440.0 (2005)
3. Infant mortality rate (below 1 year per 1,000 live births)	90.9	68.4	53.9 (2008)
4. Life expectancy at birth (years)	53.1	61.7	66.2 (2008)
a. Female	54.7	63.4	68.2 (2008)
b. Male	51.6	60.0	64.4 (2008)
5. Adult literacy (%)	...	41.1 (2002)	52.8 (2005)
a. Female	...	...	38.7 (2005)
b. Male	...	...	65.0 (2005)
6. Primary school gross enrollment (%)	55.3	78.2	109.0 (2009)
7. Secondary school gross enrollment (%)	21.3 (1994)	41.7	61.7 (2009)
8. Child malnutrition (% below age 5)	38.0 (1989)	19.0	...
9. Population with access to safe water (%) ^a	45.0	78.0	90.9 (2007)
10. Population with access to sanitation (%) ^a	67.0	88.0	96.4 (2007)
11. Public education expenditure (% of GDP)	...	...	5.7 (2007)
12. Human development index	...	0.49	0.62 (2007)
13. Human development index rank ^b	...	140.0	132.0 (2007)
14. Gender-related development index	...	...	0.60 (2007)
15. Gender-related development index rank ^b	...	...	113.0 (2007)
C. Poverty Indicators			
1. Poverty incidence (% of population)	...	36.3	23.2 (2007)
a. Urban	...	4.2 (2003)	1.7 (2007)
b. Rural	...	38.3 (2003)	30.9 (2007)
2. Poverty gap (%)	...	8.6 (2004)	6.1 (2007)
3. Poverty severity index (%)	...	3.1 (2004)	2.3 (2007)
4. Income inequality (Gini index)	...	...	46.8 (2007)
5. Human poverty index (HPI-1)	...	...	33.7 (2007)
6. Human poverty index rank ^b	...	...	102.0 (2007)

... = not available, GDP = gross domestic product.

^a Data provided by the government based on installed facilities.

^b Rank for various years is not strictly comparable.

Sources: Asian Development Bank Poverty and Development Indicators Database; Government of Bhutan. 2008. *Midway to Millennium Development Goals Report*. Thimphu (November); World Bank World Development Indicators Database; United Nations Educational, Scientific and Cultural Organization (UNESCO). 2009. *Global Education Digest 2009*. Quebec; and United Nations Development Programme (UNDP) *Human Development Reports* (2002, 2009).

Table A9.2: Country Economic Indicators

Item	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008
A. Income and Growth										
1. GDP per capita (\$, current) ^a	696.4	751.8	804.6	889.8	1,019.5	1,137.7	1,302.1	1301.1	1,891.1	1,978.0
2. GDP growth (%; in constant prices)	7.7	7.2	6.8	10.9	7.2	6.8	6.5	6.3	21.4	6.6
a. Agriculture	1.5	4.6	5.0	2.7	2.2	1.8	0.4	1.9	0.4	23.0
b. Industry	15.4	7.4	10.2	17.7	7.7	4.1	2.9	8.0	51.4	...
c. Services	6.4	7.4	4.6	7.1	9.3	11.2	15.1	8.2	6.4	...
B. Saving and Investment (% of GDP, current)										
1. Gross domestic capital formation	39.7	47.3	59.2	59.2	56.8	62.0	51.2	46.9	38.9	39.4
2. Gross national savings	12.2	33.0	50.0	47.7	44.3	43.1	38.0	50.8	44.3	...
C. Money and Inflation (annual change)										
1. Consumer price index	6.8	4.0	3.4	2.5	2.6	4.2	5.3	5.0	5.2	8.4
2. Total liquidity (M2)	31.4	16.1	7.6	28.5	(0.2)	19.9	11.9	32.9	2.2	2.3
D. Government Finance (% of GDP)										
1. Total revenue	20.8	22.8	21.7	19.3	16.3	15.7	16.8	17.4	19.6	21.4
2. Total expenditure	41.3	41.4	46.6	37.0	33.7	30.3	35.1	33.0	29.4	34.1
3. Budgetary surplus (deficit)	(20.5)	(18.6)	(24.9)	(17.7)	(17.4)	(14.6)	(18.3)	(15.6)	(9.8)	(12.7)
4. Overall budgetary surplus (deficit) including grants and net lending	(1.7)	(3.8)	(10.6)	(4.6)	(9.8)	1.8	(6.6)	(0.8)	0.6	0.7
E. Balance of Payments										
1. Merchandise trade balance (% of GDP, current)	(14.1)	(15.8)	(18.0)	(18.3)	(14.8)	(14.7)	(30.1)	(13.8)	3.7	(5.8)
2. Current account balance (% of GDP)	2.2	5.4	(8.8)	(14.9)	(21.8)	(17.0)	(28.4)	(4.2)	11.7	3.9
3. Merchandise export (\$) growth (annual % change)	11.9	(7.5)	8.2	9.7	13.0	33.6	37.7	64.9	48.4	...
4. Merchandise import (\$) growth (annual % change)	16.8	7.4	3.6	11.8	15.4	60.7	(8.6)	11.7	14.4	...
F. External Payments Indicators										
1. Gross official reserves (including gold, \$ million)	292.3	317.6	323.4	354.9	366.6	398.6	467.4	545.3	699.0	764.8
2. External debt service (% of exports of goods and services)	10.9	3.9	4.7	4.9	6.8	6.8	11.9	7.6	3.6	17.9
3. Total external debt (% of GDP)	40.5	41.4	54.4	61.6	73.6	81.8	82.2	84.3	77.3	61.1
G. Memorandum Items										
1. GDP (current prices, Nu billion)	17.6	20.1	22.9	26.4	29.4	32.3	36.5	40.5	51.5	57.8
2. Exchange rate (Nu/\$, average)	43.1	44.9	47.2	48.6	46.6	45.3	44.1	45.3	41.4	43.5
3. Population ('000)	587.6	595.3	603.0	610.8	618.8	626.8	635.0	646.9	658.9	671.1

... = not available, GDP = gross domestic product.

^a Computed from per capita GDP in ngultrum divided by the average exchange rate for the period.

Sources: Asian Development Bank Key Indicators, Royal Monetary Authority Annual Report 2007/8, United Nations national accounts main aggregates database.

CLIENT PERCEPTION SURVEYS

A. Independent Evaluation Department 2010 Survey of Government Officials

1. Survey and Respondents

1. The country assistance program evaluation team conducted a survey of government officials during missions in December 2009, February 2010, and April 2010 to assess their perceptions of Asian Development Bank (ADB) assistance and to solicit their opinions on future interventions. Questionnaires were sent to 23 high-ranking officials of relevant ministries, line agencies, and government-owned or controlled corporations. Fourteen (61%) responded.

2. General Perceptions of ADB Assistance

2. Overall, the respondents had a very positive view of ADB assistance to Bhutan. They found such assistance on average to be *highly relevant, effective, efficient, and likely to be sustainable*. However, the respondents' perceptions of ADB contributions to various thematic priorities were varied. For instance, 85% of the respondents gave *substantial or significant* ratings to ADB contributions to strengthening institutional capacity of government agencies, and 64% gave *substantial or significant* ratings to ADB contributions to improving governance. About 50% viewed ADB contributions to promoting private sector development and to promoting environmental sustainability as only *moderate* (i.e., not substantial or significant).

3. Most respondents identified continuity in key sectors (86%), a good understanding of Bhutan (86%), and responsiveness to the country's development needs (79%) as ADB's main strengths compared to that of other development partners. On the other hand, 71% of the respondents considered ADB's cumbersome procedures and stringent requirements as its main weakness.

3. ADB Value Addition and Benefits of ADB Assistance

4. A majority of the respondents thought that ADB adds value to the development of projects and reform programs in Bhutan by contributing needed financing on attractive lending terms (79%), supporting the implementation of policy reforms (64%), and fostering participation and ownership of beneficiaries (64%). However, less than half believed that ADB adds value by improving the design of projects through expert advice (43%), introducing knowledge and practices that are new to Bhutan (36%), and improving the implementation of projects by using ADB's own system (14%).

5. When asked to assess the benefits accruing to their organization from ADB assistance, areas where a majority of respondents rated ADB assistance *substantial* include experience of ADB staff (79%), availability of financing (71%), support in project design and preparation (71%), ability to leverage additional financial resources through cofinancing (62%), good and transparent procurement processes (57%), and support in project implementation (57%). Areas that were deemed *substantial* by less than a majority of respondents include expertise of ADB consultants (50%), lower financing costs (46%), support for institution building and organizational changes (43%), assistance for capacity building (29%), support for politically difficult decisions (20%), and ADB involvement persuading political decision makers (20%).

4. Strategy and Program

6. Only 6 of the 14 respondents (43%) were involved in developing the current country or sector strategy, but all of them found the process to be *generally* or *highly satisfactory*.

7. All respondents believed that ADB is involved in the right areas of the country geographically. All respondents, likewise, assessed as *generally* or *highly satisfactory* the way ADB works with the government in choosing projects for ADB financing. However, the majority (57%) believed that ADB should lend more to Bhutan or its sectors.

5. Support for Policy Reforms

8. A vast majority of respondents believed that ADB contributed substantially to supporting policy reforms at various stages: identification (85%), design (93%), discussion (77%), approval (83%), and implementation (75%). Nearly all respondents felt that the policy advice was responsive to country conditions, developed in close cooperation and consultation with government authorities and other stakeholders, and cognizant of the social impact of the reform measures. Most of the respondents thought ADB had a high capacity to provide advice on sector policy issues, through both technical assistance-funded advisory services and policy dialogue conducted by ADB staff.

6. Support for Capacity Development

9. ADB received mixed ratings from the respondents for its role in the design of institutional reforms. The areas where a majority of respondents felt that ADB's contribution was *substantial* or *critical* were in governance and management structure (73%), organizational development and restructuring (63%), financial management practices and reporting (55%), and corporate, business or strategic planning (54%). The areas where less than a majority of respondents assessed ADB contribution in the design of institutional reforms as *substantial* or *critical* were in development of in-house human resources or training functions (36%), operation and maintenance capacity (23%), and systems improvement (18%). In terms of implementing these institutional reforms, the respondents generally assessed ADB contribution as *less than substantial*. In each of the areas mentioned above, ADB received *substantial* or *critical* ratings for its contribution in the implementation of institutional reforms from only 18%–36% of respondents.

10. The government officials were asked about the usefulness of training provided under ADB assistance, and the responses were almost evenly distributed among the *high*, *medium*, and *low* ratings in all types of training (i.e., external institution-based training, external course training, in-house classroom training, and on-the-job training) with some preference for internal training. The respondents identified the lack of funds for training as the key obstacle associated with building staff capacity. Almost all of the respondents stated that their respective institutions require additional training.

7. Loan Processing and Implementation

11. A significant number of respondents (64%) assessed ADB's processing of loans as *generally* or *highly satisfactory*. However, two of the respondents believed that ADB's loan processing needs improvement. One stated that processing takes a long time and that some processes need simplifying. The respondent added that some ADB social and environmental policies and standards are too stringent, which most of the time derails the project. The other

respondent also cited ADB's stringent social safeguard policies and how they sometimes conflict with the government's policies.

12. Nearly all respondents (93%) rated ADB's contribution to implementation of projects in Bhutan as *generally* or *highly satisfactory*. One respondent suggested, however, that ADB should consider the country context in procurement and evaluation of tendering.

8. ADB Guidelines, Policies, and Requirements

13. Ten of the 14 respondents (71%) agreed that ADB Procurement Guidelines (2007, as amended from time to time) helped improve the quality of procurement through competition, while just over half (57%) thought that they helped reduce costs. A significant number of respondents agreed that ADB's Guidelines on the Use of Consultants (2007, as amended from time to time) promotes use of high-quality expertise (72%) and facilitates competitive pricing (72%). However, a majority of the respondents (57%) felt that the consultant guidelines cause project implementation delays, and many (43%) did not agree that any delays are acceptable in view of the economy and efficiency achieved through the guidelines.

14. When applicable, the respondents confirmed that the rationale of ADB guidelines on environment, resettlement, and indigenous people were fully explained by ADB staff during project preparation. The majority of the respondents also agreed that (i) policies on resettlement helped provide fair treatment to project-affected areas and communities, (ii) application of resettlement guidelines was customized to meet the specific needs of the communities and areas involved, (iii) ADB policies increased the transparency and governance of ADB-financed projects and improved public support, and (iv) the overall effect of ADB policies was to enhance sustainability and development outcomes of investment projects. However, four of the respondents stated that conflicts between existing national laws and practices, and the requirements under relevant ADB policies were not resolved through mutual consultation and understanding. Four other respondents said that the conflicts in their cases were resolved, while the remaining six did not have opinions on the matter.

15. As for ADB financial management and reporting requirements, most of the respondents confirmed that the rationale of the requirements was fully explained by ADB staff during project preparation, conflict between existing national laws and practices, and ADB requirements were resolved through mutual consultation and understanding, and the requirements increased the transparency of ADB-financed projects and programs.

9. Aid Coordination

16. Only 21% of respondents rated ADB's efforts in aid coordination fully *satisfactory*, with another 43% rating them *generally satisfactory*. The respondents believed that ADB could improve aid coordination by fostering more discussions and consultations with other development partners to increase harmonization of its country strategy and program with those of other donors and with the government's development priorities and needs. One third of respondents also thought that ADB should conduct more joint meetings with other donors to harmonize implementation procedures and safeguard and procurement policies.

10. Assessment of ADB Staff

17. In general, the respondents had a very positive opinion about ADB staff. An overwhelming majority of the respondents thought that ADB staff members (i) have good

interpersonal and communication skills (100%), (ii) are responsive and effective development partners (92%), (iii) deliver on commitments and carry out promises (92%), (iv) provide timely responses to inquiries (92%), and (v) have good management skills (85%). However, only 54% of the respondents believed that ADB staff have enough delegated authority to operate effectively.

11. Establishment of a Bhutan Resident Mission

18. All respondents supported the establishment of a resident mission in Bhutan. They saw the main benefits as strengthening ADB's understanding of country realities, strengthening partnerships within the country, increasing the speed of decision making, increasing the speed of project implementation, and improving aid coordination.

12. Other Perceptions about ADB-Funded Projects

19. The survey asked the respondents with which statements about ADB-funded projects they agree. The statements and the percentage of respondents agreeing with the statements are enumerated below (in descending order).

- (i) ADB-funded projects are completely noncontroversial and are universally seen as beneficial (75%).
- (ii) Stakeholders perceived ADB-funded projects as driven by the government, not by ADB's agenda (58%).
- (iii) There was enough input from our agency into project design (58%).
- (iv) ADB-funded projects safeguard environmental and social risks more than similar government-funded projects (50%).
- (v) ADB-funded projects are better able to guard against corruption than nationally funded projects (33%).
- (vi) ADB-funded projects are implemented more efficiently as compared to similar government-funded projects (25%).
- (vii) There is no resistance whatsoever from intended beneficiaries (or areas) to the project(s) (25%).
- (viii) ADB-funded projects achieve sustainability of investments more than similar government-funded projects (17%).
- (ix) ADB-funded projects are implemented more efficiently as compared to similar projects funded by other donors (17%).
- (x) ADB-funded projects are confronted with more attempts at corruption than nationally funded projects (0%).

13. Suggestions for Future Assistance

20. When asked to rank what ADB operational priorities in Bhutan should be, 67% of the respondents identified promoting poverty reduction, promoting sustainable economic growth, and improving infrastructure as their top three choices. The second set of priorities, which were the top three choices among 25%–33% of the respondents, comprised improving social services, promoting private sector development, and improving governance. Those that were deemed relatively less important areas for ADB assistance were promoting environmental sustainability, promoting gender equality, establishing effective disaster management, and supporting regional cooperation.

21. The top five sectors that the respondents believe ADB should be involved in are energy (71%); finance (71%); transport, and information and communication technology (64%); water

supply and other municipal infrastructure and services (64%); and trade and industry (57%). These are the same sectors in which ADB is currently involved. Nearly all of the respondents opined that ADB should be more involved in supporting development in rural areas.

B. Department of External Relations 2009 Perceptions Survey (Bhutan Subset)

1. Survey and Respondents

22. In 2009, ADB commissioned GlobeScan, a stakeholder research consultancy, to conduct a second multinational perceptions survey of its stakeholders in both developing member countries and developed nonmember countries.¹ GlobeScan interviewed a total of 900 stakeholders from 31 countries, both within and outside the Asia and Pacific region. The Bhutan subset of the survey consisted of 29 respondents from the government, donors, civil society, private sector, media, and academe. About one third of the respondents are from government. The following discussion relates only to the responses of the 29 respondents from Bhutan.

2. Perceptions about Threats to Development Efforts

23. About 76% of the respondents considered environmental degradation and climate change as the biggest threat to Bhutan's economic and social development. Other threats that a majority of respondents deemed as *serious* or *very serious* were lack of an active private sector (66%), widening gap between rich and poor (66%), poor infrastructure (62%), and low rate of investment (51%). Threats that the respondents saw as *less serious* were corruption, lack of natural resources, limited educational opportunities, inadequate health services, and poor governance.

3. Overall Impressions of ADB and Its Priorities

24. All the respondents believed that ADB is having a *good* impact on the overall development of Bhutan, although there were more respondents who said that such impact is only *somewhat good* (66%) as opposed to *very good* (34%). Nearly all the respondents likewise viewed ADB assistance to Bhutan in the past 3 years as being either *very helpful* (62%) or *somewhat helpful* (34%).

25. A majority of the respondents perceived that ADB places a high priority on the following areas in Bhutan: (i) improving infrastructure (66%), (ii) supporting the development of the finance sector (62%), and (iii) reducing poverty (52%). On the other hand, very few respondents thought that ADB places a high priority on providing disaster and emergency assistance (3%), supporting health care (7%), mobilizing resources to develop the private sector (14%), promoting environmental sustainability (17%), and improving education (17%).

26. Most of the respondents describe ADB, either to a moderate or great extent, as reliable (100%), competent (96%), trustworthy (94%), collaborative (90%), innovative (87%), and transparent (82%). However, many of the respondents also saw ADB as bureaucratic (86%), slow (76%), and inflexible (66%).

¹ The first survey was conducted in 2006 by Princeton Survey Research Associates International.

4. Perceptions of ADB Performance

27. A vast majority of respondents thought that ADB is doing a *good* or *excellent* job in helping Bhutan reduce poverty (73%). The more important reasons why they think ADB is doing a good job are that (i) ADB makes poverty reduction a top priority, (ii) ADB effectively implements and monitors projects, and (iii) ADB has the knowledge and expertise to help reduce poverty. Only one respondent thought that ADB is doing a *poor* job in helping Bhutan reduce poverty.

28. The areas where a significant number of respondents rated ADB's performance as either *good* or *excellent* were (i) its staff's understanding of Bhutan's situation (80%), (ii) its ability to provide useful information (80%), (iii) its timely handling of projects (70%), (iv) its loan and resource capacity (70%), and (v) its consultations with different stakeholders (70%). Areas where less than an overwhelming number of the respondents rated ADB's performance as either *good* or *excellent* were (i) its technical skills and abilities (40%), (ii) its ability to work with other development partners (50%), and (iii) its procedures that are easy to follow and understand (60%).

29. In sectors and thematic areas, a majority of the respondents rated ADB performance as either *good* or *excellent* in (i) supporting development of the finance sector (83%), (ii) improving infrastructure (79%), (iii) improving governance (55%), and (iv) promoting environmental sustainability (55%). Meanwhile, the areas where less than a majority of the respondents rated ADB performance as *good* or *excellent* were (i) providing disaster and emergency assistance (14%), (ii) supporting health care (31%), (iii) improving education (38%), and (iv) strengthening partnerships with stakeholders (44%).

30. A significant majority of the respondents *agreed* that ADB is doing enough to reach out and build partnerships with the private sector, although those who only *somewhat agreed* (48%) outnumbered those who *strongly agreed* (28%). The respondents believed that the two areas on which ADB should focus to best promote private sector development in Bhutan are (i) supporting private sector projects by providing loans, equity, and guarantees; and (ii) providing funds for public-private partnerships.

C. Summary

31. Overall, the respondents from both surveys have very positive perceptions of ADB. ADB is seen as an institution that is helping reduce poverty in Bhutan, mainly through its support for improving infrastructure and, to a lesser extent, improving governance. The respondents also view ADB and its staff as having a good understanding of Bhutan and being responsive to the country's needs.

32. However, many respondents also saw ADB as bureaucratic and slow with cumbersome procedures and stringent requirements. Other areas for improvement for ADB based on respondent responses include (i) improve design and better implementation of capacity-building projects, (ii) more funds for training, and (iii) better aid coordination with other development partners.

MANAGEMENT RESPONSE TO THE COUNTRY ASSISTANCE PROGRAM EVALUATION FOR BHUTAN

On 13 September 2010, the Director General, Independent Evaluation Department, received the following response from the Managing Director General on behalf of Management:

I. General Comments

1. We appreciate the overall assessment that ADB's assistance during 2001-2009 was successful. The CAPE notes: "ADB assistance in Bhutan was well aligned with country development needs, government development priorities, and Strategy 2020". Before responding to key recommendations, we would like to highlight a few points.

2. **Aid Coordination:** The CAPE states: "While ADB cooperated well with the Austria Development Cooperation and the Japan International Cooperation Agency (JICA), particularly with regard to power sector assistance, most bilateral agencies interviewed by ADB were unfamiliar with ADB activities and had limited interaction with ADB staff" (para. 96). We would like to first note that in the power and road sectors—two of the four focus sectors of ADB operations in Bhutan—the key development partners are multilateral institutions such as the World Bank. With respect to bilateral agencies, India is the largest donor, but it does not participate in aid coordination meetings as it considers itself a development partner, and not a donor.¹ In addition, given the low physical presence of bilateral development partners in Thimphu, most of whom work in sectors which are not Country Partnership Strategy (CPS) focus areas, most of the coordination work is done by the United Nations Development Programme (UNDP). ADB staff has regularly kept UNDP updated on ADB's work in Bhutan; this information is then disseminated by UNDP. Given the active engagement with key donors in ADB's four focus areas, we disagree with the "Not implemented" and comment in Table 2 of the CAPE regarding donor coordination and mobilization of cofinancing.

3. **Midterm Review of the CPS:** The CAPE statement that the midterm review for the current Country Strategy and Program was delegated to a staff consultant (para. 96) should be corrected. The midterm review was led by a senior ADB staff who had worked on Bhutan operations for five years. A consultant assisted with data collection, but the work was done by ADB staff.

¹ Notwithstanding the above, during Country Program Missions, ADB staff have regularly called on the Development Counselor at the Indian Embassy in Thimphu.

II. Comments on Specific Recommendations

4. **Recommendation 1: Results Orientation.** We agree. We note that the CPS under review was the second CPS prepared in ADB under the Managing for Development Results framework. Given the data limitations in Bhutan, ADB has provided sustained assistance to the Statistics Division to generate and strengthen existing baseline data. The approval and publication of the new guidelines on Preparing Results Frameworks and Monitoring Results: Country and Sector Levels; and the training sessions on results-based CPS and sector assessments, and the results-based Country Portfolio Review Mission will enhance the results orientation in the preparation in 2013 of the next CPS (2014-2018) in alignment with the country's development priorities in the forthcoming Government of Bhutan's 11th Five-Year Plan (FY2013-2018); an Interim CPS (2011-2013) will be processed in 2011 to cover the remaining period of the Government's 10th Five-Year Plan.

5. **Recommendation 2: Capacity Development.** We agree. Weak capacity is a critical obstacle to achieving aid effectiveness in Bhutan. A comprehensive and accurate assessment of institutional capacity development needs is fundamental to providing demand-based capacity interventions and developing sustainable institutional capacity in the future. To develop capacities, for each of the five years covered by the CPS, two-thirds of the annual technical assistance was directed for local capacity enhancement.

6. **Recommendation 3: Gender, Private Sector Development, Environmental Impact Assessments and Management, and Service-Delivery at Local Government Level Mainstreaming.** We agree, but with a clarification regarding sub-item (iii) of this recommendation. Recommendation 3(iii), which requires assistance for environmental impact assessments, particularly for the hydropower sector at the district level, can only be operational if requested by the Government. Currently, hydropower is handled at the central level, and ADB needs to respect Bhutan's internal arrangements.

7. **Recommendation 4: Economic Efficiency of Future Rural Connectivity Projects.** We agree. The recommendation on the review and adaptation of the economic analysis for rural roads in line with country conditions is noted, and a proper economic model for analyzing economic returns for rural roads will be reevaluated for new rural road projects. Rural electrification projects have been set up for on-grid and off-grid bases subject to economic cost benefit assessments. Where the grid connection is economically unfeasible, off-grid solar home systems plan will be installed. As complementary energy sources, biogas and wind are being built in a packaged approach to ensure overall economic and resource efficiency for the proposed 2010 rural electrification project.

8. **Recommendation 5: Sustainability of ADB Operations.** We agree. The recommendation on improving the sustainability of ADB operations through (i) systematic policy dialogue on adequate budget provisions for self-financing mechanisms for operation and maintenance of infrastructure; (ii) ADB financing of maintenance equipment; and (iii) adequate TA for building institutional capacity at central and local levels for operations and maintenance of

infrastructure is noted. In the energy sector, focus will be on the operations and maintenance of the systems and the study of the business model. In the transport sector, the focus is on developing modern road technologies and road management system, including workshop and training in further raising the awareness of importance of road maintenance. In the urban sector, the focus on the development of operations and maintenance capacity requires training of core staff, procurement of relevant equipment, and establishment of processes and systems.

9. **Recommendation 6: Implementation Efficiency.** We agree. In particular, with respect to sub-item (i) regarding establishment of an in-country presence, we note that discussion within ADB has commenced, and establishment of an in-country presence in 2011, the recommended timeframe, may be possible.

10. **Recommendation 7: Adaptation to Changing Country Conditions.** We cannot agree at this time as it will be the Government's decision whether to expand assistance for integrated urban development and for government employment-generation initiatives. We will of course provide all necessary support if so requested by the Government. Sustaining strong economic growth is likely to remain a central pillar of the next CPS and coupled with private sector growth provide a more sustainable basis to support employment and income generation.

DEVELOPMENT EFFECTIVENESS COMMITTEE OF THE BOARD

Chair's Summary of the Committee's Discussion on 15 September 2010

Country Assistance Program Evaluation—Bhutan (DOC.IN.180-10)

1. Director General, IED highlighted that ADB's assistance in Bhutan has been well-focused, consistent with the core areas of Strategy 2020, and aligned with the government's priorities. Although ADB's program has been successful, more attention is required to improve implementation and sustainability, particularly, of transport projects. IED has noted and supports the government's request for ADB's in-country presence.

2. Director General, SARD mentioned that Bhutan is on the right track in achieving most of the targets of the Millennium Development Goals (MDG), as MDG indicators have been generally achieved for malnutrition and hunger, water supply and sanitation, and education including gender parity. The only area that needs more effort to achieve MDG goals relates to maternal mortality. Bhutan is also a model of regional cooperation and integration (RCI) activities, where ADB is actively engaged, particularly in realizing the real economic value of the country's hydropower resources.

Aid coordination

3. DEC Chair viewed that a comparison of per capita contribution among donors could help in assessing the extent of coordination that could be expected, since in cases where there are several donors providing only small contributions, coordination may turn out to be time-consuming with enormous transactions costs. Staff, IED clarified that there was little ADB coordination with some of the largest donors in Bhutan despite their engagement in assistance activities related to ADB's programs. DEC members noted IED's proposal for better coordination. Director General, IED further suggested that in-country presence of ADB could strengthen donor coordination.

4. DEC members noted ADB's limited use of cofinancing arrangements. Staff, IED clarified that many donors' preferred to engage directly with the government, while some had actually reduced their assistance.

Measuring development effectiveness

5. DEC expressed disappointment on the non-availability of baseline data that could help in measuring outcomes and impact of ADB's program in Bhutan. Staff, SAEN explained that for rural electrification, surveys on willingness-to-pay and other economic information were conducted prior to the start of the projects. However, the government, which owned the raw data, did not retain the data. ADB has since been in constant dialogue with the government on the importance of maintaining baseline data. Staff, SAOC also mentioned that technical assistance targeting improving data collection and maintenance had also been provided. Director General, IED mentioned that, in the absence of baseline data, IED is adopting other approaches such as measuring impact through rigorous impact evaluations. One such study on Bhutan's rural electrification would present findings that could give a better picture of the outcomes and impact of electrification.

Project implementation delays

6. DEC expressed concern on delays in project start-ups that may have also caused cost overruns. Staff, IED noted that cost-overruns and implementation delays have mainly resulted from project design problems, low capacity of domestic contractors, and land acquisition issues. DEC Chair expressed the view that differences between ADB and national procurement guidelines could have been resolved earlier to help address the problem of implementation delays.

7. Director General, SARD emphasized the feedback from the government that TAs have contributed to capacity building and knowledge transfer to Bhutan. He acknowledged the difficulties in supervising TAs, and mentioned that ADB is taking measures to address these through spring-cleaning, streamlining, and narrowing and sharpening the focus of TAs. He felt that in-country presence of ADB in Bhutan could improve portfolio management and TA implementation performance, including supervision of consultants. Staff, SATC explained that project start-up delays have been below ADB average, and were usually caused by the long period required of about 12 months to select consultants for detailed designs. SARD had requested applying a single-source selection method to a transport project in Bhutan in 2009 that saved 12 months for consultant selection. DEC members noted that single-source selection may be justified in certain cases, but not by the consideration that application of that method could save time.

ADB's in-country presence

8. DEC concurred with IED's recommendation for a resident mission (RM) in Bhutan, but inquired about the general conditions mandating a resident presence/field office in a DMC. DEC emphasized the importance of assessing the costs against the benefits, taking into consideration the size of the portfolio and achieving development effectiveness. Some DEC members suggested exploring similar issues within the context of ADB's RM policy and noted that an update of the RM Policy would be useful. Management believes that some issues mentioned earlier on implementation delays, supervision of consultants, and donor coordination could be addressed by setting up a field office in Bhutan.

Sector focus

9. DEC members noted ADB's limited success in finance and private sector development. Relevant expertise in these sectors would be necessary. One DEC member inquired on how engagement in export-oriented agriculture/horticulture, support to domestic construction industry, and promotion of industrial development could be prioritized as these sectors are not included in the core areas of operations identified under Strategy 2020. Staff, IED explained that the CAPE was referring to the need for coordinating ongoing ADB assistance for SME development with private sector-based employment generation initiatives of the Government. The effectiveness of ongoing ADB assistance to the financial sector is likely to be higher than that of previous assistance due to Government commitment to less state intervention and a more commercial orientation of the sector. Director General, SARD also mentioned capacity and resource issues that need to be addressed within ADB in order to support its assistance to the finance sector.

Sustainability

10. There had been recurring sustainability issues, particularly, operations and maintenance, which Staff, IED noted were not only due to capacity but also financial resource constraints. To

address this issue IED has proposed that ADB should engage in systematic policy dialogue on adequate budget provisions or self-financing mechanisms. Staff, SATC described the policy dialogue for operations and maintenance of transport projects that would ensure that all requirements for proper maintenance are included in the budget. She noted that TAs would also play an important role in effectively implementing road maintenance.

Sector Assistance Program Evaluation—Bhutan: Energy Sector (DOC.IN.192-10)

11. Under the sector assistance program evaluation (SAPE) for the Bhutan's energy sector, IED recommended that for electrification of remote areas, ADB should consider feasible and sustainable life cycle least-cost alternatives to grid extensions, such as off-grid renewable sources.

12. In terms of knowledge transfer, one DEC member suggested that ADB should share the lessons learned from successful energy projects with neighboring countries that have similar natural environment. Another DEC member noted that economic benefits from rural electrification were below expectations, and poor households had not benefited much from network expansion as compared to better-off households. He also inquired about the cost-effectiveness of small hydropower projects and the practicality of developing other renewable energy sources.

13. Director General, IED explained that the SAPE recommends renewable energy in the context of very remote areas, where extending a grid could be prohibitively expensive. The IED staff also mentioned that developing non hydro forms of renewable energy subject to their economic viability can reduce Bhutan's dependency on hydropower for electricity supply.

14. Some DEC members noted certain issues pertaining to resettlement and safeguards, particularly the detailed and cumbersome compliance guidelines. These members observed that guidelines are not customized to suit country conditions and the nature of projects and subprojects.

Conclusions

15. DEC noted that Bhutan's economy had an average annual growth rate of 8.9% for the period 2000-2008, and per capita income increased from \$752 in 2000 to \$1,978 in 2008. Poverty levels came down from 36.3% of total population in 2000 to 23.2% in 2007.

16. DEC also noted that ADB's net resource transfers had financed about 5% of Bhutan's annual investment expenditure of about \$180 million in 2000-2009. Bhutan has been a successful case of development partnership between ADB and a member country.

17. DEC noted that energy has been one of the most dynamic sectors contributing to economic growth in Bhutan. Rural electrification has been a major development agenda of the government, and substantial progress has been made. However, DEC noted that providing connections, including off-grid solutions, to remote households and to isolated households in remote areas was becoming costly. Some rationalization in location of habitations may be considered.

18. DEC emphasized more focus on baseline information and continuous monitoring of data to implement the results framework.

19. Implementation delays should be reduced through better quality of project preparatory technical assistance, firmer alignment and designs, expeditious recruitment of consultants, and application of project readiness filters.

20. Operation and maintenance was a critical issue and ADB was encouraged to engage the authorities on the need to pay greater attention to operation and maintenance.

21. DEC encouraged staff to improve development partner coordination, improve quality of technical assistance through better monitoring of consultants and close coordination by staff, and aligning safeguard policies to national laws and practices.

Ashok K. Lahiri
Chair, DEC