ADB

Development Effectiveness Brief

India

A Partnership for Inclusive Growth

Asian Development Bank

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Abbreviations

BPL	below poverty line
CER	certified emissions reductions
CPS	Country Partnership Strategy
DoMHFW	Directorate of Medical Health and Family Welfare
FYP	Five Year Plan
IIFCL	India Infrastructure Finance Company Limited
KUDCEMP	Karnataka Urban Development and Coastal Environmental Management Project
KUIDFC	Karnataka Urban Infrastructure Development Finance Corporation
KUIDP	Karnataka Urban Infrastructure Development Project
MPRDC	Madhya Pradesh Road Development Corporation
MPRMP	Mizoram Public Resource Management Program
NHAI	National Highway Authority of India
OCR	ordinary capital resources
PGCIL	Power Grid Corporation of India Limited
PPP	public–private partnership
ROB	rail over-bridge
RUIDP	Rajasthan Urban Infrastructure Development Project
SMS	Sawai Man Singh
SHG	self-help group
STP	sewage treatment plant
TA	technical assistance
TPRM	tripartite portfolio review meeting
UGD	underground drainage system
UID	Unique Identification Number
ULB	urban local body
WUA	water users' association

India
Development Indicators

Non-MDG	
Population in millions (2010)	1,186.0
Annual population growth rate (%) (2008–2010)	1.4
Adult literacy rate (%) (2007)	66.0
Percent of population in urban areas (2007)	29.3
MDG	
Percent of population living on less than $1.25 a day (2005)	41.6
Percent of population living below the national poverty line (2004)*	27.5
Under-5 mortality rate per 1,000 live births (2007)	72.0
Percent of population using an improved drinking water source (2007)	89.0

*Percent of population living below the poverty line, as set by the Tendulkar Expert Group constituted by the Planning Commission, is estimated at 37.2% for 2004.

MDG = Millennium Development Goal.

Sources: ADB. 2010. *Basic Statistics 2010.* Manila.; Government of India, 2011. *National Accounts Statistics 2011.*
The World Bank. 2010. *World Development Indicators Online.*

India and ADB: A Partnership for Inclusive Growth

Emerging India

On 29 September 2010, Ranjana Sonawane, a 30-year-old housewife from the remote village of Tembhli in Maharashtra, became the first Indian to get a Unique Identification Number (UID), which will make it easy for her to open a bank account, get direct payment for the work she does under the National Rural Employment Guarantee Scheme, and receive her food entitlement from the Public Distribution System. Indeed, the Government of India's national initiative to issue 600 million UIDs, referred to as Aadhaar (which in Hindi means "foundation" or "support"), can be truly transformational. The biometric and tamperproof registration number will give each Indian access to various public services and enforce rights to employment, food, and financial inclusion according to his or her income and socioeconomic profile from anywhere within the country.

Ranjana and her son, Hitesh, proudly hold up their UIDs at their home in *Tembhli village* in Maharastra. Photo courtesy of Indian Express

The potential of such an e-governance initiative to improve the targeting and delivery of government programs and facilitate empowerment cannot be overemphasized in India—a democracy of 1.2 billion, with unparalleled cultural, religious, linguistic, and geographical diversity, where the past coexists with the modern, and where one finds both great affluence and extreme deprivation. India accounts for 2% of the world's gross domestic product (GDP), 7% of its billionaires, and 30% of its poor.

Joining in 1966, India was one of the founding members of the Asian Development Bank (ADB). Operations commenced in India in 1986. The program of economic reforms launched by the Government of India following the balance of payments crisis of 1991 has helped unleash the productive potential of the Indian economy. Growth between the 1950s to the 1970s was 3.5%, rising to 6% in the 1990s, and 9% between fiscal year (FY) 2005–2007.[1] The Indian economy has also undergone rapid structural change.[2] Foreign exchange reserves were about $300 billion as of end of February 2011, adequate for more than 10 months of imports. The main drivers of growth have been the sustained increase in investment and savings, a progressive opening up of the economy through reforms, and a dynamic private sector.

Due to sound macroeconomic management by the government, the Indian economy weathered the recent global financial crisis quite well and is now on a path to full recovery. GDP growth bounced back from 6.8% in FY2008 to 8.0% in FY2009. Current growth projections are 8.6% for FY2010 and 9.0%

[1] Fiscal year (FY) covers 1 April to 31 March. FY2010 refers to the period 1 April 2009 to 31 March 2010.

[2] Between FY1990 and 2009, the share of the services sector in gross domestic product increased from 44.4% to 54.6%, that of industry increased marginally from 26.7% to 28.2%, while that of agriculture fell from 28.9% to 17.1%.

for FY2011.[3] In addition to its programs of infrastructure development, the government is undertaking reforms in e-governance; tax policy and administration; financial inclusion, including mobile banking; and skills development—all of which have huge development potential. If India is indeed able to sustain these growth rates and make the growth process more inclusive and sustainable, then a very large number of people can be lifted out of poverty. The world's success in attaining the Millennium Development Goals (MDGs) depends significantly on India's performance—and this makes ADB's partnership with India particularly important.

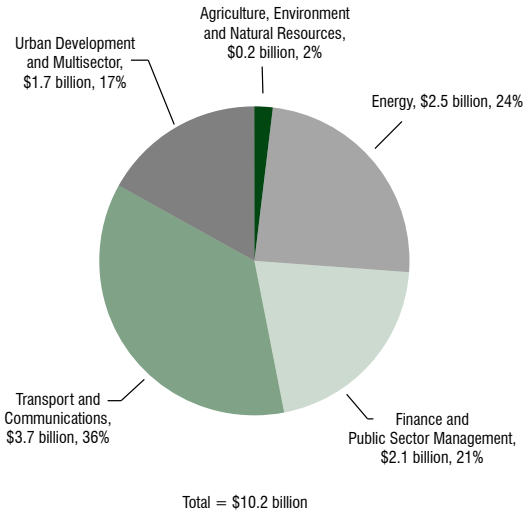
ADB–India Development Partnership

Between 1986 and year end 2010, ADB approved 143 loans amounting to $23.0 billion and 306 technical assistance (TA) projects amounting to $227 million on a cumulative basis.[4] As of 31 December 2010, there were 67 ongoing loans amounting to $10.2 billion (Figure 1) and 81 TA projects amounting to $81.8 million. India has been among the top three borrowers of ADB's ordinary capital resources (OCR) loans since 2007.[5]

The partnership between India and ADB is, however, more than simply about loan approvals and dollar amounts, or the length of roads built or kilometers of water pipes laid. It is ultimately about changing lives. As illustrated in the next section, unless the basic infrastructure services of clean water, reliable power, and dependable roads—which many of us take for granted—can be provided to underdeveloped regions and underserved sections of India in a cost-effective manner, growth will not be truly inclusive.

ADB is guided by the principles of the 3R's (relevance, responsiveness, and results) as it designs and implements its India program.

Figure 1 Sector Distribution of Ongoing Projects
(as of 31 December 2010)



Source: Asian Development Bank.

The rest of this section discusses how ADB has been continually aligning its program and business practices with India's evolving development priorities to ensure a high degree of relevance and responsiveness. The next two sections elaborate on the results of selected projects and the effort being made to enhance ADB's operational effectiveness. The last section focuses on future challenges.

Ensuring relevance

Between 1986 and 1996, ADB provided assistance mainly for national programs through central public utilities in the transport and energy sectors. Credit lines were also provided through national development finance institutions. Following the 1996 Country Operational Strategy, ADB began to shift focus to state-level operations in the transport, power, and urban sectors. Public sector reform management programs were also undertaken to assist some states to pursue fiscal consolidation. ADB's India program has matured and expanded

[3] Government of India. 2011. *Review of the Economy 2010/11.* Economic Advisory Council to the Prime Minister. New Delhi.
[4] Total cumulative approvals amount to $25.7 billion (and 122 loans) on a multitranche financing full facility basis.
[5] India had been among the top three borrowers of ordinary capital resources (OCR) loan from ADB between 2008 and 2010. During this period, it had accounted, on average, for 23% of ADB's lending.

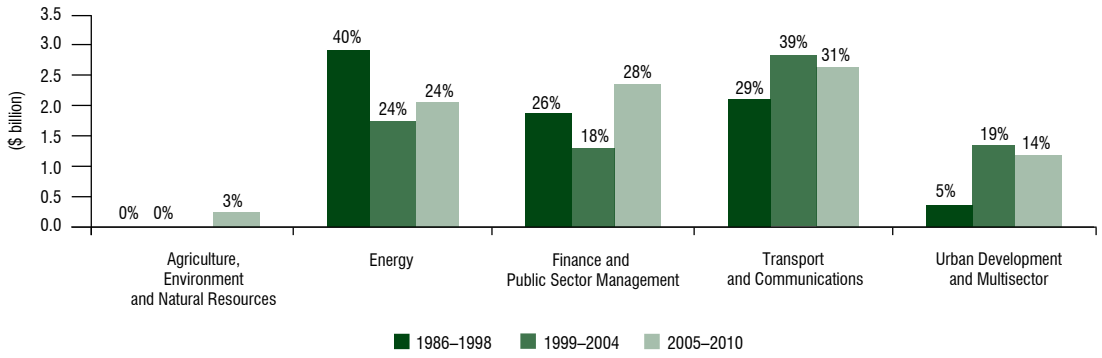
significantly under the Country Strategy and Program of 2003,[6] which was aligned with the 10th Five Year Plan of India,[7] and the current Country Partnership Strategy 2009,[8] which has been designed to support the 11th plan's efforts toward promoting inclusive growth.[9]

Over the past decade, ADB has expanded operations beyond the power, transport, and urban sectors into agribusiness infrastructure development, integrated water resources management, with a focus on climate change adaptation, and financial inclusion (Figure 2).

Over the last 7 years, ADB assistance has been extended to states, such as Assam, Bihar, Chhattisgarh, Jammu and Kashmir, Jharkand, Orissa, Uttarakhand, and several in the North Eastern region (Tripura, Mizoram, Nagaland, Sikkim, and Meghalaya), which suffer from one or more of the following constraints: high poverty, low levels of social development, weak capacity, and inadequate infrastructure.

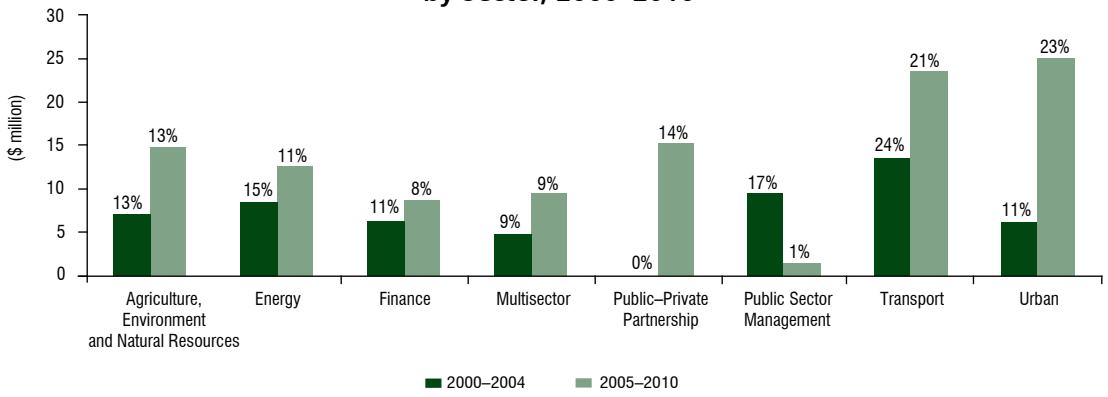
The India TA program has also evolved in line with the loan program (Figure 3). TA support

Figure 2 ADB Loans to India, 1986–2010



Note: Data labels show sector-wise share (%) in total approvals by period.
Source: Asian Development Bank.

Figure 3 Technical Assistance Projects by Sector, 2000–2010



Note: Data labels show sector-wise share (%) in total approvals by period.
Source: Asian Development Bank.

6 ADB. 2003. *Country Strategy and Program (2003–2006): India.* Manila.
7 Government of India. 2002. *10th Five Year Plan Document.* Planning Commission. New Delhi.
8 ADB. 2009. *India Country Partnership Strategy (2009–2012)*. Manila. *(available at www.adb.org/Documents/CPSs/IND/2009/CSP-IND-2009.pdf?p=doccsps).*
9 Government of India. 2007. *11th Five Year Plan Document.* Planning Commission. New Delhi.

is being used to build capacity, improve project preparedness and implementation (section on *Operational Effectiveness: Improving Efficiency and Performance*), assist the government's public–private partnership (PPP) initiative (see boxed story on page 22), and undertake scoping studies and knowledge products. Support received from the United Kingdom's Department for International Development Trust Fund for India since 2001 has helped immensely in strengthening the poverty focus of ADB's India operations and facilitating expansion to weaker states and new sectors as discussed above—a good example of how close partnership between donor agencies can increase the effectiveness with which scarce aid resources are utilized.[10]

Being responsive

ADB has also been responding to India's demands for streamlining business processes and designing more innovative lending products. The Innovation and Efficiency Initiative, which was operationalized in August 2005, simplified consulting and procurement procedures; simplified cost sharing and expenditure eligibility criteria; and introduced several new financial instruments, such as the multitranche financing facility, which has been used intensively in India since it provides long-term and flexible financing for clients while reducing commitment fees.[11]

ADB has provided timely assistance in response to natural calamities. For example, extended missions, i.e., field offices, were set up in Gujarat as part of the Gujarat Earthquake Rehabilitation and Reconstruction Project (2001, $500 million) and in Tamil Nadu and Kerala under the Tsunami Emergency Assistance Project (2005, $100 million) to expedite rehabilitation work.[12]

Table 1 India—Loan Approvals ($ million)

	1986–2004	2005	2006	2007	2008	2009	2010
OCR – Sovereign	14,487.2	367.3	1,260.0	1,232.1	1,777.6	1,711.0	2,119.2
OCR – Nonsovereign (NSO)*	237.7	50.0	225.0	79.3	930.0	100.0	0.0
Total	**14,724.9**	**417.3**	**1,485.0**	**1,311.4**	**2,707.6**	**1,811.0**	**2,119.2**

* The total includes both private and public sector nonsovereign operations.
OCR = ordinary capital resources.
Source: Asian Development Bank.

[10] To date, 66 technical assistance (TAs) amounting to $64 million have been funded from this Trust Fund.
[11] Five new instruments were added: multitranche financing facility, refinancing, local currency lending to public enterprises, syndications and reinsurance, and sub-sovereign lending to municipalities and state-owned enterprises. The local currency loan product was also introduced to enable ADB to raise local currency for projects through bonds and swaps.
[12] ADB. 2008. *Tsunami Recovery in India – 3 Years On*. Manila.

ADB's Contribution to Development and Poverty Reduction

Infrastructure development is critical to ensuring that India maintains steady growth performance in coming years. ADB has supported relevant programs at both the national and state levels, which have combined the provision of finance and creation of high-quality infrastructure with long-term institutional development and reforms, innovations in project design and delivery modalities, capacity building, transfer of best practices, and setting of quality benchmarks as elaborated below.[13]

Revitalizing Cities and Making Them More Inclusive

The contribution of urban areas to India's GDP is expected to increase from about 63% in 2001 to about 75% by 2021. This will be contingent on the availability of adequate, quality urban infrastructure and services so that Indian cities can handle the increased population pressure efficiently and equitably. ADB's urban sector operations have been designed and implemented with this basic objective in mind.[14]

Urban Sector Partnership with Karnataka

When the Karnataka Urban Development and Coastal Environmental Management Project (KUDCEMP) 1999–2009, $145 million, began in 1999, the 10 coastal towns of Karnataka (Table 2) suffered from severe water shortage, lack of sewage disposal systems, and weak planning and implementation capacity at the level of urban local bodies (ULBs).[15] The brunt of these problems was predictably borne by the poorer segments of society. Today, municipal water supply has more than doubled (in terms of hours supplied) in these towns, and nearly 1 million people have potable water because of the construction of water treatment plants, expansion in the network of water pipes, and reduction in leakage. The network of underground drains (UGDs) and sewage treatment plants (STPs) constructed in Mangalore, Udupi, Bhatkal, and Karwar are helping in the proper treatment, reuse, as well as safe disposal of waste generated by these fast-growing towns. Development of a centralized UGD network helps to reduce the discharge of untreated wastewater into natural drainage channels, thereby safeguarding the quality of various water sources. Moreover, once the STPs run to full capacity, the methane generated will be enough to meet their

[13] Annex Table 1 summarizes the sector outputs produced based on project completion reports issued between 2004–2009. This section focuses on discussing the development outcomes of some of these projects.

[14] Between 1997 and 2010, ADB approved 23 urban loans amounting to $2,886 million, and covering 16 states. Field visits were undertaken to some of the towns covered under the urban loans to Karnataka (KUDCEMP) and Rajasthan (RUIDP–I) to prepare the case studies presented here.

[15] The other two urban loans provided to Karnataka include the Karnataka Urban Infrastructure Development Project (from 1995 to June 2004, $80 million), and the North Karnataka Urban Sector Investment Program (2006, $270 million).

entire power needs. Mangalore has gone a step further and will be selling the treated wastewater of the STP in Kavoor to a local Special Economic Zone under an innovative PPP model. This will not only help to conserve water but also reduce the operation and maintenance liability (estimated at $4 million/ year) for the city ULB.

Sewage treatment plants (STPs) constructed in Mangalore, Udupi, Bhatkal, and Karwar are helping in the proper treatment and reuse of waste water in these fast-growing towns of Karnataka

Water intake and treatment plants built under KUDCEMP have helped augment supply of water to Mangalore and surrounding towns

Improved access to water

Sarojini can plan out her day better because she now has direct access to regular water supply

Sarojini lives in her ancestral home in the *Attavar Gudde* municipal ward of Mangalore. For the past three generations, her family depended on a public tap, which supplied water for only 1 hour a day to the neighborhood. "I would get up at 3 a.m. or 4 a.m. daily and queue up at the public tap. We often had to wait for hours, not knowing when the water will actually be supplied." Today, Sarojini has a tap in her own bathroom, and no longer needs large storage containers. She is better able to plan her day and focus on her work. This change was made possible by KUDCEMP under which the Thumbe water supply plant was built on the river Netravathi, and the network of pipes upgraded and expanded. This has doubled water supply to most parts of Mangalore, benefiting nearly 650,000 people, including Sarojini.

Table 2 KUDCEMP—Outputs and Outcomes

Project towns: Karwar, Ankola, Dandeli, Bhatkal, Sirsi, Kundapura, Mangalore, Puttur, Udupi, and Ullal in Karnataka			
Loan amount	$175 million (Original) $145 million (Revised) ADB share in project cost: 70% Share of government of Karnataka: 30%	**Main components:** Water Supply, Sewerage, and Solid Waste	
Outcomes	**Indicators**	**Targets**	**Achieved to Date**
Improved Basic Urban Services	Population with improved access to		
	(i) water supply	1.0 million	1.10 million (100% achieved)
	(ii) sewerage	0.5 million	0.25 million (50% achieved)
	(iii) solid waste management facilities	0.6 million	0.70 million (Fully achieved)
	Output	**Target**	**Achieved to Date**
Water Supply	Pipelines laid	1,976 km	1,995 km (Fully achieved)
	Construction of water treatment plants	212 mld	322 mld (Fully achieved)
Sewerage	Sewer lines laid	310 km	395 km (Fully achieved)
	Construction of sewage treatment plants	71 mld	106 mld (Fully achieved)
Solid Waste Management	Construction of sanitary landfills	200 MT/day	286 MT/day (Fully achieved)

km = kilometers, KUDCEMP = Karnataka Urban Development and Coastal Environmental Management Project, mld = million liters per day, MT/day = metric tons per day.

Source: Asian Development Bank.

Treated water of the STP at Kavoor in Karnataka will be sold to a local Special Economic Zone under a PPP arrangement

Setting high service standards

As per the 2006–2007 Annual Report of the Central Pollution Control Board, only 10 towns across India have landfill sites compliant with Municipal Solid Wastes Rules of 2000, Government of India. Four of these were covered under KUDCEMP.

The ULBs are pleased with the high standards set by the solid waste management systems built under KUDCEMP. Plastic lining ensures that the leachate does not mix with the groundwater. By covering layers of garbage with clay and gravel, and subjecting the runoff to bacterial treatment, the operators ensure that there is no bad odor and that the runoff is safe enough for discharge into natural channels. Some towns are now beginning a door-to-door system of collection and separation of wastes to make effective use of the solid waste management systems.

Institutional Reform

Institutional reform and capacity building are core components of all ADB projects. The Nirmal Nagar ("beautiful town") component of KUDCEMP supported the computerization of basic municipal functions, introduction of fund-based double-entry accrual accounting system, and capacity building for improving transparency and accountability in 47 towns of Karnataka. These initiatives have helped increase property tax mobilization in most of the participating towns by about 25%. All ULBs have now set up websites; and public grievance cells, which are operated with the involvement of nongovernment organizations. Given the success of this component of KUDCEMP, it was scaled up to cover the remaining 218 towns of the state under the World Bank's Karnataka Municipal Reforms Project.

Transfer of Best Practice

KUDCEMP has also raised the aspirations of ULBs. As a result, Mangalore, Udupi, Kundapura, and Puttur, which have a combined

population of about 0.75 million, are now working out a PPP arrangement with the support of ADB's TA project (Pilot Projects for PPP) whereby private companies will be responsible for operating the water supply system and providing uninterrupted water supply. The private sector's involvement is expected to improve the efficiency and cost effectiveness of water supply management and distribution.

Institution building

The Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC) was created in 1993 when preparation of ADB's first urban development project (KUIDP) started. Over the last 17 years, it has grown in strength and become the nodal agency for executing all externally aided projects as well as those supported under the Jawaharlal Nehru National Urban Renewal Mission in Karnataka. KUIDFC plans, designs, finances, and implements urban projects across the state. It also provides technical assistance to municipalities for operating completed facilities.

Transformation of the *Gyana Jyothi* fishermen's colony

Like the other poor families of *Gyana Jyothi* fishermen's colony in Malpe town, Vasanthi and her husband, Gopal, have benefited immensely from KUDCEMP. Before the project began, they lacked access to sanitation or proper garbage disposal facilities. Consequently, their colony and the nearby beach were very dirty. Disease was rampant, especially among small children, and very few tourists came to the beach.

The clean streets of Gyana Jyothi fishermen's colony in Malpe town of Karnataka and its healthy and happy children testify to the difference made by the construction of an underground drainage network and provision of low-cost toilets under KUDCEMP

continued on next page

Box *continued*

Under KUDCEMP, low-cost toilets were provided to poor people like Vasanthi and Gopal, enabling them to live with dignity and respect. These toilets have also been linked to an underground drainage system. As a result, the paved road running through the colony is spotlessly clean. The happy faces of the residents, young and the old alike, testify to the remarkable difference that access to basic infrastructure services can make.

The women of *Gyana Jyothi* colony do not ever want Malpe beach to become dirty again. Members of the *Lakshminarayana* self-help group (SHG), which was formed through seed loans provided under KUDCEMP, clean the beach every morning and collect garbage before tourists arrive. This SHG has also set up a pay toilet for tourists and locals. The additional income helps fund the SHG, and more importantly, engenders a sense of empowerment and pride among its members.

The lives of Vasanthi and Gopal have been transformed because of the low-cost toilet provided under KUDCEMP

Members of the *Lakshminarayana* SHG voluntarily clean the Malpe beach and run a paid toilet for tourists

Mysore and Mangalore were ranked as the second and eighth best city, respectively, in India in terms of sanitation, according to the National Rating Exercise 2009–2010, carried out by the Ministry of Urban Development. The stakeholders give a lot of credit for this to ADB's urban projects. The Municipal Commissioner of Mangalore, Mr. K.N. Vijayprakash, says, "We are confident that in a few years, Mangalore will become the first city in India to have 24/7 water supply and state-of-the-art solid waste management systems. It will also be able to commercially reuse its entire domestic wastewater. Mangalore has the strong potential to become India's cleanest city."

Looking ahead to fulfill aspirations

Even though the SHG component of KUDCEMP came to an end in 2006, the residents of Ashraya Colony, Thiruvail, have not only embraced it but are carrying it forward.[a] Razia, a member of the SHG of Ashraya Colony, took loans of Rs50,000 (about $1,100) from the SHG to repair her house and ensure that her daughter can focus on her studies at the local school. She has also bought a second-hand computer so that someday, her daughter can join India's dynamic information technology sector. Other members of Razia's SHG have borrowed money to set up small hotels and tailoring shops. As Razia emphasizes, access to a clean sanitation system, improvement in the water supply, and availability of credit have given them the opportunity to focus on improving their lives and building a brighter future for their children.

Razia discusses her SHG's accounts at a weekly meeting. Availability of credit has helped the group in setting up small businesses such as hotels and tailoring shops in the neighborhood of Thiruvail, Karnataka

Pre-schoolers studying at an *anganwadi* (government sponsored child-care center) in Ashraya colony, Thiruvail, Karnataka

[a] About 200,000 poor people (or about one-fifth of the total population of the project towns) have benefited directly from the community development and livelihood components of KUDCEMP. Nearly 3,000 SHGs involving 40,000 low-income families were formed. As shown in boxed stories above these SHGs have become self-sustaining.

Urban Sector Partnership with Rajasthan

ADB's engagement with Rajasthan dates back to 1998 when the Rajasthan Urban Infrastructure Development Project (RUIDP–I), 1998–2009, $250 million, covering the six cities of Ajmer, Bikaner, Jaipur, Jodhpur, Kota, and Udaipur, was approved.[16] The difference made by this project is captured in Table 3.

Prior to 1998, untreated sewage water in Jaipur contaminated the groundwater and, with no alternative, farmers were forced to use it for growing crops and vegetables. Today, the state-of-the-art STP at Delawas, built under RUIDP–I, treats and cleans nearly 62.5 million liters per day (mld) of the effluent and sewage produced in Jaipur. The treated water is released into channels and used by farmers free of cost to irrigate their fields. Methane captured from the STP is used to generate clean electricity to run the entire plant. This saves nearly $330,000 per annum for the Jaipur Municipality. The STP has made such a difference from the perspective of urban sanitation and public health that the government of Rajasthan has now built a mirror STP right next to it, using funds from the National Urban Renewal Mission. Once this is commissioned, the capacity of the Delawas plant will double to 125 mld.

The Delawas Sewerage Treatment Plant, built in Sanganer, Rajasthan, under RUIDP-I, treats about 62.5 mld of effluent and sewage generated by Jaipur City

Project officer, Mr. Jangid, demonstrates the functioning of the Delawas STP

The methane tapped from the Delawas STP is used to generate clean electricity to run the entire plant

[16] The follow-up Rajasthan Urban Sector Development Investment Program (RUSDIP, $273 million), approved in 2007, covers 15 cities.

Table 3 RUIDP–I—Outputs and Outcomes

Project towns: Ajmer, Bikaner, Jaipur, Jodhpur, Kota, and Udaipur in Rajasthan			
Loan amount	$250 million (Original) $250 million (Revised) ADB share in project cost: 70% Share of government of Rajasthan: 30%	**Main components:** Water supply, wastewater management, storm water drainage, urban transport, and slum improvement.	
Outcomes	**Indicators**	**Targets**	**Achieved to Date**
Improved basic urban services	Population with improved access to		
	(i) water supply	7.0 million	7.0 million (Fully achieved)
	(ii) wastewater management	5.2 million	3.5 million (67% achieved)
	(iii) storm water drainage	4.0 million	3.2 million (80% achieved)
	(iv) urban transport	3.0 million	3.0 million (Fully achieved)
	(v) slum improvement	100,000	100,000 (Fully achieved)
	Output	**Target**	**Achieved to Date**
Water supply	Pipelines laid	1,771 km	1,763 km (99% achieved)
	Construction of water treatment plants	163 mld	641 mld (Fully achieved)
	Spot tube well sources	108 mld	57 mld (49% achieved)
Wastewater management	Sewer lines laid	1,188 km	1,171 km (99% achieved)
	Construction of sewage treatment plants	170 mld	166 mld (98% achieved)
Solid waste management	Construction of sanitary landfills	1,200 MT/day	1,200 MT/day (Fully achieved)
Drainage	Rehabilitate major open drains	71 km	73 km (Fully achieved)
Urban transport	Construct rail over-bridges (ROBs)	14 ROBs	13 ROBs (93% achieved)
	Rehabilitate and widen roads	108 km	96 km (89% achieved)
Slum improvement	Improve basic urban services in slums in Ajmer, Jodhpur, and Kota	220 slums	129 slums (59% achieved)
Heritage works	Land-use control and environmental improvements	17 heritage sites	Fully achieved
Fire services	Construction of fire station buildings, procurement of equipment and vehicles, and training of personnel	10 fire stations	Fully achieved

km = kilometers, mld = million liters per day, MT/day = metric tons per day, RUIDP–I = Rajasthan Urban Infrastructure Development Project.

Source: Asian Development Bank.

ADB has been flexible in the use of loan resources in order to respond better to the needs of the people of Rajasthan. In November 2005, several years into the implementation of RUIDP–I, ADB agreed to use some of the potential loan savings for funding expansion and rehabilitation of health care facilities in Jaipur, Kota, and Udaipur as requested by the state government.

The Sawai Man Singh (SMS) Specialty and Referral Hospital and the Mahila Chikitsalaya (Women's Hospital), two modern hospitals in Jaipur, were built at very reasonable cost under RUIDP–I. Interviews with stakeholders confirm that these hospitals have made quality health care accessible for low-income earners and the poor who come here from all across Rajasthan.

Providing quality health care for all

Munni Devi traveled from Dighi, about 100 kilometers from Jaipur, to get her mother-in-law's broken arm treated at the SMS Specialty and Referral Hospital in Jaipur. Completed in 2009, the hospital has 12 major operating theaters; pre- and post-operative doctor and nurse rest rooms; and outpatient departments (i.e., mainly for low-income people) for ENT, gastroenterology, cardiology, neurology, orthopedic, and sample collection. It has centrally air-conditioned waiting halls and two-level basement parking facilities. Each day, nearly 4,000 to 5,000 relatively poor and needy patients are treated here. "Pensioners, destitute women, widows, freedom fighters, and the poor can avail of treatment free of charge," says Dr. Saxena, head of the Department of Medicine at the hospital, who was involved in its planning and design.

Similarly, the Mahila Chikitsalaya (Women's Hospital), which provides specialty antenatal and postnatal care, and counseling for women on pregnancy, contraception, child health, HIV/AIDS, and tuberculosis, has improved health facilities for needy women and children. The hospital has a staff of 33 specialists and caters to about 300 patients a day.

The Sawai Man Singh Specialty and Referral Hospital in Jaipur, built under RUIDP-I, treats 4,000–5,000 patients each day

Women from low-income households are treated free at the Mahila Chikitsalaya (women's hospital), Jaipur, which provides antenatal and postnatal care, and counseling on pregnancy, contraception, and HIV/AIDS

Institution building

A dedicated office for implementing the Rajasthan Urban Infrastructure Development Project (the project office) was set up in 1998. Like the Karnataka Urban Infrastructure Development Finance Corporation (KUIDFC), this project office has also gained in strength and experience over the years. It is applying the lessons learned during planning, engineering, financing, implementing, and monitoring of more than 200 contracts under RUIDP–I to not only the follow-on Rajasthan Urban Sector Development Investment Program (RUSDIP) but also to a variety of other government-funded urban development projects in Rajasthan.

Sanganeri Gate, Jaipur and several other heritage sites have been preserved and restored under RUIDP–I

Improving Connectivity

Improved road and rail connectivity is a prerequisite for supporting economic growth. Since 1988, ADB has provided several loans for the roads, ports, and railway subsectors. Its assistance for the road sector, including national highways, state roads, and rural roads, has expanded rapidly since 2000. Between 2000 and 2004, ADB provided four loans amounting to $2 billion for expanding about 2,500 kilometers (km) of national highways into four lanes in support of the National Highway Development Program. ADB has been working closely with the National Highway Authority of India (NHAI) since 2000 by providing technical assistance for institutional development, commercialization of operations and maintenance, and improvement of road safety. This has helped transform NHAI into an efficient highway management organization with strong managerial and financial autonomy, extensive private sector involvement, and capacity to deal with social and environmental issues.

Since 2002, ADB has provided two loans amounting to $1.15 billion under the National Rural Roads Programs for strengthening the rural roads network of five states—Assam, Chhattisgarh, Madhya Pradesh, Orissa, and West Bengal. Field visits and some preliminary evaluation work show that these projects boost the local economy by improving the access of the rural population to markets, and health and educational facilities, and reducing travel time and cost.

Impact of rural roads

An ongoing study on ADB's Rural Roads Project in Madhya Pradesh reveals greater improvement in a variety of development outcomes in villages covered under the project as compared to those in a sample of control villages, that is, villages not serviced by the ADB project or any other road project, but similar to them in socioeconomic characteristics. For example, while project villages saw a 61% increase in buses serving them, control villages experienced a 23% decline in the same. While post-primary dropout rates among girls declined by 7.24% in the case of control villages, the decline was 9.68% in the case of project villages. The attendance of teachers increased by 5.48% in project villages but declined marginally by 0.3% in control villages. While the proportion of farmers who accepted crop diversification increased in both types of villages, the increase was greater in project villages (4.52%) versus that in control villages (1.34%). Similarly, the percentage of agricultural produce spoiled in transit declined by 9.68% in road project villages but increased by 2.64% in control villages. Crucially, the percentage of "below poverty line" (BPL) families declined in both types of villages. However, the percentage of BPL families declined by 4.65% in project villages versus 2.87% in control villages.

The precise channels through which a project impacts development outcomes are difficult to identify and measure. Since there are many forces at play, this kind of evidence by itself does not prove that ADB's road project alone contributed to improving development outcomes. Even control villages experienced some reduction in poverty and improved outcomes on various development indicators. What is crucial is that the improvement registered in project villages was greater. It would, therefore, be fair to infer that other things remaining the same, the presence of good roads interacts with other channels and improves development outcomes.

Seema, who studies in grade 9, cycles 10 km everyday on state highway (SH71) to her school in Budadawood village, Muzaffarpur district

ADB has supported strengthening of the state roads networks in Bihar (2008 and 2010, $720 million in all); Chhattisgarh (2003, $180 million); Jharkhand (2009, $200 million); Madhya Pradesh (2002 and 2007, $500 million in all); Uttarakhand (2006, $550 million); and West Bengal (2001, $210 million).[17] This assistance has helped in establishing and developing strong institutions, preparing road master plans, modernizing business processes, strengthening road planning and asset management systems, enhancing road safety, and facilitating public–private partnerships (PPPs).

In Madhya Pradesh, for example, ADB has provided assistance for all the three sub-segments of the road sector. It has funded the expansion of 365 km of national highways into four lanes, construction of 6,000 km of rural roads, and rehabilitated nearly 3,500 km of state roads. The Madhya Pradesh Road Development Corporation (MPRDC), which was established as the State Highway Authority under the first ADB loan, has developed into a highly professional organization with modern business processes, including computerized financial management and accounting systems; planning, budgeting, and programming systems for road development and maintenance; a management information system; and road asset management, procurement, and maintenance systems. MPRDC is now able to design and implement projects at much higher standards.[18]

Today, pucca village roads together with bicycles for school-going girls have become a symbol of women's empowerment in Bihar

Powering India's Growth

Since 1986, ADB has engaged closely with the development of the power sector at both the national and state levels. At the national level, ADB has been assisting the Power Grid Corporation of India Limited (PGCIL) in expanding and modernizing the national electric transmission system to reduce transmission system losses and to increase interconnectivity in order to even out supply–demand mismatches across states and regions. Since 1995, ADB has provided four loans amounting to $1.52 billion to PGCIL.[19]

ADB has also been supporting policy reforms and funding investments for transmission and distribution in states, such as Gujarat (2000, $350 million); Madhya Pradesh (2001, $350 million); and Assam (2003, $250 million). The policy components of these loans have supported the states in implementing power sector reforms, such as establishment and operationalization of independent state electricity regulatory commissions; unbundling state electricity boards into separate companies for generation, transmission, and distribution; and improving overall sector governance. The investment component of these loans has been used to strengthen transmission and distribution, and provide increased consumer metering.

[17] The construction of roads in North Bihar, for example, has made it easier for the women to supply milk collected locally on a regular basis to the Bihar Government State Co-operative Milk Producers Federation Ltd as the collection centers of this cooperative are now easily accessible. Villages, which used to get cut off during monsoons, now remain connected owing to improved road conditions.

[18] For further details of ADB assistance to Madhya Pradesh, please refer to ADB. 2009. *Partnerships in Development: Madhya Pradesh Meets the Infrastructure Challenge.* Manila.

[19] These include the Power Transmission Sector Project ($275 million, 1995); Power Transmission Improvement Sector Project ($250 million, 2000); Power Grid Transmission (Sector) Project ($400 million, 2004); and National Power Grid Development Investment Program ($600 million, 2008).

Through the Madhya Pradesh Power Sector Development Project (2001–2007), ADB helped to establish and operationalize the State Electricity Regulatory Commission and restructure the vertically integrated State Electricity Board into six successor companies—a generation company, a transmission company, three distribution companies, and a power trading company. ADB also funded the construction of several transmission lines and substations, and helped to reduce transmission and distribution losses from about 47% at the time of loan approval to about 40% at project completion. Revenue collection efficiency increased from 80% to 91% under the project. Given the good performance of the above loan, Madhya Pradesh secured a second $620 million loan in 2007 to continue with strengthening of transmission and distribution systems and other sector reforms.

Improved availability of power supply for irrigation helps Rajen Narain, a farmer in Manekedi village of Madhya Pradesh, harvest three crops a year as compared to one crop in previous years

ADB support has helped strengthen the power transmission and distribution network of Madhya Pradesh and brought down losses

ADB will also increase funding for renewable energy development (including solar power) to help India along a low-carbon growth path. For example, under the ongoing Himachal Pradesh Clean Energy Development Investment Program ($800 million, 2008), ADB is funding the construction of four run-of-river hydroelectric power projects with aggregate generating capacity of 858 megawatts. One of the projects funded by this program has signed an agreement to sell certified emissions reductions (CERs or "carbon credits") to the Future Carbon Fund, a fund established and managed by ADB on behalf of fund participants, to provide up-front financing for future delivery of CERs. ADB is also building the capacity of Himachal Pradesh Power Corporation Limited to handle Clean Development Mechanism methodologies and procedures for project registration and verification of emissions reductions.

Breakwaters constructed with disaster-resistant technology help to provide protection for vulnerable coastal communities

Improving Water Resources Management and Supporting Adaptation to Climate Change

India, with 2.4% of the world's total area and 16% of the world's total population, accounts for only 4% of the total available fresh water. As ADB expands its engagement in the water sector in India in areas as varied as irrigation efficiency improvement and integrated water resources management, coastal zone management, and flood control, strategic use of water resources while factoring in climate change adaptation concerns is critical.[20]

For example, the Sustainable Coastal Protection and Management Program (2010, $250 million) will use environment-friendly technology and natural protection measures, such as the development and grass planting of dunes, and planting of mangrove and other trees for stabilizing and protecting the coastlines of Karnataka, Maharashtra, and Goa. It will also develop the institutional capacity for coastal protection and management, and involve the private sector and local communities in the planning, design, and maintenance of the projects.

The Chhattisgarh Irrigation Development Project (2006, $46.1 million) is helping to enhance the irrigated agricultural productivity, water use efficiency, and sustainability of about 150 existing minor and medium-sized irrigation schemes in the state. Through the empowerment of water users' associations (WUAs) and setting up of farmers' field schools, the project has already achieved 78% increase in *kharif* (wet season) rice yield, 60% increase in irrigated kharif cropping intensity, and facilitated the introduction of new *rabi* (dry season) crops, such as peanuts and maize.

[20] ADB is also providing TA support to the Ministry of Water Resources to operationalize some of the key priorities (e.g., improving management of sub-basins, preparation of climate change adaptation plans) of the National Water Mission.

The 2010 study, Climate Change Adaptation Focused Sustainable Water Resources Strategy for Himachal Pradesh, undertakes a detailed examination of the status of water resources in this Himalayan state, the various sources of demand and supply of water, and the risks posed by climate change. It proposes detailed action plans for improving overall water resources management and climate change adaptation, including establishment of an effective institutional framework for integrated water resources management; building water resources data and information systems; improving sub-basin management, catchment and agricultural planning; and preparing plans for disaster management. This study is now being followed by a detailed assessment of how the water of the Satluj River Basin can be tapped sustainably to meet competing needs for drinking water, hydropower generation, agriculture, and industry.

These results, obtained on 25 pilot schemes, are currently being expanded to about 170,000 hectares to help boost farmers' income. The project also supported the adoption of a new Participatory Irrigation Management Act, which allows equal participation of women and disadvantaged groups in elections to WUAs and management committees.

Creating Fiscal Space

To date, ADB has provided public resource management (PRM) loans to five states—Gujarat (1996, $250 million); Madhya Pradesh (1999, $250 million); Kerala (2002, $200 million); Assam (2004 and 2008, $250 million); and Mizoram (2009, $100 million). These programs help the states in creating fiscal space by improving public financial management, increasing revenue mobilization, reducing high-cost debt, restructuring public sector enterprises, and building capacity. This fiscal space enables states to increase spending on key development programs.

In Assam, for example, ADB assisted the state in transforming its fiscal deficit of $288 million in 2003–2004 to a surplus of $311 million by 2008–2009. About 12 unviable and loss-making public sector enterprises were also closed down in a phased manner after clearing all salary arrears and retraining all the affected staff. The loan has helped improve Assam's debt management capacity. It has also assisted in the switch-over of the property tax assessment method from rental to an area-based valuation system, which has improved transparency and collection of property tax.

With the moderation in fiscal deficit in most states since the formulation of the Fiscal Reform and Budget Management Acts at the central and state levels, ADB's recent program loans in India are combining fiscal consolidation with improvements in service delivery in areas, such as health and education. The Mizoram Public Resource Management Program (MPRMP), which was approved in 2009, is helping to improve service delivery in the critical education and health sectors in a cost-effective manner while pursuing fiscal consolidation. Two important and innovative schemes in education and health, supported under the MPRMP, are discussed in the boxed story on page 21.

Catalyzing Private Sector Participation

Given the huge investment required for funding India's infrastructure deficit—estimated at about $515 billion over the 11th Plan period and $1 trillion over the 12th Plan (2013–2018)—there is urgent need to attract much greater private sector funding and expertise. While the 11th Five Year Plan seeks to raise

Innovative features of ADB's second-generation public resource management loans

A major factor constraining the quality of education in Mizoram is the presence of a large number of underqualified teachers. Under the Mizoram Public Resource Management Program (MPRMP), ADB is helping to improve the quality of education in schools by replacing about 888 underqualified teachers with qualified ones. Under the program, $15 million has been provided to design and fund a Voluntary Retirement Scheme (VRS) for the underqualified teachers. The economic impact on those opting for VRS is being softened through training and safety net provisions, such as reserving jobs for their children if they are suitably qualified.

Like many other states, Mizoram has also been grappling with the challenge of rationalizing public expenditures on health on the one hand, while providing the required level of health care to its people on the other. As per the Mizoram Health Care (MHC) Scheme, which was launched on 9 April 2008, any person who is a citizen of India, resides in Mizoram, and belongs to a family where the head has an election ID card, is eligible for health care coverage. The policy covers the expenses of hospitalization (limited to the general ward) and surgical procedures up to the upper limit of Rs100,000 per family in any of the networked hospitals in Mizoram. Treatment outside Mizoram for outpatient and inpatient cases may be allowed subject to the approval of the Medical Board. As of end of December 2010, 25,853 families have already been registered under the MHC Scheme from seven districts.

Given the importance of the scheme in providing cost-effective health care to the poor, a corpus of $25 million has been set up under the MPRMP to meet the expenses of operating the MHC scheme. Capacity building is also being provided for improving its management. It is envisaged that over time, the government of Mizoram will be able to reduce its financial support to public hospitals while improving health coverage and service delivery.

the share of the private sector in infrastructure investment from about 24% (actual in the 10th plan) to 36%; the 12th plan aims to raise it further to 50%. Expanding the availability of long-term funds for infrastructure is critical to attain these targets.

ADB has, therefore, provided $1.2 billion to the India Infrastructure Finance Company Limited (IIFCL) for providing long-term funds for financing PPP projects selected through a transparent and competitive process, and cutting across sectors (roads, power, airports, ports, and urban infrastructure).[21] It has also helped IIFCL in strengthening its credit risk assessment procedures and pricing policies, and in designing a detailed environmental and social safeguards framework. It is estimated that ADB support is enabling IIFCL to leverage about 5 to 7 times its own resources by increasing the confidence of other lenders and attracting private sector participation in PPP projects.

ADB's funding for IIFCL fits in well with the other "upstream" support being given to the government's major PPP initiative (Boxed story on pages 22 and 23).

[21] This includes the two India Infrastructure Project Financing Facility loans (IIPFF-I: $500 million, 2007; and IIPFF-II: $700 million, 2009).

Support for the government's public–private partnership initiative

Since 2007, ADB has been supporting the Government of India's public–private partnership (PPP) program through six technical assistance (TA) projects amounting to $12.3 million. The ADB–government of India PPP Initiative, "Mainstreaming PPPs In India" is run from the central PPP cell in the Department of Economic Affairs jointly by government and ADB staff. This cell manages PPP-enabling tools, such as the India Infrastructure Project Development Fund, Viability Gap Funds, risk appraisal processes, and policy development. Through ADB's TA support, PPP cells have been established in 15 states and 6 central infrastructure line ministries.

The joint ADB–Government of India initiative addresses all aspects of the PPP environment, including capacity building, transfer of best practices, and development of a pipeline of projects. Specific activities supported under this Initiative include awareness building and training workshops; development of state-level PPP websites and management information systems; preparation of PPP draft policies and guidelines for states; establishment of a pre-qualified legal advisory panel to help project sponsors; setting up of a transaction advisory panel to advise on all aspects of a PPP project from structuring to bid process management; and preparation of sector tool kits for the urban water and sewerage, urban transport, education, health, and the rural sectors. ADB has also provided TA support to revise the provision of urban amenities in rural areas scheme so that cost-effective rural infrastructure can be provided through the PPP modality.

A pipeline of projects has been created for challenging sectors, such as the urban (water, sewerage, and solid waste management), health, education, power distribution, and the rural sector. More than 30 pilot projects are currently being structured across such sectors. Several projects are already at bid stages. Nearly 452 PPP projects are being developed across the country through all the PPP cells.

The PPP X-Change was launched in Mumbai on 28 January 2010, to share ideas, information and innovations being developed under the joint government of India–ADB PPP Initiative, "Mainstreaming PPPs in India"

Bringing health care closer to home

Mobile Health Van Public–Private Partnership Project—Uttarakhand

ADB support helped structure a PPP contract for delivering regular health services to remote parts of the mountainous state of Uttarakhand using mobile health vans

Contrary to popular perception, the public–private partnership (PPP) modality is not meant only for large infrastructure projects, such as airports and expressways. The ADB–Government of India PPP initiative is helping to ensure that regular health services are provided to remote villages in the hilly state of Uttarakhand. The Directorate of Medical Health and Family Welfare (DoMHFW) of Uttarakhand had procured 13 mobile health vans in 2007 to provide health services to the people living in far-flung and hilly areas. Unfortunately, the vans were not used for more than a year since the state government could not operate them in a cost-effective and efficient manner. It then decided to try out the PPP option. Specialists engaged by ADB have helped the state government in structuring this mobile health initiative in PPP mode, drafted the bid documents, and conducted the bid process management for DoMHFW. Today, these health vans regularly tour the remote corners of each district and help doctors in the primary health centers in conducting proper diagnostic tests using modern medical equipment for patients living below the poverty line. Between April 2009 and 2010, these 13 vans have assisted in conducting 1,633 health camps and covered 125,369 patients. Also, 12,347 ultrasounds, 11,352 X-rays, 3,113 electrocardiograms, and 40,717 pathology tests have been conducted.

ADB operations in relatively new sectors are also marked by innovative design and reform. For example, the Agribusiness Infrastructure Development Project (2010, $170 million), covering Bihar and Maharashtra, will use a PPP-based integrated value chain approach for developing agribusiness (cold chains, modern storage facilities) and link infrastructure (roads from production areas to collection points) for improving the marketing of horticultural products and creating backward links with the production areas through contract farming and producer companies.[22] Similarly, the Khadi Reform and Development Program ($150 million, 2008) is strengthening nearly 300 *khadi* (traditional hand spun and handwoven cloth) institutions at the grassroots level through capital and technology infusion, as well as better design and marketing of products. The program can potentially benefit about 1 million spinners and weavers, more than three-fourths of whom will be women.

[22] In order to attract private sector investment to this new sector, a capital grant will be provided to the concessionaire with the bidding parameter being the total amount of capital grant required for the bidder to accept the contract.

It will facilitate greater private participation by establishing the use of the *khadi* mark, discontinue the archaic cost chart system, and establish a majority private-owned marketing organization using PPPs to end the controlled production and marketing of *khadi* items.

Supporting Private Sector Development

ADB's nonsovereign operations in India began in 1987. Since then, it has approved a total of $2.1 billion in cumulative financial assistance for 35 nonsovereign projects (including nonsovereign loans to state-owned enterprises and commercial loans approved under ADB's B-loan program). Transactions supported by ADB's Private Sector Operations Department range from the construction of a liquefied natural gas terminal and compressed and piped natural gas distribution network to financing for banks and other financial institutions. ADB's recent private sector operations in India have focused on clean energy interventions.

For example, loans to the Tata Power Company Limited (2007, $79.3 million) and to the CLP Group of Hong Kong, China ($105 million, 2008) are helping to set up wind power generation facilities of about 283 megawatts, which will help reduce carbon dioxide emissions by 7 million tons over 20 years. In 2009, ADB approved $40.0 million in equity investment under its private sector window for Public–Private Partnership for Renewable Energy Development. This will support the development of a portfolio of 500 megawatts of renewable energy projects focused on wind power and small hydroelectric power.

ADB has supported several wind power projects through its private sector window

Operational Effectiveness: Improving Efficiency and Performance

Ensuring relevance and responsiveness of ADB operations is not enough in itself unless projects are implemented efficiently and with a results focus.

Learning from the Past

Learning lessons from closed and ongoing projects is critical to improving the development effectiveness of ADB's overall program. The 2007 India Country Assistance Program Evaluation (CAPE) reviewed 45 projects that were approved and closed between 1986 and 2006.[23] Only three of these were rated as unsuccessful, with the rest being rated as partly successful (24), successful (17), or highly successful (1). The unsuccessful projects included two in the telecommunication sector, and one in the finance sector, which provided a line of credit to three banks for supporting the development of urban and environment projects in reform-oriented states.[24] The rationale and design of the telecommunication projects, approved in 1988 and 1989 when ADB was still very new in India, were weak. The telecommunication sector boomed subsequently on the strength of government deregulation and private sector participation. ADB, therefore, exited the sector. The finance loan failed because there was unforeseen downward movement in domestic interest rates, which made ADB's terms and conditions unattractive. Two of three banks canceled their participation within 3 years of the loan approval. Even the third bank was unable to come up with a sufficient list of eligible subprojects, leading to early closure of the loan. ADB has not considered similar loans over the past decade.

However, the CAPE's overall assessment was that "ADB's sector performance was successful since most ADB assistance helped build much-needed infrastructure and contributed toward improving sector policy and institutional environments. Energy and public resource management sector operations were assessed to be successful. ADB operations in the transport, urban, and financial sectors have been rated partly successful, albeit on the high side. Operations in these sectors were usually well positioned and relevant."

Learning by Doing

ADB has been working closely with the Government of India to improve portfolio performance. The detailed quarterly tripartite portfolio review meetings (TPRMs) being organized since September 2005, and attended by the Department of Economic Affairs (DEA), Ministry of Finance; ADB; and executing agencies of ADB projects across all sectors and states, help immensely in the timely resolution of implementation problems and sharing of development experience and knowledge across different sectors and states. The effectiveness of TPRMs can be gauged from the fact that between 2004 and 2010, contract awards increased from $550.5 million to $1.79 billion, while loan disbursements rose from $381.0 million to $1.69 billion. India's disbursement ratio (which is the ratio of

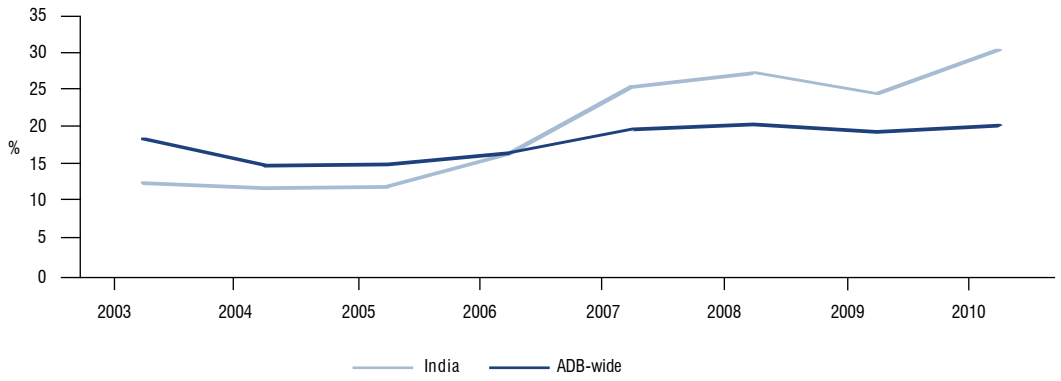
[23] ADB. 2007. *Country Assistance Program Evaluation for India.* Manila.

[24] The unsuccessful projects were the Telecommunications Project (Loan 886-IND; $135 million, 1988), the Second Telecommunications Project (Loan 954-IND; $118 million, 1989), and the Urban and Environmental Infrastructure Facility (Loan 1720-IND; $80 million, 1999).

disbursement achieved in the year to the total net effective undisbursed loan funds at the end of that year) has shown a marked improvement since 2005 and has been higher than the ADB-wide average ever since (Figure 4).

In addition to tracking inputs, i.e., contract awards and disbursement, TPRMs are also increasingly focusing on tracking and monitoring outputs and results. Detailed case studies of two to three projects are presented in each TPRM to discuss best practices and facilitate learning across executing agencies. Given the tremendous improvement in the loan portfolio brought about by these TPRMs, the DEA and ADB have recently initiated similar TPRMs for improving the design and delivery of technical assistance (TA) projects. The first such TPRM was held on 25–26 August 2010.

Figure 4 Disbursement Ratio (project loans)
(comparing performance of India and ADB-wide performance)



Source: Asian Development Bank.

The first tripartite meeting to review the performance of TA projects was held in August 2010 in Delhi

Usefulness of tripartite portfolio review meetings—Feedback from clients

During the tripartite portfolio review meeting (TPRM) held in Ahmedabad on 17–18 June 2010, Mr. A.D. Kapaley, Director of the National Rural Roads Development Agency, said, "I have been attending TPRMs for the last 6 years and it has been a great learning experience for me and my colleagues. These meetings have promoted cross-learning among the executing agencies and helped improve overall performance of ADB-assisted projects by shifting the focus from monitoring contract awards and disbursement to outputs and outcomes of the projects. TPRMs facilitate sharing of success stories among project staff. ADB's efforts in organizing visits of staff to more successful projects; training personnel of executing agencies on procurement, disbursement, and safeguards issues; and conducting business opportunity seminars for contractors and builders are all very helpful for us."

Regular TPRMs have strengthened portfolio performance by facilitating cross-learning for staff from different executing agencies and states

The detailed "Project Readiness Checklist," developed jointly by ADB and the government in July 2008, requires the up-front fulfillment of criteria, such as formation of project management units; commitment from the relevant entity on counterpart funds; preparation of plans for procurement, environment management, relief and resettlement; and preparation of bidding documents for all contracts to be awarded during the first year of implementation. Adherence to this checklist has helped to ensure that projects are at an advanced stage of preparation when they are approved, thus, reducing the gap between loan approval to signing and effectiveness.[25]

[25] Between 2007 and 2009, the average gap (in months) between loan approval and signing had come down from 4 months to 2 months, and that between loan approval and effectiveness was reduced from 6 months to 4 months.

Capacity Building and Training

ADB is devoting more resources for capacity building, training, and business development seminars to reinforce the virtuous cycle of learning facilitated by TPRMs. Between 2008 and 2010, capacity-building programs organized by the India Resident Mission have trained nearly 1,927 staff from various executing agencies on procedures pertaining to procurement (524), consultant selection (265), disbursement (465), and safeguards (493), and on topics, such as project management (40) and contract administration (140). Twenty-six staff of executing agencies attended presentations on ADB's nonsovereign operations products in 2010, while another 32 participated in the Urban Forum that was held in January 2011. Such initiatives are particularly important since ADB operations have extended to several new states and sectors where capacity is weak and familiarity with ADB's procedures and processes is low.

Attracting and retaining good contractors and consultants to bid for and work on ADB projects, especially in relatively small and remote places, remains a major challenge. The India Resident Mission has been collaborating with organizations, such as the Builders' Association of India, the Construction Federation of India, and the Consultancy Development Center, to organize business opportunity seminars to disseminate information about ADB projects and facilitate networking with staff of ADB's executing agencies.[26]

As a result of all the initiatives discussed, India's portfolio performance has improved significantly. The number of active projects at risk has declined to zero over the last 4 years despite a nearly 1.7 times increase in the number of active loans (from 38 in 2007 to 67 in 2010). Overall portfolio parameters have been consistently better than ADB-wide averages for the past 3 years, especially when compared across project loans.

Other indicators of operational and organizational effectiveness for ADB's India operations are provided in Annex Table 2.

Projects at Risk
(as of 31 December 2010)

Year	Number of Loans (under Implementation)	Loans at Risk	
		Number of Loans	Percentage
2007	38	3	7.9
2008	44	4	9.1
2009	53	3	5.7
2010	67	0	0.0

Portfolio Indicators
(as of 31 December 2010)

Year	Disbursement Ratio—OCR Project Loans (%)	
	India	ADB-wide
2007	25.5	19.8
2008	27.4	20.5
2009	24.5	19.5
2010	30.4	20.3

India—Loan Disbursements ($ million)

	1986–2004	2005	2006	2007	2008	2009	2010
OCR – Sovereign	7,305.2	641.0	701.4	1,363.5	1,507.7	1,338.9	1,699.0
OCR – Nonsovereign	290.2	57.3	10.5	129.7	147.9	212.0	139.2
Total	**7,595.4**	**698.3**	**711.9**	**1,493.2**	**1,655.6**	**1,550.9**	**1,838.2**

Source: Asian Development Bank.

[26] Between 2007 and 2009, business opportunity seminars covered 213 contractors, 452 consultants, 278 suppliers and manufacturers, and 42 staff from various executing agencies.

Future Challenges

Despite the good performance of the Indian economy in recent years and its innate strengths, one cannot underestimate the challenges facing it. While poverty incidence fell from 36% in 1993–1994 to 27.5% in 2004–2005, the pace of reduction was less than 1% per year.[27] More than 300 million people continue to remain below the poverty line. Of these, 221 million live in rural areas. Education and health indicators remain very poor. Environmental challenges and the risks posed by climate change are truly daunting.

The 11th Five Year Plan identifies several challenges—creating jobs; improving delivery of essential services to the poor; building up the rural economy; developing human resources; balancing the environment–growth trade-off; and bridging the divides between regions, sectors, and genders. The Government of India cannot address these challenges alone. The Finance Minister of India, Mr. Pranab Mukherjee, during the 2010 Budget speech rightly noted that, "With development and economic reforms, the focus of economic activity has shifted towards the nongovernment actors bringing into sharper focus the role of government as an enabler. An enabling government does not try to deliver directly to the citizens everything that they need. Instead it creates an enabling ethos so that individual enterprise and creativity can flourish. Government concentrates on supporting and delivering services to the disadvantaged sections of the society."

The task ahead of ADB is very clear. It needs to tap its entire array of lending and nonlending services innovatively to support the government's efforts at both ends of the spectrum, i.e., helping to develop infrastructure and spur on economic activities in weak states and rural areas on the one hand, and creating a facilitating environment where private sector initiative can thrive on the other. ADB has already begun to move in this direction.

First, ADB is tailoring its lending and nonlending products to meet the varying needs of the different clients effectively. While significant capacity building and project preparatory technical assistance is provided to new or weak capacity clients, ADB will increasingly explore nonsovereign financing options for clients with a strong balance sheet and technical strength. It will continue to support the government's PPP initiative by mainstreaming PPPs into its infrastructure projects, wherever feasible, and by assisting in the design and financial closure of bankable projects.

Second, in order to ensure that its large ongoing operations stretching across 20 states and multiple sectors continue to perform well, ADB will maintain its focus on improving project readiness and portfolio performance. In addition to the ongoing TPRMs and the capacity building work, further decentralization of important tasks to the India Resident Mission, as well as strengthening of its staff resources and available expertise, is under way.

Third, the development lessons that are generated through ADB's growing operations need to be better disseminated, not just within India, but also to other developing member countries. ADB will, therefore, ensure that there is a tangible transfer of best practice and knowledge to its clients across states and sectors. More resources will be devoted to the preparation of high-quality knowledge products and to tracking results (i.e., outputs and

[27] Government of India. 2007. *11th Five Year Plan Document.* Planning Commission. New Delhi.

outcomes) of ADB operations in a systematic and conceptually robust manner.

Since ADB began operations in India nearly 25 years ago, its overall program has evolved and improved significantly in terms of scale (i.e., volume of approvals and disbursements), reach (operations in more than 20 states and multiple sectors), and lending modalities (support for PPPs, use of multitranche financing facilities, strategic use of technical assistance resources). These gains need to be consolidated and built upon. Ensuring the 3R's (relevance, responsiveness, and results) is not a one-shot affair but an ongoing and inter-linked learning process will help guarantee that ADB's India operations continue to gain in strength and value addition in the coming years.

Ultimately, ADB's partnership with India is about working jointly with the government toward ensuring that the fruits of growth and the opportunities created become accessible to the poor and needy. It is about ensuring that all children, like those at the local school in Ashraya colony, Thiruvail in Mangalore district, (cover photo), have access to basic infrastructure and public services so that they have an opportunity to fulfill their aspirations and, in turn, help build a strong and prosperous India.

Annex

Table 1 Development Outputs from ADB-Supported Projects in India

	Outputs Achieved 2004–2009
ENERGY	
Installed energy generation capacity (MW equiv.)	318
Transmission lines installed or upgraded (km)	10,458
Distribution lines installed or upgraded (km)	16,223
New households connected to electricity (number)	1,420,912
Greenhouse gas emission reduction (tCO2-equiv/yr)	1,957,000
FINANCE	
Microfinance accounts opened/ end borrowers reached (number)	42,707
Microfinance loans provided (amount in $ millions)	107
Funds created or replenished (number)	7
Funds created or replenished (amount in $ millions)	3
TRANSPORT	
Expressways built or upgraded (km)	244
National highways, provincial, district, and rural roads built or upgraded (km)	4,197
Beneficiaries from road projects as per PCR (number)	49,400,000
WATER	
Water supply pipes installed or upgraded/ length of network (km)	3,687
New households served with water supply (number)	111,000
Already connected households with improved piped water supply	288,000
Wastewater treatment capacity added (in m3/day)	225,825
Households served with new sanitation (number)	47,902

km = kilometers, m3 = cubic meters, MW = megawatts, tCO2-equiv/yr = tons of carbon dioxide equivalent avoided per year.

Note: The data in the table include those compiled from PCRs completed between 2004–2009 only.

Source: ADB estimates.

Table 2 Operational and Organizational Effectiveness: ADB Operations in India in 2009

Indicator	2009 Value
Operational Quality and Portfolio Performance	
Average annual combined ratings of PPERs, PVRs, and PCRs (% successful)[a,b]	60% (6 of 10)
Project performance rating at implementation (% satisfactory)[b]	93% (126 of 135)
Finance Mobilization	
Overall disbursement ratio for sovereign operations (%)[c]	24%
Proportion of DVA cofinancing relative to ADB loans and grants approved annually (%)[b]	0.4%
Proportion of Financing for Strategy 2020 Core Operational[d]	
Proportion of financing for Strategy 2020 core operational areas (%)	95% (1,731 million)
Proportion of projects supporting private sector development (%)[b]	52% (25 of 48)
Proportion of projects supporting regional cooperation and integration (%)[b]	2% (1 of 48)
Proportion of projects supporting environmental sustainability (%)[b]	33% (16 of 48)
Proportion of projects with gender mainstreaming (%)[b,e]	20% (4 of 20)
Knowledge Management	
Ratings of TCRs (% successful)[b]	79%
Partnerships	
Proportion of sovereign operations with NGO and/or CSO participation (%)[f]	87% (13 of 15)
New program-based approaches approved (number)[g]	0
Proportion of CPS and CPR missions conducted jointly with at least one other development partner (% annually)[h]	0
Business Processes and Practices	
Average sovereign operations processing time (months from fact-finding to approval)	20
Average time from approval to first disbursement in sovereign operations (months)[i]	11
Proportion of sovereign operations administered by field offices (%)	31% (11 of 35)

ADB = Asian Development Bank, ADF = Asian Development Fund, CPS = country partnership strategy, CPR = country portfolio review, CSO = civil society organization, DVA = direct-value added, MAKE = Most Admired Knowledge Enterprises, NGO = nongovernment organization, OCR = ordinary capital resources, PCR = project completion report, PPER = project performance evaluation report, PVR = PCR validation report, TCR = technical assistance completion report.

Notes

For previous years, visit results dashboard (just type RDB in the address bar).

Unless stated, sovereign operations refer to OCR loan, ADF loan, and ADF grant projects but excludes loan projects financed from countercyclical support facility.

a Where available, PPER ratings are taken as the final rating. If no PPER is prepared, an available PVR rating is used. Otherwise, PCR ratings are used. Counting of "successful" projects rated in PCRs, PVRs, and PPERs is based on the year of their circulation. Baseline and later values have changed as more PPERs and PVRs become available.

b 3-year average, 2007–2009.

c Disbursement ratio is defined as the ratio of total disbursement in a given year and/or period over the net loan amount available at the beginning of the year/period, plus loans that have become effective during the year/period, less cancellations made during the year/period.

d Refers to all sovereign, nonsovereign, and ADF grant-funded projects plus other private sector operations.

e Proportion of projects with significant gender mainstreaming includes projects identifying gender as a theme and other projects with effective gender mainstreaming. Projects financed by supplementary loans and grants are not included. Uses different methodology compared to other Strategy 2020 indicators.

f Refers to OCR and ADF loans only.

g Does not include program loans, sector development programs or projects and multitranche financing facility subprojects.

h Proportion of CPS/CPR missions refer to missions from headquarters.

i 5-year average, 2004–2008.

Source: ADB estimates.

Development Effectiveness Brief: India

ADB operations began in India in 1986. Between 1986 and year end 2010, ADB approved 143 loans amounting to $23.0 billion and 306 technical assistance projects amounting to $227 million on a cumulative basis for India. More than 75% of this assistance covers the transport, energy, and urban sectors. In recent years, ADB has also been providing support for improving water resource management, promoting financial inclusion, and facilitating public–private partnerships in infrastructure. Today, ADB operations cover 22 states of India. India has been among the top three borrowers of ADB's Ordinary Capital Resources (OCR) loans since 2007. ADB remains committed to supporting the Government's efforts towards making India's growth inclusive and environmentally sustainable.

About the Asian Development Bank

ADB's vision is an Asia and Pacific region free of poverty. Its mission is to help its developing member countries reduce poverty and improve the quality of life of their people. Despite the region's many successes, it remains home to two-thirds of the world's poor: 1.8 billion people who live on less than $2 a day, with 903 million struggling on less than $1.25 a day. ADB is committed to reducing poverty through inclusive economic growth, environmentally sustainable growth, and regional integration.

Based in Manila, ADB is owned by 67 members, including 48 from the region. Its main instruments for helping its developing member countries are policy dialogue, loans, equity investments, guarantees, grants, and technical assistance.

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