

XI

The Way Forward

Infrastructure development supports growth and poverty reduction by decreasing market imperfections and expanding the opportunities for the poor to participate in the market. Despite good progress, infrastructure development in Asia and the Pacific generally lags behind the world standards in quantity and quality. The gap between the region and the industrialized countries is very large. Areas of infrastructure with the widest gap include electricity generation, roads, and sanitation. Infrastructure development in the region shows significant geographical diversity in quantity, quality, and growth. Some countries have closed the gap with industrialized countries substantially; many others still have abysmally low levels and quality of infrastructure, often comparable to the worst in the world. As a result, ADB effectively faces diverse clients. At the subregional level, South Asia lags behind the other subregions in overall infrastructure development.

Generally beginning in the 1980s, the flow of private funds for infrastructure in the region rose steadily until the East Asian crisis, declined thereafter, and recently shows some clear signs of picking up. There has also been considerable unevenness in flows across the region reflecting different size markets, income levels, development of the enabling environment, and macroeconomic stability. Some infrastructure sectors or services are more amenable to private sector participation, depending on technology, and the flow of private funds has been concentrated in such sectors. At the current level of development and technology, only a few areas, such as telecommunications and power generation, have been able to attract significant private sector participation. The public sector continues to have

a major role in the region's infrastructure, in particular in roads, electricity transmission, water supply and sanitation, and irrigation and drainage.

Until 2006, ADB's lending for infrastructure increased steadily but has remained reasonably stable in terms of its share in total lending; but ADB's approach in lending for infrastructure has changed. Recently, there has been a sharp increase in infrastructure lending from the private sector window. Demand and ADB support for cross-border infrastructure development is increasing.

In response to the region's changing needs due to rapid economic growth, increasing access to capital markets, rising capacity, regional economic integration, and globalization, ADB has embarked on a broad reform agenda including changes in operations and new initiatives. ADB's Medium-Term Strategy II has adjusted medium-term operating priorities. A review of ADB's long-term strategic direction is forthcoming. ADB has also initiated a number of adjustments in its business model, including operational modalities, instruments, and business processes. These are reflected in the ongoing Innovation and Efficiency Initiative, and the paper on the MIC-OCR partnership framework. In addition, ADB has initiated a number of sector- or theme-specific initiatives (e.g., the CMI, EEI, and WFP) to provide new services and specialized knowledge to its clients. Accordingly, ADB's lending pipeline for 2007–2009 shows more significant changes than have been seen in the recent past—the level and proportion of lending for infrastructure rises significantly; the proportion of lending for transport and communications falls; and that of all other infrastructure sectors (energy, water supply, sanitation and waste management, and irrigation) rises.

Given the large unfinished agenda, development of infrastructure in the region will entail continuing evolution of ideas and practice. While the region needs to continue reforms, including improving the efficiency of the public sector and strengthening the enabling environment for private sector participation in infrastructure, some areas will need special attention in the future. They are described in the following paragraphs, and are likely to deeply influence the demand for ADB assistance in the future.

Addressing diversity in countries and sector characteristics. No model of infrastructure development can be universally applied to all sectors or in all DMCs. Often it is not possible to achieve full competition in infrastructure services, mainly due to technological or market constraints rather than weakness of the enabling environment. These constraints also influence the roles of public and private sectors in providing infrastructure services. Given the wide diversity in country and sector characteristics, infrastructure solutions cannot be identified with a predetermined idea. The entire range of options must be examined, keeping in view technological, economic, and market features, before choosing the optimal solution.

Establishing policies and institutions and sharing and upscaling successful experiences. Some DMCs have broad policy and institutional frameworks for private sector participation, but need to establish their credibility and track record by having a significant number of successful projects to effectively reduce the market risk perception and substantially increase the flow of private funds. Some countries, particularly the MICs, have successful experiences that need to be scaled up or replicated and shared with less advanced DMCs. Having gone through the initial phase of reform and private sector participation, the region needs to refine and consolidate new legal and regulatory frameworks, new institutions, and successful project designs.

Accelerating the pace of infrastructure development. The Asian approach to reforms and private sector participation in infrastructure is more conservative than that in other regions of the world. As the region now has higher per capita income, substantial experience with reforms, and increasing public awareness about benefits of reforms, Asia and the Pacific seems to be ready to embark on a more radical approach to reforms and private sector

participation to accelerate infrastructure development. This will require increased cost recovery, greater reliance on concessions, and a higher level of divestiture, among other things.

Addressing both local and global environmental concerns. Most infrastructure has long usable life, up to several decades. Thus, the environmental impact may be locked in for long periods. As Asia proceeds to fill the huge infrastructure gap, it may be building more new infrastructure than probably anywhere else in the world in a comparable period. Thus, extreme caution is needed to include both local and global environmental considerations in the identification and design of new infrastructure projects, particularly those related to urban infrastructure, transport, and energy. Infrastructure development in Asia and the Pacific, particularly the more advanced subregions such as East Asia and Southeast Asia, is likely to be driven by the growth of urban agglomerates. Thus, the region's successful experiences with planned development of new urban areas and growth centers along with associated infrastructure should be scaled up, and should also address environmental impact and the quality of life more systematically than would otherwise be the case. As environmental considerations are likely to impose additional costs that need to be financed innovatively, the development of carbon markets in this region must be accelerated to benefit from the rapidly growing global carbon market, with a potential size exceeding above \$100 billion.

Supporting technological advancement. Technology plays an important role, as it affects a range of critical factors including competition, efficiency, private sector participation, and environment. A potential next leap in the region's infrastructure development could come from technological advancement. Changes could include smaller scale infrastructure (or related equipment) required to reach minimum production cost, lower production cost, production and use of clean and efficient energy, and environmentally sound projects. Developing Asia and the Pacific can take full advantage of available technology to leapfrog to a more advanced level by acquiring and using technologies available in industrialized countries. While globally available technology may need adapting to local conditions, the region has already reduced the cost of producing cutting edge technology (e.g., computer chips and in automobiles) production, and could reduce the cost of advanced technologies with

potential positive benefit for the entire world. Thus, systematic and innovative efforts are needed to promote technological advancement, including tax and nontax incentives, and to mitigate the financial burden through direct financial support and other means during the initial phase. Where the technological advancements are related to global environment issues, full advantage should be taken of carbon markets.

Developing cross-border infrastructure through regional cooperation. Demand for cross-border and regional infrastructure in Asia and the Pacific is rising and is key to reducing transport and logistics costs of regional production networks and supply chains, which is critical for maintaining or improving the international competitiveness of the region. The potential for regional energy trade is good, including development of gas pipelines between South Asia, Central Asia, and the Middle East. Because of political dimensions and uneven benefits and costs, such cross-border issues are often resolved better on multilateral platforms. Thus, regional cooperation efforts to build consensus and develop infrastructure will need to be scaled up.

As Asia and the Pacific progresses in filling the huge infrastructure gap, the pressure on ADB to expand its infrastructure agenda is likely to continue. While ADB is likely to expand its traditional operations (involving loan and equity financing, policy advice, and capacity building) ADB is also expected to expand or enter

new business areas such as guarantee operations, local currency lending, new financing modalities, and innovative project designs. ADB's operations with nontraditional clients (e.g., subsovereign entities) and in nontraditional or relatively new areas (e.g., public-private partnership projects, and subregional and regional projects) are also expected to expand. As income levels rise in the region, ADB is also expected to face increasing demand for greater environmental sensitivity in new infrastructure projects.

In the future, ADB's efforts to build and strengthen the credibility of recently established policy and institutional frameworks might be more important than introducing new ones, as a degree of reform has taken place in most of the region. ADB's direct participation will be important to demonstrate the feasibility of new and innovative project designs. ADB is also likely to have an important and expanding role in mobilizing grant or softer donor funds to facilitate transfer of new technologies and to strengthen environmental protection. At the same time, the MICs have improved their capacity and know what they want. They have the basic knowledge they need, and are looking for more advance knowledge from ADB. Thus, another area of increasing demand for ADB will be knowledge. Last, ADB will experience continuing pressure to further simplify procedures, reduce processing time, and modify project selection criteria to improve the capture of externalities such as the environmental impact.